

# **KX18D PRO/ KX18D PRO II**

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## **FCC Compliance Statement**

This equipment has been tested and found to comply with the limits of 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. However, there is no guarantee that interference will not occur in a particular installation.

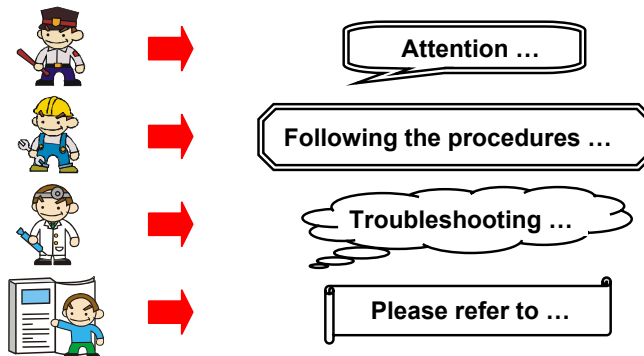
## You have to know !!!

- The images and pictures in this manual are for reference only and may vary slightly from actual product installation depending on specific hardware models, third party components and software versions.
- Unplug your computer when installing components and configuring switches and pins.
- This mainboard contains very delicate IC chips. Use a grounded wrist strap when working with the system.
- Do not touch the IC chips, leads, connectors or other components.
- Unplug the AC power when you install or remove any device on the mainboard.

## Package Contents

- ◆ KX18D Series mainboard
- ◆ IDE ATA100 Cable & FDC Cable
- ◆ COM Port Bracket (optional)
- ◆ USB Bracket (optional)
- ◆ 1394 Bracket (optional)
- ◆ SPDIF & Front Audio Dual-Function Bracket (optional)
- ◆ SATA Power cord (optional)
- ◆ SATA Cable (optional)
- ◆ Installation and Setup Driver CD
- ◆ KX18D PRO/ KX18D PRO II User Manual

## Symbols



# **KX18D PRO/ K18D PRO II**

**NVIDIA® nForce™2 SPP & MCP or MCP-T**

**Supports Socket A AMD® Athlon™XP/ Athlon™/ Duron™/ Barton™  
Processors**

## **User Manual**

### **Dimensions (ATX form-factor):**

- 244 mm x 305 mm (WxL)

### **Operating System:**

- Supports Windows® 98/ 2000/ ME/ XP

## Contents

<b>CHAPTER 1. GETTING STARTED .....</b>	<b>1</b>
INTRODUCTION.....	1
SPECIFICATION .....	2
QUICK CONTENT TABLE .....	5
CONFIGURATION .....	6
Layout of KX18D PRO II .....	6
Layout of KX18D PRO .....	7
HARDWARE INSTALLATION .....	8
CPU Processor Installation .....	8
Memory Installation .....	9
Back Panel Configuration.....	11
Front Panel Indicator: SW/LED · PW/LED · SPEAKER .....	13
Connectors .....	14
Headers & Jumpers & Switch.....	15
Audio Connectors .....	20
Slots .....	22
Power Supply Attachments.....	22
<b>CHAPTER 2. BIOS SETUP.....</b>	<b>23</b>
INTRODUCTION.....	23
MAIN MENU .....	25
ADVANCED BIOS FEATURES.....	27
INTEGRATED PERIPHERALS.....	34
POWER MANAGEMENT.....	39
HARDWARE MONITOR .....	41
LOAD DEFAULTS .....	42
EXIT MENU.....	43
<b>CHAPTER 3: SOFTWARE SETUP.....</b>	<b>44</b>
SOFTWARE LIST .....	44
SOFTWARE INSTALLATION.....	44
<b>CHAPTER 4: TROUBLESHOOTING .....</b>	<b>48</b>
APPENDIX I: 5.1 CHANNEL SETUP .....	51

# **Chapter 1. Getting Started**

## **Introduction**

Congratulations on choosing the KX18D series mainboard! The KX18D series includes KX18D PRO and KX18D PRO II. These are based on the nForce™2 SPP Northbridge chipset and either the MCP or MCP-T Southbridge chipset. It supports AMD® Athlon™XP/ Athlon™/ Duron™/ Barton™ Processors with a FSB (Front Side Bus) frequency of 200/ 266/ 333 MHz.

The KX18D series provides 3 DIMM sockets using 184 pin DDR SDRAM with a total capacity of up to 3 GB. You can install unbuffered & non-ECC DDR400/ 333/ 266 (PC3200/ 2700/ 2100) SDRAM. It supports 128 bit dual channel memory bus with a total capacity of up to 2 GB.

The KX18D series provides one 8X/4X AGP Slot that use 0.8V or 1.5V AGP cards only.

The KX18D series include built in IDE facilities that support Ultra ATA 33/ 66/ 100/ 133 Ultra 6-0/ DMA 2-0 and PIO 4-0 modes. The KX18D PRO II also includes built in Serial ATA facility that support SATA 150.

The KX18D series also comes with an AC'97 Sound Codec (ALC650) which supports high quality 6 channel audio (super 5.1 Channel Audio Effect). It also supports Sony/ Philips Digital Interface (S/PDIF).

The KX18D series also comes with six USB 2.0 ports and the KX18D PRO II comes with two IEEE 1394 ports (optional).

The KX18D series also include CPU Over Temperature Protection (OTP). When CPU temperature rises above normal values, the system will automatically shut down to protect your system from overheating. But the OTP is only functional when using an Athlon XP™ or Barton™ CPU.

The KX18D PRO II comes preinstalled with **Voice Genie, BIOS Mirror, and SATA function**. Voice Genie allows you to select between four languages for audio diagnostics. BIOS Mirror allows you to have a backup (mirror) BIOS when the primary BIOS is damaged by virus or flash update. SATA function allows you to enable or disable the SATA devices.

The KX18D series include an infrared header. The KX18D series also provides a back panel LAN port that the south bridge chipset support.

The company's 3 Year Limited Warranty for this product covers both labor costs and replacement parts during the 1<sup>st</sup> year. Only labor costs are covered during the 2<sup>nd</sup> and 3<sup>rd</sup> years (replacement parts will be charged during the 2<sup>nd</sup> and 3<sup>rd</sup> years).

All of the information in this manual only for reference. This specification is subject to change without notice.

## Specification

### **CPU:**

- Supports Socket 462 AMD® Athlon™XP/ Athlon™/ Duron™/ Barton™ processors

### **Speed:**

- 200/ 266/ 333 MHz Front Side Bus frequency
- 33MHz, 32 bit PCI interface (PCI 2.2 compliant)
- 66MHz AGP 3.0/ 2.0 compliant interface that supports 8X/ 4X data transfer modes (0.8V or 1.5V)

### **Chipset:**

- Northbridge Chip – NVIDIA nForce™2 SPP
- Southbridge Chip– NVIDIA nForce™2 MCP or MCP-T (only for KX18D PRO II)
- I/O Controller – Winbond W83627HF
- AC'97 Codec – ALC650
- LAN PHY Chip – ICS1893AF
- 1394 Controller – TI TSB41AB2 (only for KX18D PRO II)
- Serial ATA Controller – Silicon Sil3112 (only for KX18D PRO II)

### **DRAM Memory:**

- Supports DDR400 (PC3200)/ DDR333 (PC2700)/ DDR266 (PC2100) SDRAM
- Supports 64 MB/128 MB/256 MB/512 MB/1 GB unbuffered & non-ECC DIMM modules
- Supports memory modules with a total capacity of 3 GB
- Supports 128 bit DualDDR Memory Architecture that with a total capacity of 2 GB
- Supports x8, x16 DRAMs DDR DIMMs (see memory installation section for more details)

### **Green Functionality:**

- Supports Phoenix-Award BIOS™ power management functionality
- Wakes from power saving sleep mode with any keyboard or mouse activity

### **Shadow RAM:**

- This mainboard is equipped with a memory controller providing shadow RAM and support for ROM BIOS

**BUS Slots:**

- 1 AGP slot (AGP3.0/ 2.0, 0.8V or 1.5V)
- Six 32-bit PCI bus slots

**Flash Memory:**

- Supports flash memory functionality
- Supports ESCD functionality

**Hardware Monitor Function:**

- Monitors CPU and Auxiliary fan Speeds
- Monitors System Voltage

**Infrared:**

- Supports IrDA Version 1.0 SIR Protocol with a maximum baud rate of up to 115.2 Kbps
- Supports SHARP ASK-IR Protocol with maximum baud rate of up to 57600 bps

**Universal Serial Bus:**

- Supports USB 2.0 Enhanced Host Controller Interface (EHCI) and dual USB 1.1 Open Host Controller Interface (OHCI)
- Supports up to six USB ports for USB interface devices

**IEEE 1394 Serial Bus (for KX18D PRO II only):**

- Supports two IEEE 1394 ports for 1394 interface devices
- Supports 400/ 200/ 100 Mbps serial data rates

**I/O facilities:**

- One multi-mode Parallel Port capable of supporting the following specifications:
  1. Standard & Bi-direction Parallel Port
  2. Enhanced Parallel Port (EPP)
  3. Extended Capabilities Port (ECP)
- Supports two serial ports, 16550 UART (one on back panel and one on front panel)
- Supports Infrared Data Transmission using IrDA
- Supports PS/2 mouse and PS/2 keyboard
- Supports 360 KB, 720 KB, 1.2 MB, 1.44 MB, and 2.88 MB floppy disk drives
- Game port compatible

**LAN PHY Chip:**

- Supports 100/ 10 Mb/ sec Ethernet

**IDE Facilities:**

- Supports Ultra ATA 133/ 100/ 66/ 33 Ultra 6-0/ DMA 2-0 and PIO 4-0 modes
- Supports IDE interface with CD-ROM
- Supports high capacity hard disk drives
- Supports installation of up to 4 drives, with separate IDE connections for Primary and Secondary connectors

**Serial ATA Controller (for KX18D PRO II only):**

- Compatible with SATA Spec 1.0
- Supports Serial ATA 150 MB/sec transfers
- Supports RAID 0/ RAID 1 software with this controller

*For more details please refer to SATA RAID Sil3112 user manual.*

**BIOS:**

- Phoenix-Award™ BIOS
- Supports APM1.2
- Supports ACPI power management

**Power Management:**

- Power On Suspend (POS) or ACPI S1 support
- Suspend to DRAM (STR) or ACPI S3 support
- Suspend to Disk (STD) or ACPI S4/ S5 support
- Supports C0, C1, and C2 states
- ACPI 2.0 compliant

**Hyper Transport Interface:**

- Supports up to 800 MBps transfer rates
- Supports operates at 200 MHz dual edge clock mode

**Sophisticated OTP (Over Temperature Protection):**

- Special design for CPU Over Temperature Protection
- OTP is functional when using an Athlon XP™ or Barton™ CPU

