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Version 1.0

## **Safety Compliance**

### ***Federal Communications Commission (FCC)***

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and the receiver.
  - Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- Shielded interconnect cables and shielded AC power cable must be employed with this equipment to insure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

#### ***Declaration of Conformity***

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

### ***Canadian Department of Communications***

This class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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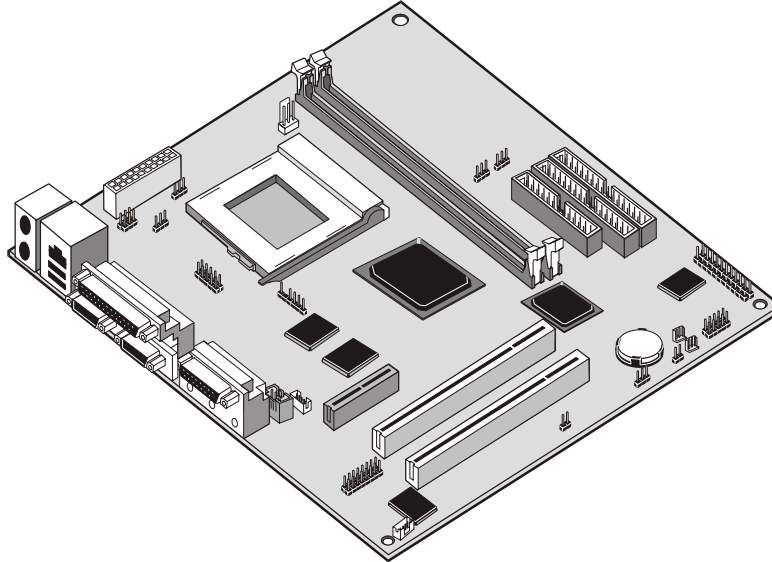
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# Chapter 1: Introduction

## Welcome

Congratulations on purchasing the KOB 810e FSFx mainboard.

The KOB 810e FSFx mainboard is a Flex-ATX mainboard that uses 4-layer printed circuit board and measures 228mm x 190mm. The mainboard has a socket-370 processor socket. **This feature means that you can install the mainboard with a PPGA Celeron or FC-PGA Coppermine processor.** The KOB 810e FSFx is installed with the enhanced Intel 810e chipset. The mainboard has built-in 3D graphics, 3D sound, and a V.90 modem. Two 32-bit PCI expansion slots are provided plus a TV-Out/LCD Panel Riser slot. Two DIMM sockets are available for the installation of up to 512 MB SDRAM memory. This mainboard is an ideal platform for an inexpensive entry level or business class multimedia personal computer.



This chapter contains the following information:

- ❑ **About the Manual** explains how the information in this manual is organized
- ❑ **Checklist** comprises a list of the standard and optional components that are shipped with this mainboard
- ❑ **Recommendations** lists some Do's and Don'ts from the manufacturer to help ensure reliability and performance from this product
- ❑ **Features** highlights the functions and components that make this one of the best value mainboards on the market

## About the Manual

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The manual consists of the following chapters:

### ***Introduction***

Use the **Introduction** Chapter to learn about the features of the mainboard, and the checklist of items that are shipped with the package.

### ***Installation***

Use the **Installation** Chapter to learn how to install the mainboard and get your system up and running.

### ***Setup***

Use the **Setup** Chapter to configure the mainboard for optimum performance.

### ***Software***

Use the **Software** Chapter to learn how to use the software drivers and support programs that are provided with this mainboard.

## Checklist

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Compare the contents of your mainboard package with the standard checklist below. If any item is missing or appears damaged, please contact the vendor of your mainboard package.

### **Standard Items**

- ✓ 1 x KOB 810e FSFx Mainboard
- ✓ 1 x Cable/Bracket Pack
  - Diskette drive ribbon cable
  - IDE drive ribbon cable
- ✓ This User's Manual
- ✓ Software Support CD-ROM Disc

### **Optional items**

- ✓ 1 x V.90 Fax/modem Card
- ✓ 1 x TV-Out Riser Card

## Recommendations

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This mainboard automatically determines the CPU clock frequency and system bus frequency for the kind of processor that you install. You may be able to change these automatic settings by making changes to jumpers on the mainboard, or changing the settings in the system setup utility. We strongly recommend that you do not overclock the mainboard to run processors or other components faster than their rated speed.

Overclocking components can adversely affect the reliability of the system and introduce errors into your system. Overclocking can permanently damage the mainboard by generating excess heat in components that are run beyond the rated limits.

Components on this mainboard can be damaged by discharges of static electricity. Handle the board carefully holding it by the edges. Don't flex or stress the circuit board. Keep the board in its static-proof packing until you are ready to install it. Follow the static guidelines given at the beginning of Chapter 2.

## Features

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The key features of this mainboard are the wide range of processors that can be installed, and the high level of integration which includes built-in audio, video, and communications.

### ***Value-class Processors***

As a platform for a value PC, the KOB 810e FSFx includes a socket-370 for the installation of the latest PGA and FC-PGA packaging processors from Intel.

The PGA Celeron processors ship in the familiar square plastic package, and they install in a Zero Insertion Force (ZIF) socket called Socket-370. These PGA Celeron processors are close to Pentium II performance because they include a level-2 cache memory of 128K. However, they operate over a 66MHz system bus and they currently ship at clock speeds of up to 533MHz. The PGA Celeron is the premiere choice for an entry-level PC.

The FC-PGA Coppermine processor operates over a 66, 100 or 133 MHz system bus. The FC-PGA Coppermine ships with clock speeds running from 500 MHz through to 750 MHz.

The KOB 810e FSFx supports 66MHz (PGA Celeron) as well as 100 MHz and 133 MHz front side buses (FC-PGA Coppermine).

### ***Intel's 810e Chipset***

This board features 810e chipsets from Intel. The 810e chipset is designed to reduce the cost and improve the multimedia capability of value PCs. The chipset features an integrated AGP (Accelerated Graphics Port) graphics controller that is optimized to produce smooth rendition of 2D and 3D video. Digital video output is supported so that the system can display on a TV or a flat-panel display with digital video input. The graphics controller improves performance and reduces cost by dynamically allocating a segment of active memory as video memory.

The 810e I/O chip (82801 I/O Controller Hub) makes a direct connection between the graphics system and the IDE controller and the PCI bus. It uses Accelerated Hub Architecture to effectively double the bandwidth between these components enabling more life like audio and video. It includes an integrated Audio-Codec controller (AC97) that lets the processor more effectively decode sound generated by the integrated audio system or the integrated fax/modem. Finally, the 82802AB



Firmware Hub allows the system and video BIOS to be stored (eliminating the need for non-volatile CMOS memory) for faster execution, and provides a random number generator to enable strong encryption routines.

#### ***Inexpensive Memory***

The board has two DIMM sockets for the installation of 168-pin, 3.3V non-buffered DIMM memory modules. The DIMM memory modules must be installed with SDRAM memory chips. The KOB 810e FSFx board supports a memory bus of 100 MHz and 133 MHz. Each installed memory module can be populated with 8 MB up to 256 MB of memory, so a maximum total of 512 MB memory can be installed. The integrated video system uses a shared memory architecture so that you must reserve some of the installed memory as video memory using the system BIOS. You must install at least one memory module, and the first memory module is installed in DIMM1.

#### ***Highly Integrated Design***

As well as the Intel 810e chipset, the KOB 810e FSFx features other highly integrated silicon chips. The ITE LPC I/O controller handles the motherboard's I/O functions. The CMI 8738/PCI C3DX is a two-chip solution that provides an integrated audio and fax/modem system.

#### ***Built-in AGP 3D-Graphics***

The Intel 810e chipset includes an integrated AGP controller that is optimized for smooth 2D and 3D video. The graphics system shares active memory and does not require dedicated video memory. Video is delivered through a regular 15-pin connector.

#### ***Built-in PCI 3D Sound***

The PCI Audio CMI 8738 is a single chip solution for PCI-bus 3D audio. The chip provides Sound Blaster 16-bit-compatible audio, plus support for Microsoft's DirectSound 3D specification and Aureal A3D interface. The sound ports include jacks for speakers, microphone and stereo in, and a game/MIDI port. The audio system supports full duplex operation and drivers are available for WIN 95/98 and WIN NT 4.0. The audio system can output sound to 4 loudspeakers.

#### ***Built-in V.90 Fax/modem (DAA Module is optional)***

The KOB 810e FSFx mainboard has a built-in 56 Kbps fax/modem that supports the V.90 protocol. The chip is integrated with the built-in audio system to support voice as well as data transmissions. In order to use the built-in fax/modem, you must install a DAA module that supplies the RJ11 sockets for LINE and TELEPHONE.

### ***Expansion Options***

The KOB 810e FSFx mainboard is pre-installed with features such as audio, video and an optional DAA module for a modem, that normally require add-in cards, so the two 32-bit PCI slots provide plenty of expansion potential. The KOB 810e FSFx PCI slots support UDMA 66 bus mastering. The mainboard also has TV-Out and LCD Riser slot for exporting the system video output to an external TV receiver or LCD panel.

### ***Integrated I/O***

The mainboard has a full set of I/O ports and connectors. The I/O template on the backplane includes two PS/2 ports for mouse and keyboard, one serial port, one parallel port, one VGA monitor port, one game/MIDI port, two USB ports and audio jacks for microphone, line-in and line-out. The board has a header for the optional installation of an IR port, and second serial port. The board includes two PCI IDE channels and a floppy disk drive interface.

### ***Keyboard Power On Feature***

Using the system BIOS setup program, you can configure the system to turn on using a keyboard-typed password. A green keyboard is not required.

### ***Programmable Firmware***

The mainboard includes Award BIOS that allows BIOS setting of CPU parameters. The fully programmable firmware enhances the system features and allows users to set power management, CPU and memory timing, LAN and modem wake-up alarms, and so on. The firmware can also be used to set parameters for different Celeron processor clock speeds so that you don't need to change mainboard jumpers and switches.

## Chapter 2: Installation

### Quick Installation Table

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This chapter explains how to successfully install the mainboard into a computer case and build a working system. The installation procedure is as follows:

<b>Quick Jumper Setting Reference</b>	Provides a quick reference for the jumper settings on this mainboard.
<b>Before you Begin</b>	Provides advice on choosing a case, avoiding static electricity damage, and setting jumpers.
<b>Preparing the Mainboard</b>	Provides a guide to the mainboard and I/O port locations, full details on the jumper settings, and advice on installing the mainboard in the system case.
<b>Install Other Hardware</b>	Provides guidance on installing essential hardware: processor, memory, hard disk drive, CD-ROM, floppy disk drive, and expansion cards.
<b>Make the External Connections</b>	Provides advice on using the external I/O ports to install peripheral devices such as a keyboard, a monitor, a mouse, a printer, loudspeakers, and so on.

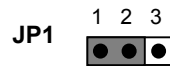
## Quick Jumper Setting Reference

If you are familiar with most of the material in this chapter, you can begin preparing the mainboard for installation by using this quick reference to begin the setting the jumpers. A detailed description of the jumper setting appears later in this chapter.

### **JP1: Clear CMOS memory jumper**

Use this 3-pin jumper to clear all the current data stored in the CMOS memory.

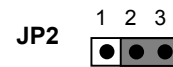
Function	Jumper Cap
Normal operation	Short pins 1-2
Clear CMOS	Short pins 2-3



### **JP2: Keyboard power on jumper**

Use this 3-pin jumper to enable keyboard power on with hot keys or password.

Function	Jumper Cap
Disable keyboard power on	Short pins 1-2
Enable keyboard power on	Short pins 2-3



### **JP3: Force 100 MHz front side bus jumper**

Use this jumper to disable the automatic detection of the correct front side bus, and force the system to run with a 100 MHz front side bus.

Function	Jumper Cap
Normal operation	Short Pins 1-2
Force 100 MHz FSB	Short pins 2-3



### **JP4: Force 133 MHz front side bus jumper**

Use this jumper to disable the automatic detection of the correct front side bus, and force the system to run with a 133 MHz front side bus.

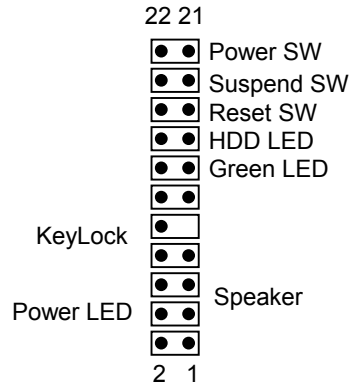
Function	Jumper Cap
Normal operation	Short Pins 1-2
Force 133 MHz FSB	Short pins 2-3



**PANEL1: Panel connectors for switches and indicators**

Use the panel connector to implement the switches and indicators on your system case.

