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## User Introduction

This manual is intended to support computer manufacturers and end users with the installation and configuration of motherboards

The manual contents have been carefully checked to ensure it is free of errors. Nevertheless we cannot guarantee that it is completely free of errors. NMC accepts no liability for any loss of profits or business or for any loss of data or working time or for any direct, unusual, incidental damage or consequential damage sustained of whatsoever kind.

*The equipment concerned is EMC-critical. Therefore installation and set-up of the motherboard may only be carried out by trained technical staff who are familiar with relevant current EMC guidelines. NMCPE GmbH reserves the right to make changes without prior notice to this manual or to the motherboard described in the OSM for technical reasons.*

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Allusions by name to other products in this manual are purely for the purpose of unambiguously designating and identifying the products described in the manual, which remain the property of their owners.

### Handling Procedure

Static electricity can severely damage your equipment. Handle the 3SAX and any other device in your system with extreme care and avoid unnecessary contact with system components on the mainboard. Always work on an antistatic surface to avoid possible damage to the mainboard from static discharge. Always have the power supply unplugged and powered off when inserting and removing devices within the computer chassis. NMCPE assumes no responsibility for any damage to the NMCPE 8TAX mainboard that results from failure to follow instruction or failure to observe safety precautions.



### Caution

The 3SAX mainboard is subject to damage by static electricity. Always observe the handling procedures.



## Technical Support

If you need any additional information regarding installation or operation of the NMCPE motherboard, please refer in the first instance to your supplier. If your supplier is unable to provide further assistance, you can send your queries to our Technical Support team at any time, at our email address. [Support@nmc-pe.de](mailto:Support@nmc-pe.de)

### Internet:

<http://www.NMC-pe.de>

Edition: Juli 2000

Version: 1.0 (English)

Please note down the serial number of your NMCPE motherboard. You will find this on the external ISA slot on a white label underneath the bar code.

## Motherboard serial number:

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### Bios Update

If you need a Bios update for the motherboard, you can download this (provided a Bios update is available) from our home page. You will also find on our home page the tools which are necessary in order to flash update the Bios.

### Internet Addresses

<http://www.nmc-pe.de> or [www.nmc-pe.com](http://www.nmc-pe.com)

[Support@nmc-pe.de](mailto:Support@nmc-pe.de)

### Trademark

All brand names are the property of their owners and are mentioned only for the purposes of identification.

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USER INTRODUCTION

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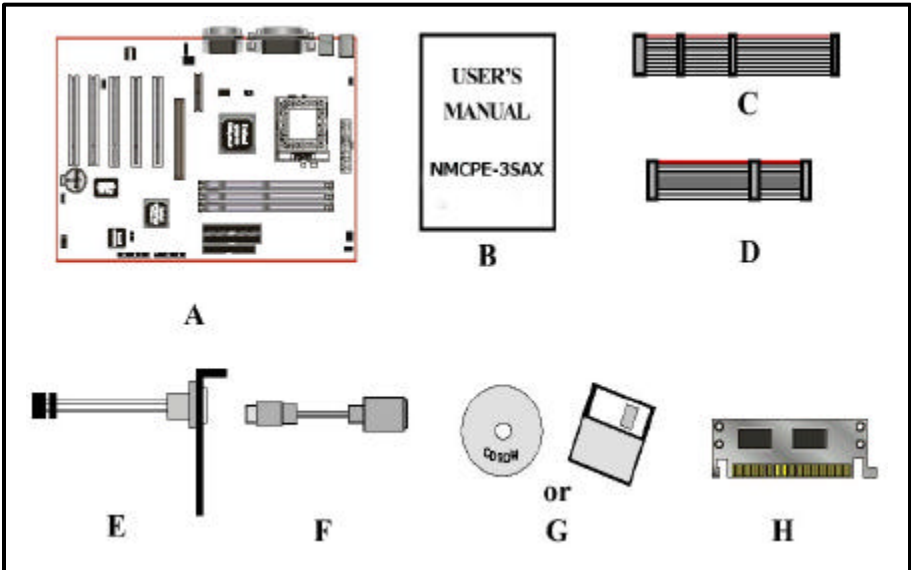
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## Component Checklist

