



The **AZZA** KT3 Mainboard Series

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User's Manual

AMD Socket A Mainboard

VIA KT133/133A Chipsets

For AMD Athlon and Duron processor

Supporting Model

KT3-AD

KT3-AS

KT3-AV

KT3-EV

Version : 2.x



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Package Checklist

This package contains the following items:

- Mainboard
- Users manual
- One IDE cable
- One 34-pin floppy disk drive cable
- One Driver Utility CD

If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

Technical Support

If you require additional information, assistance during installation, please contact your dealer. Your dealer will be able to provide the latest information.

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Introduction

Chapter 1 - Introduction

1.1 MAINBOARD LAYOUT



Introduction

KT3 Series

PS/2 Mouse Port

Parallel Port

Game/Midi Port



USB Port



PS/2 Keyboard

COM 1

COM 2

Audio Port

PC 99 ATX Connector

Introduction

KT3 Series

There are four models in this series as follows:

KT3-EV
KT3-AV
KT3-AS
KT3-AD

1. KT3-EV (chipset VT8363) / 200MHz FSB
2. KT3-AV (chipset VT8363A) / 266MHz FSB
3. KT3-AS (chipset VT8363A) / 266MHz FSB with CPU clock ratio adjust switch (standard model).
4. KT3-AD (chipset VT8363A) / 266MHz FSB with CPU clock ratio adjust switch and Hardware Check Alarm (deluxe model).

1.1.1 Mainboard Dimension

Width & Length: 305 mm x 210 mm.
PCB Thickness: 4 layers.

1.1.2 Environment Limitation

Operating Temperature: 10°C to 40°C . (50°F to 104°F)
Required Airflow: 50 linear feet per minute across CPU.
Storage Temperature: - 40°C to 70°C. (- 40°F to 158°F)
Humidity: 0 to 90% non-condensing.
Altitude: 0 to 10,000 feet

1.2 Features and Specifications

Processor

Support Athlon™ and Duron™ Socket A processors.

Chipset

VIA KT133 (VT8363/A + VT82C686B)

CPU Switching Voltage Regulator

Equipped with a switching voltage regulator that automatically detects 1.10V to 1.85V DC power supply.

System Memory

Three 168-pin DIMM Sockets that support 64MB to 1.5GB memory support +3.3V SDRAM and VCM (Virtual Channel Memory) SDRAM.

Expansion Slots

The mainboard is equipped with 5 dedicated PCI slots, 1 AGP slot , 1 AMR slot and 1 ISA slot (share with one PCI slot).

Introduction

Onboard Audio Features

Supports Microsoft ® DirectSound/DirectSound 3D.
AC97 supported full duplex, independent sample rate converter for audio recording and playback.

AGP (Accelerator Graphic Port) Port

Supports 1x, 2x and 4x AGP video card.

Word Size

- Data Path: 8-bit, 16-bit, 32-bit, 64-bit.
- Address Path: 32-bit.

FRONT SIDE BUS FREQUENCY

Supports 200MHz and 266MHz CPU FSB.

BIOS

- Award BIOS, Windows ® 95/98 Plug and Play compatible.
- Supports SCSI sequential boot-up.
- Flash EPROM for easy BIOS upgrades (2 Mbit).
- Supports DMI 2.0 function.

Desktop Management Interface (DMI)

The mainboard comes with a DMI 2.0 built into the BIOS. The DMI utility in the BIOS will automatically records various information about your system configuration and store these information in the DMI pool, which is a part of the system board's Plug and Play BIOS. DMI, along with the appropriately networked software, is designed for easy inventory, maintenance and simplify troubleshooting of computer systems.

WOL (Wake-On-Lan) Port

One WOL connector supports Wake-On-LAN functionality.

PCI Bus Master IDE Controller

- Two PCI IDE interfaces support up to four IDE devices.
- Support ATA/33, ATA/66 and ATA100 hard disk drives.
- Bus mastering reduces CPU utilization during disk transfer.
- Supports ATAPI CD-ROM, LS-120 and ZIP

Introduction

USB Ports

This mainboard is equipped with 2 USB ports and 2 USB connectors for expansion. USB allows data exchange between your computer and a wide range of simultaneously accessible external Plug and Play peripherals. (Cable for four USB connectors are optional and is sold separately).

IrDA Interface

The mainboard is equipped with an IrDA connector for wireless connectivity between your computer and peripheral devices. It supports peripheral devices that meet the HPSIR or ASKIR standard.

Special Features for KT3 Series

A. Hardware Check Alarm (only available on KT3-AD)

An intelligent Voice debug device that constantly checks on your hardware devices. If detects any device not installed (Damage), then a voice announcement will be made. Devices supported : CPU, Memory, Video Card, FDD, HDD, Keyboard and Battery.

B. Front Audio Panel (optional)

To connect with Utility Panel that supports Ear Phone, Microphone, Audio-in and USB ports. For more details, please consult your dealer.



Introduction

1.3 System Health Monitor Functions

- The mainboard is capable of monitoring the following system health conditions:
 1. Monitors processor temperature and overheat warning.
 2. Monitors V_{CORE}/3.3V/5V/12V/2.5V voltages and failure warning.
 3. Monitors processor/chassis fan speed and failure warning.
 4. Read back capability that displays temperature, voltage and fan speed.

1.3.1 Hardware Monitoring System Utility (HMSU)

The mainboard comes with the Hardware Monitoring System utility contained in the provided CD (CD Driver). It is capable of monitoring the system's hardware conditions such as the temperature of the processor and system, voltage, and speed of the CPU and chassis fans. You are allowed to manually set a range to the items being monitored. If the values are over or under the set range, a warning message will pop-up. We recommend that you use the Default Setting, which is the ideal setting that would maintain the system in good working condition.



Use this utility only with Windows ® 95 or Windows ® 98 operating system.

1.3.2 Installation of HMSU

To install the utility, please insert the CD Driver into the CD-ROM drive. The auto run screen (Driver Utility) will automatically appear. Click the Hardware Monitoring category, choose the model number and OS to install. Please refer to the Driver CD "Readme" file for further installation instructions.

1.4 Intelligence

Dual Function Power Button

■ Depending on the setting in the Soft-Off By Power-Button field of the Power Management Setup, this switch allows the system to enter the Soft-Off or Suspend mode.

External Modem Ring-on

■ The Modem Ring-on feature allows the system that is in the Suspend mode or Soft Power Off mode to wake-up/power-on to respond to incoming calls. This feature supports external modem only.

RTC Timer to Power-on the System

■ The RTC installed on the system board allows your system to automatically power-on on the set date and time.

Introduction

Wake-On-LAN Ready

■ The Wake-On-LAN function allows the network to remotely wake up a Soft Power Down (Soft-Off) PC. Your LAN card must support the remote wakeup function. The 5VSB power source of your power supply must be at least 720mA.

ACPI Ready

■ The mainboard is designed to meet the ACPI (Advanced Configuration and Power Interface) specification. ACPI has energy saving features supporting OS Direct Power Management (OSPM) for round the clock PC operation.

Hardware Installation

Chapter 2 - Hardware Installation

Before you start installation, a grounded anti-static mat is recommended. Attached an anti static wristband to your wrist and have it grounded to the same point as the anti-static mat.

The following steps must be completed before you can use your PC:

- Configure the Mainboard Settings.
- Install Central Processing Unit (CPU).
- Install Memory Modules.
- Install Expansion Cards.
- Connect Ribbon Cables, Panel Wires and Power Supply.