Function	Pins
Speaker	1, 3, 5, +7
Power Indicator	+2, +4, 6
Keylock	8, 10
Green Indicator	+13, 14
Hard Disk Indicator	+15, 16
Reset Switch	17, 18
Suspend Switch	19, 20
Power Switch	21, 22



**PANEL1**

## **Before You Begin**

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Before you begin to install your KOB 810e FSFx mainboard, take some precautions to ensure that you avoid the possibility of damage to the product from static electricity. Ensure too that you are installing the mainboard into a suitable case.

### ***Static Electricity***

In adverse conditions, static electricity can accumulate and discharge through the integrated circuits and silicon chips on this product. These circuits and chips are sensitive and can be permanently damaged by static discharge.

- ◆ If possible wear a grounding wrist strap clipped to a safely grounded device during the installation.
- ◆ If you don't have a wrist strap, discharge any static by touching the metal case of a safely grounded device before beginning the installation.
- ◆ Leave all components inside their static-proof bags until they are required for the installation procedure.
- ◆ Handle all circuit boards and electronic components carefully. Hold boards by the edges only. Do not flex or stress circuit boards.

### ***Choosing a Case***

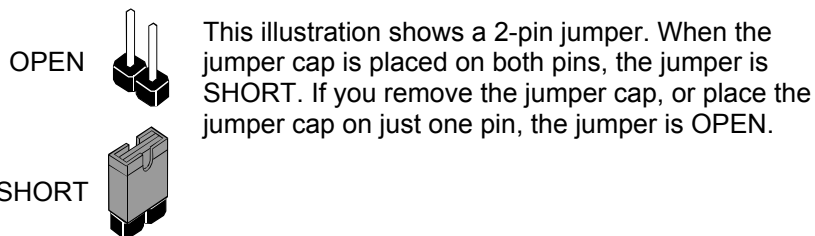
The mainboard complies with the specifications for the FlexATX system case, although it can also be installed in most micor-ATX case designs. The FlexATX specifications include a maximum size of 9.0" x 7.5" (229mm x 191mm), a reduced number of expansion slots, and support for a smaller power supply unit.

Some features on the mainboard are implemented by cabling connectors on the mainboard to indicators and switches on the system case. Ensure that your case supports all the features required. The KOB 810e FSFx mainboard can support one or two floppy diskette drives and four enhanced IDE drives. Ensure that your case has sufficient power and space for all the drives that you intend to install.

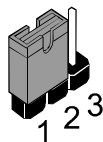
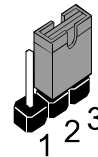
The mainboard has a set of I/O ports on the rear edge. Ensure that your case has an I/O template that supports the I/O ports and expansion slots.

### ***How to Set Jumpers***

A jumper consists of two or more pins mounted on the mainboard. Some jumpers might be arranged in a series with each pair of pins numbered differently. Jumpers are used to change the electronic circuits on the mainboard. When a jumper cap is placed on two jumper pins, the pins are **SHORT**. If the jumper cap is removed (or placed on just a single pin) the pins are **OPEN**.



This illustration shows a 3-pin jumper. The jumper cap is placed on pins 2 and 3, so this jumper setting is **SHORT PINS 2-3**.



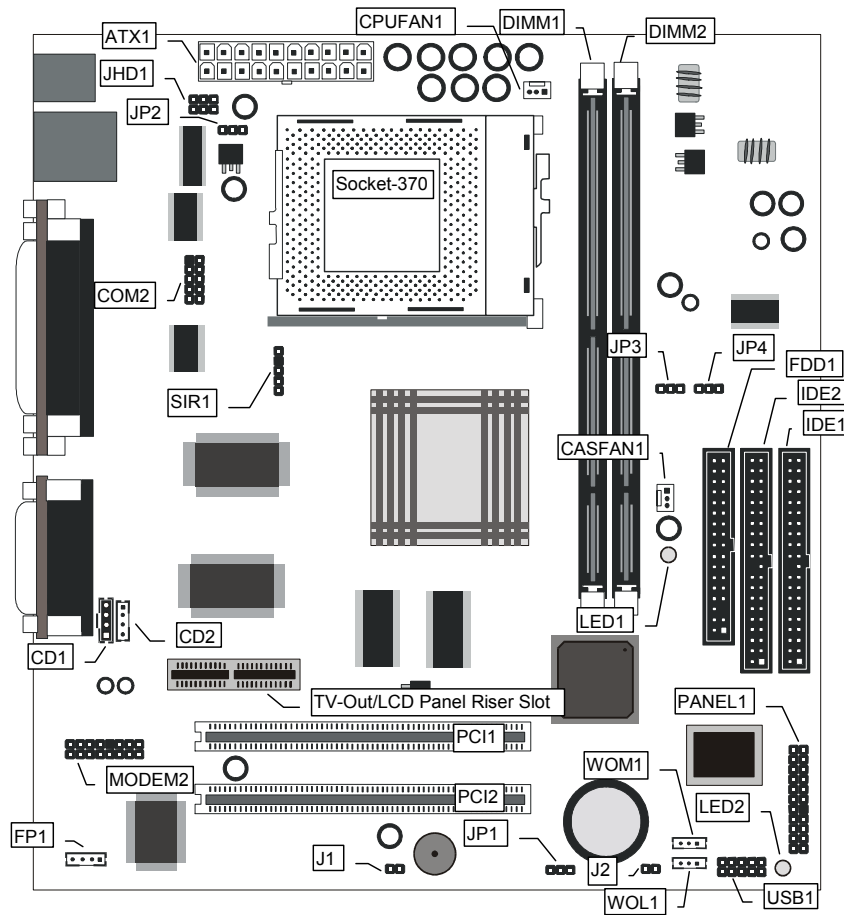
This illustration shows the same 3-pin jumper. The jumper cap is placed on pins 1 and 2, so this jumper setting is **SHORT PINS 1-2**.

In this manual, all the jumper illustrations clearly show the pin numbers. When you are setting the jumpers, make sure that the jumper caps are placed on the correct pins to select the function or feature that you want to enable or disable.

## Preparing the Mainboard

### *Mainboard Guide*

Use the following illustration and key to identify the components on your mainboard.





### Key to Mainboard Components

Component	Description
Socket-370	Socket for PPGA Celeron Processor
PCI 1, 2	Two 32-bit PCI Slots
TV-Out/LCD Panel Riser	Slot for a TV-Out/LCD Panel Riser card.
DIMM 1, 2	Two slots for 168-pin SDRAM memory module
FDD1	Connector for floppy disk drives
IDE1, IDE2	Primary and secondary IDE channels
ATX1	Connector for ATX power supply
SIR1	Connector for optional infrared port
PANEL1	Panel connector for switches and indicators
WOM1	Connector for modem wake up
WOL1	Connector for LAN wake up
USB1	Connector for auxiliary USB ports
*LED1	3VSB LED for SDRAM
**LED2	Power LED
COM2	Connector for serial port 2/4
CASFAN1	Power connector for case cooling fan
CPUFAN1	Power connector for CPU cooling fan
MODEM2	Connector for modem DAA module
CD1	Audio connector for CD-ROM/DVD drive
CD2	Auxiliary audio connector for CD-ROM/DVD drive
JHD1	Auxiliary keyboard connector
FP1	Auxiliary microphone and speaker out
J1	Chassis open detect connector
J2	Connector for two-color LED
JP1	Clear CMOS memory jumper
JP2	Keyboard power on jumper
JP3	Force system bus frequency to 100 MHz jumper
JP4	Force system bus frequency to 133 MHz jumper

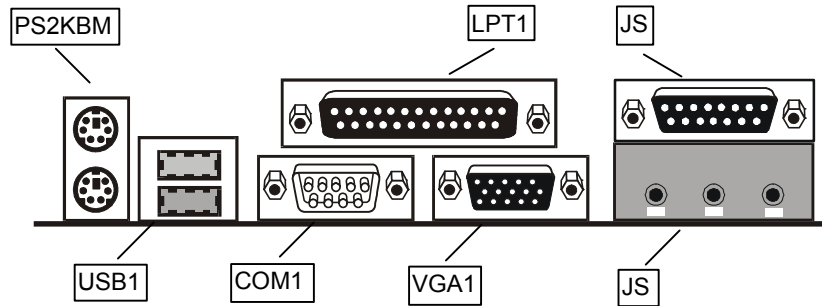
#### **\*LED1**

The red indicator LED1 turns on if your system is still powered. It means you can't install or un-install your memory modules when LED1 turns on.

#### **\*\*LED2**

This green indicator turns on whenever the system is turned on. It warns you that the system is active and you should not carry out any work on the mainboard.

### I/O Ports Side View

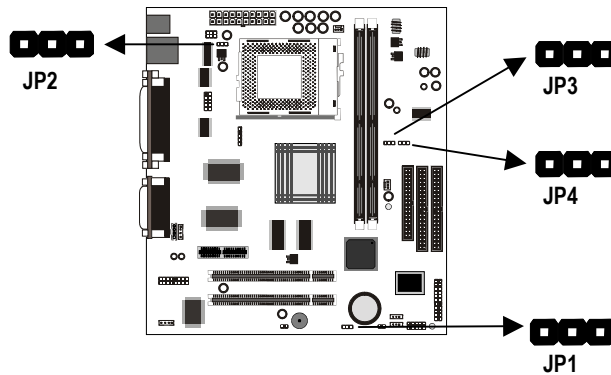


### Key to I/O Ports

Component	Description
PS2KBM	PS/2 port for pointing device (upper port) PS/2 port for keyboard (lower port)
LPT1	External parallel port
JS (Upper)	External game/MIDI port
JS (Lower)	Audio jacks for (from left to right) line out, line in, microphone
VGA1	External monitor port
COM1	External serial port COM1/3
USB1	Two stacked Universal Serial Bus ports

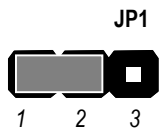
## Check the Jumper Settings

Check all the mainboard jumpers to ensure that the board is configured correctly.



### JP1 Clear CMOS Memory Jumper

This jumper lets you erase the system setup settings that are stored in CMOS memory. You might need to erase this data if incorrect settings are preventing your system from operating. To clear the CMOS memory, turn off the system, disconnect the power cable from the mainboard, and short the appropriate pins for a few seconds.

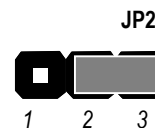


Function	Jumper Cap
Clear CMOS	Short pins 2-3

### JP2: Keyboard Power On Jumper

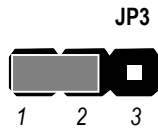
This jumper lets you use a typed-in password as a power switch to turn your system on. If you enable this property, you need to define the password or the hot keys using the setup utility. See Chapter 3.

Function	Jumper Cap
Disable keyboard power on	Short pins 1-2
Enable keyboard power on	Short pins 2-3



**JP3: Force 100 MHz Front Side Bus Jumper**

Use this 3-pin jumper to disable the automatic detection of the correct front side bus (FSB), and force the system to run with a 100 MHz front side bus.

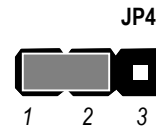


Function	Jumper Cap
	Short pins 1-2
Force 100 MHz FSB	Short pins 2-3

**JP4: Force 133 MHz Front Side Bus Jumper**

Use this 3-pin jumper to disable the automatic detection of the correct front side bus (FSB), and force the system to run with a 133 MHz front side bus.

Function	Jumper Cap
Normal operation	Short pins 1-2
Force 133 MHz FSB	Short pins 2-3



## Install the Mainboard in the Case

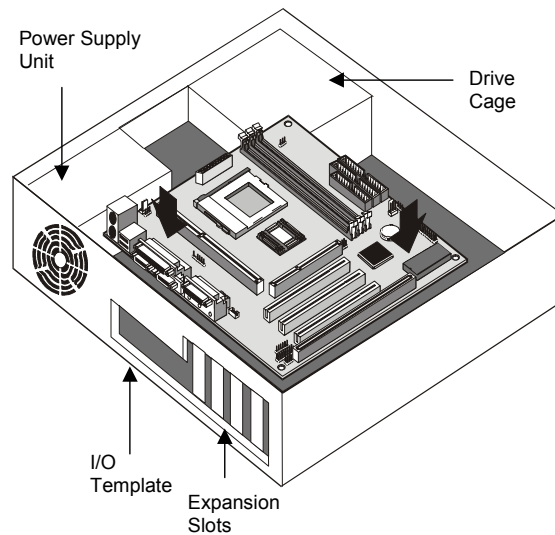
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The mainboard is drilled with a series of holes. Most system cases have mounting brackets installed in the case which correspond to the holes in the mainboard. You can secure the mainboard in the system case by placing the mainboard over the mounting brackets and driving screws through the mainboard into the mounting brackets.