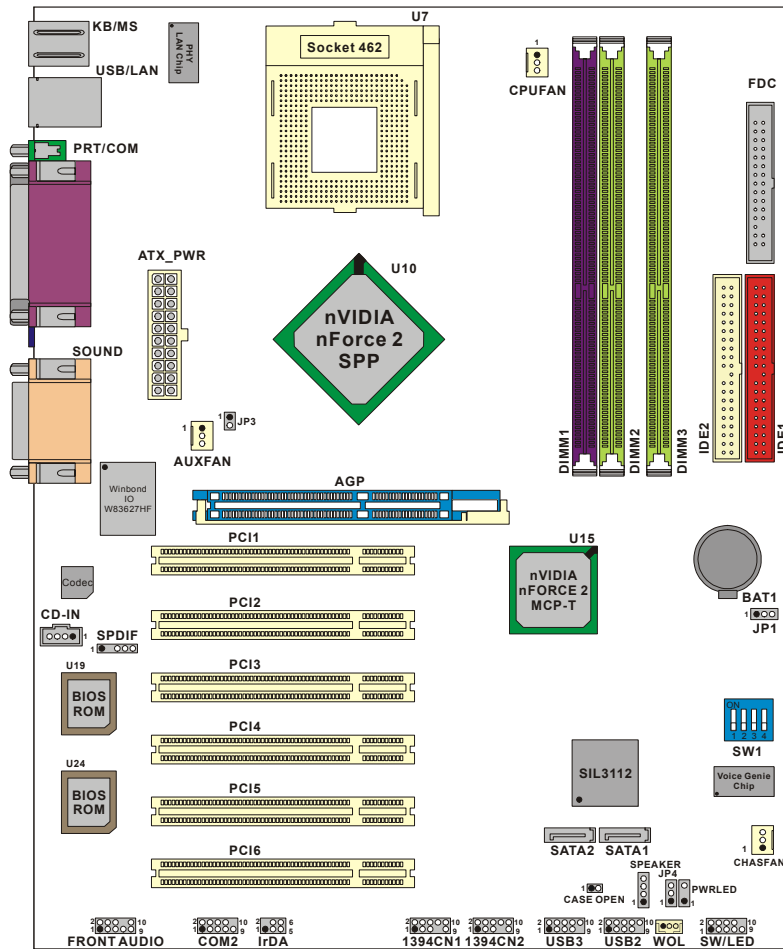


## Quick Content Table

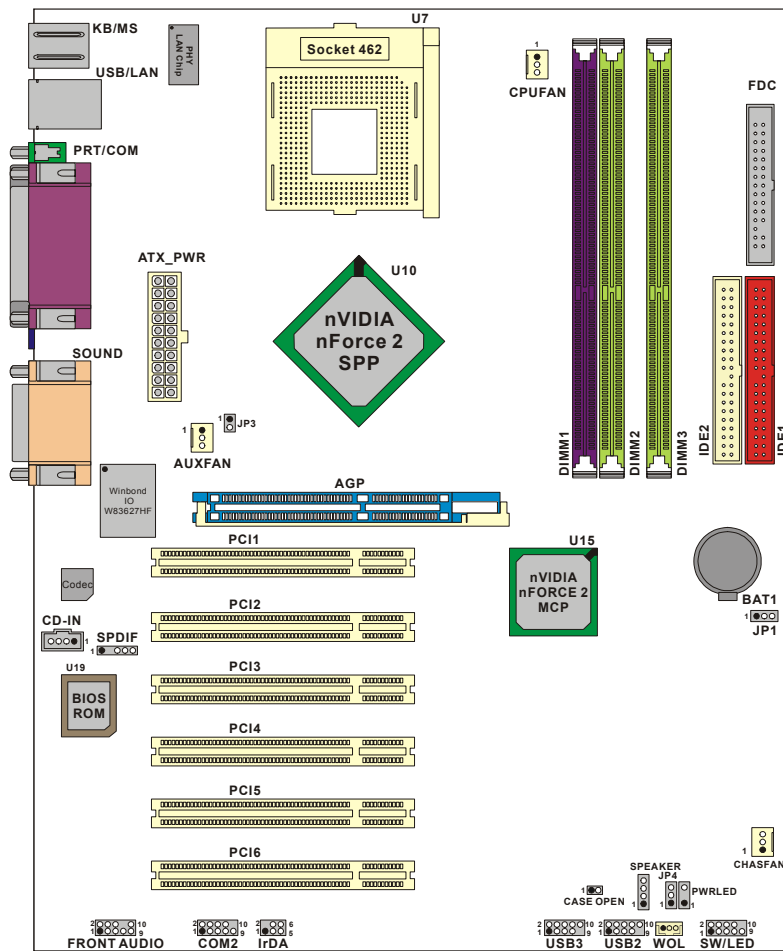
<b>Function</b>	<b>Content Location</b>	<b>Page</b>
CPU Socket A (Socket 462)	U7	8
DDR DIMM Sockets	DDR DIMM 1、2、3	9
ATX Power Connector	ATX_PWR	22
IDE Connectors	IDE1、IDE2	14
Serial ATA Connectors	SATA1、SATA2*	14
FDC Connector	FDC	14
AGP Slot	AGP	22
PCI Slots	PCI 1、2、3、4、5、6	22
CPU FAN、Chassis FAN、 Auxiliary FAN	CPUFAN、CHASFAN、AUXFAN	9
Front Panel Indicator	SW/LED、PWRLED	13
Speaker Connector	SPEAKER	13
Infrared Connector	IrDA	16
Front Serial interface Header	COM2	17
Front USB Headers	USB2、USB3	15
IEEE 1394 Headers*	1394 CN1/ 1394 CN2*	15
CPU Clock Select	JP3	18
Over Temperature Protection Jumper	JP4	17
Clear CMOS Jumper	JP1	18
Case Open Warning Function Jumper	CASE OPEN	16
Sony/Philips Digital Interface Conn.	SPDIF	21
CD-ROM Audio IN Header	CD-IN	20
Front Panel Audio Header	FRONT AUDIO	20
Voice Genie / BIOS Mirror Function / SATA Function Switch	SW1*	19
PC99 Color Codec Back Panel	Back Panel Connector	11

\* Optional

# Configuration Layout of KX18D PRO II



# Layout of KX18D PRO



## Hardware Installation

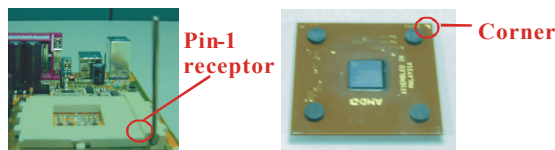
This section will assist you in quickly installing your system hardware. Wear a wrist ground strap before handling components. Electrostatic discharge may damage your system components.

### CPU Processor Installation

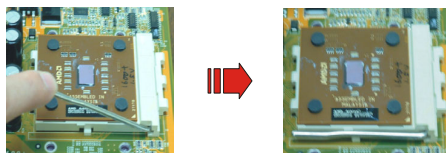
This mainboard supports AMD<sup>®</sup> processors using a Socket A. Before building your system, we suggest you visit the AMD<sup>®</sup> website and review the processor installation procedures. <http://www.amd.com>

#### CPU Socket A Configuration Steps:

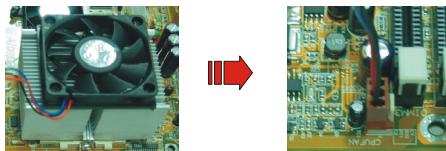
1. Locate the CPU socket on your mainboard and nudge the lever away from the socket. Then lift the lever to a 90-degree angle.
2. On the socket, locate the corner that has the pin-1 receptor. This corner will be near to the end of the lever. Match the corner on the CPU with the pin-1 receptor on the socket and lower the CPU onto the socket. The bottom of the CPU should be flush with the face of the socket.



3. Lower the lever until it snaps back into position. This will lock down the CPU.



4. Smear thermal grease on top of the CPU. Lower the CPU fan onto the CPU and use the clasps on the fan to attach it to the socket. Finally, extend the power cable from the fan and insert it onto the CPUFAN adapter.

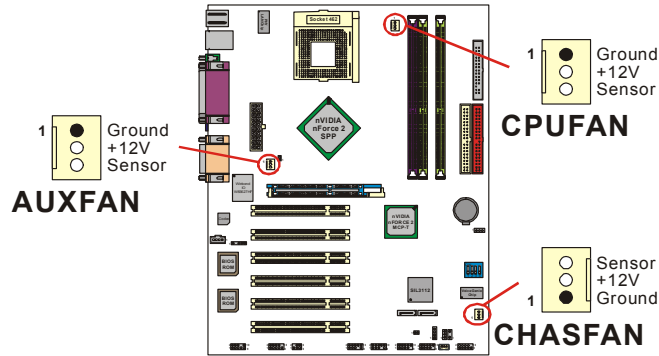


#### **Attention: Before starting the system**

Please check the installation completely before starting the system. Verify that the heatsink is properly installed and make sure the CPU fan is working. Overheating can damage the CPU and other sensitive components.

## FAN Headers

Three power headers are available for cooling fans, which play an important role in maintaining the ambient temperature in your system.



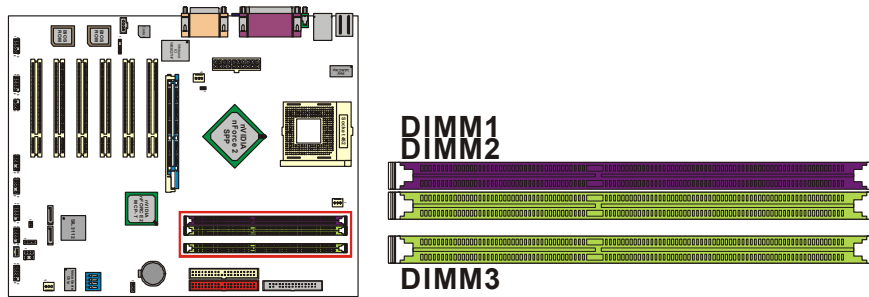
### Attention

We strongly recommend you attach the CPU fan to the CUFAN Header.

## Memory Installation

The mainboard contains 3 sockets, which use 184 pin DDR SDRAM with a total memory capacity of up to 3 GB. You can install unbuffered & non-ECC DDR400/ 333/ 266 (PC3200/ 2700/ 2100) SDRAM.

The KX18D series supports 128 bit dual-channels memory bus with a total memory capacity of up to 2 GB. The DIMM1 and DIMM2 share one channel and the DIMM3 use the other channel. If you enable dual-channels you can increase data access rates.



## Enabling Dual-Channel DDR

To enable Dual-Channel DDR functionality, your system must meet certain configuration conditions. First, you can only use two of the three DIMM slots. You can use DIMM1 and DIMM3 together, or you can use DIMM2 and DIMM3 together. Second, the DIMM modules that you use must be identical (capacity, manufacturer and model). See the table below for clarification of DIMM module options.

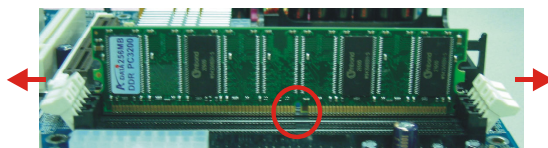
Refer to the list below to install the DDR SDRAM memory modules to enable dual-channels facility:

(the ✓ means that a DIMM module is present)

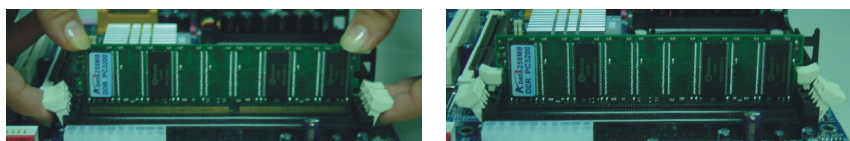
DIMM1	DIMM2	DIMM3
✓	-	✓
-	✓	✓

## RAM Module Installation:

1. Pull the white plastic tabs on each side of the slot away from the slot.
2. Match the notch on the bottom of the RAM module with the corresponding pattern in the DIMM slot. This ensures that the module is inserted properly.



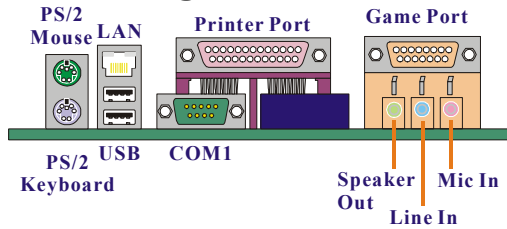
3. Lower the RAM module into the DIMM Slot and press firmly using both thumbs until the module snaps into place.