2.1 Mainboard Setting

CPU FRONT SIDE BUS SPEED SETTING

AMD K7 processor uses DDR transfer technology for its data and address busses that generate 200MHz or 266MHz front side system bus speed. Our mainboard comes with various models that support 200MHz or 266MHz FSB speed as follows:

Model	FSB Speed
KT3-EV	200MHz
KT3-AV, KT3-AS, KT3-AD	266MHz

200Mhz	
JP 2 – Open	
	Without Jumper cap insert

For the detailed jumper setting information, please refer to page 14 and 20.

266Mhz	
JP 2 Short	
	With Jumper cap insert

Note ! Some model is without jumper JP2. If the jumper is not available on the mainboard, you may ignore the setting.

Hardware Installation

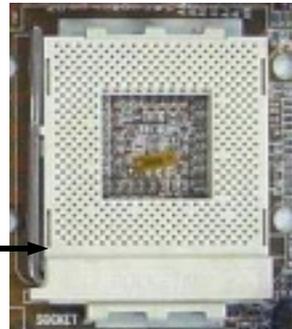
2.2 Installation of Processor (CPU)

Before you install the processor, make sure that you have an approved Heat Sink with Cooling Fan. Without proper heat sink with cooling fan will damage the processor and mainboard.

Caution ! According to the documentation from AMD, Duron™ and Athlon™ processors require larger heat sink. The rotation speed of the cooling fan is 5,500 RPM or above. Thermal grease must be applied between the heat sink and the CPU to improve heat dissipation. Also, ensure that the heat sink is fastened securely on the CPU.

To install your processor, please do the following:

1. Locate a small dot marked on top of the CPU. The marking indicate Pin 1 of the CPU.
2. Locate the Socket Pin 1 marking on the mainboard.
3. Push the lever sideway and lift it upwards to 90-degree angle. Insert the CPU into the Socket. Please make sure that the CPU Pin 1 is insert to the socket Pin 1 location
4. Install an approved heat sink with cooling fan for proper heat dissipation. Falling to install a heat sink with cooling fan may cause overheating and burnout your CPU.
5. Snap back the lever into place.



Caution ! Be careful not to scrape the mainboard when mounting a clamp-style processor fan to prevent damage to the mainboard.

Hardware Installation

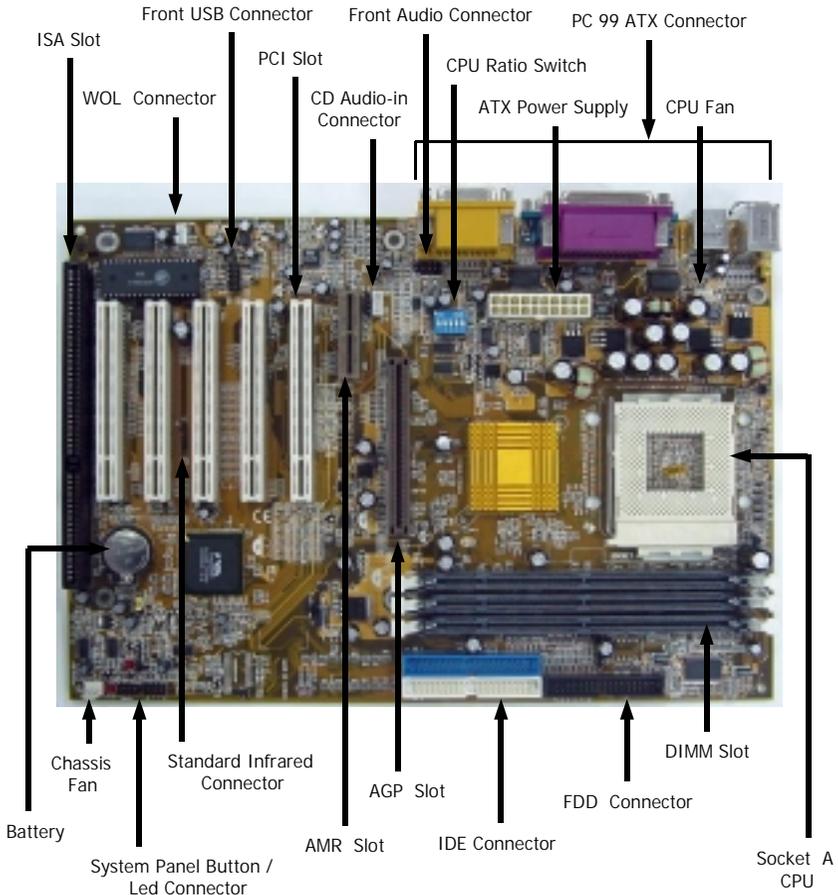
2.3 Installing of DIMM Memory

This mainboard uses only Dual Inline Memory Module. Sockets are available for 3.3-volt (power level) un-buffered Synchronous Dynamic Random Access (SDRAM) memory system of 16, 32, 64, 128 or 256MB.



It's support single-side or double-side SDRAM DIMM module and the maximum memory size supported is 1536MB.

2.4 Internal Connector



Hardware Installation

Hardware Installation

Jumper Setting

JP1 Keyboard Power	1-2 Default 2-3 Reserve
JP2 CPU FSB Speed Setting	OPEN - 200MHz SHORT - 266MHz
JP7 Suspend to RAM Function (optional)	OPEN - Normal SHORT - Suspend to RAM
JP8 Language Selection	OPEN - English SHORT - Chinese
JP9 Clear CMOS Data	1-2 Normal 2-3 Clear CMOS

Connector Setting

Hardware Installation	USB 3, 4 (Also can be used for Front USB)	Pin 1 — 5V DC Pin 2 — Data - Pin 3 — Data + Pin 4 — Ground Pin 5 — Ground	IR	Pin 1 — +5V DC Pin 2 — No Circuit Pin 3 — IR Receiver Pin 4 — Ground Pin 5 — IR Transmitter
	CD - IN (with Housing)	Pin 1 — Left Channel Pin 2 — Ground Pin 3 — Right Channel Pin 4 — Ground	WOL	Pin 1 — +5V Standby Pin 2 — Ground Pin 3 — Signal
	CD - IN (without Housing)	Pin 1 — Left Channel Pin 2 — Ground Pin 3 — Ground Pin 4 — Right Channel	CPU/CHASSIS FAN	Pin 1 — Ground Pin 2 — +12V DC Pin 3 — Fan Signal
	Front Audio	Pin 1 — Ground Pin 2 — MIC-IN Pin 3 — NA Pin 5 — LINE-IN Right Pin 6 — LINE-IN Left Pin 7 — Ground Pin 8 — Earphone Left Pin 9 — Earphone Right Pin 10 — Ground	Power LED	Pin 1 — +5V DC Pin 2 — No Circuit Pin 3 — Ground Pin 4 — No Circuit
			Speaker	Pin 1 — +5V Dc Pin 2 — Speaker Signal Pin 3 — Speaker Signal Pin 4 — Speaker Signal

System Button & LED Panel		Pin 1	Pin 2
RS	Reset Button	Signal Pin	Ground
HL	HDD LED	+5V DC Pull-up	HDD Active Signal
SL	Sleep LED	Signal Pin	Ground
PW	Power Switch	Signal	Ground

Hardware Installation

2.4.1 PCI Slots & ISA Slot

Both PCI and PCI expansion cards may require IRQs, this mainboard complies with Plug and Play (PnP) specification that allow automatic system configuration whenever a PnP compliant card is added. For PnP card, IRQs are assigned automatically for those available.