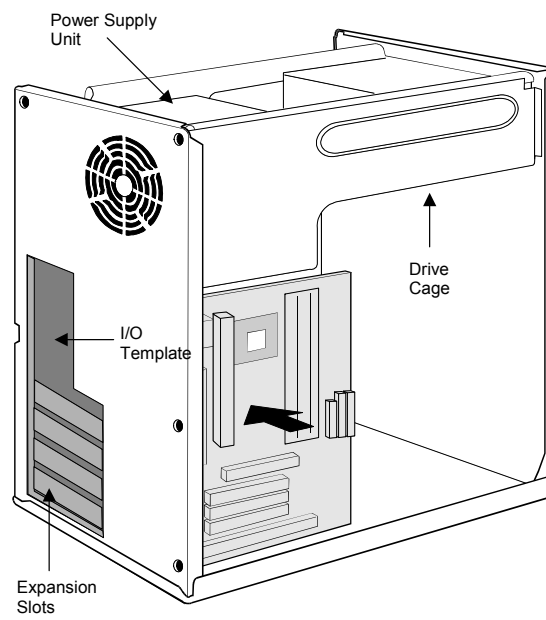
Most cases have a choice of I/O templates in the rear panel. Make sure that the I/O template in the case matches the I/O ports installed on the rear edge of the mainboard.

**Note:** Do not overtighten the screws as this can stress the mainboard.

The illustration below shows a mainboard installing in a standard desktop case.

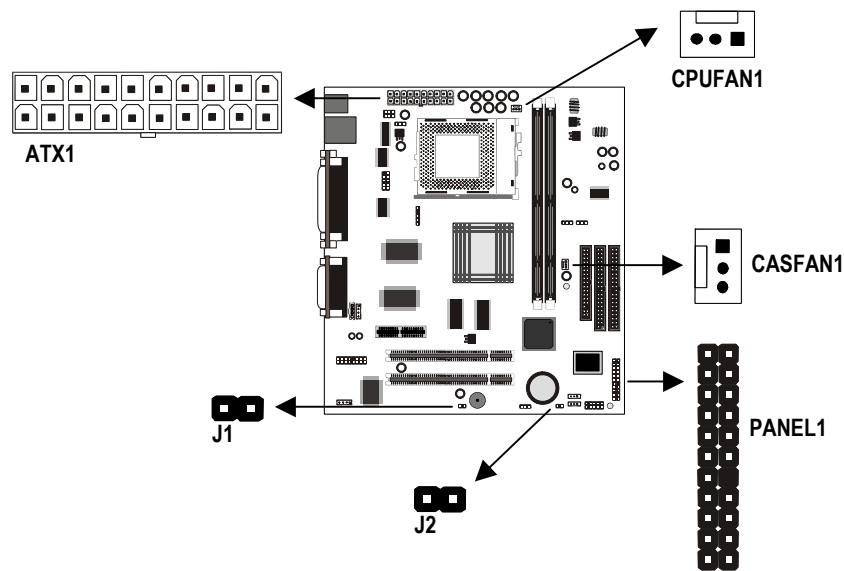


The illustration below shows the mainboard installing into a tower-type case.



## **Connecting Power, Chassis Fans, and Switches and Indicators**

After you have installed the mainboard into the system case, connect the power cable from the case power supply unit to the mainboard power connector ATX1. Connect the chassis/CPU fans (if your case has them) to the 12V power supply connectors CASFAN1 or CPUFAN1 on the mainboard. Then connect the case switches and indicators to the PANEL connector and the J2 LED connector on the mainboard. Finally connect the case open detection alarm to the J1 connector on the mainboard.



### **Power Connector**

Locate the power cable from the case power supply unit and plug it into the ATX1 power connector.

### **Chassis and CPU Fans**

If your case has a cooling fan installed in the chassis, plug the cable from the chassis-mounted fan into the mainboard 12V power supply connector CASFAN1. If your CPU has a cooling fan, plug the cable into the 12V power supply connector CPUFAN1.

### **Case Open Detect Alarm**

If your case has an alarm circuit to detect if the system chassis has been opened, connect the cable from the alarm into the mainboard case open detect circuit through the 2-pin connector J1.

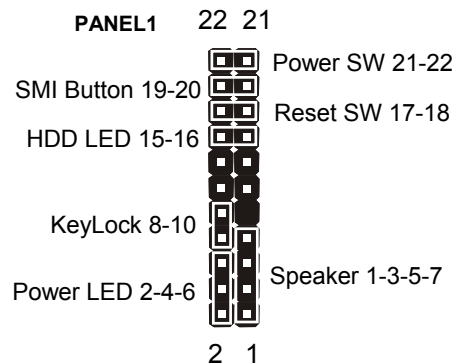
### **Green LED Connector**

If your case has a dual color indicator lamp for the ACPI Green suspend mode, connect the cable from the indicator to the J2 dual color LED connector.

### **Panel Connector**

The mainboard PANEL connector has a standard set of switch and indicator connectors that are commonly found on ATX system cases. Use the illustration below to make the correct connections to the case switches and indicators.

Function	Pins
Speaker	1, 3, 5, +7
Power Indicator	+2, +4, 6
Keylock	8, 10
Green Indicator	+13, 14
Hard Disk Indicator	+15, 16
Reset Switch	17, 18
Suspend Switch	19, 20
Power Switch	21, 22





## **Install Other Hardware**

---

Start installing the essential hardware required to get your system started.

### ***Install the Processor***

This mainboard has a Socket-370 processor socket. To choose a processor, you need to consider the performance requirements of the system and also the price of the processor. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory. Higher clock speeds and larger amounts of cache memory deliver greater performance.

#### ***About Socket-370 Processors***

Currently the socket-370 only supports the Intel PPGA Celeron processor. However, other manufacturers may release socket-370 processors in the future. Intel have plans to release a more powerful socket-370 processor. Ask your board vendor for an up-to-date list of processors that are supported by this mainboard.

#### **Intel PPGA Celeron**

PPGA stands for Plastic Pin Grid Array. This is a description of the square plastic package that the processor is embedded in. The PPGA Celeron is identical to the SEPP Celeron, except for the external packaging. PPGA Celerons run at clock speeds from 366 MHz through to 600 MHz. All the current PPGA Celerons operate over a 66 MHz system bus. The PPGA Celeron is less expensive than a SEPP Celeron with the same clock speed.

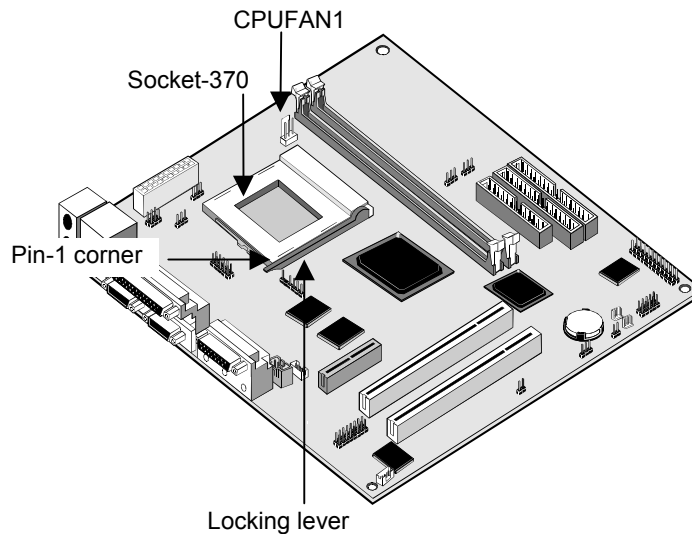
#### ***New Processors***

This board is designed to support some future processors that have not yet been released. Ask your mainboard vendor for an up-to-date list of processors that can be installed on this mainboard.

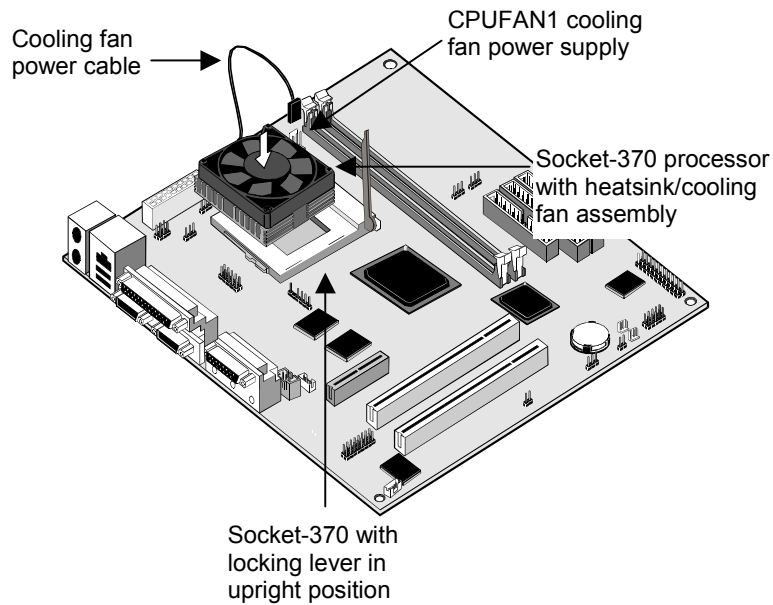
## ***Installing a Socket-370 Processor***

To install the mainboard with a PPGA Celeron processor, follow the steps below.

### ***Locate the Socket-370 and CPUFAN1***



1. On the mainboard, locate the socket-370 and CPUFAN1.
2. On the socket-370, pull the locking lever away from the socket to unhook it and then raise the locking lever to the upright position.
3. Identify the pin-1 corner on the socket-370 and the pin-1 corner on the processor. The socket pin-1 corner is adjacent to the handle of the locking lever. The processor pin-1 corner is beveled.
4. Matching the pin-1 corners, drop the processor into the socket. No force is required and the processor should seat into the socket easily.
5. Swing the locking lever down and hook it under the latch on the edge of the socket. This locks the processor in place.
6. Locate the power cable on the heatsink/cooling fan assembly that is attached to the top of the processor.
7. Plug the power cable into the CPUFAN1 12V power supply on the mainboard.



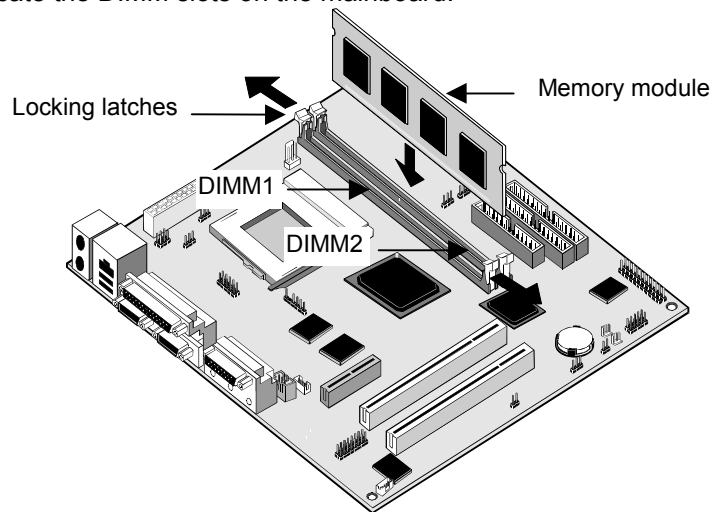
The mainboard must be configured to deliver the correct clock speed and the correct system bus for the kind of processor that you have installed. You can do this by using the system setup utility. The first time you start the system, immediately enter the setup system and make the appropriate settings. Usually, you can automatically configure the CPU by using the CPU & BIOS Features page of the setup utility. See Chapter 3 for more information.

## ***Install the Memory Modules***

For this mainboard, you must use 168-pin 3.3V non-buffered Dual In-line Memory Modules (DIMMs). The memory chips must be standard or registered SDRAM (Synchronous Dynamic Random Access Memory). The memory bus can run at 100 MHz or 133 MHz. If your processor operates over a 100/133 MHz system bus, you must install PC-100 or PC133 memory that also operates over a 100/133 MHz bus.

There are two slots for memory modules. You must install at least one module, and it makes no difference which slot you use to install the module. Each model can be installed with from 8 MB to 256 MB of memory, so total memory capacity is 512 MB. The mainboard supports memory chips that have EC (Error Correction) or ECC (Error Correction Code).