4. Repeat steps 1 & 2 for the remaining RAM modules.

\* The pictures above are for reference only.

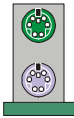
## Back Panel Configuration



### PS/2 Mouse & PS/2 Keyboard Connectors: KB/MS

This mainboard provides a standard PS/2 mouse connector and PS/2 Keyboard connector. The pin assignments are described below:

#### PS/2 Mouse

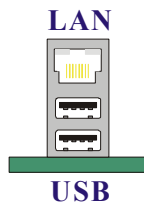


#### PS/2 Keyboard

Pin	Assignment	Pin	Assignment
1	Data	4	+5 V (fused)
2	No connect	5	Clock
3	Ground	6	No connect

### USB & LAN Connectors: USB/LAN

There are two USB connectors on the back panel. These USB connectors are used to attach to USB devices such as: keyboards, mice and other USB devices. You can plug the USB devices directly into this connector. The mainboard also provides a LAN port. You can plug LAN devices directly into this connector.

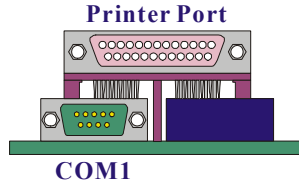


Pin	Assignment	Pin	Assignment
1	TDP	7	NC
2	TDN	8	NC
3	RDP	9	VCC3 SBY
4	NC	10	ACT LED
5	NC	11	VCC3 SBY
6	RDN	12	Speed LED

Pin	Assignment	Pin	Assignment
1/5	+5 V (fused)	3/7	USBP0+/P1+
2/6	USBP0-/P1-	4/8	Ground

## Serial and Parallel Interface Ports

The mainboard comes equipped with one serial port and one parallel port on the back panel. These interface ports will be explained below.



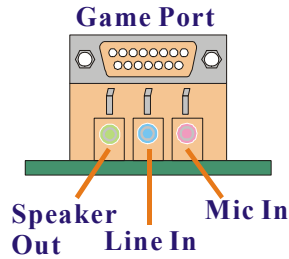
### Parallel Interface Port: PRT

The parallel port on your system has a 25-pin, DB25 connector and is used to interface with parallel printers and other devices using a parallel interface.

### The Serial Interface: COM1

The serial interface port is sometimes referred to as an RS-232 port or an asynchronous communication port. Mice, modems and other peripheral devices can be connected to a serial port.

## Audio Port Connectors



**Speaker Out** is used to connect to speakers or headphones. If the Super 5.1 driver is enabled the Speaker Out becomes the Front Speaker.

**Line In** can be connected to an external CD player, Tape player or other audio devices for audio input. If the Super 5.1 driver is enabled Line In becomes the Rear Speaker.

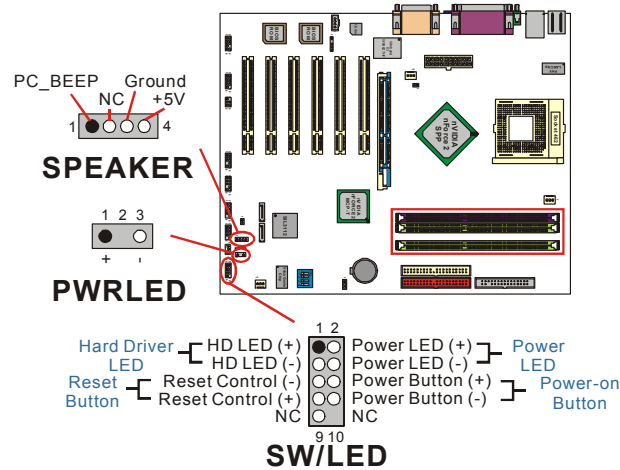
**Mic In** is used to connect to a microphone. If the Super 5.1 driver is enabled the Mic In becomes the Subwoofer/Center out.



This mainboard supports Super 5.1 Channel Audio effects which turns your standard Speaker Out, Lin In, Mic In audio connectors into a 6 channel audio system. See Appendix I for more information.



## Front Panel Indicator: SW/LED、PWRLED、SPEAKER



### HD LED (Hard Drive LED Connector)

This connector can be attached to an LED on the front panel of a computer case. The LED will flicker during disk activity. This disk activity only applies to those IDE drives directly attached to the system board.

### RST (Reset Button)

This connector can be attached to a momentary SPST switch. This switch is normally left open. When closed it will cause the mainboard to reset and run the POST (Power On Self Test).

### PWR-LED (2-Pin Power LED Connector)

This connector can be attached to an LED on the front panel of a computer case. The LED will illuminate while the computer is powered on.

### PWR ON (Power Button)

This connector can be attached to a front panel power switch. The switch must pull the Power Button pin to ground for at least 50 ms to signal the power supply to switch on or off (the time required is due to internal debounce circuitry on the system board). At least two seconds must pass before the power supply will recognize another on/off signal.

### PWRLED (3-Pin Power LED )

If there is a 3-pin power LED cable on the front panel of a computer case. You can attach it to the 3-pin power LED connector.

### SPEAKER (Speaker Header)

A front panel speaker can be connected to this connector. When you boot your computer, the speaker sounds a short “beep”. If there is something wrong during the Power On Self-Test, the speaker sounds “irregular beep” to warning you.

## Connectors

### Floppy Disk Connector: FDC

This mainboard provides a standard floppy disk connector (FDC) that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy diskettes. This connector supports the floppy drive ribbon cables provided in the packaging.

### Hard Disk Connectors: IDE1-2 、 SATA1-2

This mainboard has a 32-bit Enhanced PCI IDE Controller that supports Ultra 6-0/ DMA 2-0 and PIO 4-0 modes, Ultra ATA 133/ 100/ 66/ 33. It has two IDE connectors, IDE1 (primary) and IDE2 (secondary). The KX18D PRO II also has a Serial ATA controller and provides two serial ATA connectors.

#### IDE1 (Primary IDE Connector)

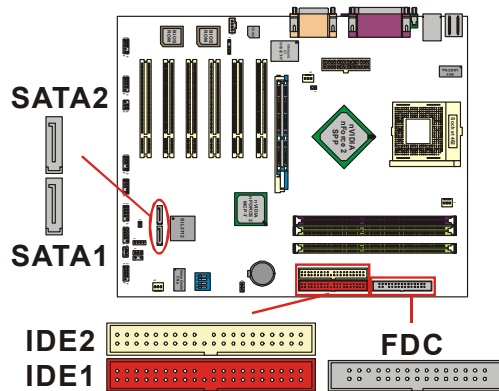
You can connect up to two hard drives to IDE1. If you attach two drives, you must use a ribbon cable with three connectors. You must also configure one drive as the master and one drive as the slave, using the jumpers located on each drive.

#### IDE2 (Secondary IDE Connector)

The IDE2 controller can also support a Master and a Slave drive. The configuration is similar to IDE1. The second drive on this controller must be set to slave mode.

#### SATA1/ SATA2 (only for KX18D PRO II)

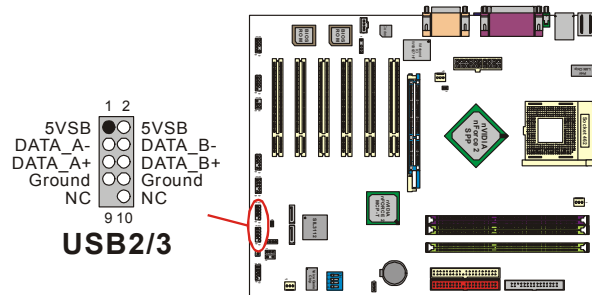
These SATA connectors support Serial ATA 150. These connectors only can connect to one serial ATA hard disk each.



## Headers & Jumpers & Switch

### Front USB Headers: USB2/ USB3

You can connect the USB Bracket to the USB2/ USB3 header. There will be USB ports on the USB Bracket which means you can connect USB device to the USB port. The mainboard supports up to six USB devices including two on the back panel.



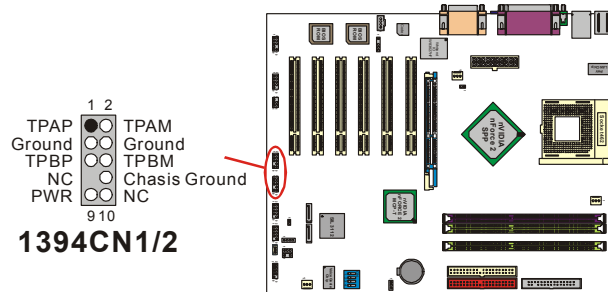
### USB Bracket (optional)

You can connect the USB bracket to the USB2/ USB3 header.

\* If you are using USB 2.0 devices with Windows® XP or Windows® 2000, you will need to install the USB 2.0 driver from the Microsoft® website.

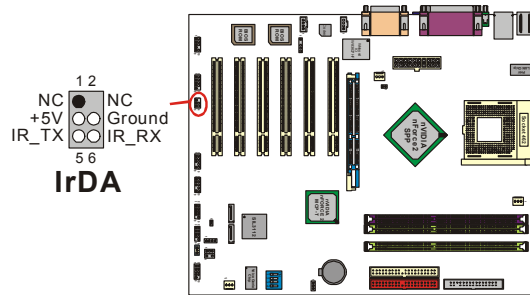
### IEEE 1394 Headers: 1394 CN1/ 1394 CN2 (for KX18D PRO II only)

The IEEE 1394 high-speed serial bus provides enhanced PC connectivity for consumer electronics audio/video (A/V) appliances, storage peripherals, other PCs, and portable devices. The KX18D PRO II supports up to two IEEE 1394 devices. You can connect the IEEE 1394 bracket (optional) to the 1394 CN1/ 1394 CN2 header.



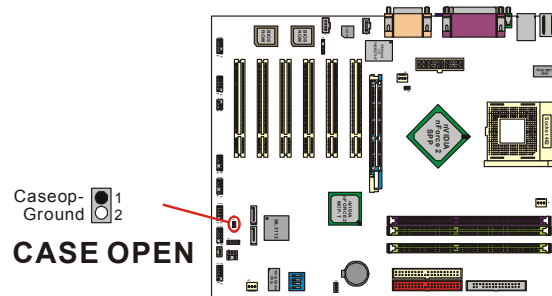
### **Infrared Header: IrDA**

This IrDA connector can be configured to support wireless infrared and is used to attach to an infrared sensing device. After the IrDA interface is configured, you can use this connector for connectionless data transfer to and from portable devices such as laptops and PDAs.



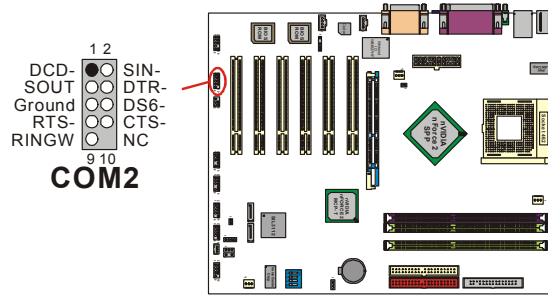
### **Case Open Warning Jumper: CASE OPEN**

This connector is used to notify the user when the computer case has been previously opened. To configure this functionality, your computer case must be equipped with a “case open” cable which you need to attach to the CASE OPEN jumper. Also, you must enable CASE OPEN warning functionality in the BIOS setup utility. When your computer case is opened, your system will display alert messages upon boot up. Note that your computer case must be equipped with a “case open” cable.