If older legacy cards that are not support by the BIOS, please contact your vendor for an ISA Configuration Utility.

2.4.2 AMR Slot

This connector support a specially designed audio and/or modem card called Audio Modem Riser.

Since main processing is done through software and the mainboard I/O controller, it's provide a low cost solution for upgradeable Audio and/or modem card.

2.4.3 Floppy Disk Drive Connector

This connector supports two Floppy drives. Use the ribbon cable provided and make sure that the red strip is connected to PIN 1 of the connector.

2.4.4 Primary and Secondary IDE Connectors

Each IDE connector supports two IDE drives. If you install two hard drives, you need to configure the second drive to Slave mode. Please refer to the hard drive manual for appropriate jumper setting.

2.4.5 Standard Infrared (SIR) Connector

This IR connector (SIR) supports optional wireless transmitting and receiving infrared module. You must configure the setting through URAT2 to select whether URAT2 is directed for use with COM 2 or IrDa.

2.4.6 CPU Cooling and Chassis Fan Power Connector

Please install your CPU cooling fan to power connector CN13. If the hardware-monitoring feature is installed, you could monitor the rotating speed of the CPU cooling fan in your Windows operation system. Chassis Fan is to be installed on CN17.

2.4.7 ATX Power Connector

This connector connects to an ATX power supply. The plug from the power supply will only able to insert in one orientation because of the different hole sizes. Find the right orientation and push down firmly and make sure that the pins are aligned.



Important! Ensure that your ATX power supply can supply at least 720mA on the +5 volt standby lead (+5VSB).

Hardware Installation

2.4.8 WOL (Wake On LAN) Connector

This connector needs to contact to a LAN card with Wake-On-Lan output. The connector powers up the system when a wakeup packet or signal is received through the LAN card.

In order to use the WOL LAN card to trigger the power of the PC system, the switching power supply must be able to provide at least 720mA current driving ability on the "5V standby" voltage.

2.4.9 CD Audio-in Connector

The CD audio-in connectors on the board are used to connect CD ROM audio out. There are two different types of connectors. Please insert the correct connector supplied to the appropriate connector.

2.4.10 USB (Universal Serial Bus) 3 and 4 Connector

This connector allows you to expand your USB port to support 4 USB devices.



Please ensure that the USB Cable you intend to connect to these USB ports have the same pin assignment to avoid damage or burn out of the mainboard.

2.4.11 System Panel buttons and LED connectors

RS: Reset Button Connector

When connected to the chassis reset button, you can reset your PC when press this button.

Pin #	Signal name
1	Reset Control
2	Ground

HL: IDE HDD LED Connector

When connect to the chassis HDD connector, read and write activity by HDD will cause the LED to light up.

SL: Sleep LED Connector

This LED will light when the AC power is connected and the system is power off, no light when the AC power is disconnected or the system is powered on. The purpose is to remind you that there is active power in your PC and warn you against plugging out any connected external devices.

Hardware Installation

PW: Power On / Off and External Suspend Switch Connector

The Power On/Off connector has two functions. It can be the Power Switch or Suspend Switch of your PC system. You can either chose "**Delay 4 Sec or Instant OFF**" (Please refer to the Aware BIOS setup in Chapter 3)

Option 1: If you chose "**Delay 4 Sec.**" In the BIOS CMOS Setup, the function of "PW" will be:

- A. When system power is "OFF", press this switch, the system will power on.
- B. When system power is "ON", you can select two different mode:

Mode 1: Press the Power ON button and release (less than 4 seconds); the system will be turned into Suspend mode (turn into the GREEN mode) When the system is in Suspend mode:

- Press the Power on button (less than 4 seconds), the system will return to Full-ON mode.
- Press and hold the Power On Button for more than 4 seconds, the system will be powered off.

Mode 2: Press and hold the Power ON button for more than 4 seconds, the system will be completely powered off.

Option 2: If you chose "**Instant OFF.**" In the BIOS CMOS Setup, it will operate like normal ON / OFF Power button.

2.4.12 Speaker and Power LED Connector

Speaker Connector

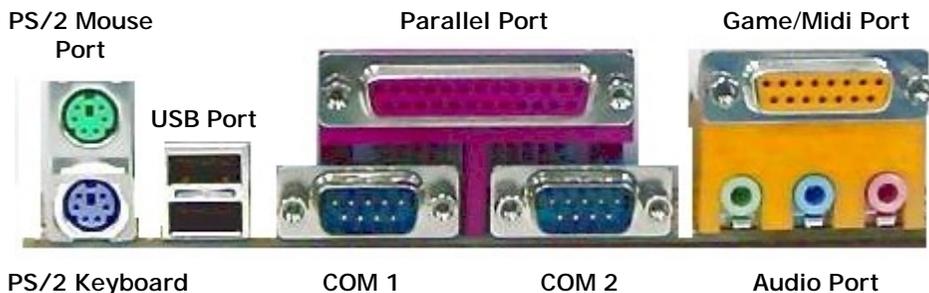
Connect your chassis speaker to this four pins connector. It allows you to hear systems beeps and warnings sound.

Front Panel Power LED Connector

Connect your chassis Power LED connector to this four pins connector.

Hardware Installation

2.5 External Connectors



2.5.1 PS/2 Mouse and Keyboard Connector

This connector only supports PS/2 mouse and keyboard plugs. If you have a standard AT size (large DIN) keyboard plug, you need to use a mini DIN adapter.

2.5.2 Serial Port (COM 1 and 2) Connector

This serial port is available for mouse and other serial devices. (I/O addresses used are 3F8H/2F8H/3E8H/2E8H and IRQ3/IRQ4, selected by CMOS setup.).

2.5.3 Parallel Port Connector

This parallel port for use in printer supports Normal, EPP, ECP, and ECP/EPP modes, IRQ7 or IRQ5 is selectable, ECP mode will use either DMA 3 or DMA 1 which can be selected by the BIOS setup program)

2.5.4 Universal Serial Bus (USB) Port 1 & 2

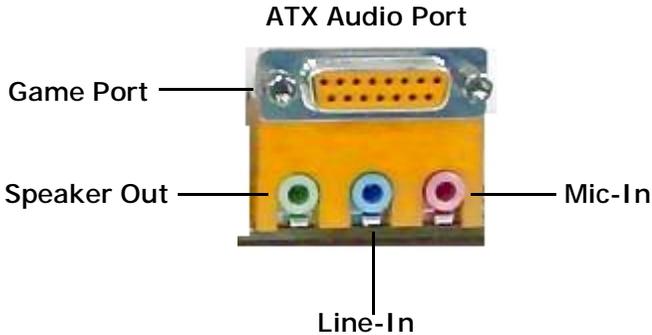
Two USB ports are available for connecting USB devices.

The mainboard is also equipped with an expansion connector that supports two additional USB external connectors. (The USB cable is not included in with the mainboard).

Hardware Installation

2.5.5 Audio/Game Port Connector

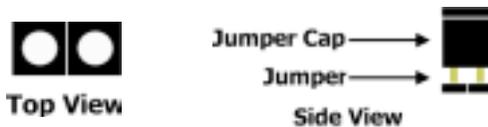
There is the 3D audio interface built on this mainboard (audio interface is optional on the board.). Please refer to the following picture for the audio interface.