1. Locate the DIMM slots on the mainboard.



2. The DIMM slots are keyed with notches and the DIMMs are keyed with cut-outs so that they can only be installed correctly. Check that the cut-outs on the DIMM module edge connector match the notches in the DIMM slot.
3. Push the latches on each side of the DIMM slot down.
4. Install the DIMM module into the slot and press it carefully but firmly down so that it seats correctly. The latches at either side of the slot

will be levered upwards and latch on to the edges of the DIMM when it is installed correctly.

### ***Install a Hard Disk Drive and CD-ROM***

This section describes how to install IDE devices such as a hard disk drive and a CD-ROM drive.

**Note:** *Ribbon cable connectors are usually keyed so that they can only be installed correctly on the device connector. If the connector is not keyed make sure that you match the pin-1 side of the cable connector with the pin-1 side of the device connector. Each connector has the pin-1 side clearly marked. The pin-1 side of each ribbon cable is always marked with a colored stripe on the cable.*

#### ***About IDE Devices.***

Your mainboard has a primary IDE channel interface (IDE1) and a secondary IDE interface (IDE2). The mainboard ships with one IDE ribbon cable which supports one or two IDE devices. All IDE devices have jumpers or switches that can be used to set the IDE device as MASTER or SLAVE.

If you install two IDE devices on one cable, you must make sure that one device is set to MASTER and the other device is set to SLAVE. The documentation of your IDE device explains how to do this.

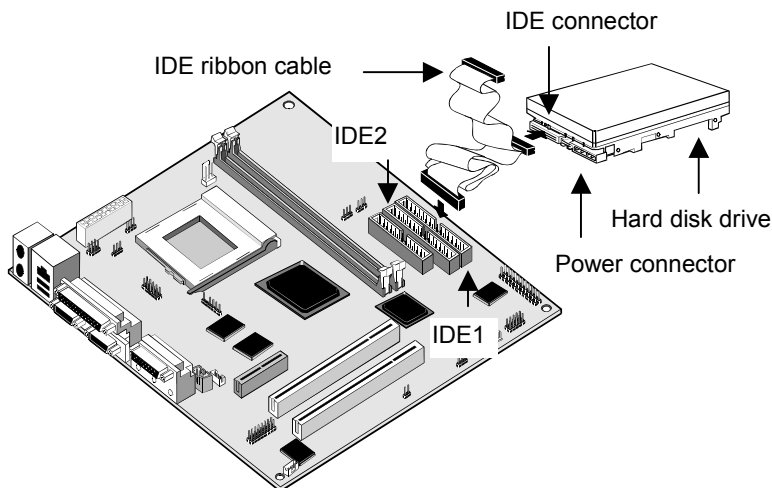
If you want to install more than two IDE devices, obtain a second IDE cable and you can add two more devices to the secondary IDE channel. If there are two devices on the cable, make one MASTER and one SLAVE.

#### ***About UDMA***

This board supports UltraDMA 33/66. UDMA is a technology that speeds the performance of devices in the IDE channel. We recommend that you install IDE devices that support UDMA, and use IDE cables that support UDMA.

### ***Installing a Hard Disk Drive***

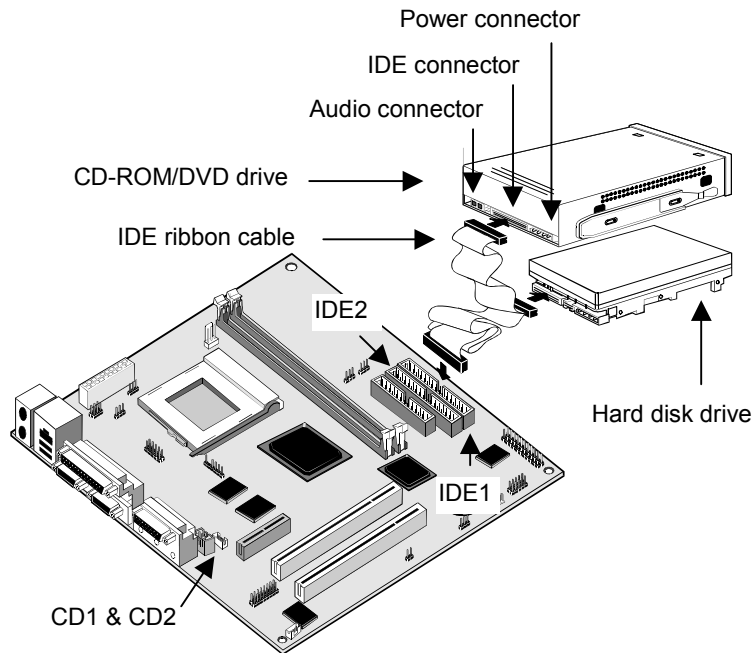
1. Install the hard disk drive into the drive cage in your system case.
2. Plug the IDE cable into the primary IDE channel on the mainboard IDE1.
3. Plug one of the connectors on the IDE cable into the IDE connector on the back edge of the hard disk drive. It doesn't matter which connector on the cable that you use. Make sure that you have the pin-1 side of the cable matched with the pin-1 side of the connector.
4. Plug a power cable from the case power supply unit into the power connector on the back edge of the hard disk drive.
5. When you first start up your system, go immediately to the setup utility and use the IDE Hard Disk Auto Detect feature to configure the IDE devices that you have installed. See Chapter 3 for more information.



### ***Installing a CD-ROM/DVD Drive***

1. Install the CD-ROM/DVD drive into the drive cage in your system case. Plug the IDE cable into the primary IDE channel on the mainboard IDE1.
2. Plug one of the connectors on the IDE cable into the IDE connector on the back edge of the CD-ROM/DVD drive. It doesn't matter which connector on the cable that you use. Make sure that you have the pin-1 side of the cable matched with the pin-1 side of the connector.

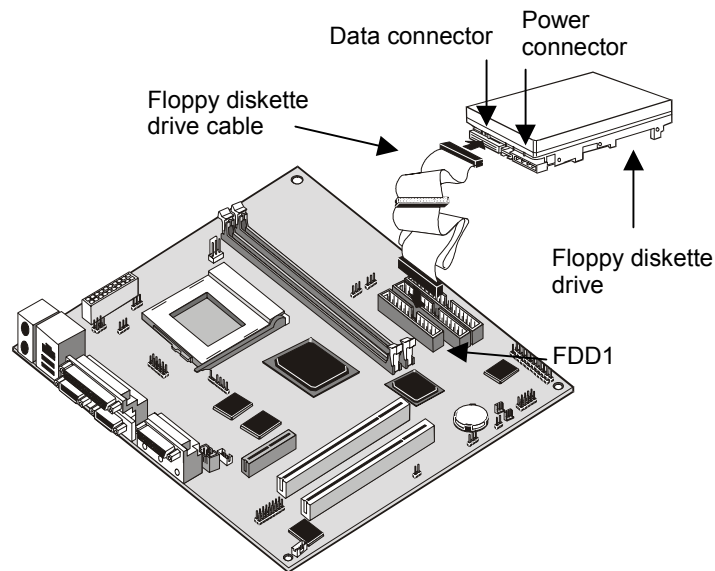
3. Plug a power cable from the case power supply unit into the power connector on the back edge of the CD-ROM/DVD drive.
4. Use the audio cable provided with the CD-ROM/DVD drive to connect the audio connector on the rear edge of the CD-ROM/DVD drive to the one of the two audio-in connectors CD1 and CD2 on the mainboard.
5. When you first start up your system, go immediately to the setup utility and use the IDE Hard Disk Auto Detect feature to configure the IDE devices that you have installed. See Chapter 3 for more information.



### ***Installing a Floppy Diskette Drive***

The mainboard has a floppy diskette drive interface and it ships with a diskette drive ribbon cable that supports one or two floppy diskette drives. You can install a 5.25" drive or a 3.5" drive with various capacities. The floppy diskette drive cable has one type of connector for a 5.25" drive and another type of connector for a 3.5" drive

1. Install the floppy diskette drive into the drive cage in your system case. Plug the diskette drive cable into the diskette drive interface on the mainboard FDD1.
2. Plug one of the connectors on the diskette drive cable into the data connector on the back edge of the floppy diskette drive. Make sure that you have the pin-1 side of the cable matched with the pin-1 side of the connector.
3. Plug a power cable from the case power supply unit into the power connector on the back edge of the diskette drive.
4. When you first start up your system, go immediately to the setup utility and use the Standard page to configure the floppy diskette drives that you have installed. See Chapter 3 for more information.



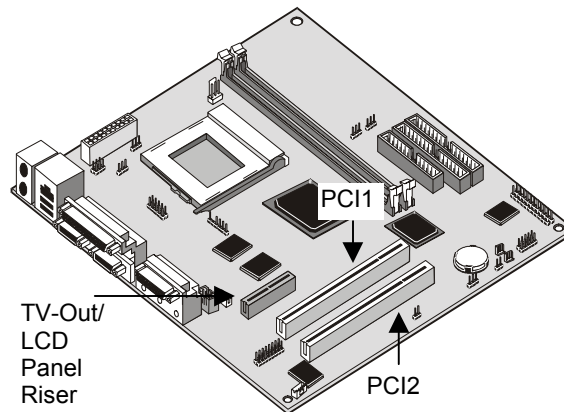


## Using the Expansion Slots

This mainboard has two 32-bit PCI expansion slots and one TV-Out/LCD Panel Riser slot.

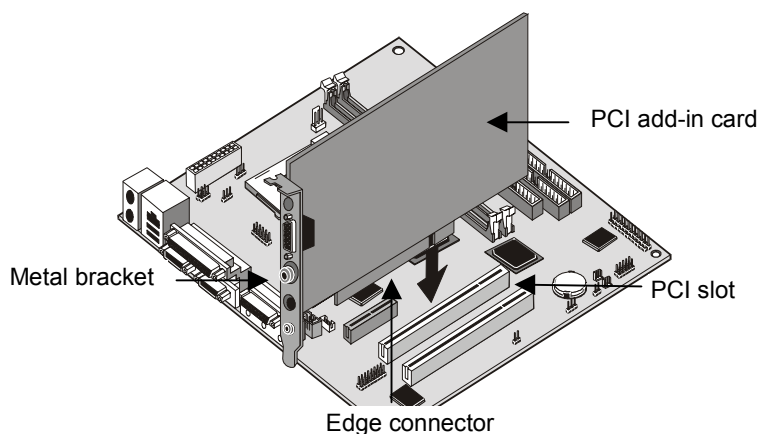
**PCI Slots:** The PCI slots can be used to install add-in cards that have the 32-bit PCI (Peripheral Components Interconnect) interface.

**TV-Out/LCD Panel Riser:** The TV-Out/LCD Panel Riser slot allows for the installation of a riser card for exporting the system's video output to an TV receiver or an external LCD panel.



1. Before installing an expansion card, check the documentation for the card carefully. If the card is not Plug and Play, you may have to manually configure the card before installation.
2. Select which expansion slot you are going to use for your add-in card.
3. In the system case, remove the blanking plate from the slot in the system case that corresponds to the expansion slot that you are going to use.
4. Position the edge connector of the add-in card over the expansion slot. Position the metal bracket of the card in the empty slot in the system case.
5. Install the edge connector of the add-in card into the expansion slot. Press down quite firmly so that you are sure that the edge connector is correctly seated in the slot.

6. Secure the metal bracket of the card in the empty slot in the system case with a screw.
7. For some add-in cards, for example graphics adapters and network adapters, you have to install drivers and software before you can begin using the add-in card.

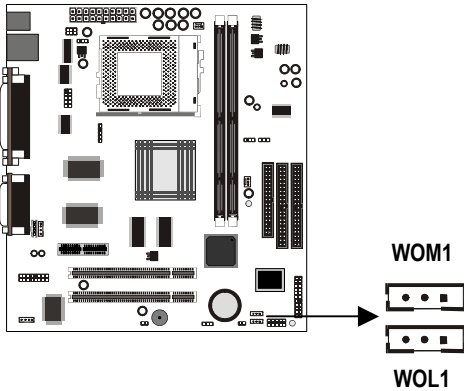


### ***Add-in Card Options***

The mainboard has two features that can be used if you have installed either a fax/modem card or a network adapter card.

#### ***WOL1: Wake on LAN***

If you have installed a network adapter (LAN adapter), you can use the cable provided with the card to plug into the WOL1 connector on the mainboard. This is the Wake On LAN feature. When your system is in a power-saving mode, any traffic through the network automatically resume the system. You must enable this item using the Power Management page of the setup utility. See Chapter three for more information.