### Front Serial Port Header: COM2

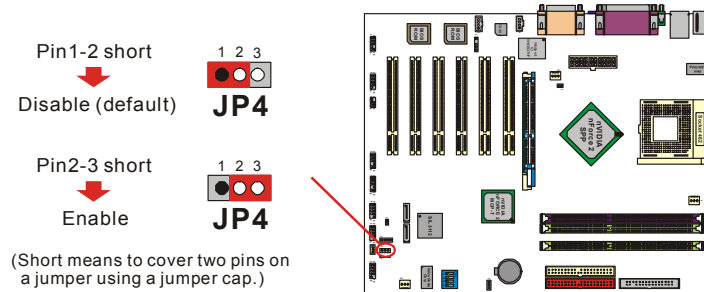
This mainboard supports a front serial header. To use this header, you can install a back panel bracket (optional) with a wire extending to this header. You can then attach your serial device to the serial port on the bracket.



### OTP (Over Temperature Protection) Jumper: JP4

The mainboard supports a special design for CPU Over Temperature Protection. If this function is “Enabled” and the CPU temperature rises above the normal range, the system will automatically shut down and you have to unplug the ATX\_PWR connector. Remove and reinstall the CPU heat sink also check to make sure the CPU fan is working properly.

\*OTP is only functional when using an Athlon XP™ or Barton™ CPU.



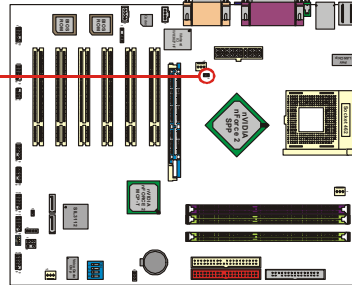
### CPU Clock Select Jumper: JP3

Use the jumper “JP3” to select the CPU Clock. If you are installing a CPU that has a 133 MHz CPU clock, you also have to set the “FSB Frequency” to 133 MHz in the BIOS Setup Utility.

JP3	CPU Clock
NC	100
1-2 short	133/ 166/ 200

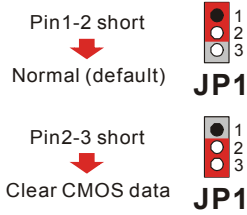


(Short means to cover two pins on a jumper using a jumper cap.)

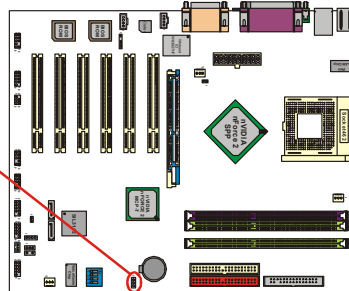


### Clear CMOS Jumper: JP1

The “Clear CMOS” jumper is used when you cannot boot your system due to some CMOS configuration problem such as a forgotten password. This jumper allows you to reset the CMOS configurations, and then reconfigure.



(Short means to cover two pins on a jumper using a jumper cap.)

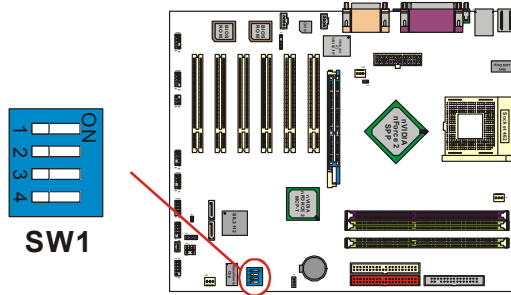


The following procedures are for resetting the BIOS password. It is important to follow these instructions closely.

1. Turn off your system and disconnect the AC power cable.
2. Set JP1 to OFF (2-3 Closed).
3. Wait several seconds.
4. Set JP1 to ON (1-2 closed).
5. Connect the AC power cable and turn on your system.
6. Reset your desired password or clear CMOS data.

**Voice Genie / BIOS Mirror Function and SATA function switch: SW1 (only for KX18D PRO II)**

This switch is used to configure the Voice Genie and BIOS Mirror functions. With SW1-1 and SW1-2, you can select the appropriate language for audio diagnostics. With the SW1-3 switch, you can begin using the alternate or mirror BIOS by switching this switch to “rescue”. This is used when the primary BIOS had been infected with a virus or damaged during a flash update. With SW1-4, you can enable or disable the Serial ATA devices. If the system has been installed the “Silicon RAID Driver” and the “SATA Function” have to set to enable permanently.



**Voice Genie**

Voice Genie	SW1-1	SW1-2
<b>English</b>	ON	ON
<b>Chinese</b>	ON	OFF
<b>Japanese</b>	OFF	ON
<b>German</b>	OFF	OFF

**BIOS Mirror**

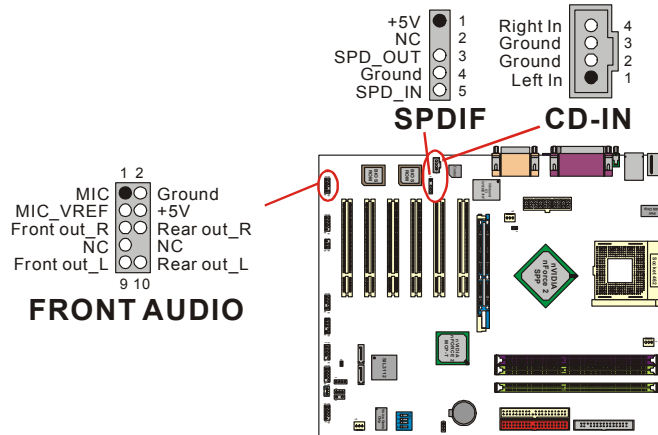
BIOS Mirror	SW1-3
<b>Enable(default)</b>	ON (Main BIOS=>U19)
<b>Disable (rescue)</b>	OFF (Backup BIOS=>U24)

**SATA Function**

SATA Function	SW1-4
<b>Enable(default)</b>	ON
<b>Disable</b>	OFF

## Audio Connectors

This mainboard provides three connectors as part of its audio Subsystem.



### CD-ROM Audio-In Header: CD-IN

This header is used to connect to a CD-ROM / DVD audio cable.

### Front Panel Audio Header: FRONT AUDIO

If your computer case has been designed with embedded audio equipment. You can attach these components to the FRONT\_AUDIO panel of the mainboard. First remove the jumper caps covering the FRONT\_AUDIO pins. Use pins 1, 3 to connect to the case microphone. Use pins 9,5 to connect to the earphone. If you do not intend to use the FRONT\_AUDIO panel, do not remove the jumper caps. The front panel audio effect and the back panel audio effect cannot simultaneous function.



If the jumper caps are in place, jumper cap 1 is on pin 5, pin 6 and jumper cap 2 is on pin 9, pin 10.

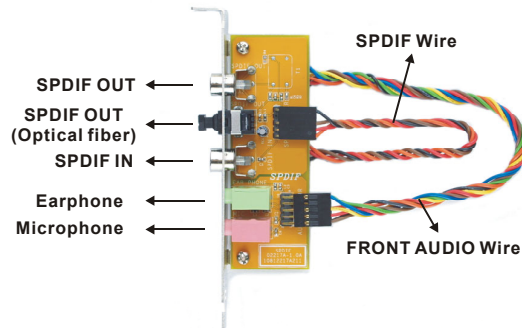


## **S/PDIF Header: SPDIF**

S/PDIF (Sony/Philips Digital Interface) is an audio transfer file format, which provides high quality audio using optical fiber and digital signals. This mainboard is capable of delivering audio output and receiving audio input through the SPDIF header. One way you would use this header is by using an SPDIF bracket (optional) attached to your computer. This bracket will have a cable that you can attach to the SPDIF header. This bracket will also have an RCA connector, similar to that used with most consumer audio products. Using the RCA connector, the data can then be output to and input from an S/PDIF device. The devices that are receiving and sending information from this header must be S/PDIF compliant for optimal effect. Note that the SPDIF bracket is optional in the packaging that comes with this mainboard.

## **SPDIF & Front Audio Dual-Function Bracket (optional)**

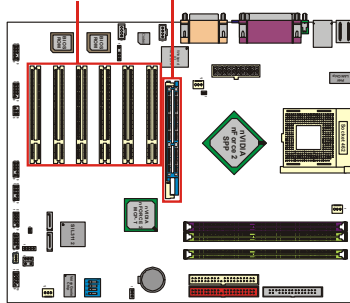
You can connect the bracket to the SPDIF and FRONT AUDIO Headers.



## Slots

The slots in this mainboard are designed for expansion cards used to complement and enhance the functionality of the mainboard.

### PCI Slots AGP Slot



### AGP Slot: AGP

The KX18D series is equipped with an Accelerated Graphics Port (AGP) that supports 4X/ 8X (0.8V or 1.5V) AGP cards only.

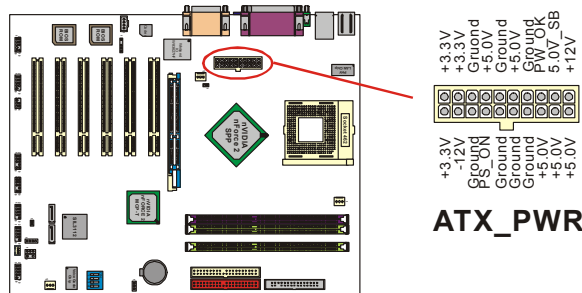
### PCI Slots: PCI1-6

The KX18D series is equipped with 6 standard PCI slots. PCI stands for Peripheral Component Interconnect and is a bus standard for expansion cards. This PCI slot is designated as 32 bit.

## Power Supply Attachments

### ATX Power Connector: ATX\_PWR

This ATX power supply uses a 20-pin connector. Make sure the connector is properly inserted before applying power.



## **Chapter 2. BIOS Setup**

### **Introduction**

This section describes PHOENIX-AWARD™ BIOS Setup program which resides in the BIOS firmware. The Setup program allows users to modify the basic system configuration. The configuration information is then saved to CMOS RAM where the data is sustained by battery after power-down.

The BIOS provides critical low-level support for standard devices such as disk drives, serial ports and parallel ports. As well, the BIOS controls the first stage of the boot process, loading and executing the operating system.

The PHOENIX-AWARD™ BIOS installed in your computer system's ROM is a custom version of an industry standard BIOS. This means that it supports the BIOS of AMD® based processors.

This version of the PHOENIX-AWARD™ BIOS includes additional features such as virus and password protection as well as special configurations for fine-tuning the system chipset. The defaults for the BIOS values contained in this document may vary slightly with the version installed in your system.

### **Plug and Play Support**

This PHOENIX-AWARD™ BIOS supports the Plug and Play Version 1.0A specification as well as ESCD (Extended System Configuration Data) write.

### **APM Support**

This PHOENIX-AWARD™ BIOS supports Version 1.1 & 1.2 of the Advanced Power Management (APM) specification. These features include system sleep and suspend modes in addition to hard disk and monitor sleep modes. Power management features are implemented using the System Management Interrupt (SMI).

### **PCI Bus Support**

This PHOENIX-AWARD™ BIOS also supports Version 2.2 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

### **Supported CPUs**

This PHOENIX-AWARD™ BIOS supports the AMD® Athlon™ XP/ Athlon™/ Duron™/ Barton™ CPUs.

## Key Function

In general, you can use the arrow keys to highlight items, press <Enter> to select, use the <PgUp> and <PgDn> keys to change entries, press <F1> for help and press <Esc> to quit. The following table provides more detail about how to navigate within the BIOS Setup program.