2.6 Jumper and DIP Switch Settings

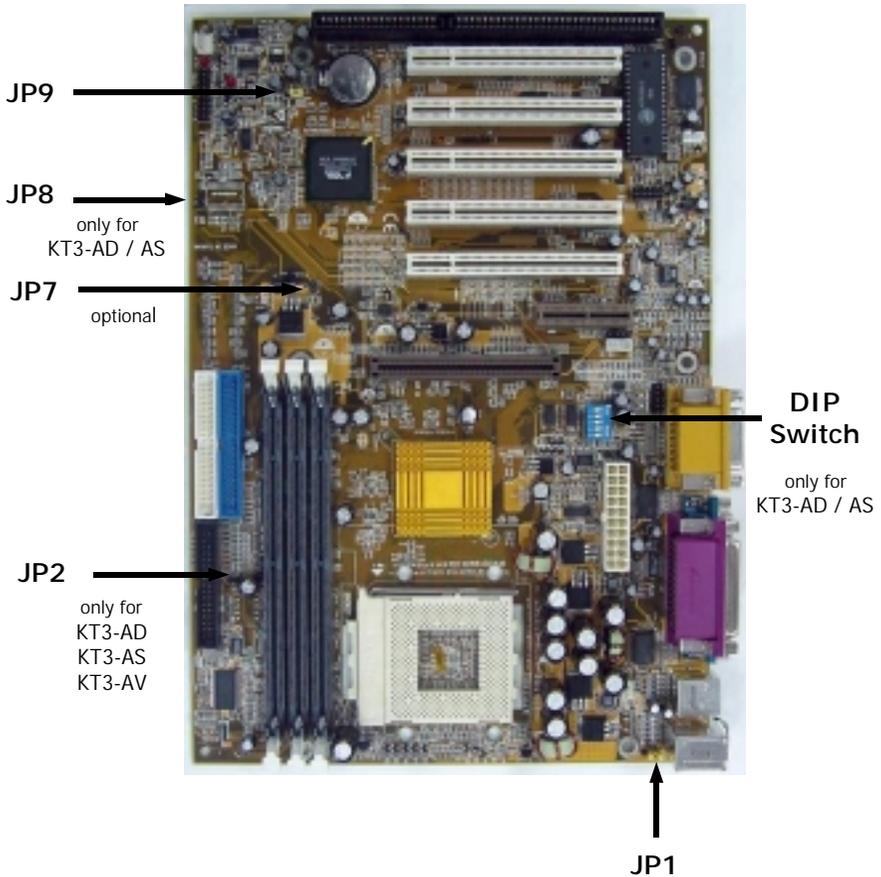
Jumpers are built on the mainboard to allow the user the flexibility to configure mainboard setting to meet their specific requirements. When there is no jumper cap insert into the jumper, it is called "OPEN" and when it will insert with Jumper cap, it is known as "SHORT".

Below is the example and picture of a "SHORT" Setting.



Hardware Installation

Jumpers and DIP Switch Layout



Jumpers and DIP Switch Layout of KT3 series

Hardware Installation

Hardware Installation

JP1 : Keyboard Power Selection.

The default setting is Pin 1 and 2. Some keyboards may not follow the standard specification and if you encounter instability, try to change the setting to Pin 2 and 3 may help to solve the problem.

JP2 : CPU FSB

CPU Front Side Bus Speed Setting, please refer to page 11.

JP7 : Suspend to RAM (optional)

“OPEN” : normal mode; “SHORT” : suspend to RAM mode.

JP8 : Language Selection (only for model KT3-AD).

This is a voice warning for hardware debugging. It supports English and Chinese languages. Select “OPEN “ for English.

JP9 : Clearing CMOS Data.

Clearing CMOS Data , if you made improper setting in the CMOS setup program and your PC is not function, or you forgotten your password, you may use JP9 to clear all the setting which is recorded in the CMOS memory.

To clear CMOS, please follow the following procedures:

1. Turn the system power “OFF”
2. Insert the jumper cap on Pin 2 and Pin 3 for 3 to 5 second.
3. Pull out the jumper cap and insert back to Pin 1 and Pin 2.
4. Power on the PC system and run the BIOS setup program.

SW2: CPU Clock Ratio Selection

SW2 is designed for selecting of CPU clock Ratio. Basically, you don't have to select the clock ratio setting at all since it is detected by the BIOS automatically. However, you may feel like to select different clock ratio for some special purpose (over-clocking). In this case, you may use the switch setting on SW2 to force your CPU to use the selected clock ratio.



Caution ! Over-clocking may damage the mainboard and CPU. It is not recommended to over-clock your CPU.

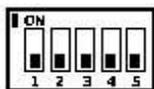
Hardware Installation

CPU Clock Ratio Adjust Switch (SW2)

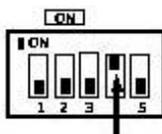
Switch Settings

The "Toggle switch" (SW2) on the mainboard can be used to select the CPU ratio. In order to let you have some better idea of the toggle switch setting, please refer to the following illustration. The following pictures will show you how to make the setting on the "toggle switch":

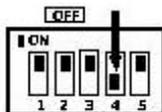
Picture of "Toggle switch"



Push the switch upward to select "ON"



Push the switch downward to select "OFF"



RATIO	SW-1	SW-2	SW-3	SW-4	SW-5
DEFAULT	OFF	OFF	OFF	OFF	OFF
X6	ON	ON	OFF	OFF	ON
X6.5	ON	ON	OFF	OFF	OFF
X7	ON	OFF	ON	ON	ON
X7.5	ON	OFF	ON	ON	OFF
X8	ON	OFF	ON	OFF	ON
X8.5	ON	OFF	ON	OFF	OFF
X9	ON	OFF	OFF	ON	ON
X9.5	ON	OFF	OFF	ON	OFF
X10	ON	OFF	OFF	OFF	ON
X10.5	ON	OFF	OFF	OFF	OFF
X11	ON	ON	ON	ON	ON
X11.5	ON	ON	ON	ON	OFF
X12	ON	ON	ON	OFF	ON
X13	ON	ON	ON	OFF	OFF

Some CPUs may unsuitable to run by over-clocking, if you happen to over-clock the FSB and clock ratio, and you PC system fail to start, please do as follow:

1. Switch the DIP switch to the original or default settings.
2. Clear the CMOS data as mentioned on page 21, the re-boot your system.
3. If the PC system still fail to start, then you have to remove the battery for 1 minute to clear the CMOS Data.

Note ! When you are changing the setting on SW2, please make sure to remove the power core from the PC system.

BIOS SETUP

Chapter 3 - Managing the PC BIOS

3.1 Award BIOS CMOS Setup Utility

The Flash ROM on the mainboard stores the AWARD BIOS CMOS Setup Utility to allow you to configure your system. Anytime, you wish to configure your system BIOS, you need to run BIOS CMOS Setup Utility (for example, you may wish to set the Security Password System or changing your Power Management Setting).

Entering Setup

Each time when you start your computer, the system provides you with the opportunity to run the BIOS CMOS Setup Utility. Immediately when you turn on your system, press the <Delete> button to call up the BIOS CMOS Setup Utility.

The BIOS CMOS Setup Utility will not activate if your computer finishes the POST (Power-On-Self-Test) stage. You need to restart the system again to call up the BIOS CMOS Setup Utility. To restart the system, either you can power off, press the reset button on your chassis or simultaneously press the <Ctrl> + <Alt> + <Delete> button. The system will restart and you need to press the <Delete> immediately to call up the BIOS CMOS Setup Utility.