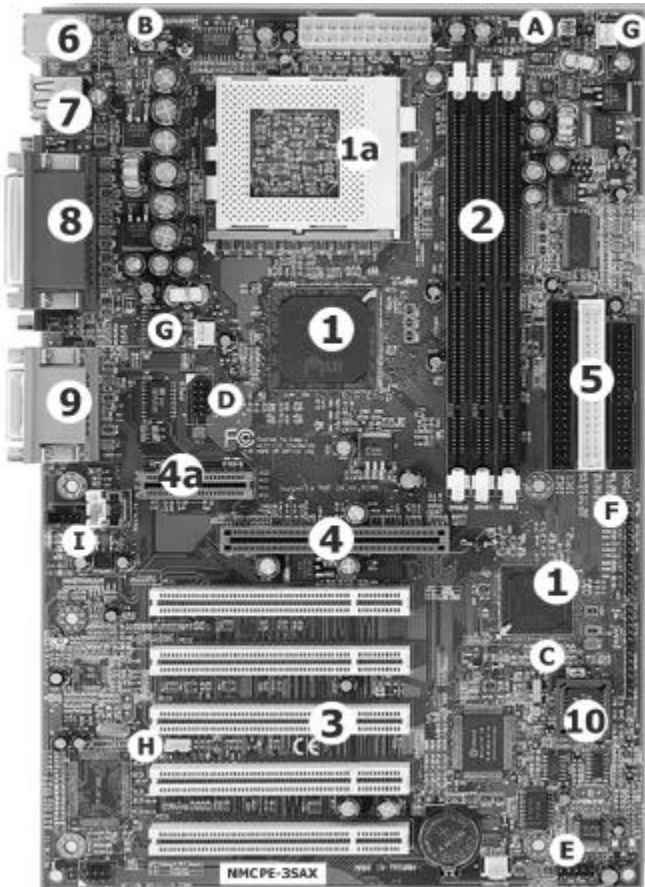
### Component Checklist

The components listed below should come with your NMCPE motherboard

- **A** (1) **3SAX Mainboard**
- **B** (1) **3SAX Manual**
- **C/D** (1) **Floppy-Cable**  
(1) **IDE HDD- Cable**
- **E** (1) **USB Adaptor ( optional )**
- **H** (1) **AIMM Modul ( optional )**
- **G** (1) **IDE Busmaster Driver**  
(1) **USDM Software**



## Mainboard Layout



1	Chipsatz	10	Award PnP Bios
1a	CPU Socket	A	CPU Clk
2	DIMM	B	JP13 Keyboard Power On
3	PCI Slot	C	JP1 CMOS Clear
4	AGP Slot	D	Com 2 Connector
4a	AMR Slot	E	USB 3/4
5	HDD/FDD	F	Case Connector j2 j3
6	PS/2 Anschlüsse	G	Fan Connectors
7	USB	H	Wake On LAN
8	Com 1/2 LPT	I	Audio Connectors for CD
9	Sound		

## Mainboard Feature

- 3SAX is based on the Socket 370 Processors including PPGA & FC-PGA operating at 433 -933MHz. The board is configured by a BIOS setting to match your CPU clock speed.
- The 3SAX designed with Intel 815 chipset that provides optimized support for P.P.G.A Celeron of 66/100MHz and FC-PGA Coppermine of 100/133MHz Front Side Bus CPU.
- Supports AGP universal connector support via dual mode buffers to allow AGP 2.0 3.3V (2X AGP) or 1.5V (4X AGP) signaling.
- Supports the AGP signal interface with the integrated graphics display cache interface. The 4MB Display Cache (for integrated graphics) with AGP/Display Cache share interface (AGP In-Line Memory Module or AIMM Card).
- Supports up to 512 MB of DRAM (minimum of 32 MB) on board, You can use 168-pin DIMM x 3. It will run Synchronous DRAM memory (SDRAM) at 100MHz/133MHz.
- Integrated 2D & 3D Graphics Engine, H/W Motion Compensation Engine, 230MHz DAC and 4MB Display Cache.
- AC™97 2.1 Audio CODEC onboard for enables the software Audio.
- Supports (5) 32 bit PCI slots, provides (2) independent high performance PCI IDE interfaces capable of supporting PIO Mode 3/4 and Ultra DMA 66 devices. The NMCP-E-3SAX supports (5) PCI Bus Master slots and a jumperless PCI INT# control scheme which reduces configuration confusion when plugging in PCI card(s).
- Supports ATAPI (e.g. CD-ROM) devices on both Primary and Secondary IDE interfaces.
- Designed with Winbond W83627HF LPC (Low Pin Count) I/O: (1) floppy port, (1) parallel port (EPP, ECP), (2) serial ports (16550 Fast UART), IrDA version SIR protocol or SHARP ASK-IR protocol, (1) Game port and MIDI port. Includes a PS/2 mouse connector.
- Allows use of a PS/2 keyboard.
- Features Award Plug & Play BIOS. With 4MB(FWH) Flash Memory you can always upgrade to the current BIOS.
- 3SAX utilizes a Lithium battery which provides environmental protection and longer battery life.
- The onboard ICH(82801AA) chip provides the means for connecting PC Interface and peripherals such as; PCI Bus I/F, LPC I/F, SM Bus, IDE and USB.