<b>Keystroke</b>	<b>Function</b>
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Esc	Main Menu: Quit without saving changes Submenus: Exit Current page to the next higher level menu
Move Enter	Move to the item you desire
PgUp key	Increase the numeric value or enter changes
PgDn key	Decrease the numeric value or enter changes
+ Key	Increase the numeric value or enter changes
- Key	Decrease the numeric value or enter changes
Esc key	Main Menu – Quit and do not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F6 key	Load the fail-safe defaults from BIOS default table
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

## Main Menu

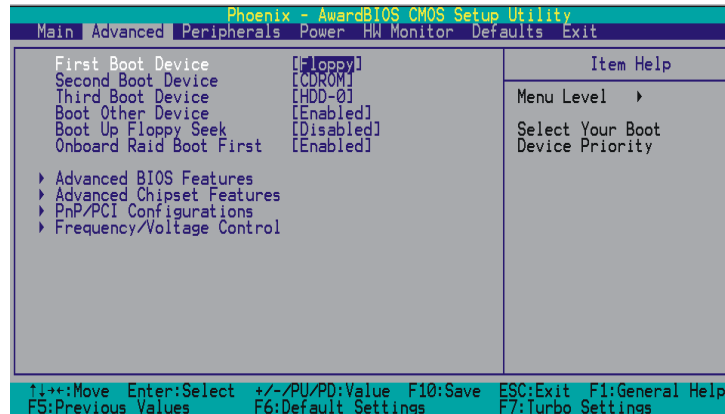
When you enter the PHOENIX-AWARD™ BIOS Utility, the Main Menu will appear on the screen. The Main menu allows you to select from several configuration options. Use the left/right arrow keys to select a particular configuration screen from the top menu bar or use the down arrow key to access and configure the information below.

```
OS Setup Utility
Main Advanced Peripherals Power HW Monitor Defaults Exit
Date (mm:dd:yy) Thu, Sep 19 2002
Time (hh:mm:ss) 9 : 30 : 25
Item Help
Menu Level ▶
▶ IDE Primary Master [None]
▶ IDE Primary Slave [None]
▶ IDE Secondary Master [None]
▶ IDE Secondary Slave [None]
Drive A [1.44M, 3.5 in.]
Drive B [None]
Video [EGA/VGA]
Halt On [All Errors]
▶ Security
Base Memory 640K
Extended Memory 65472K
Total Memory 1024K
<Tab> :
<Enter> :
to select field
<-> :
<+> :
<PgUp> :
<PgDn> :
<0-9> :
to set date
↑↓*:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Default Settings F7:Turbo Settings
```

## Main Menu Setup Configuration Options

<b>Item</b>	<b>Options</b>	<b>pDescription</b>
<b>Date</b>	mm dd yyyy	Set the system date. Note that the 'Day' automatically changes when you set the date.
<b>Time</b>	Hh: mm: ss	Set the current time of the system.
<b>IDE Primary Master</b>	Options contained in sub menu.	Press <Enter> to enter the sub menu.
<b>IDE Primary Slave</b>	Options contained in sub menu.	Press <Enter> to enter the sub menu.
<b>IDE Secondary Master</b>	Options contained in sub menu.	Press <Enter> to enter the sub menu.
<b>IDE Secondary Slave</b>	Options contained in sub menu.	Press <Enter> to enter the sub menu.
<b>Drive A</b>  <b>Drive B</b>	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
<b>Video</b>	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.
<b>Halt On</b>	All Errors No Errors All, but Keyboard All, but Diskette All, but Disk/ Key	Select the situation in which you want the BIOS to stop the POST process and notify you.
<b>Security</b>	Options contained in sub menu.	Press <Enter> to enter the sub menu.
<b>Base Memory</b>	N/A	Displays the amount of conventional memory detected during boot up.
<b>Extended Memory</b>	N/A	Displays the amount of extended memory detected during boot up.
<b>Total Memory</b>	N/A	Displays the total memory available in the system.

## Advanced BIOS Features



### First /Second/Third/ Boot Device

Select the order in which devices will be searched in order to find a boot device.

Options: Floppy \ LS120 \ CDROM \ ZIP100 \ USB-FDD \ USB-ZIP \ USB-CDROM \ USB-HDD \ SCSI \ LAN \ Disabled (Note: You have to set to "SCSI" when you want to boot from SATA device.)

### Boot Other Device

The setting allows the system to try to boot from other devices if the system fails to boot from the 1st/ 2nd/ 3rd boot devices. Options: Enabled (default) \ Disabled

### Boot Up Floppy Seek

When "Enabled" the BIOS tests (seeks) floppy drives to determine whether they have 40 or 80 tracks. Only 360-KB floppy drives have 40 tracks. Drives with 720 KB, 1.2 MB, and 1.44 MB capacity all have 80 tracks. Because very few modem PCs have 40-track floppy drives, we recommend that you set this field to "Disabled". Options: Disabled (default) \ Enabled

### Onboard Raid Boot First (for KX18D PRO II only)

If you install over two SCSI devices then this item allows the system to boot from the onboard Raid controller device. Options: Disabled (default) \ Enabled

## **Advanced BIOS Features**

### **Virus Warning**

This item allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempts to write data into this area, BIOS will display a warning message on the screen and sound an audio alarm (beep).

Options: Disabled (default), Enabled

### **CPU Internal Cache**

Make CPU internal cache active or inactive. System performance may degrade if you disable this item. Options: Enabled (default) ∙ Disable.

### **External Cache**

This item allows you to enable or disable “Level 2” secondary cache on the CPU to enhance performance. Options: Disabled (default) ∙ Enabled

### **Quick Power On Self Test**

Allows the system to skip certain tests while booting. This will speed up the boot process.

Options: Enabled (default) ∙ Disabled.

### **Swap Floppy Driver**

If the system has two floppy drivers, choose “Enabled” to assign physical drive B to logical drive A and vice-versa. Options: Disabled (default) ∙ Enabled

### **Boot Up NumLock Status**

Selects the power on state for NumLock.

Options: On (default)      Numpad keys are number keys.

Off                      Numpad keys are arrow keys.

### **Typematic Rate Setting**

When “Enabled”, the “typematic rate” and “typematic delay” can be configured. Typematic Rate determines the keystroke repeat rate used by the keyboard controller..

Options: Disabled (default) ∙ Enabled

### **Typematic Rate (Chars/Sec)**

The rate at which a character repeats when you hold down a key.

Options: 6 (default) ∙ 8 ∙ 10 ∙ 12 ∙ 15 ∙ 20 ∙ 24 ∙ 30



### **Typematic Delay (Msec)**

The delay before keystrokes begin to repeat. Options: 250 (default) · 500 · 750 · 1000

### **APIC Mode**

By enabling this option, “MPS version control for OS” can be configured.

Options: Disabled · Enabled (default)

### **MPS Version Control For OS**

The 1.1 version is the older version that supports 8 more IRQs in the Windows NT environment. Choose the new 1.4 version for Windows 2000 and Windows XP.

Options: 1.4 (default) · 1.1

### **OS Select For DRAM > 64MB**

Select “OS2” only if you are running the OS/2 operating system with greater than 64MB of RAM.

Options: Non-OS2 (default) · OS2

### **HDD S.M.A.R.T. Capability**

Self Monitoring Analysis and Reporting Technology is a technology that enables a PC to attempt to predict the possible failure of storage drives. Options: Disabled (default) · Enabled

### **Small LOGO (EPA) Show**

This item allows you to show or hide the small LOGO EPA.

Options: Disabled (default) · Enabled

## **Advanced Chipset Features**

### **System Performance**

This item allows you select the system performance which you want.

Options: Optimal (default) Use the most stable settings

Aggressive/Turbo Use over clocked settings for higher performance but with higher risk of instability

Expert Allows full customization of performance options. Advanced user only.

### **FSB Frequency**

This item allows you to select the FSB Frequency. The mainboard can detect the CPU FSB Frequency as long as the BIOS can identify the ID number for the CPU you have installed. Otherwise

## **KX18D Series**

the CPU FSB Frequency will be set to safe values that you can manually adjust in the item. When the “System Performance” set to “Expert” the options range will be 100 ~ 300 MHz.

### **CPU Interface**

When the “System Performance” set to “Expert”, this item allows you to set the CPU/FSB parameters.

Options: Optimal Use most stable CPU/FSB parameters  
Aggressive Use overclocked CPU/FSB parameters

### **DDR:CPU Ratio**

When the “System Performance” set to “Expert”, this item allows you to adjust your “DDR:CPU Ratio” and overclock the DDR speeds of the system.

Options: 1 ∙ 1.2 ∙ 1.33 ∙ 1.50 ∙ 1.60 ∙ 1.66 ∙ 2 ∙ 2.4 ∙ 2.5 ∙ 2.66 ∙ 3 ∙ 3.33 ∙ 4 ∙ Auto or AUTO,  
BySPD (default)

### **DDR Speed (Strobe/Sec)**

This item shows the DDR Speed.

### **Memory Timings**

When the “System Performance” set to “Expert”, this item allows you to select the memory timing. This item determines DRAM clock/ timing using SPD or manual configuration. Make sure your memory module has SPD (Serial Presence Data), if you want to select the “Optimal”.

Options: Optimal (default) ∙ Aggressive ∙ Turbo ∙ Expert

### **T (RAS)**

When the “Memory Timings” set to “Expert” then the item allows you to select DRAM active to Precharges Delay. Row-active delay => set system performance to “Optimal” to use the delay recommend by the DIMM’s manufacturer. Options: 1~15

### **T (RCD)**

When the “Memory Timings” set to “Expert” then the item allows you to select the DRAM delay time when begin read. RAS-to-CAS delay => set system performance to “Optimal” to use the delay recommend by the DIMM’s manufacturer. Options: 1~7

### **T (RP)**

When the “Memory Timings” set to “Expert” then the item allows you to set the time to precharge. Row-precharge delay => set system performance to “Optimal” to use the delay recommend by the DIMM’s manufacturer. Options: 1~7

### **CAS Latency Time**

This item determines CAS Latency. When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value specified by the system engineer. This field is adjustable only when “Memory Timing” is set to “Aggressive”. Options: 2 、 2.5 、 3 and By SPD (default)

### **FSB Spread Spectrum**

This item allows you to enable/ disabled the FSB spread spectrum. We recommend you to disabled this item before overclocking. Options: 0.50% (default) 、 1.00% 、 Disabled

### **AGP Spread Spectrum**

When you installed a AGP card this item will allow you to enable/ disable the AGP speed spread spectrum. We recommend you to disabled this item before overclocking.

Options: 0.50% (default) 、 Disabled

### **AGP Aperture Size (MB)**

Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.

Options: 32M 、 64M 、 128M 、 256M 、 512M

### **AGP Frequency**

This item allows you to select the AGP frequency.

Options: Auto (default) 、 50 MHz 、 66~87 MHz 、 90 MHz 、 93 MHz 、 95 MHz 、 97 MHz 、 100 MHz

### **AGP 8X Support**

This item allows you to enable or disable the AGP 8X. Options: Enabled (default) 、 Disabled

### **AGP Fast Write Capability**

The AGP Fast Write technology allows the CPU to write directly to the graphics card bypassing the system AGP 4X speed. Choose “Enabled” only when you used with AGP card support. Options: Disabled (default) 、 Enabled

### **System BIOS Cacheable**

When enabled, accesses to system BIOS ROM addressed at F0000H-FFFFFH are cached, provided that the cache controller is enabled. Options: Enabled (default), Disabled

### **Video RAM Cacheable**

Select “Enabled” to allow caching of the video RAM which may improve performance. If any other program writes to this memory area, a system error may result. Options: Enabled, Disabled (default)

### **PnP/PCI Configurations**

#### **Reset Configuration Data**

Select “Enabled” to reset the Extended System Configuration Data (ESCD) if you have installed a new add-on card and the system reconfiguration has caused such a serious conflict that the OS cannot boot. Options: Disabled (default) · Enabled

#### **Resources Controlled By**

BIOS can automatically configure all the boot and Plug and Play compatible devices. If you choose Auto, you will not be able to manually assign IRQ DMA and memory base address fields, since BIOS automatically assigns them. Options: Auto (ESCD) (default) · Manual

#### **IRQ Resources**

When resources are controlled manually, you can assign each system interrupt a type, depending on the type of device using the interrupt. This is only configurable when “Resources Controlled By” is set to “Manual”.