Control Keys

At the bottom of the utility, you will notice a legend bar. The keys in the legend bar allow you to navigate through the various setup menus. The table below lists the control keys with their corresponding functions: -

Up Arrow	Move to previous item.
Down Arrow	Move to next item.
Left Arrow	Move to item on the left.
Right Arrow	Move to item on the right.
Enter	Select the desired item.
F1	Display the help screen for the selected feature.
Esc key	Exit to the previous screen.
PgUp(-)/PgDn(+)	Modify or change the content of the highlighted item.
F5	Restore the previous CMOS value (only the current page setup will be restored)
F7	Loads the optimized default values from BIOS default table, (only the current page setup will be loaded).
F10	Save changes to CMOS and exit setup.

BIOS SETUP

3.2 MAIN MENU

GETTING HELP



Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Status Page Setup Menu / Option Page Setup Menu

Press F1 to pop up the help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window, press <Esc>.

Once you have called up the BIOS CMOS Setup Utility, the following screen will appear:

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Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Set Supervisor Password
Integrated Peripherals	Set User Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
ESC : Quit	↑↓→← : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type ...	



Due to constantly updating of BIOS software, the BIOS screen and descriptions are only for reference purpose and may not reflect the exact BIOS screen.

BIOS SETUP

3.3 STANDARD CMOS SETUP

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software.
Standard CMOS Setup

Date (mm : dd : yy) : Tue, May 8 2001	Item Help
Time (hh : mm : ss) : 10 : 22 : 33	Menu Level ▶
▶IDE Primary Master Maxtor 52049H4	Change the day, month, year and century
▶IDE Primary Slave CREATIVE DVD-ROM DVD	
▶IDE Secondary Master None	
▶IDE Secondary Slave None	
Drive A 1.44, 3.5 in.	
Drive B None	
Video EGA/VGA	
Halt On All Errors	
Base Memory 640K	
Extended Memory 523264K	
Total Memory 524288K	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults	

Date (mm : dd : yy)

Sets your system to the date that you specific (usually the current date). The format is month, day, and year.

Time (hh : mm : ss)

Sets your system to the time you specific (usually the current time). The format is hour, minute, second. The time format is based on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

IDE Primary/Secondary Master/Slave

The mainboard supports four IDE Hard Drives. These fields allow you to set your Hard Drive parameters.

If you select Auto, it will automatically detect HDD type. Please ensure that the specifications of your hard disk drive must match with the drive table. If you select User Type, related information will be asked to enter to the following items.

BIOS SETUP

CYLS.	Number of cylinders
HEADS	Number of heads
PRECOMP	Write precomp
LANDZONE	Landing zone
SECTORS	Number of sectors

The information should be provided in the documentation from your hard disk vendor or the system manufacturer. If a hard disk has not been installed select **NONE** and press <Enter>.

Drive A /B:

Select the correct specifications for the diskette drive(s) installed in the computer.

None	No diskette drive installed
360K, 5.25 in	5-1/4 inch PC-type standard drive; 360 kilobyte capacity
1.2M, 5.25 in	5-1/4 inch AT-type high-density drive; 1.2 MBcapacity
720K, 3.5 in	3-1/2 inch single-sided drive; 720 kilobyte capacity
1.44M, 3.5 in	3-1/2 inch double-sided drive; 1.44 MB capacity
2.88M,3.5in	3-1/2 inch double-sided drive; 2.88 MB capacity

Video:

Select the type of primary video subsystem in your computer. The BIOS CMOS Setup Utility will detect the correct video type automatically.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SEGA, SVGA or PGA monitor adapters
CGA 40	Color Graphics Adapter, power up in 40 column mode
CGA 80	Color Graphics Adapter, power up in 80 column mode
MONO	Monochrome adapter

Halt On

This field allows you to decide which type of errors you want to halt the system when detected during Power On Self Test.

Base Memory / Extended Memory / Total Memory

This field displays the amount of memory detected by the system during boot up. This is a display only field and you don't have to make changes to this field.

Base Memory : Indicates the memory installed below the conventional 1MB space.

Extended Memory : Indicates the memory installed above the 1MB space.

Total Memory : Indicates the total memory installed in the PC system.

BIOS SETUP

3.4 ADVANCED BIOS FEATURES

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software

Advanced BIOS Features

<p>Virus Warning : Disabled CPU Internal Cache : Enabled External Cache : Enabled CPU L2 Cache ECC Checking : Enabled Quick Power On Self Test : Enabled First Boot Device : Floppy Second Boot Device : HDD-0 Third Boot Device : LS120 Boot Other Device : Enabled Swap Floppy Drive : Disabled Boot Up Floppy Seek : Enabled Boot Up NumLock Status : On Gate A20 Option : Normal Typematic Rate Setting : Disabled Typematic Rate (Chars/Sec) : 6 Typematic Delay (Msec) : 250 Security Option : Setup PS/2 mouse function control : Enabled OS Select For DRAM > 64MB : Non-OS2 HDD S.M.A.R.T Capability : Disabled Video BIOS Shadow : Enabled C8000 - CBFFF Shadow : Disabled CC000 - CFFFF Shadow : Disabled D0000 - D3FFF Shadow : Disabled D4000 - D7FFF Shadow : Disabled D8000 - DBFFF Shadow : Disabled DC000 - DFFFF Shadow : Disabled</p>	<p>Item Help Menu Level ►</p> <p>Allows you to choose the Virus warning feature for IDE Hard disk boot sector protection. If this function is enabled and some attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.</p>
<p>↑↓←→:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults</p>	

Virus Warning

When enabled, you receive a warning message if a program (specifically, a virus) attempts to write to the boot sector or the partition table of the hard disk drive. You should then run an anti-virus program. Keep in mind that this feature protects only the boot sector, not the entire hard drive.



Many disk diagnostic programs that access the boot sector table can trigger the virus-warning message. If you plan to run such a program, we recommend that you first disable the virus warning.

BIOS SETUP

CPU Internal Cache / External Cache

CPU Cache memory is additional memory that is much faster than conventional DRAM (system memory) in which is built in in the processor. IF you enable this option, when the CPU requests data, the system transfers the requested data from the main DRAM into cache memory for faster access.

CPU L2 Cache ECC Checking

When you select Enabled, The ECC checking will ensured the accuracy of the data stored on the L2 cache.

Quick Power On Self Test

Select Enabled to reduce the amount of time required to run the power-on self-test (POST). A quick POST skips certain steps. We recommend that you normally disable quick POST. Better to find a problem during POST than lose data during your work.

First/Second/Third/Four Boot Device

These fields allow you to decide the boot sequence of your bootable devices such as Hard Drive, CD ROM...etc

Swap Floppy Drive

This field is effective only in systems with two floppy drives. Selecting Enabled assigns physical drive B to logical drive A, and physical drive A to logical drive B.

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 modern PCs have 40-track floppy drives, we recommend that you set this field to Disabled to save time.

Boot Up NumLock Status

Toggle between On or Off to controls the state of the NumLock key when the system boots. When toggled On, the numeric keypad generates numbers instead of controlling cursor operations.

Security Option

This field allows you to select Setup or System Security option and it needs to work along with the " Set Supervisor Password" in the main menu.

BIOS SETUP

When "Setup" option is selected, you will be prompt to input your "Passwords" before you can start the BIOS CMOS Setup Utility. When you select "System" option, you will be prompt to input your password in order to load the Operation System (Window OS or Linux OS).

PS/2 mouse function control

This mainboard has a built-in PS/2™ mouse port. If you are using the PS/2™ mouse, please leave this field as "Enabled". In case you prefer to connect a serial mouse to the serial port instead of using the PS/2™ mouse, you may choose "Disable" in this field so that the IRQ12 can be released for other devices.