### ***WOM1: Wake on Modem***

If you have installed a fax/modem card, you can use the cable provided with the card to plug into the WOM1 connector on the mainboard. This is the Wake On Modem feature. When your system is in a power-saving mode, any incoming calls to the modem automatically resume the system. You must enable this item using the Power Management page of the setup utility. See Chapter three for more information.

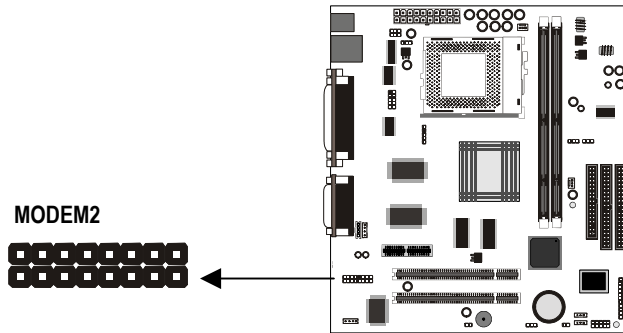
### ***Install Options and Extension Brackets***

This mainboard has a number of special connectors that allow you to add optional features to your system. You can install any of the following items:

- ◆ Fax/modem card option
- ◆ Infrared port
- ◆ Second serial port

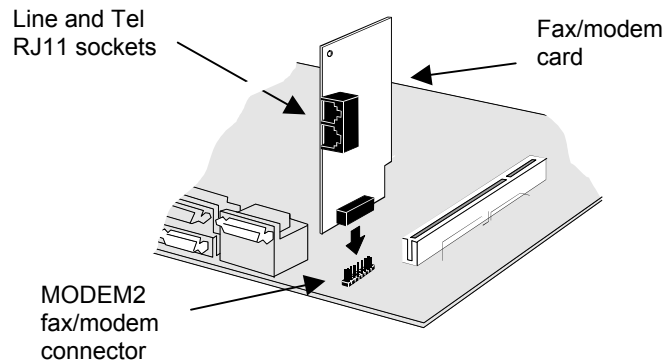
### ***Fax/modem Card***

You must install the fax/modem card in order to use the built-in fax/modem.



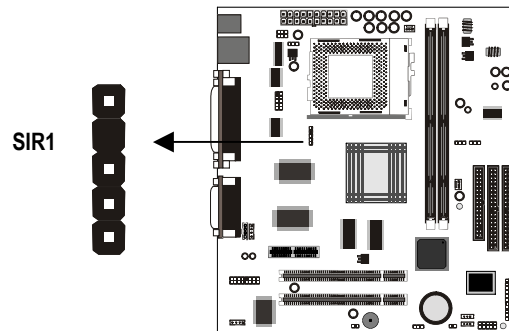
The fax/modem card is an optional item supplied with this mainboard.

1. Locate the J1 fax/modem connector on the mainboard.
2. Remove the expansion slot blanking plate from the system chassis that is adjacent to the fax/modem connector.
3. Install the fax/modem card on to the MODEM2 connector as shown below. The RJ11 Line and Telephone sockets on the bracket are positioned in the expansion slot with the removed blanking plate.



### ***Infrared Port***

This option can be purchased from third-party vendors.

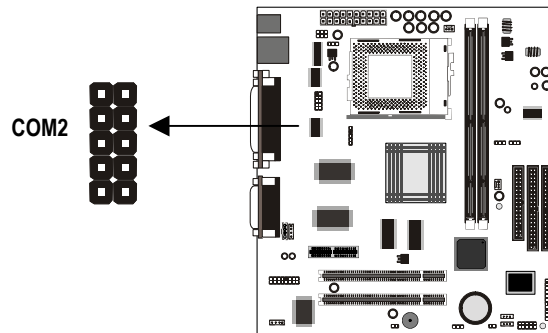


1. If you are installing an optional serial infrared port, connect the cable from the optional IR port to the SIR1 connector on the mainboard.
2. After you have connected the cable, secure the optional IR port to the appropriate place on your system case.

**Note:** *An IR port may use some of the resources required by a second serial port or a fax/modem card. If you have more than one of these items installed, you may not be able to use them at the same time. You can use the Peripherals page of the setup utility to switch resources between an IR port and a second serial port. See Chapter 3 for more information.*

### **Second Serial Port**

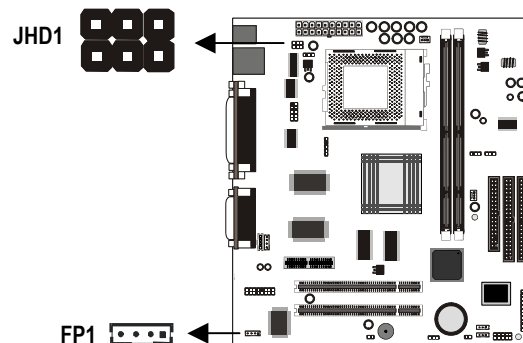
The mainboard has a connector for an optional second serial port. You can implement the second serial port by connecting an extension bracket with a serial port to the onboard serial port connector COM2.



**Note:** *An second serial port may use some of the resources required by an infrared port or a fax/modem card. If you have more than one of these items installed, you may not be able to use them at the same time. You can use the Peripherals page of the setup utility to switch resources between an IR port and a second serial port. See Chapter 3 for more information.*

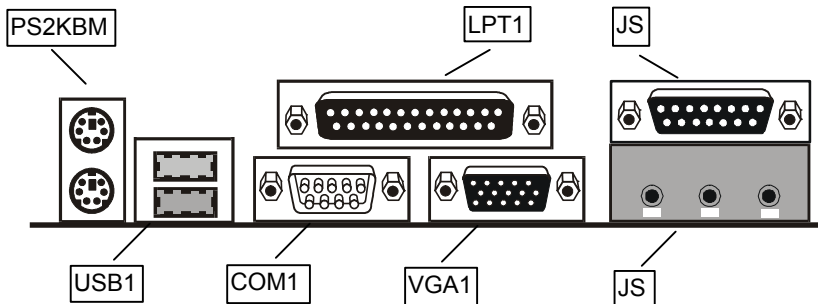
### **Auxiliary Keyboard, Microphone and Speaker Out Connectors**

The mainboard has connectors for additional keyboard, Microphone and Speaker Out ports. If your chassis has an additional bracket on the front side, you can use these connectors on the mainboard to connect the proper features to the extension bracket in the case.



## Make the External Connections

After you have installed the mainboard, make the connections to the external ports.



1. PS2KBM is a stack of two PS/2 mini-DIN ports. The upper port can be used by a PS/2 mouse or pointing device. The lower port can be used by a PS/2 keyboard.
2. LPT1 is a parallel port that can be used by printers or other parallel communications devices. The system identifies the parallel port as LPT1.
3. The upper 15-pin port J2 is a game/MIDI port. You can use this port to connect a joystick or a MIDI device to your system
4. The lower part of J2 is three audio jacks. The left side jack is for a stereo line out signal. The middle jack is for a stereo line in signal. The right side jack is for a microphone.
5. VGA1 is the connector for a display monitor. Plug the data cable from the monitor into VGA1.
6. COM1 is a serial port that can be used by serial devices such as a mouse, a fax/modem and so on. This serial port is identified by the system as COM1/3.
7. USB1 is a stack of two Universal Serial Bus ports. Use these ports to connect to USB devices.

## ***External Connector Color Coding***

To help identify the external connectors, many connectors now use standard colors as shown in the table below.

<b>Connector</b>	<b>Color</b>
Analog VGA	Blue
Audio line in	Light blue
Audio line out	Lime
Digital monitor / flat panel	White
IEEE 1394	Grey
Microphone	Pink
MIDI/Game	Gold
Parallel	Burgundy
PS/2 compatible keyboard	Purple
PS/2 compatible mouse	Green
Serial	Teal or Turquoise
Speaker out / subwoofer	Orange
Right-to-left speaker	Brown
USB	Black
Video out	Yellow
SCSI, network, telephone, modem, and so on	None



## Chapter 3: Setup

### About the Setup Utility

---

This chapter explains how to use and modify the BIOS setup utility that is stored on the mainboard. The setup utility stores data about the mainboard components and the configuration of devices that are connected to it. This information is used to test and initialize components at start-up time and to make sure everything runs properly when the system is operating.

The setup utility is installed with a set of default values. You will probably have to make changes to the setup utility whenever you add new components to your system such as new disk drives. You may be able to generate increased performance by changing some of the timing values in the setup, but this can be limited by the kind of hardware you are using, for example the rating of your memory chips. In certain circumstances, the system may generate an error message that asks you to make changes to the setup utility. This happens when the system finds an error during the POST (Power On Self Test) that it carries out at start up.

#### ***Starting the Setup Utility***

You can only start the setup utility shortly after the computer has been turned on. A prompt appears on the computer display which says “*Press DEL to run Setup*”. When you see this prompt, press the **Delete** key, and the system will start the setup utility and display the main menu of the utility.

#### ***Using the Setup Utility***

When you start setup, the main menu appears. The main menu of the setup utility shows a list of the options that are available. A highlight shows which option is currently selected. You can use the cursor arrow keys to move the highlight to other options. When an option is highlighted, you can execute the option by pressing the **Enter** key.

Some options lead to dialog boxes which ask you verify that that you wish to execute that option. You usually answer these dialogs by typing **Y** for yes and **N** for no. Some options lead to dialog boxes which ask for more information. Setting passwords have this kind of dialog box.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software

<ul style="list-style-type: none"> <li>▶ Standard CMOS Features</li> <li>▶ Advanced BIOS Features</li> <li>▶ Advanced Chipset Features</li> <li>▶ Integrated Peripherals</li> <li>▶ Power Management Setup</li> <li>▶ PnP/PCI Configurations</li> <li>▶ PC Health Status</li> </ul>	<ul style="list-style-type: none"> <li>▶ Frequency Control</li> <li>Load Fail-Safe Defaults</li> <li>Load Optimized Defaults</li> <li>Set Supervisor Password</li> <li>Set User Password</li> <li>Save &amp; Exit Setup</li> <li>Exit Without Saving</li> </ul>
<p>Esc : Quit      F9 : Menu in BIOS      ↑ ↓ → ← : Select Item  F10 : Save &amp; Exit Setup</p>	
<p>Time, Date, Hard Disk Type...</p>	

Some options (marked with a triangle) lead to tables of items that usually have a value on the right side. The value of the first item is highlighted, and you can use the cursor arrow keys to select any of the other values in the table of items. When an item is highlighted, you can change the value by pressing the **PageUp** or **PageDown** keys, or the **Plus** or **Minus** keys. The **PageUp** and **Plus** keys cycle forward through the available values, the **PageDown** and **Minus** keys cycle backwards through the values.

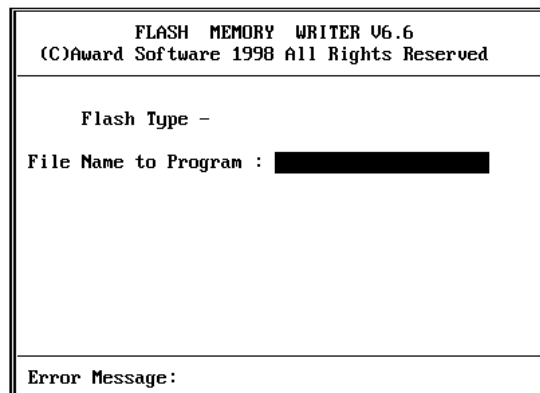
When you are in the main menu, you can exit the utility by pressing the **Escape** key. You can save the current selections and exit the utility by pressing the **F10** key. When you are in one of the options that displays a dialog box, you can return to the main menu by pressing the **Escape** key.

When you are in an option that displays a table of items, you can return to the main menu by pressing the **Escape** key. For some items, you can display a help message by pressing the **F2** key. You can display a general help screen by pressing **F1**. Press **F5** to discard any changes you have made and return all items to the value that they held when the setup utility was started. Press **F6** to load the displayed items with a standard list of fail-safe values. Press **F7** to load the displayed items with a high-performance list of default values.