Options: IRQ-3/ 4/ 5/ 7/ 9/ 10/ 11/ 12/ 14/ 15                      assigned to                      PCI device

#### **PCI / VGA Palette Snoop**

Some graphic controllers that are not VGA compatible take the output from a VGA controller and map it to their display as a way to provide boot information and VGA compatibility.

Options: Disabled (default) · Enabled

#### **PCI Latency Timer (CLK)**

This item allows you to set up the PCI Latency Time (0-255). If you select the “32” it will optimize PCI speeds. Options: 0-255 · 32 (default)

### **Frequency/ Voltage Control**

#### **CPU Speed Detected**

This item displays the CPU Speed.

**CPU Clock Ratio**

This field allows you to adjust the CPU clock ratio. When the CPU clock ratio is locked by the CPU manufacturer, you will not be able to adjust this field.

Options: Available options will depend on the CPU installed.

**Default CPU Voltage (Volt)**

This item displays the CPU default Voltage.

**CPU Voltage (Volt)**

This item allows you to adjust your CPU core voltage.

**AGP Voltage (Volt)**

This item allows you to adjust the AGP Voltage. Options: 1.5 (default) · 1.6 · 1.7 · 1.8

**DDR Voltage (Volt)**

This item allows you to adjust the RAM voltage.

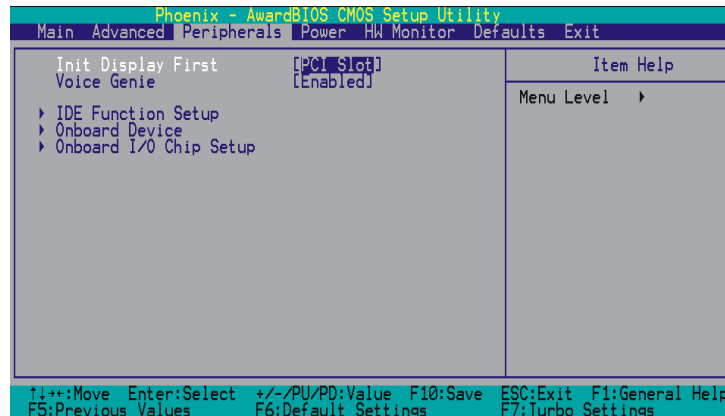
Options: 2.7 (default) · 2.75 · 2.8 · 2.85

**Chipset Voltage (Volt)**

This item allows you to adjust the North/ South bridge chipsets voltage.

Options: 1.6 (default) · 1.7 · 1.8 · 1.9

## Integrated Peripherals



### Init Display First

With systems that have multiple video cards, this option determines whether the primary display uses a PCI slot or an AGP slot. Options: AGP (default) \ PCI Slot

### Voice Genie (only for KX18D PRO II)

Voice Genie supplies verbal and diagnostics during the boot up process. This item allows you to enable or disable the Voice Genie function. Option: Enabled (default) \ Disabled

### IDE Function Setup

If you highlight the "IDE Function Setup" label and then press the enter key, it will take you to a submenu with the following options:

#### OnChip IDE Channel 0/1

The mainboard chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the first and/or second IDE interface. Select "Disabled" to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface.

Options: Enabled (default) \ Disabled

#### IDE Primary/Secondary/Master/Slave PIO

The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 to 4 will increase performance incrementally. In Auto mode, the system automatically determines the best mode for each device. Options: Auto (default) \ Mode0 \ Mode1 \ Mode2 \ Mode3 \ Mode4.

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

Ultra DMA 100 functionality can be implemented if it is supported by the IDE hard drives in your system. As well, your operating environment requires a DMA driver (Windows 95 OSR2 or a third party IDE bus master driver). If your hard drive and your system software both support Ultra DMA 100, select “Auto” to enable BIOS support. Options: Auto (default) ∙ Disabled

### **IDE Prefetch Mode**

The “onboard” IDE drive interfaces supports IDE prefetching for faster drive access. If you install a primary and/or secondary add-in IDE interface, set this option to “Disabled” if the interface does not support prefetching. Options: Enabled (default) ∙ Disabled

### **IDE HDD Block Mode**

Block mode is otherwise known as block transfer, multiple commands, or multiple sector read/write. Select the “Enabled” option if your IDE hard drive supports block mode (most new drives do). The system will automatically determine the optimal number of blocks to read and write per sector. Options: Enabled (default) ∙ Disabled

### **Onboard Device**

If you highlight the “Onboard Device” label and then press the enter key, it will take you to a submenu with the following options:

#### **OnChip USB**

This option should be enabled if your system has a USB port installed on the system board. You will need to disable this feature if you add a higher performance controller.

Options: V1.1+V2.0 (default) ∙ Disabled ∙ V1.1

#### **USB Keyboard Support**

Enables support for USB attached keyboards. Options: Disabled (default) ∙ Enabled

#### **AC97 Audio**

This option allows you to control the onboard AC'97 audio.

Options: Enabled (default) ∙ Disabled

#### **MAC Lan (nVIDIA)**

This option allows you to control the onboard LAN device.

Options: Enabled (default) ∙ Disabled

### **OnChip 1394 (only for KX18D PRO II)**

This item allows you to enable or disabled the 1394 Device. Options: Enabled (default) ∙ Disabled

### **Onboard I/O Chip Setup**

If you highlight the “Onboard I/O Chip Setup” label and then press the enter key, it will take you to a submenu with the following options:

#### **PWRON After PWR-Fail**

This field will determine whether your system will boot after restoring power after a power failure. If you select “On”, the system will boot whether or not the system was on before power failure. If you select “Former-Sts”, the system will be restored to the status before the power failure.

Options: Off (default) ∙ On ∙ Former-Sts

#### **Power On Function**

This field allows you to select a way to power on your computer. Options: Password ∙ Hot KEY ∙ Mouse Left ∙ Mouse Right ∙ Any KEY ∙ BUTTON ONLY (default), and Keyboard 98

#### **KB Power ON Password**

This field allows you to set the password to power on your system. This field is only configurable when “Power On Function” is set to “Password”.

#### **Hot Key Power ON**

This field allows you to use the Ctrl key along with a hot key (function key) to power on your system. This field is only configurable when “Power On Function” is set to “Hot Key”.

Options: Ctrl-F1 ∙ Ctrl-F2..... Ctrl-F12

#### **Onboard FDC Controller**

Select “Enabled” if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install an add-in FDC or the system has no floppy drive, select “Disabled”.

Options: Enabled (default) ∙ Disabled

#### **Onboard Serial Port 1/ Port 2**

Select an address and corresponding interrupt for the first/ second serial port. Options: Disabled ∙ 3F8/IRQ4 (default for port1) ∙ 2F8/IRQ3(default for port2) ∙ 3E8/IRQ4 ∙ 2E8/IRQ3 ∙ Auto

#### **UART Mode Select**

This item allows you to select the Infra Red (IR) standard to be used.

Options: Normal (default) ∙ ASKIR ∙ IrDA



### **RxD, TxD Active**

This item determines the RxD and TxD frequencies. This field only configurable if “UART Mode Select” is set to “ASKIR” or “IrDA”. Options: Hi / Lo (default) · Hi / Hi · Lo / Hi · Lo / Lo

### **IR Transmission Delay**

This item allows you to enable/disable IR transmission delay. This field only configurable if “UART Mode Select” is set to “ASKIR” or “IrDA”. Options: Enabled (default) · Disabled

### **UR2 Duplex Mode**

Select the transmission mode used by the IR interface. Full-duplex mode permits simultaneous bi-directional transmission. Half-duplex mode permits transmission in only one direction at a time. This field only configurable if “UART Mode Select” is set to “ASKIR” or “IrDA”.

Options: Half (default) · Full

### **Use IR Pins**

Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals. This field is only configurable if “UART Mode Select” is set to “ASKIR” or “IrDA”.

Options: Full · Half (default)

### **Onboard Parallel Port**

Select an address and corresponding interrupt for the onboard parallel port.

Options: 378/IRQ7 (default) · 278/IRQ5 · 3BC/IRQ7 · Disabled

### **Parallel Port Mode**

This option allows you to select a parallel port mode for the onboard parallel port.

Options: ECP(default)      Extended Capabilities Port.  
          EPP                 Enhanced Parallel Port.  
          SPP                 Standard Printer Port.  
          ECP+EPP          ECP & EPP mode.  
          Normal

### **EPP Mode Select**

Select EPP port type 1.7 or 1.9. This field is only configurable if “Parallel Port Mode” is set to “EPP” or “ECP+EPP”. Options: EPP 1.9(default) · EPP 1.7

## **KX18D Series**

### **ECP Mode Use DMA**

Select a DMA Channel for the parallel port when using the ECP mode. This field is only configurable if "Parallel Port Mode" is set to "ECP". Options: 3 (default) 、 1

### **Game Port Address**

Game Port I/O Address. Options: 201 (default) 、 209 、 Disabled

### **Midi Port Address**

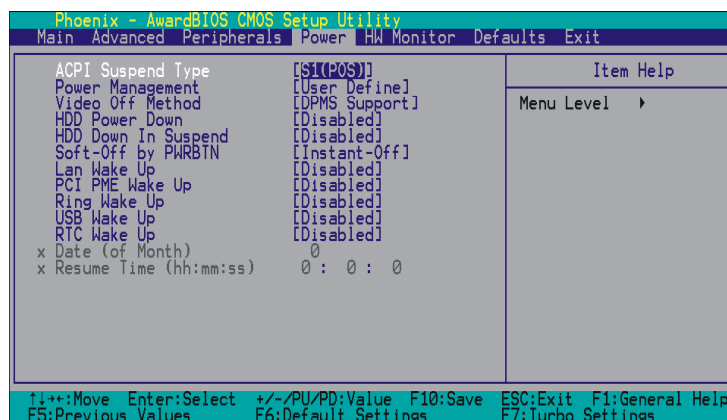
Midi Port Base I/O Address. Options: 330 、 300 (default) 、 290 、 Disabled

### **Midi Port IRQ**

This determines the IRQ that the Midi Port will use. Options: 5 、 10 (default)

## Power Management

The Power Management Setup Menu allows you to configure your system to utilize energy conservation features as well as power-up/ power-down options.



### ACPI Suspend Type

The item allows you to select the suspend type using the ACPI operating system.

Options: S1 (POS) (default)      Power on Suspend  
           S3 (STR)                      Suspend to RAM  
           S1 & S3                        POS and STR

### Power Management

There are three options of Power Management:

1. Min. Power Saving

Minimum power management

HDD Power Down = 15 minutes

2. Max. Power Saving

Maximum power management (only available for s1 CPUs).

HDD Power Down = 1 minute

3. User Defined (default)

Allows you to set each mode individually.

When this option is enabled, each of the ranges are from 1 minute to 1 hour except for HDD Power Down, which ranges from 1 minute to 15 minute and includes a “disable” option.

Note: If you select Min. or Max. Power Saving modes, the “HDD Power Down” value will fixed.

## **Video Off Method**

This option determines the manner in which the monitor goes blank.