OS Select For DRAM > 64MB

Select OS2 only if you are running OS/2 operating system with greater than 64 MB of RAM on your system. Otherwise, use the default setting "Non-OS2" for all other operating systems.

HDD S.M.A.R.T Capability

If your Hard Drive support the S.M.A.R.T. technology (Self Monitoring Analysis Reporting Technology) feature, you may "enable" this item to monitor and report your Hard Drive healthy status. Check with your Hard Drive Vendor for further information about SMART feature.

Note! Using this feature may decrease system performance.

Video BIOS / XXXX-XXXX Shadow

These fields allow you to change the Video BIOS location from ROM to RAM. The system performance is enhancing when you enable this option, as information access is faster through RAM than ROM.

BIOS SETUP

3.5 ADVANCED CHIPSET FEATURES

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Advanced chipset Features

DRAM Timing By SPD	: Disabled	Item Help
DRAM Clock	: 133MHz	
SDRAM Cycle Length	: 3	Menu Level ►
Bank Interleave	: Disabled	
Memory Hole	: Disabled	
PCI Master Pipeline Req	: Enabled	
P2C/C2P Concurency	: Enabled	
Fast R-W Turn Around	: Disabled	
System BIOS Cacheable	: Disabled	
Video RAM Cacheable	: Disabled	
AGP Aperture Size	: 64M	
AGP - 4X Mode	: Disabled	
AGP Driving Control	: Auto	
AGP Driving Value	: DA	
AGP Fast Write	: Disabled	
On Chip USB	: Enabled	
USB Keyboard Support	: Disabled	
On Chip Sound	: Auto	
On Chip Modem	: Auto	
CPU to PCI Write Buffer	: Enabled	
PCI Dynamic Bursting	: Enabled	
PCI Master 0 WS Write	: Enabled	
PCI Delay Transaction	: Enabled	
PCI #2 Access #1 Retry	: Enabled	
AGP Master 1 WS Write	: Disabled	
AGP Master 1 WS Read	: Disabled	

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

BIOS SETUP

This section allows you to configure the system based on the features of the VIA KT133/133A chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It also coordinates communications between the conventional ISA bus and the PCI bus. The default settings have been chosen because they provide the best operating conditions for your system. So please do not change the default setting unless you have sound technical background.

DRAM Timing By SPD

When enabled, the system BIOS will read the DRAM parameters from the SPD (Special Presence Detect) chip on the DIMM module and set the DRAM timing automatically.

DRAM Clock

This field allows you to select the DRAM access speed to control the memory performance.

DRAM Cycle Length

This setting defines the CAS timing parameter of the SDRAM in term of clock, to The default value is 3.

BANK Interleave

This field allows you to select how many bank of DRAM is installed on the mainboard so that the system BIOS will be able to adjust the SDRAM interleave access mode to optimize the SDRAM performance.

Memory Hole

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

Enabled: The memory space between 15 ~ 16MB will be remapped for ISA cards.

Disabled: No memory will be remapped.

PCI Master Pipeline Req

This field allows you to enable or disable the PCI pipeline access.

P2C/C2P Concurrency

This selection field allows you to enable / disable the PCI to CPU, CPU to PCI concurrency.

BIOS SETUP

Fast R-W Turn Around

This item controls the DRAM timing. It allows you to enable/ disable the fast read/write turn around.

System BIOS Cacheable

Selecting "Enabled" allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

Video RAM Cacheable

Select Enabled allows caching of the video RAM , resulting in better system performance. However, if any program writes to this memory area, a system error may result.

AGP Aperture Size

Select the size of 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.

AGP- 4X Mode

This item allows you to enable / disable the AGP-4X Mode. Please make sure your AGP card supports the 4X AGP display mode before you can select Enable.

AGP Driving Control

This item allows you to adjust the AGP driving force. Choose Manual to key in an AGP Driving Value in the next selection. Basically, "Auto" is recommended to avoiding any error in your system.

AGP Driving Value

This item allows you to adjust the AGP driving force.

AGP Fast Write

When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with fast writing mode.

On-Chip USB

You should select Enabled as the mainboard Universal Serial Bus (USB) controller for you to utilities your USB peripherals.

BIOS SETUP

USB Keyboard Support

You should select Enabled as the mainboard Universal Serial Bus (USB) controller for you to utilities your USB Keyboard peripherals.

On-Chip Sound

This item allows you to control the onboard AC 97 audio.

On-Chip Modem

This item allows you to control the onchip MC 97 modem function.

CPU to PCI Write buffer

When this field is enabled, writes from the CPU to the PCI bus are buffered, to compensate for the speed differences between the CPU and the PCI bus. When disabled, the writes are not buffered and the CPU must wait until the write is complete before starting another writes cycle.

PCI Dynamic Bursting

When enabled, every write transaction goes to the write buffer. Burstable transactions then burst on the PCI bus and non-burstable transactions don't.

PCI Master 0 WS Write

When enabled, writes to the PCI bus are executed with zero wait states.

PCI Delay Transaction

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select Enabled to support compliance with PCI specification version 2.1.

PCI#2 Access #1 Retry

When disabled, PCI#2 will not be disconnected until access finishes. When enabled, PCI#2 will be disconnected if max retries are attempted without success.

AGP Master 1 WS Write

When Enabled, writes to the AGP (Accelerated Graphics Port) are executed with one-wait states.

AGP Master 1 WS Read

When Enabled, read to the AGP (Accelerated Graphics Port) are executed with one-wait states.

BIOS SETUP

3.6 Integrated Peripherals

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Integrated Peripherals

On-Chip IDE Channel0	: Enabled	Item Help
On-Chip IDE Channel1	: Enabled	
IDE Prefetch Mode	: Enabled	Menu Level ►
Primary Master PIO	: Auto	
Primary Slave PIO	: Auto	
Secondary Master PIO	: Auto	
Secondary Slave PIO	: Auto	
Primary Master UDMA	: Auto	
Primary Slave UDMA	: Auto	
Secondary Master UDMA	: Auto	
Secondary Slave UDMA	: Auto	
Init Display first	: PCI Slot	
IDE HDD Block Mode	: Enabled	
Onboard FDD Controller	: Enabled	
Onboard Serial Port 1	: Auto	
Onboard Serial Port 2	: Auto	
UART 2 Mode	: Standard	
IR Function Duplex	: Half	
TX, RX inverting enable	: No, Yes	
Onboard Parallel Port	: 378 / IRQ7	
Onboard Parallel Mode	: Normal	
ECP Mode Use DMA	: 3	
Parallel Port EPP Type	: EPP 1.9	
Onboard Legacy Audio	: Enabled	
Sound Blaster	: Disabled	
Sound I/O Base Address	: 220H	
SB IRQ Select	: IRQ 5	
SB DMA Select	: DMA 1	
MPU-401	: Enabled	
MPU-401 I/O	: 330-333H	
Game Port (200-207H)	: Enabled	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

BIOS SETUP

On-Chip IDE Channel 0/1

The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the primary IDE interface. Select Disabled to deactivate this interface.

IDE Prefetch Mode

The onboard IDE drive interfaces supports IDE prefetching for faster drive accesses. If you install a primary and/or secondary add-in IDE interface, set this field to disabled if the interface does not support prefetching.

Primary/Secondary, Master/Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device.

Primary/Secondary, Master/Slave UDMA

Ultra DMA 33/66/100 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 98 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA 33/66/100, select Auto to enable BIOS support.