## ***How to Flash a New BIOS***

You can install an updated BIOS for this motherboard that you can download from the manufacturer's website. New BIOS may provide support for new peripherals, improvements in performance or fixes to address known bugs. Install a new BIOS as follows:

1. Some mainboards have a Flash BIOS jumper that protects the current BIOS from being changed or overwritten. If your mainboard has this jumper, change the setting to allow flashing a new BIOS.
2. Some Setup programs have an item called Firmware Write Protect that prevents the BIOS from being overwritten. If your BIOS has this item (check the Advanced BIOS Features Setup page) disable it for the present.
3. Your computer must be running in a real-mode DOS environment, not the DOS window of Windows NT or Windows 95/98. We recommend that you create a new formatted DOS system floppy diskette.
4. Locate the flash memory utility on the support CD-ROM. It's called AWD712.EXE. Copy this file to the new system diskette.
5. Copy the new BIOS file that you downloaded from the manufacturer's website to the newly formatted system diskette.
6. Turn off your computer and insert the newly formatted DOS diskette in your computer's diskette drive.
7. You might need to run the setup utility and change the boot priority items on the Advanced BIOS Features Setup page, to force your computer to boot from the floppy diskette drive first.
8. At the A:\ prompt, after your computer has booted a clean DOS from the diskette, type in the filename AWD712 and press **Enter**.



9. In the opening dialog box, type in the filename of the new BIOS and follow the onscreen directions to flash the new BIOS to the motherboard.
10. When the installation is complete, remove the floppy diskette from the diskette drive and restart your computer. If your mainboard has a Flash BIOS jumper, don't forget to reset the jumper to protect the newly installed BIOS from being overwritten.

## Standard CMOS Features Option

This option displays a table of items which defines basic information about your system.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
Standard CMOS Features		
Date (mm:dd:yy)	Thu, Nov 4 1999	Item Help
Time (hh:mm:ss)	12 : 53 : 5	Menu Level ▶
▶ IDE Primary Master	Press Enter None	Change the day, month, year and century
▶ IDE Primary Slave	Press Enter None	
▶ IDE Secondary Master	Press Enter None	
▶ IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Floppy 3 Mode Support	Disabled	
Video	EGA/UGA	
Halt On	All Errors	
Base Memory	640K	
Extended Memory	31744K	
Total Memory	32768K	

↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

### **Date and Time**

The Date and Time items show the current date and time held by your computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

### **IDE Devices**

### **Defaults: None**

Your computer has two IDE channels (Primary and Secondary) and each channel can be installed with one or two devices (Master and Slave). Use these items to configure each device on the IDE channel. Press **Enter** to display the IDE sub-menu.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software		
IDE Primary Master		
IDE HDD Auto-Detection	Press Enter	Item Help
IDE Primary Master Access Mode	Auto Auto	Menu Level ▶▶
Capacity	0 MB	To auto-detect the HDD's size, head... on this channel
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	
↑:Move   Enter:Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1:General Help F5:Previous Values   F6:Fail-Safe Defaults   F7:Optimized Defaults		

---

#### **IDE HDD Auto-Detection**

Press **Enter** while this item is highlighted if you want the setup utility to automatically detect and configure a hard disk drive on the IDE channel.

---

#### **IDE Primary/Secondary Master/Slave**

If you leave this item at *Auto*, the system will automatically detect and configure any IDE devices it finds. If it fails to find a hard disk, change the value to *Manual* and then manually configure the drive by entering the characteristics of the drive in the items below (Capacity, Cylinder, Head, Precomp, etc.). If you have no device installed change the value to *None*.

---

#### **Access Mode**

This item defines some special ways that can be used to access IDE hard disks such as LBA (Large Block Addressing). Leave this value at *Auto* and the system will automatically decide the fastest way to access the hard disk drive.

Press **Esc** to close the IDE device sub-menu and return to the Standard CMOS Features page.

---

#### **Drive A and Drive B**

**Default: 1.44M, 3.5 in., None**

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

---

#### **Floppy 3 Mode Support**

**Default: Disabled**

Floppy 3 mode refers to a 3.5" diskette with a capacity of 1.2 MB. Floppy 3 mode is sometimes used in Japan.

---

#### **Video**

**Default: EGA/VGA**

This item defines the video mode of the system. This mainboard has a built-in VGA graphics system so you must leave this item at the default value.

---

**Halt On****Default: All Errors**

This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which kind of errors in the POST are sufficient to halt the system.

---

**Base Memory, Extended Memory, Total Memory**

These items are automatically detected by the system at start up time.

---

## Advanced BIOS Features Setup Option

---

This option displays a table of items which defines more advanced information about your system. You can make modifications to most of these items without introducing fatal errors to your system. Note that the page has a scroll-bar to scroll down to more items.

CMOS Setup Utility - Copyright (C) 1984-1999 Award Software  
Advanced BIOS Features

Anti-Virus Protection	Disabled	▲ ▼	Item Help
Y2K Monitor	Disabled		Menu Level ▶
CPU Internal Cache	Enabled		Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep
External Cache	Enabled		
CPU L2 Cache ECC Checking	Enabled		
Processor Number Feature	Enabled		
Quick Power On Self Test	Enabled		
First Boot Device	Floppy		
Second Boot Device	HDD-0		
Third Boot Device	LS/ZIP		
Boot Other Device	Enabled		
Swap Floppy Drive	Disabled		
Boot Up Floppy Seek	Enabled		
Boot Up NumLock Status	On		
Gate A20 Option	Fast		
Firmware Write Protect	Disabled		
Typeomatic Rate Setting	Disabled		
x Typeomatic Rate (Chars/Sec)	6		
x Typeomatic Delay (Msec)	250		

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

---

**Anti-Virus Protection****Default: Disabled**

When this item is enabled it provides some protection against viruses which try to write to the boot sector and partition table of your hard disk drive. This item is *Disabled* as a default. You need to disable it so that you can install an operating system. We recommend that you enable Anti-Virus Protection as soon as you have installed your disk with an OS.

---

**Y2K Monitor****Default: Disabled**

If you enable this item, the system will monitor for errors generated by the year 2000 bug.

---

**CPU Internal Cache** **Default: Enabled**

All the processors that can be installed in this mainboard use internal (level 1) cache memory to improve performance. Leave this item at the default value *Enabled* for better performance.

---

**External Cache** **Default: Enabled**

Most processors that can be installed in this system use external (L2) cache memory to improve performance. The exceptions are older SEPP Celeron CPUs running at 266 or 300 MHz. Enable this item for all but these two processors.

---

**CPU L2 Cache ECC Checking** **Default: Enabled**

This item enables or disables ECC (Error Correction Code) error checking on the CPU cache memory. We recommend that you leave this item at the default value.

---

**Processor Number Feature** **Default: Enabled**

Some of the new generation of socket-370 processors are installed with a unique processor number. This number may be used for verification in internet transactions and e-commerce. If you prefer not to use or distribute the unique processor number, use this item to suppress the processor number.

---

**Quick Power On Self Test** **Default: Enabled**

You can enable this item to shorten the power on testing and have your system start up a little faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

---

**First/Second/Third Boot Device** **Default: Floppy/HDD-0/LS/ZIP**

Use these three items to select the priority and order of the devices that your system will search for an operating system at start-up time.

---

**Boot Other Device** **Default: Enabled**

If you enable this item, the system will search all other possible locations for an operating system if it fails to find one in the devices specified under the first, second and third boot devices.

---

**Swap Floppy Drive** **Default: Disabled**

If you have two floppy diskette drives in your system, this item allows you to swap around the assigned drive letters so that drive A becomes drive B, and drive B becomes drive A.

---

**Boot Up Floppy Seek** **Default: Enabled**

If this item is enabled, it checks the geometry of the floppy disk drives at start-up time. You don't need to enable this item unless you have a old diskette drive with 360K capacity.

---

**Boot Up NumLock Status** **Default: On**

This item defines if the keyboard Num Lock key is active when your system is started.

---

**Gate A20 Option** **Default: Fast**

This item defines how the system handles legacy software that was written for an earlier generation of processors. Leave this item at the default value.

---

**Firmware Write Protect** **Default: Disabled**  
If you enable this item, it protects the firmware (BIOS) from being overwritten. Disable this item if you plan to flash a new BIOS to the system.

---

**Typematic Rate Setting** **Default: Disabled**  
If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

---

**Typematic Rate (Chars/Sec)** **Default: 6**  
If the item Typematic Rate Setting is enabled, you can use this item to define how many characters per second are generated by a held-down key.

---

**Typematic Delay (Msec)** **Default: 250**  
If the item Typematic Rate Setting is enabled, you can use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters.

---

**Security Option** **Default: Setup**  
If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the setup utility.

---

**OS Select For DRAM > 64 MB** **Default: Non-OS2**  
This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default Non-OS2.

---

**Report No FDD for WIN 95** **Default: Yes**  
If you are running a system with no floppy drive and using the Windows 95 OS, select Yes for this item to ensure compatibility with the Windows 95 logo certification.



## Advanced Chipset Features Option

This option displays a table of items that define critical timing parameters of the mainboard components including the memory, and the system logic. Generally, you should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly you may introduce fatal errors or recurring instability into your system. Note that the page has a scroll-bar to scroll down to more items.

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Advanced Chipset Features

SDRAM CAS Latency Time	3	Item Help
SDRAM Cycle Time Tras/Trc	6/8	
SDRAM RAS-to-CAS Delay	3	Menu Level ▶
SDRAM RAS Precharge Time	3	
System BIOS Cacheable	Enabled	
Video BIOS Cacheable	Enabled	
Memory Hole At 15M-16M	Disabled	
CPU Latency Timer	Disabled	
Delayed Transaction	Enabled	
On-Chip Video Window Size	64MB	
Local Memory Frequency	100 Mhz	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

**SDRAM CAS Latency Time** **Default: 3**

**SDRAM Cycle Time Tras/Trc** **Default: 6/8**

**SDRAM RAS-to-CAS Delay** **Default: 3**

**SDRAM RAS Precharge Time** **Default: 3**

These four items set the timing and wait states for SDRAM memory. We recommend that you leave these items at the default value.

**System BIOS Cacheable** **Default: Enabled**

**Video BIOS Cacheable** **Default: Enabled**

These items allow the video and/or system to be cached in memory for faster execution. We recommend that you leave these items at the default value.

**Memory Hole at 15M-16M** **Default: Disabled**

This item can be used to reserve memory space for some ISA expansion cards that require it.

---

***CPU Latency Timer*** ***Default: Disabled***

This item sets a timing parameter for CPU access. Since the CPU timing is determined by the system hardware, leave this item at the default value.

---

***Delayed Transaction*** ***Default: Enabled***

If the chipset has an embedded 32-bit write buffer to support delay transaction cycles, you can enable this item to provide compliance with PCI Ver. 2.1 specifications. We recommend that you leave this item at the default value.

---

***On-Chip Video Window Size*** ***Default: 64 MB***

This item defines the size of the aperture if you use an AGP graphics adapter. It refers to a section of the PCI memory address range used for graphics memory. We recommend that you leave this item at the default value.

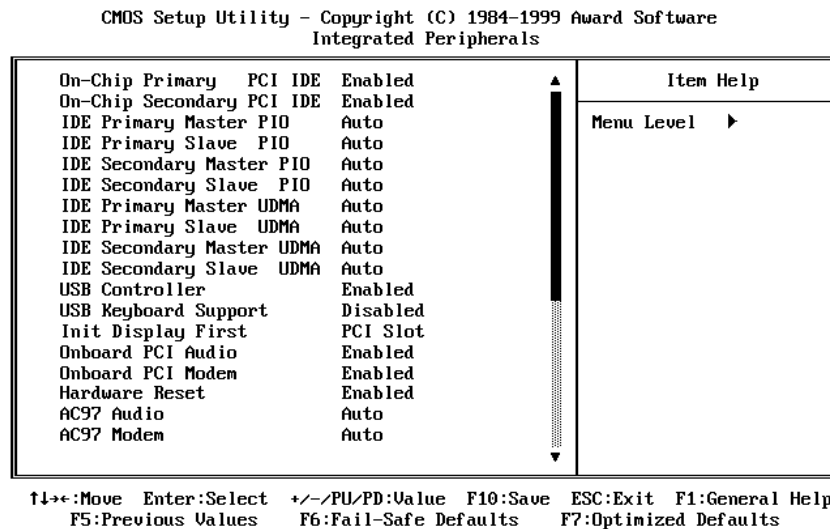
---

***Local Memory Frequency*** ***Default: 100 MHz***

This item sets the frequency for the system memory bus. If you have installed 133 MHz memory, you can change the frequency to 133 MHz.

## Integrated Peripherals Option

This option displays a list of items that defines the operation of some peripheral components on the system's input/output ports.




---

***On-Chip Primary PCI IDE***                      ***Default: Enabled***  
***On-Chip Secondary PCI IDE***                ***Default: Enabled***

Use these items to enable or disable the PCI IDE channels that are integrated on this mainboard.