Options:

- |                       |  |
|-----------------------|--|
| V/H SYNC+Blank        | This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer. |
| Blank Screen(default) | This option only writes blanks to the video buffer.  |
| DPMS Support          | Initial display power management signaling.  |

## **HDD Power Down**

When enabled, the hard disk drive will power down after a certain configurable period of system inactivity. All other devices remain active.

Options: Disabled (default) · 1 Min · 2 Min · 3 Min · 4 Min · 5 Min · 6 Min · 7 Min · 8 Min · 9 Min · 10 Min · 11 Min · 12 Min · 13 Min · 14 Min · 15Min

## **HDD Down In Suspend**

This allows you to enable/ disable the hard driver power down in the suspend state.

Options: Disabled (default) · Enabled

## **Soft-Off by PWRBTN**

In situations where the system enters a “hung” state, you can configure the BIOS so that you are required to pre the power button for more than 4 seconds before the system enters the Soft-Off state.

Options: Delay 4 Sec, Instant-Off (default).

## **LAN Wake Up**

To use this function, you need a LAN add-on card which supports power on functions. As well as the wake-up on LAN jumper. Options: Disabled (default) · Enabled

## **PCI PME Wake Up**

This option will also cause the system to wake up with any onboard LAN activity.

Options: Disabled (default) · Enabled

## **Ring Wake Up**

This option allows you to awaken the system upon receiving an incoming call to modem device.

Options: Disabled (default) · Enabled.

## USB Wake up

This item allows you to awaken the system from suspend mode using a USB devices.

Options: Enabled · Disabled (default)

\* This option is configurable only when the ACPI Suspend Type is set to S3.

## RTC Wake Up

When “Enabled”, you can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode. Options: Enabled · Disabled (default).

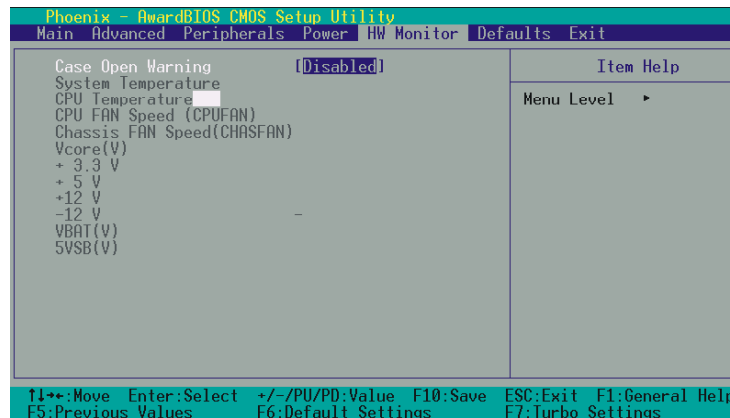
## Date (of Month)

You can choose which date of the month the system will boot up. This field is only configurable when “RTC Wake Up” is set to “Enabled”.

## Resume Time (dd:hh:mm)

You can choose the day, hour and minute the system will boot up.

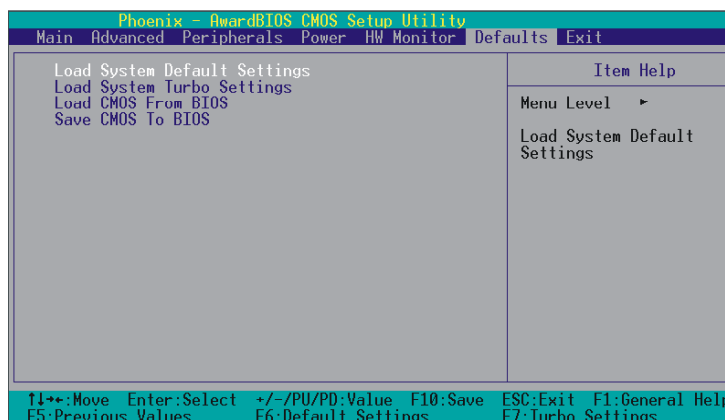
# Hardware Monitor



## Case Open Warning

If this function is set to “Enabled” and the case had been previously opened, the system will automatically display alert messages on the screen when you power on your computer. If this function is set to “Disabled”, the system will not show alert messages when you power on your computer even if the case had been previously opened. Options: Disabled (default) · Enabled

## Load Defaults



### Load System Default Settings

Load System Default Settings.

### Load System turbo Settings

Load System Turbo Settings.

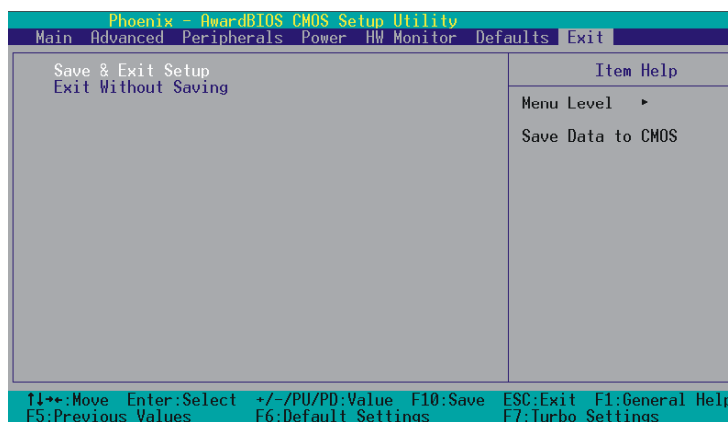
### Load CMOS From BIOS

Load defaults from flash ROM for systems without batteries.

### Save CMOS To BIOS

Save defaults to flash ROM for systems without batteries.

## Exit Menu



### **Save & Exit Setup**

Save all configuration changes to CMOS (memory) and exit setup. A confirmation message will be displayed before proceeding.

### **Exit Without Saving**

Abandon all changes made during the current session and exit setup. A confirmation message will be displayed before proceeding.

## **Chapter 3: Software Setup**

### **Software List**

<b>Category</b>	<b>Platform</b>
<b>nForce Chipset Driver</b>	<b>Windows 9X /ME /2000 /XP</b>
<b>nForce USB 2.0 Driver</b>	<b>Windows 9X /ME</b>
<b>Silicon RAID Driver</b>	<b>Windows 9X /ME /2000 /XP</b>
<b>Trend PC-Cillin 2002</b>	<b>Windows 9X /ME /2000 /XP</b>
<b>Adobe Acrobat Reader5.1</b>	<b>Windows 9X /ME /2000 /XP</b>
<b>Microsoft DirectX 8.1b</b>	<b>Windows 9X /ME /2000 /XP</b>
<b>Microsoft DirectX 9.0a</b>	<b>Windows 9X /ME /2000 /XP</b>

### **Software Installation**

© The screen and images are only for general reference. The version of the screens you received with your software may vary slightly.

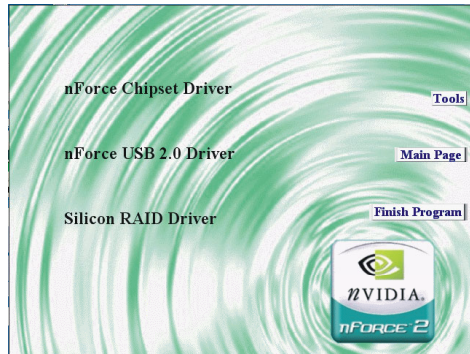
Place the Driver CD into the CD-ROM drive and the Installation Utility will auto-run. You can also launch the Driver CD Installation Utility manually by executing the **nVIDIA.exe** program on the Driver CD. For example: the driver CD with a Windows 2000 operating system. Follow the steps below: (For more details, please refer to the Readme.txt files that in each folder of the Driver CD.)



1. The first screen (Main Screen) will display several buttons. Click “KX18D Pro/ KX18D Pro II”.

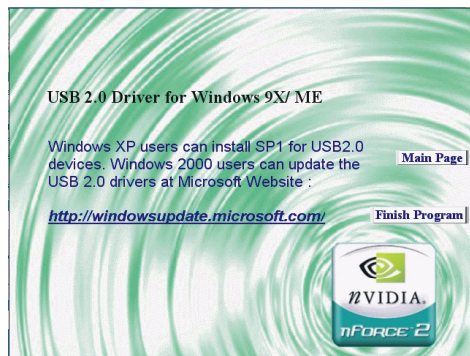


## KX18D Series

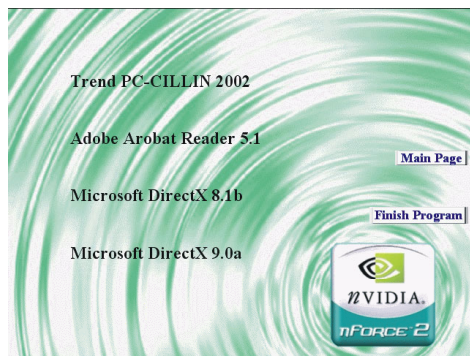


2. On the next screen, click the drivers that you want to install.

Note: When you install “nForce Chipset Driver” with Windows® 98, always use your original Windows® 98 OS CD-ROM when prompted to locate Windows drivers – otherwise, it could result in procedural problems during the setup. And we recommend you that do **NOT** to install the “nVIDIA IDE SW” during processing the installation with windows® XP.



3. If you click the “USB2.0 Driver” from the screen in step 2, it will display the screen as left.



4. Back to the main screen, click the “Tools” button, you can choose the software to install.

Note: You can click the “Finish Program” button on any screen to exit the Driver CD utility.

## KX18D Series

### **How to start the Windows® 2000/XP Fresh Installation with Serial ATA device ?**

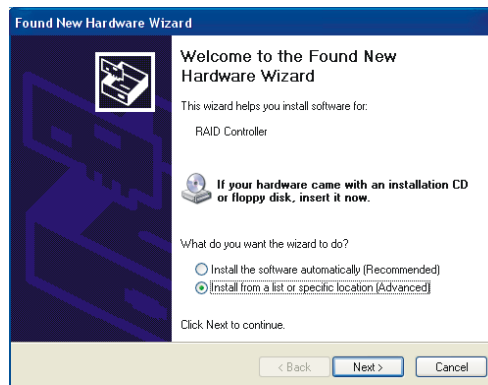
Follow the instructions in this section if you are performing a new installation of Windows® 2000/XP, and you wish to boot from a device attached to the SATA connector.

1. Copy the “Silicon RAID Driver” from the bundle CD Driver to a floppy disk. 【 Path:\ nForce \ Raid \ .....(include seven files)】
2. Power off the system. Connect the SATA hard disk to the SATA connectors. Power up the system.
3. Put your Windows 2000/XP CD into the CD-ROM/DVD drive. When the “Windows Setup” screen displays then press “F6”.
4. Press 's' when setup asks if you want to specify an additional device, and insert the floppy disk which include the “Silicon RAID Driver” into the floppy driver.  
Press 'Enter' and select “Silicon Image Sil 3112 SATARaid Controller for Windows XP/Server” or “... for Windows NT/2000” then press 'Enter'.
5. Press 'Enter' again to continue setup process.
6. Follow the setup instructions to select your choice for partition and file system.
7. After setup examines your disks, it will copy files to Windows 2000/ XP installation folders and restart the system. The setup program will continue and finish the installation after restart.
8. Wait until Windows 2000/ XP finishes installing devices, regional settings, networking settings, components, and final set of tasks, reboot the system if it is required.