Init Display First

This field allows you to decide to active whether PCI Slot of VGA card or AGP first.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support.

Onboard FDD Controller

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

Onboard Serial Port 1/Port 2

These two selection fields allow you to select the I/O address and corresponding interrupt for the first and second serial ports.

BIOS SETUP

UART 2 Mode

This item allows you to select which mode for the Onboard Serial Port 2.

IR Function Duplex

This item allows you to select the IR half/full duplex function.

TX, RX inverting enable

This item allows you to enable the TX, RX inverting which depends on different H/W requirement. This field is not recommended to change its default setting for avoiding any error in your system.

Onboard Parallel Port

This item allows you to determine onboard parallel port controller I/O address setting.

Onboard Parallel Port Mode

Select an operating mode for the onboard parallel (printer) port. Select Normal, Compatible, or SPP unless you are certain your hardware and software both support one of the other available modes.

ECP Mode Use DMA

This item allows you to select a DMA channel for the parallel port for use during ECP mode.

EPP Mode Select

This field allows you to select EPP port type between 1.7 or 1.9.

Onboard Legacy Audio

This field controls the onboard legacy audio.

- Sound Blaster
- SB I/O Base Address
- SB IRQ Select
- SB DMA Select
- MPU-401
- MPU-401 I/O Address
- Game Port (200-207H)

BIOS SETUP

3.7 Power Management Setup

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Power Management Setup

ACPI Function	: Disabled	Item Help
Power Management	: Press Enter	Menu Level ►
ACPI Suspend Type	: S1 (POS)	
PM Control By APM	: Yes	
Video Off Option	: Suspend->Off	
Video Off Method	: Blank Screen	
Modem Use IRQ	: 3	
Soft-Off by PWR-BTTN	: Instant – off.	
Wake-Up Events	: Press Enter	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults		

The Power Management Setup allows you to configure you system for effectively energy saving while operating in a manner consistent with your own style of computer use.

ACPI function

This item allows you to enable/disable the Advanced Configuration and Power Management (ACPI).

Power Management:

When click the "Enter" key on this selection field, the following setup screen will be

Power Management	: User Define	Item Help
HDD Power Down	: Disable	Menu Level ►
Doze Mode	: Disable	
Suspend Mode	: Disable	

The related functions of Power Management are as below :

Min. Power Saving	Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and HDD Power Down = 15 min.
Max. Power Saving	Maximum power management -- ONLY AVAILABLE FOR SL CPU . Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.
User Defined	Allow you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

BIOS SETUP

HDD Power Down

When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

Doze Mode

When enabled and after the set time of system inactivity, the CPU clock will run at slower speed while all other devices still operate at full speed.

Suspend Mode

When enabled, after the set time of system inactivity, all devices except the CPU will be shut off.

PM Control by APM

When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock. If Advance Power Management (APM) is installed on your system, selecting Yes gives better power savings.

Video Off Option

When enabled, this feature allows the VGA adapter to operate in a power saving mode.

Always On	Monitor will remain on during power saving modes.
Suspend— > Off	Monitor blanked when the systems enters the Suspend mode.
All Modes—> Off	Monitor blanked when the system enters any power saving mode.

Video Off Method

This determines the manner in which the monitor is blanked.

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	This option only writes blanks to the video buffer.
DPMS Support	Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards to select video power management values.

BIOS SETUP

MODEM Use IRQ

This determines the IRQ in which the MODEM can use for power saving purpose. This mainboard has the ACPI feature designed on the board and it wills "wakeup" automatically when it detects the incoming modem Ring-in signal. Before you can use the Ring-in signal to wakeup your PC system, you have to install the "External" modem to your PC system and tell the PC system which serial port connects to the modem by selecting the IRQ in this field (officially, COM 1 uses IRQ4, and COM 2 uses IRQ3).

Soft-Off by PWR BTN

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung".

Wake Up Events:

When click the "Enter" key on this selection field, the following setup screen will be triggered:

VGA	: OFF	Item Help
LPT & COM	: LPT/COM	Menu Level ▶
HDD & FDD	: ON	
PCI Master	: OFF	
Wake Up On LAN / Ring	: DISABLED	
RTC Alarm Resume	: DISABLED	
Date (of Month)	: 0	
Resume Time (hh:mm:ss)	: 0	
Primary INTR	: ON	
IRQs Activity Monitoring	: Press Enter	

VGA

When Enabled, you can set the VGA awakens the system.

LPT & COM

When you set to LPT & COM mode, any activity from one of the listed system peripheral devices or IRQs wakes up the system.

BIOS SETUP

HDD & FDD

When you set to HDD & FDD mode, any activity from one of the listed system peripheral devices wakes up the system.

PCI Master

When you set to PCI Master mode, any activity from one of the listed system peripheral devices wakes up the system.

Wake Up On LAN/Ring

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.

RTC Alarm Resume

When enabled, you can use the following two fields to select the time and date to wake ups the PC system from power saving mode.

Resume Time (hh:mm:ss)

When RTC Alarm Resume is enabled, your can set the date and time at which the RTC (real-time clock) alarm awakens the system from Suspend mode.

IRQs Activity Monitoring

The following is a list of IRQ's, Interrupt ReQuests, which can be exempted much as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.

When set On, activity will neither prevent the system from going into a power management mode nor awaken it.

BIOS SETUP

IRQ3 (COM 2) : Enabled IRQ4 (COM 1) : Enabled IRQ5 (LPT 2) : Enabled IRQ6 (Floppy Disk) : Enabled IRQ7 (LPT 1) : Enabled IRQ8 (RTC Alarm) : Disabled IRQ9 (IRQ 2 Redir) : Disabled IRQ10 (Reserved) : Disabled IRQ11 (Reserved) : Disabled IRQ12 (PS / 2 Mouse) : Enabled IRQ13 (Coprocessor) : Enabled IRQ14 (Hard Disk) : Enabled IRQ15 (Reserved) : Disabled	Item Help Menu Level ►
---	---------------------------

3.8 PNP/PCI COFIGURATION

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software PnP/PCI Configuration	
PnP OS Installed : No Reset Configuration Data : Disable Resources Controlled By : Auto (ESCD) X IRQ Resources : Press Enter X DMA Resources : Press Enter PCI/VGA Palette Snoop : Disabled Assign IRQ For VGA : Enabled Assign IRQ For USB : Enabled	Item Help Menu Level ►
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults	

PNP OS Installed

This item allows you to determine PnP OS is installed or not.

BIOS SETUP

Reset Configuration Data

Normally, you leave this field 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 operating system cannot boot.

Resource controlled by

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®98.

IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1). PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

DMA Resources

When resources are controlled manually, assign each system DMA channel as one of the following types, depending on the type of device using the interrupt.

Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1). PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

PCI/VGA Palette Snoop

Leave this field at *Disabled* all the time.

Assign IRQ For VGA/USB:

Enable/Disable to assign IRQ for USB/VGA.

BIOS SETUP

3.9 PC Health Status

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software		
PC Health Status		
Current CPU Temp.	40□ / 104 □	Item Help
Current System Temp.	22□ / 71 □	
Current CPUFAN1 Speed	5090 RPM	Menu Level
Current CPUFAN2 Speed	0 RPM	
Vcore	1.83 V	
2.5V	2.57 V	
3.3V	3.38 V	
5V	4.92 V	
12V	12.48 V	
CPU protect for CPUFan Off	Enabled	

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

The table above allows you to monitor the PC system healthy status. You can check on the related field and monitor the status like voltage, Temperature ... etc.