---

***IDE Primary Master PIO***                      ***Default: Auto***  
***IDE Primary Slave PIO***                      ***Default: Auto***  
***IDE Secondary Master PIO***                ***Default: Auto***  
***IDE Secondary Slave PIO***                ***Default: Auto***

Each IDE channel supports a master device and a slave device. These four items let you assign which kind of PIO (Programmed Input/Output) is used by IDE devices. You can choose Auto, to let the system auto detect which PIO mode is best, or you can install a PIO mode from 0-4.

---

***IDE Primary Master UDMA***                    ***Default: Auto***  
***IDE Primary Slave UDMA***                    ***Default: Auto***  
***IDE Secondary Master UDMA***               ***Default: Auto***  
***IDE Secondary Slave UDMA***               ***Default: Auto***

Each IDE channel supports a master device and a slave device. This motherboard supports UltraDMA. UltraDMA technology provides faster access to IDE devices. If you install a device which supports UltraDMA, change the

appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this motherboard in order to use an UltraDMA device.

---

**USB Controller** **Default: Enabled**

Use this item to enable the USB ports that are integrated on this mainboard.

---

**USB Keyboard Support** **Default: Disabled**

Enable this item if you are using a keyboard connected through the USB Port.

---

**Init Display First** **Default: PCI Slot**

Use this item to define if your graphics adapter is installed in one of the PCI slots or select Onboard if you have a graphics system integrated on the mainboard.

---

**Onboard PCI Audio** **Default: Enabled**

If your mainboard has an integrated PCI audio system, use this item to enable or disable it.

---

**Onboard PCI Modem** **Default: Enabled**

If your mainboard has an integrated PCI modem, use this item to enable or disable it.

---

**Hardware Reset** **Default: Enabled**

If you enable this item, you can reset the system by pressing a hardware reset button if you have connected this function to the mainboard.

---

**AC97 Audio** **Default: Auto**

We recommend that you set this item to Auto when you use AMR card.

---

**AC97 Modem** **Default: Auto**

We recommend that you set this item to Auto when you use MR/AMR card.

---

**IDE HDD Block Mode** **Default: Disabled**

Block mode transfers can improve the access to IDE devices. Enable this item if your IDE devices support block mode transfers.

---

**Power On Function** **Default: Hot KEY**

**KB Power ON Password** **Default: Enter**

**Hot Key Power ON** **Default: Ctrl-F12**

The Power On Function item allows you to power on the system by pressing hot-keys, or typing a password. If you choose Password, you can use the item KB Power On Password to install a power on password. Press Enter to display the Password dialog box. If you set it to Hot Key, you can then use the item Hot Key Power On to choose which hot keys are used to power on the system.

---

**Onboard FDC Controller** **Default: Enabled**

Use this item to turn on or off the floppy disk controller that is built into this mainboard.

---

**Onboard Serial Port 1** **Default: 3F8/IRQ4**

This item lets you disable the built-in serial port 1, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

---

**Onboard Serial Port 2** **Default: Disable**

This item lets you disable the built-in serial port 2, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

---

**UART Mode Select** **Default: IrDA**  
**UR2 Duplex Mode** **Default: L Half**

This item defines the operation of serial port 2. In the Normal setting, serial port 2 is assigned to the external COM2 connector. If you have installed an optional infrared port, you must change the setting of this item to one of the Infrared settings (usually IrDA or FIR). These settings will disable the external COM2 serial port connector and assign the resources to the infrared device. If you have selected an IR mode, use the following item *UR2 Duplex Mode* to define if the IR port is full duplex or half duplex.

---

**Onboard Parallel Port** **Default: 378/IRQ7**

This item lets you disable the built-in parallel port, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

---

**Parallel Port Mode** **Default: SPP**  
**ECP Mode Use DMA** **Default: 3**

This item defines the operation of the parallel port. As a default it is set to SPP (standard parallel port). If you are connected to a parallel device that supports the higher-performance EPP (enhanced parallel port) or the ECP (extended capabilities port) make the appropriate changes to this item. If you have changed the parallel port to ECP mode, use the following item *ECP Mode Use DMA* to assign a DMA channel to the port.

---

**PWRON After PWR-Fail** **Default: Off**

If this item is enabled, the system will automatically resume when power is restored after an interruption in the power supply.

---

**Game Port Address** **Default: 201**

This item lets you disable the built-in game port, or enable it by assigning an I/O address.

---

**Midi Port Address** **Default: 330**  
**Midi Port IRQ** **Default: 10**

This item lets you disable the built-in MIDI port, or enable it by assigning an I/O address. If you enable the MIDI port, use the following item *Midi Port IRQ* to assign an Interrupt Request line to the port.

## Power Management Setup Option

This option displays items that let you control the system power management. Modern operating systems take care of much of the power management. This mainboard supports ACPI (advanced configuration and power interface). The system has various power saving modes including powering down the hard disk, turning off the video, suspending to RAM, and a software power down that allows the system to be automatically resumed by certain events.

### Power Management Timeouts

The power-saving modes can be controlled by timeouts. If the system is inactive for a time, the timeouts begin counting. If the inactivity continues so that the timeout period elapses, the system enters a power-saving mode. If any item in the list of *Reload Global Timer Events* is Enabled, then any activity on that item will reset the timeout counters to zero.

### Wake Up Calls

If the system is suspended, or has been powered down by software, it can be resumed by a wake up call that is generated by incoming traffic to a modem, a LAN card, a PCI card, or a fixed alarm on the system realtime clock,

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Power Management Setup

ACPI Function	Enabled	▲	Item Help
ACPI Suspend Type	S1(POS)		
Power Management	Define		Menu Level ▶
Video Off Method	DPMS		
Video Off In Suspend	Yes		
Suspend Type	Stop Grant		
MODEM Use IRQ	3		
Suspend Mode	Disabled		
HDD Power Down	Disable		
Soft-Off by PWR-BTIN	Instant-Off		
Wake-Up by PCI card	Disabled		
Power On by Ring	Disabled		
Wake Up On LAN	Enabled		
CPU Thermal Limit	NA		
Board Thermal Limit	NA		
CPU Thermal-Throttling	50.0%		
Resume by Alarm	Disabled		
x Date(of Month) Alarm	0		
x Time(hh:mm:ss) Alarm	0 0 0	▼	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

### ACPI Function

**Default: Enabled**

This mainboard supports ACPI (Advanced Configuration and Power management Interface). Use this item to enable or disable the ACPI feature.

---

**ACPI Suspend Type** **Default: S1 (POS)**

Use this item to define how your system suspends. In the default, S1(POS), the suspend mode is equivalent to a software power down. If you select S3 (STR), the suspend mode is a suspend to RAM – the system shuts down with the exception of a refresh current to the system memory.

---

**Power Management** **Default: Define**

This item acts like a master switch for the power-saving modes and hard disk timeouts. If this item is set to Max Saving, power-saving modes occur after a short timeout. If this item is set to Min Saving, power-saving modes occur after a longer timeout. If the item is set to User Define, you can insert your own timeouts for the power-saving modes.

---

**Video Off Method** **Default: DPMS**

This item defines how the video is powered down to save power. As a default, this is set to DPMS (display power management software).

---

**Video Off In Suspend** **Default: Yes**

This option defines if the video is powered down when the system is put into suspend mode.

---

**Suspend Type** **Default: Stop Grant**

If this item is set to the default "Stop Grant", the CPU will go into the Idle Mode.

---

**MODEM Use IRQ** **Default: 3**

If you want an incoming call on a modem to automatically resume the system from a power-saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You might have to connect the fax/modem to a mainboard Wake On Modem connector for this feature to work.

---

**Suspend Mode** **Default: Disabled**

If you have selected User Define for the *Power Management* item, you can set this item to a timeouts from 1 Min to 1 Hour. The system will go into the power-saving suspend mode if the timeout passes without any system activity.

---

**HDD Power Down** **Default: Disable**

If you have selected User Define for the *Power Management* item, you can set this item to a selection of timeouts from 1 to 15 minutes. The hard disk drive will power down if the selected timeout passes without any activity on the hard disk.

---

**Soft-Off by PWR-BTTN** **Default: Instant-Off**

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the normal power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. Then you have to hold the power button down for four seconds to cause a software power down.

---

**Wake Up by PCI Card** **Default: Disabled**

If you enable this item, it allows activity on an add-in card in one of the PCI slots to resume the system from a power-saving mode.

---

**Power On by Ring** **Default: Disabled**  
If this item is enabled, it allows the system to resume from a software powerdown or a power-saving mode whenever there is an incoming call to an installed fax/modem. You might have to connect the fax/modem to a mainboard Wake On Modem connector for this feature to work.

---

**Wake Up On LAN** **Default: Enabled**  
If this item is enabled, it allows the system to resume from a software powerdown or a power-saving mode whenever there is an incoming traffic to a network (LAN) adapter. You might have to connect the LAN card to a mainboard Wake On LAN connector for this feature to work.

---

**CPU Thermal Limit** **Default: NA**  
**Board Thermal Limit** **Default: NA**  
These two items can be used to set threshold temperatures for the CPU and the mainboard. If the temperatures are exceeded, the system uses power management to reduce the temperatures.

---

**CPU Thermal-Throttling** **Default: 50.0%**  
This item sets the percentage of time that the CPU is idled if CPU throttling is initiated by excess heat.

---

**Resume by Alarm** **Default: Disabled**  
If this item is Enabled, it allows you to set a date and time alarm that will automatically resume the system from a software power down. When you enable this feature, new setup items appear to let you set the alarm. Date (of Month) Alarm lets you select a day from 1 to 31. Time Alarm lets you select a time for the alarm in hours, minutes, and seconds.

---

**Primary IDE 0** **Default: Disabled**  
**Primary IDE 1** **Default: Disabled**  
**Secondary IDE 0** **Default: Disabled**  
**Secondary IDE 1** **Default: Disabled**  
When these items are enabled, the system will restart the power-saving timeout counters when any activity is detected on any of the drives or devices on the primary or secondary IDE channels.

---

**FDD,COM,LPT Port** **Default: Disabled**  
When this item is enabled, the system will restart the power-saving timeout counters when any activity is detected on the floppy diskette drives, the serial ports, or the parallel port.

---

**PCI PIRQ[A-D]#** **Default: Disabled**  
When this item is enabled, the system will restart the timeout counters when any activity is detected on the Interrupt request lines used over the PCI bus.



## PNP/PCI Configuration Option

This option displays a table of items that configures how PNP (Plug and Play) and PCI expansion cards operate in your system.

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PnP/PCI Configurations

Item	Value	Item Help
Reset Configuration Data	Disabled	Menu Level ▶  Default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot.
Resources Controlled By x IRQ Resources	Auto(ESCD) Press Enter	
PCI/UGA Palette Snoop	Disabled	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

---

### **Reset Configuration Data** **Default: Disabled**

If you enable this item and restart the system, any PNP configuration data stored in the BIOS setup is cleared from memory. New updated data is created.

---

### **Resources Controlled By** **Default: Auto(ESCD)**

You should leave this item at the default Auto(ESCD). Under this setting, the system dynamically allocates resources to plug and play devices as they are required. If you cannot get a legacy ISA (Industry Standard Architecture) expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and then opening up the *IRQ Resources* and *Memory Resources* sub-menus.

In the *IRQ Resources* sub-menu, if you change any of the IRQ assignments to Legacy ISA, then that Interrupt Request Line is reserved for a legacy ISA expansion card. Press **Esc** to close the IRQ Resources sub-menu.

In the *Memory Resources* sub menu, use the first item Reserved Memory Base to set the start address of the memory you want to reserve for the ISA expansion card. Use the second item Reserved Memory Length to set the amount of reserved memory. Press **Esc** to close the Memory Resources sub-menu.

---

**PCI/VGA Palette Snoop****Default: Disabled**

This item is designed to overcome some problems that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not require palette snooping so you must leave this item disabled.

---

## PCI Health Status Option

---

On mainboards which support hardware monitoring, this item lets you monitor the parameters for critical voltages, critical temperatures, and fan speeds.

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PC Health Status

Shutdown Temperature	85°C/185°F	Item Help
UCOREIN		Menu Level ▶
+1.800V		
+3.300V		
+5.000V		
+12.00V		
-12.00V		
-5.000V		
Voltage Battery		
System Temperature		
CPU Temperature		
CPU FAN Speed		
CASE FAN Speed		
Chassis has been	CLOSING	
Chassis Open Warning	Disabled	

↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

If this option is active on your system, we recommend that you accept the default values for these items that are installed by the manufacturer.

## Frequency Control Option

This item allows you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.