### **How to install the Silicon RAID driver ?**

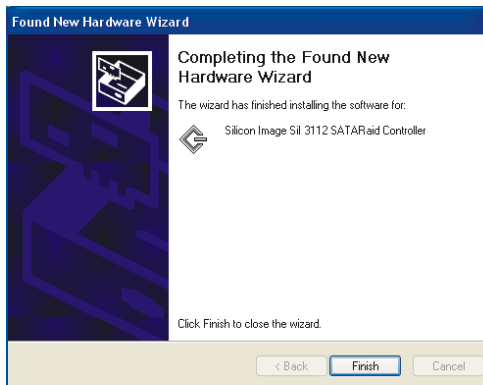
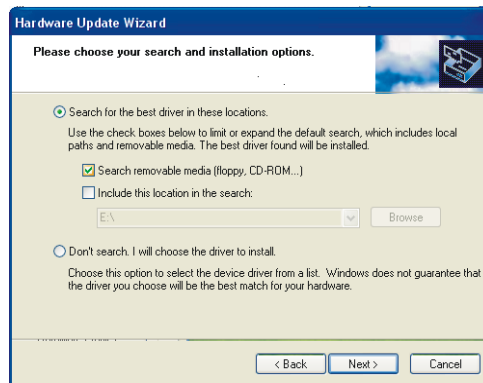
Follow the instructions in this section to install the “Silicon Raid Driver” on a system already running operating system.

1. After install the “nForce chipset Driver”. Restart the system, the screen below will display. Select the “⊖ Install from a list or specific location (Advanced)” then click “Next”.



## KX18D Series

2. On the next screen, check the “ Search removable media (floppy, CD-ROM...)” then click “Next” to install the driver. Finally, click “Finish” to complete the installation.



## **Chapter 4: Troubleshooting**

### **Problem 1:**

No power to the system. Power light does not illuminate. Fan inside power supply does not turn on. Indicator lights on keyboard are not lit.

Causes:

1. Power cable is unplugged.
2. Defective power cable.
3. Power supply failure.
4. Faulty wall outlet; circuit breaker or fuse blown.

Solutions:

1. Make sure power cable is securely plugged in.
2. Replace cable.
3. Contact technical support.
4. Use different socket, repair outlet, reset circuit breaker or replace fuse.

### **Problem 2:**

System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is active but system seems “hung”

Causes: Memory DIMM is partially dislodged from the slot on the mainboard.

Solutions:

1. Power Down
2. Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.

### **Problem 3:**

System does not boot from the hard disk drive but can be booted from the CD-ROM drive.

Causes:

1. Connector between hard drive and system board unplugged.
2. Damaged hard disk or disk controller.
3. Hard disk directory or FAT is corrupted.

Solutions:

1. Check the cable running from the disk to the disk controller board. Make sure both ends are securely attached. Check the drive type in the standard CMOS setup.
2. Contact technical support.
3. Backing up the hard drive is extremely important. Make sure you periodically perform backups to avoid untimely disk crashes.



**Problem 4:**

System only boots from the CD-ROM. The hard disk can be read and applications can be used but booting from the hard disk is impossible.

Causes: Hard Disk boot sector has been corrupted.

Solutions: Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.

**Problem 5:**

Error message reading “SECTOR NOT FOUND” displays and the system does not allow certain data to be accessed.

Causes: There are many reasons for this such as virus intrusion or disk failure.

Solutions: Back up any salvageable data. Then performs low level format, partition, and then a high level format the hard drive. Re-install all saved data when completed.

**Problem 6:**

Screen message says “Invalid Configuration” or “CMOS Failure.”

Causes: Incorrect information entered into the BIOS setup program.

Solutions: Review system’s equipment. Reconfigure the system.

**Problem 7:**

The Screen is blank.

Causes: No power to monitor.

Solutions: Check the power connectors to the monitor and to the system.

**Problem 8:**

Blank screen.

Causes:

1. Memory problem.
2. Computer virus.

Solutions:

1. Reboot computer. Reinstall memory. Make sure that all memory modules are securely installed.
2. Use anti-virus programs to detect and clean viruses.

**Problem 9:**

Screen goes blank periodically.

Causes: Screen saver is enabled.

Solutions: Disable screen saver.



**Problem 10:**

Keyboard failure.

Causes: Keyboard is disconnected.

Solutions: Reconnect keyboard. Replace keyboard if you continue to experience problems.

**Problem 11:**

No color on screen.

Causes:

1. Faulty Monitor.
2. CMOS incorrectly set up.

Solutions:

1. If possible, connect monitor to another system. If no color appears, replace monitor.
2. Call technical support.

**Problem 12:**

The screen displays "C: drive failure."

Causes: Hard drive cable not connected properly.

Solutions: Check hard drive cable.

**Problem 13:**

Cannot boot the system after installing a second hard drive.

Causes:

1. Master/slave jumpers not set correctly.
2. Hard drives are not compatible / different manufacturers.

Solutions:

1. Set master/slave jumpers correctly.
2. Run SETUP program and select the correct drive types. Call drive manufacturers for possible compatibility problems with other drives.

**Problem 14:**

Missing operating system on hard drive.

Causes: CMOS setup has been changed.

Solutions: Run setup and select the correct drive type.

**Problem 15:**

Certain keys do not function.

Causes: Keys jammed or defective.

Solutions: Replace keyboard.



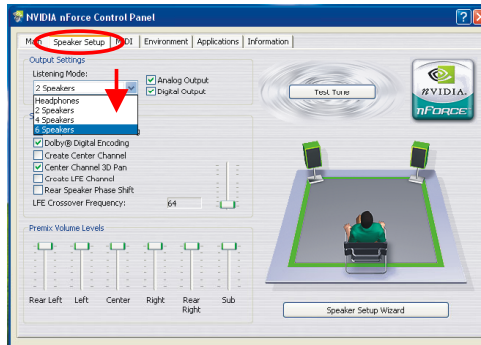
## **Appendix I: 5.1 Channel Setup**

### **5.1 Channel Setup for MCP-T Southbridge chipset**

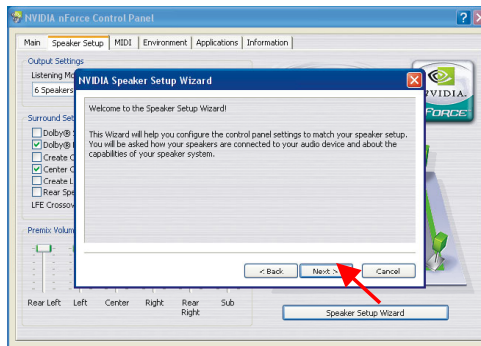
1. On your desktop, double-click the “nForce Tray Options” icon that is located on the desk bar.



2. When the “NVIDIA nForce Control Panel” screen displays, select the “Speaker Setup” tab. Set the **Listening Mode** to “6 Speakers”, “4 Speakers” or “2 Speakers”. Click the “Speaker Setup Wizard” button.

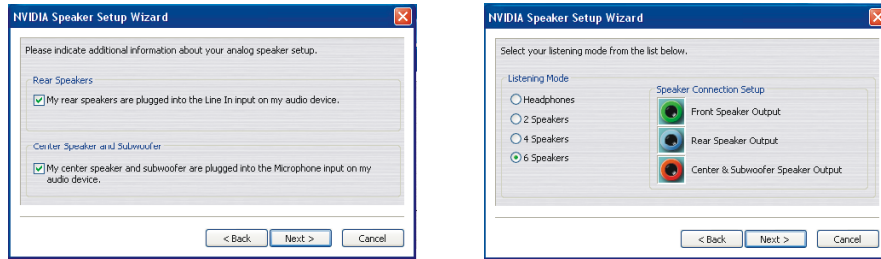


3. When the screen below appears, click “Next”.

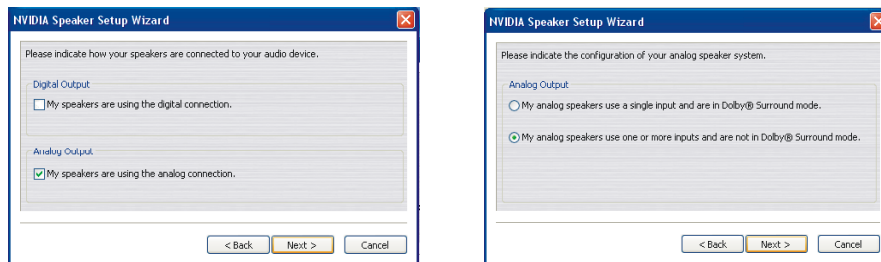


## KX18D Series

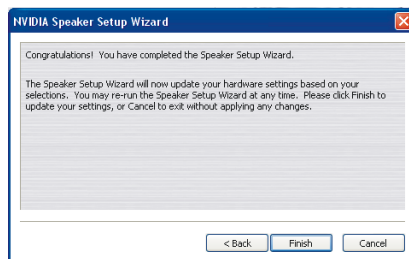
4. On the next screen (below-left), check the “Rear Speakers” and the “Enter Speaker and Subwoofer” options and then click “Next”. The next screen will display as shown (below-right). Select either the “6 Speakers”, “4 Speakers” or 2 Speakers” option. Click “Next”.



5. On the next screen (below-left), check the “My speakers are using the analog connection”. (Note that you can also check the “My speakers are using the digital connection” to enable SPDIF audio effects). Click “Next”. On the next screen (below-right), select the appropriate analog output mode that you need and click “Next”.



6. On the final screen, as shown below, click the “Finish” button to complete the installation.

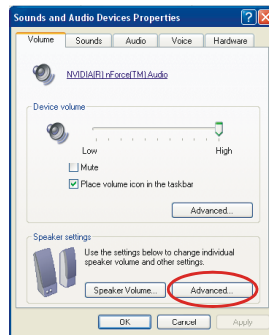




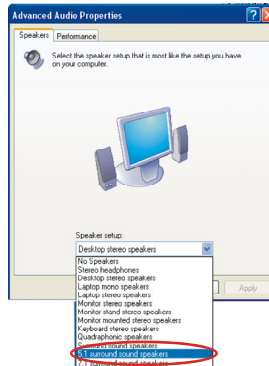
### 5.1 Channel Setup for MCP South bridge chipset

This section describes the installation procedures for 5.1 Channel Setup. Note that if your operating system is Windows 98/ ME/ 2000, go directly to step 3.

1. Beginning with the “Start” button, select **Setting → Control Panel → Sounds, Speech, and Audio Devices → Sounds and Audio Devices**. The screen below will display. First check the “Place volume icon in the taskbar” in the Device volume block. Then press the “Advanced...” button to configure the speaker settings.



2. At the “Advanced Audio Properties” screen use the drop-down box to select the “5.1 surround sound speakers”. Click “Apply” to enable the 5.1 channel audio effect.

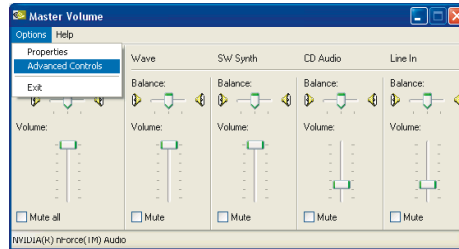


3. On your desktop, double click the volume icon that is on the desk bar.  
(Note: As described earlier, begin with this step if your system is Windows 98/ ME/ 2000)

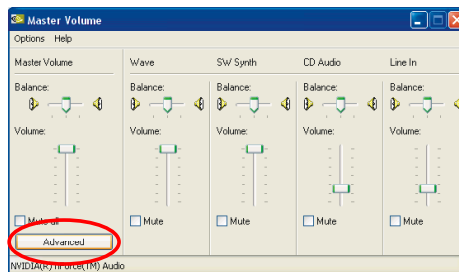


## KX18D Series

4. On the “Master Volume” screen, select “Options → Advanced Controls”.



5. Next, click the “Advanced” button.



6. In the “Other Controls” section of the “Advanced Controls of Master Volume” screen, check the “Rear Speaker connected to Line In” and “Center speaker and subwoofer connected to Microphone”. This is the final step in configuring “Super 5.1 Channel Audio Effect”.