Current CPU Temp.

This field will show you the current CPU temperature

Current System Temp.

This field will show you the current temperature inside the PC system.

Current CPUFAN1 / CPUFAN2 Speed

This field will show you the current CPU Cooling FAN1 / FAN2 speed.

Vcore

This field and the files blow show you the current system voltage.

CPU protect for CPUFan Off

This function will check the CPU cooling fan spinning status, if the cooling fan does not spin when power is applied, to protect the CPU from burning out, the system will shutdown immediately. The default setting for this function is "Enabled".

If you happen to have an old version CPU cooling fan (only with two wires for voltage connection) using on this board, you will find the system always shutdown automatically when you try to startup.

If you insist to use the old version CPU cooling fan on this mainboard, please use a normal cooling fan to startup the system, then disable the protect function on this selection from the CMOS Setup Utility.

BIOS SETUP

3.10 Frequency/Voltage Control

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software Frequency/Voltage Control		
CPU Vcore Select	: Default	Item Help
Auto Detect DIMM / PCI Clk	: Disabled	Menu Level
Spread Spectrum Modulated	: Disabled	
Clock By Slight Adjust	: 133	

CPU Vcore Select

This selection field allows you to fine-tune the CPU core voltage (Vcore). Basically, when you use the default setting, the mainboard will automatically detect the CPU type and select the proper Vcore for the CPU. So most of the time, you need not have to make any selection for Vcore setting. However, if you wish to over clocking your CPU, you may adjust the CPU voltage to run at a higher speed. In this case, you may use this field to select other desire Vcore for the CPU. When press "Enter", a menu with voltage selection will appeared for your selection. The selectable Vcore voltage start from the minimum value 1.100V with an increment of +0.025V to the maximum value 1.850V.

Auto Detect DIMM/PCI Clk

When "Enabled" is selected, the mainboard will detect the presence of devices on DIMM and PCI slots. When there is no device presented on some of the PCI or DIMM connector, the clock on the related DIMM and PCI slot will be disabled to reduce the Electro-Magnetic Interference (EMI).

Spread Spectrum Modulated

When Spread Spectrum is enabled, the EMI radiation on this mainboard will be reduced.

Clock By Slight Adjust

You can use this field to adjust the front side system bus clock speed of the CPU. The

Clock By Slight Adjust
Min = 133 Max = 166
Key in a DEC number :
↑↓→←: Move Enter : Accept ESC : Abort

BIOS SETUP

3.11 Load Optimized Defaults

CMOS Setup Utility – Copyright (C) 1984 - 2000 Award Software

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Set Supervisor Password
Integrated Peripherals	Set User Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
ESC : Quit	↑↓→← : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type ...	

In case that you don't know how to use the Award BIOS CMOS Setup Utility to select the settings, you may use this field to load the optimized default which is defined in the system BIOS. This Optimized Default is recommended by our engineer that gives a series of parameters for ensuring the best reliability.

If you are not familiar with the setup procedure or if you made some changes in the CMOS setting and found that the PC system becomes unstable, you should try to load the optimized default value first and then re-configure step by step again.

3.12 SET SUPERVISOR PASSWORD

CMOS Setup Utility – Copyright (C) 1984 - 2000 Award Software

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Set Supervisor Password
Integrated Peripherals	Set User Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
ESC : Quit	↑↓→← : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type ...	

BIOS SETUP

The "SUPERVISOR PASSWORD" is for you to control unauthorized access to your BIOS CMOS Setup or Booting into the your PC system. The Supervisor Password option is used together with the Security Option in section.

When "Setup" is selected in Security Option:

If you want to change the BIOS setting, you will have to key-in the Supervisor Password so that you can start the BIOS CMOS Setup Utility and change the system setting.

When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password in order to boot up your system. Without the correct password, the PC system will stop and the operation system will not be loaded.

3.13 SET USER PASSWORD

CMOS Setup Utility – Copyright (C) 1984 - 2000 Award Software

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Set Supervisor Password
Integrated Peripherals	Set User Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
ESC : Quit	↑↓→← : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type ...	

The User Password can be used to check the user's authority. However, this password entry is different from the "SUPERVISOR PASSWORD" mentioned in previous section. The User Password will have different function according to the "Supervisor Password" and the "Security Option" setup:

A. When there is a password stored in the "SUPERVISOR PASSWORD"

1. When "Setup" is selected in Security Option:

When you use the "User Password" to log into the BIOS setup program, you can only select "User Password", "SAVE & EXIT SETUP" and "EXIT WITHOUT SAVING" from the main menu. (Using Supervisor Password to log into the PC system, you will have the complete right to access all BIOS settings.)

BIOS SETUP

2. When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password. Without correct password, PC system will stop and the operation system won't be loaded.

B. When there is no password stored in the "SUPERVISOR PASSWORD"

1. When "Setup" is selected in Security Option:

Users can use the "User Password" to log into the BIOS setup program, and they can make all the change in the BIOS setup program.

2. When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password. Without the correct password, the PC system will stop and the operation system will not be loaded.

3.14 SAVE & EXIT SETUP / EXIT WITHOUT SAVING

CMOS Setup Utility – Copyright (C) 1984 - 2000 Award Software

Standard CMOS Features	Frequency / Voltage Control
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Set Supervisor Password
Integrated Peripherals	Set User Password
Power Management Setup	Save & Exit Setup
PNP/PCI Configuration	Exit Without Saving
PC Health Status	
ESC : Quit	↑↓→← : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type ...	

Save & Exit Setup:

This option will save all setup values to CMOS RAM & EXIT SETUP routine. Move the selection bar to "SAVE & EXIT SETUP" and press "Enter" key, then types "Y" and "Enter" key, the values will be saved and all the information will be stored in the CMOS memory.

Exit Without Saving

This item exits the setup routine without saving any changed values to CMOS RAM, When you do not want to save your change to the CMOS memory, you may choose to run this option and the setting what you made in the BIOS setup routine will be abundant.

TECHNICAL SUPPORT REQUEST FORM

TO: _____ ATTN: _____

Model No: _____ S/N: _____ BIOS Date Code: _____

Production Code: _____ PCB Version: _____

System Configuration:

1. OPERATION SYSTEM: _____ VER.: _____

2. CPU: _____ Onboard Cache Memory: _____

3. SDRAM: Brand: _____, Speed: _____ ns.
Size: _____ MB/per piece, Q'ty: _____ pcs, Total _____ MB

ADD-ON CARD:

VGA: Brand name : _____ Chipset: _____ Model: _____

Sound: Brand name: _____ Chipset: _____ Model: _____

Fax/Modem: Brand name: _____ Chipset: _____ Model: _____

Other Add-On card: _____ Chipset: _____ Model: _____

POWER SUPPLY

Brand name: _____ AT, ATX, Model name: _____

FDC PORT:

FDD: Brand name : _____, Type: : _____ Model: _____.

ZIP: Brand name : _____, Type: : _____ Model: _____.

Other: _____, Type: : _____ Model:

IDE PORT:

HDD1: Model name _____ IDE1, IDE2 Master, Slave.

HDD2: Model name _____ IDE1, IDE2 Master, Slave.

CD ROM: Model name _____ IDE1, IDE2 Master, Slave.

Other: Device name _____ IDE1, IDE2 Master, Slave.

B. PROBLEM DESCRIPTION:

COMPANY NAME: _____

CONTACT PERSON: _____ E-mail: _____

TEL: () _____ (ext.) _____ FAX: () _____