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Frequency Control

Auto Detect DIMM/PCI Clk	Enabled	Item Help
CPU Internal Core Speed	233MHz	
Spread Spectrum	Disabled	Menu Level ▶
CPU/DIMM/PCI Clock	Default	
CPU Clock Ratio	X 3.5	

↑↓:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help  
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

---

### **Auto Detect DIMM/PCI Clk** **Default: Enabled**

When this item is enabled, BIOS will disabled the clock signal of free DIMM and PCI slots.

---

### **CPU Internal Core Speed** **Default: 233 MHz**

Use this item to automatically set up the mainboard for the kind of processor that you have installed. Set this item to the rated internal clock speed of the installed processor. If you set this to Manual, two new items appear: *CPU/DIMM/PCI Clock* and *CPU Clock Ratio*.

---

### **Spread Spectrum** **Default: Disabled**

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

---

### ***CPU/DIMM/PCI Clock***

#### ***CPU Clock ratio***

These items appear if you have set the *CPU Internal Core Speed* to Manual. Use the *CPU/DIMM/PCI Clock* to set the system bus frequency for the installed processor (usually 133 MHz, 100 MHz or 66 MHz). Then use *CPU Clock Ratio* to set a multiple. The multiple times the system bus must equal the core speed of the installed processor e.g. **3.5 (multiple) x 100 MHz (system bus) = 350 MHz (installed processor clock speed)**.

---

## **Load Fail-Safe Defaults Option**

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the whole setup utility. Press the **Y** key and then **Enter** to install the defaults. Press the **N** key and then **Enter** to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install a fail-safe defaults for a specific option, select and display that option, and then press the **F6** key.

---

## **Load Optimized Defaults Option**

This option opens dialog box that lets you install optimized defaults for all appropriate items in the whole setup utility. Press the **Y** key and then **Enter** to install the defaults. Press the **N** key and then **Enter** to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press the **F7** key.

---

## **Set Supervisor and User Passwords**

These items can be used to install a password. A Supervisor password takes precedence over a User password, and the Supervisor can limit the activities of a User. To install a password, follow these steps:

1. Highlight the item Set Supervisor/User password on the main menu and press **Enter**.
2. The password dialog box appears.

3. If you are installing a new password, carefully type in the password. You cannot use more than 8 characters or numbers. The password will differentiate between upper case and lower characters. Press **Enter** after you have typed in the password. If you are deleting a password that is already installed just press **Enter** when the password dialog box appears.
4. The system will ask you to confirm the new password by asking you to type it in a second time. Carefully type the password again and press **Enter**, or just press **Enter** if you are deleting a password that is already installed.
5. If you typed the password correctly, the password will be installed.

### **Save And Exit Setup Option**

---

Highlight this item and press **Enter** to save the changes that you have made in the setup utility and exit the setup program. When the Save and Exit dialog box appears, press **Y** to save and exit, or press **N** to return to the setup main menu.

### **Exit Without Saving Option**

---

Highlight this item and press **Enter** to discard any changes that you have made in the setup utility and exit the setup program. When the Exit Without Saving dialog box appears, press **Y** to discard changes and exit, or press **N** to return to the setup main menu.

## Chapter 4: Software

### About the Software

---

The software for this mainboard is supplied on a CD-ROM. The disk has some folders that can be used by many different mainboards, for example the **UTILITY** and **PERIPHERAL** folders. Some folders can only be used by mainboards which have certain brands of chipsets, for example the **INTEL** and **VIA** folders. In addition, software that is specifically intended for one kind of mainboard is stored in a folder with the name of that board. The folder for this mainboard is stored in the **KOB 810e FSFx** folder.

***Note:** Never try to install software from a folder that is not specified for use with your mainboard.*

### Folders for this Mainboard

---

For this board, you can install software from the following folders:

#### **Utility Folder**

You can use the software in the following sub-folders:

- AWDFLASH:** Software to erase and install new revisions of the system BIOS
- DIRECTX5:** Software display drivers for Microsoft's DirectX Rev. 5 specification
- PC-CILLIN:** Anti-virus software
- BITWARE:** Software for the built-in fax/modem
- GAMUT:** Audio rack for built-in sound system

#### **CM18X38 Folder**

You can use the software from the following sub-folders:

- AUDIO:** Drivers and software for the built-in audio system
- MODEM:** Drivers and software for the built-in fax/modem

### ***Peripheral Folder***

You can use the software in the following sub-folders:

- ❑ **KEYBOARD, CD-ROM, MOUSE:** These three folders have drivers for the related accessories. Some system assemblers ship these accessories with complete systems based on this mainboard.

### ***Intel Folder***

- ❑ **I810 ACPI:** This folder has a patch program so that the suspend to RAM feature will run under Windows 98(ACPI)
- ❑ **INF:** This folder has a variety of programs, all designed to improve the operation of Intel chipsets under Windows 95/98.
- ❑ **VGA:** This folder has drivers and software for the graphics system built into the Intel 810 chipset.

### ***KOB 810e FSFx Folder***

You can use the software in the following sub-folders:

- ❑ **MONITOR :** Hardware monitoring software for Windows 95/98, and Windows NT4.0/5.0
- ❑ **ACPI, AUDIO, MODEM, VGA, WIN9x-Inf:** These folders are empty. A readme file directs you to an alternate location with the required software.

**Note:** *Some folders are subdivided into different operating systems such as DOS, Windows 95, Windows NT, and so on. Always make sure that you are installing the correct software for the operating system on your computer. Some folders are also subdivided into different language versions, such as English, French, German and so on.*

**Note:** *Before installing any software, always inspect the folder for files named README.TXT, INSTALL.TXT, or something similar. These files may contain important information that is not included in this manual.*

---

## Running the Support CD-ROM

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1. Place the disk in your CD-ROM drive. If you are running Windows with Autoplay enabled, the opening screen of the CD appears automatically. Click on READ ME to read the latest instructions.
2. Click on the item BROWSE THE CD TITLE. This uses Windows Explorer to show the contents of the support CD.
3. Double click on a folder to display the sub-folders.
4. Before installing the software, look for a file named README.TXT, or something similar. This file may contain important information to help you install the software correctly.
5. Some software is installed in separate folders for different operating systems, such as DOS, WIN NT, WIN95/98, and so on. Always log on to the correct folder for the kind of OS you are using.
6. To install the software, you usually execute a file named SETUP.EXE or INSTALL.EXE by double clicking on the filename.

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## Utility Folder Installation Notes

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### *Award Flash Memory Utility*

This utility lets you erase the system BIOS stored on a Flash Memory chip on the mainboard, and lets you copy an updated BIOS to the chip. Take care how you use this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction.

There are two flash memory utilities called **AWD66.EXE** and **AWD712.EXE**. For this mainboard you must use the **AWD712.EXE** utility. To use the utility, you must be in real-mode DOS (not the DOS box that is available in Windows 95/98/NT). If you are using WINDOWS 95/98, shut down your computer and select the option Restart in DOS in the shut-down dialog box. If you are running Windows NT, shut down your computer and boot from a DOS diskette temporarily in order to run the flash memory utility.

### *DirectX5 Drivers*

The DirectX drivers are for installation only in Windows 95/98. The directX drivers need to be installed before you install an AGP driver. You may be able to get more up-to-date directX drivers from the Microsoft web site. Start the installation by clicking on the file DX5CORE.EXE.



### ***PC-Cillin Anti-Virus Utility***

Anti-virus software is provided for DOS, for WIN95, and WIN 98. Log on to the appropriate directory for your operating system. For DOS, copy all the files in the DOS folder to your hard disk drive. For Windows 95, log on to the Disk 1 folder and run SETUP. For Windows 98, run SETUP.

## **CMI8X38 Folder Installation Notes**

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### ***Audio Software***

This folder has software and drivers for the sound system that is integrated on this mainboard. Drivers are provided for Windows 95/98, Windows NT, and DOS. An MS-WORD format manual is stored in the MANUAL folder.

#### ***DOS Installation***

Log on to the DOSDRV folder and run the program INSTALL.EXE

#### ***Windows 95/98 Installation***

Please specify the path to the CD-ROM\CMI8X38\AUDIO\_ITE\_GAME\W95-98\DRV\ when your system detects the installed audio system. To install the audio applications, log on to the W95-98 folder, and then log on to the APPS folder. Run the SETUP program.

#### ***Windows NT 4.0 Installation***

1. Press the "Start" button.
2. Move the highlight to "Settings" and select "Control Panel".
3. Double click on the "Multimedia" icon.
4. Select the "Devices" tab.
5. Press the "Add..." button.
6. Select item "Unlisted or Updated Driver" in the "List of Drivers" list box.
7. Specify the path to the PCI audio NT drivers.
8. Select "C-Media CM8338 PCI Device" and press the "OK" button.
9. Choose proper I/O or the "OK" button for the default setting.
10. Restart the Windows NT system.

To install the audio applications, log on to the NT4 folder, and then log on to the APPS folder. Run the SETUP program.

## ***Modem Driver and Software***

Install the Modem driver from the sub-folders for Windows 95/98 or Windows NT4.0.

### ***Windows 95/98***

The modem is a plug and play device so Windows 95/98 will automatically detect the presence of your modem. When the Plug and Play wizard begins to look for modem drivers, click on the button that says ***Have Disk*** and then browse or type in the pathname to the CMI8X38\modem\win9x folder.

### ***Windows NT 4.0***

Follow the instructions in the README file in the WINNT4 sub-folder.

## **Peripheral Folder Installation Notes**

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### ***Keyboard, CD-ROM, Mouse***

Follow the instructions contained in the documentation files in these folders.

## **Intel Folder Installation Notes**

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### ***1810 ACPI***

This folder has a patch that allows a Windows 95/98 system to carry out a suspend to RAM. Run SETUP.EXE to install the patch. Don't install this patch file into Windows 98 Second Edition.

### ***Inf***

The Intel INF Installation Utility installs to the target system the Windows\* INF files that outline to the operating system how the chipset components shall be configured. This is needed for proper functionality of the following features:

- ◆ Core PCI and ISAPNP Services
- ◆ AGP Support
- ◆ IDE/ATA33/ATA66 Storage Support
- ◆ USB Support
- ◆ Identification of Intel Chipset Components in Device Manager

To install the files, run SETUP.EXE.

### **VGA**

This folder has the software and drivers for the graphics system built into the 810 chipset. Select the folder for the operating system that you are running and then begin the installation by running SETUP.EXE.

## **Mainboard (KOB 810e FSFx) Installation Notes**

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Most of the sub-folders in this folder are empty, with a short README file giving directions to alternate folders for the appropriate software. Two folders contain software that you can install.

### ***Monitor Sub-folder***

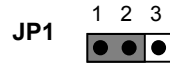
The software in this folder provides a graphical interface to the hardware monitoring feature of this mainboard. The software will run under Windows 95/98 or Windows NT4.0. Follow the installation instructions contained in the file INSTALL.TXT.

## Appendix 1: Quick Jumper Setting Reference

### **JP1: Clear CMOS memory jumper**

Use this 3-pin jumper to clear all the current data stored in the CMOS memory.

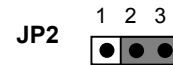
Function	Jumper Cap
Normal operation	Short pins 1-2
Clear CMOS	Short pins 2-3



### **JP2: Keyboard power on jumper**

Use this 3-pin jumper to enable keyboard power on with hot keys or password.

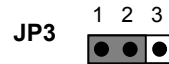
Function	Jumper Cap
Disable keyboard power on	Short pins 1-2
Enable keyboard power on	Short pins 2-3



### **JP3: Force 100 MHz front side bus jumper**

Use this jumper to disable the automatic detection of the correct front side bus, and force the system to run with a 100 MHz front side bus.

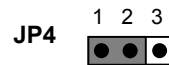
Function	Jumper Cap
Normal operation	Short Pins 1-2
Force 100 MHz FSB	Short pins 2-3



### **JP4: Force 133 MHz front side bus jumper**

Use this jumper to disable the automatic detection of the correct front side bus, and force the system to run with a 133 MHz front side bus.

Function	Jumper Cap
Normal operation	Short Pins 1-2
Force 133 MHz FSB	Short pins 2-3



**PANEL1: Panel connectors for switches and indicators**

Use the panel connector to implement the switches and indicators on your system case.

Function	Pins
Speaker	1, 3, 5, +7
Power Indicator	+2, +4, 6
Keylock	8, 10
Green Indicator	+13, 14
Hard Disk Indicator	+15, 16
Reset Switch	17, 18
Suspend Switch	19, 20
Power Switch	21, 22