- Supports up to 4 USB ports, two on the back panel and two for front or USB cable (optional), for more peripheral connectivity options.
- Built-in ATX 20-pin power supply connector.
- Software power-down when using Windows ® 95/98 or Windows ® 2000.
- Supports ring-in feature (remote power-on through external modem, allow system to be turned on remotely).
- Resume by Alarm - Allow your system to turn on according to setup schedule in the BIOS.
- Supports CPU Hardware sleep and SMM (System Management Mode).
- Supports Hot key, Any key or password Keyboard power ON function (KBPO).
- Supports the CPU and Chassis fan Auto stop in the sleep mode.
- Supports the System Power LED (PANEL) blinks in the sleep mode.
- Built-in WOL (Wake On Lan) Connector.
- Y2K Compliant.
- Advanced Configuration Power Interface (ACPI) ready.
- Supports USDM software to offer motherboard various status on Windows ® 95/98.
- Supports the STR (Suspend To RAM) power management by ACPI™s S3.
- Supports the STR indicator red LED (D5) to avoid plugging or un-plugging DIMM modules when in a STR mode or power on mode.
- Supports the AMR Connector for enables the software modem. The Modem Riser Card (MR) or Modem Codec (MC) must be secondary.

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## Hardware Configuration

The following must be completed before powering on your new system:

- Jumper Settings
- System memory Configuration
- Install Processor
- Device Connectors
- External Modem Ring-in Power ON and Keyboard Power ON Functions (KBPO)
- Device Connectors

The M/B is designed with very few jumpers to make the installation faster and easier.

### CPU Installation

#### Installation and Removal

##### Installation:

Install the processor and the fan heatsink using the Installation Notes provided with the boxed processor. First, raise the handle of the 370-pin socket. Carefully install the processor into the 370-pin socket making sure that none of the pins are bent. Then close the handle of the socket. Next install the fan heatsink. Make sure to install the heatsink onto the processor after the processor has been inserted into the 370-pin socket. Place the fan heatsink onto the processor such that the integrated clip lines up with the socket's attach tabs. This will align the fan cable with the PGA370 mark on the 370-pin socket. Remember not to damage the thermal interface pad. Attach the clip onto the socket's attach tabs. (A small tool, such as a pen, may make this process easier.) Take care to consider potential scraping of the motherboard underneath the 370-pin socket attach tabs. Connect the attached fan power cable to the motherboard connector and quickly power on the system to verify that the processor fan is running.

##### Removal:

To simplify the following process, consider removing the motherboard from the chassis before removing the processor. First, unplug the fan power cable from the motherboard's connector. Then pull the integrated clip away from the socket's tab

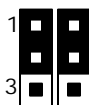
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nearest the fan cable. (A small tool, such as a pen or screwdriver, may make this process easier.) Once the clip is free, slowly lift the fan heatsink straight up away from the socket and the processor. (If the processor has been in operation for a long period of time, then this step may require some extra force; this is because the heat dissipated from the processor will have affected the thermal interface pad) Next, lift up the handle of the 370-pin socket. Finally, carefully remove the processor from the socket making sure not to bend any of the processor pins.

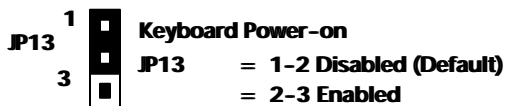
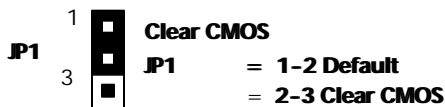
### CPU Clk Configuration

**JP10 JP11**



JP10	JP11	CPU Type Selection
1-2	1-2	Intel® CPU ( Default )
1-2	2-3	100MHz other CPUs
2-3	2-3	133MHz other CPUs

### Jumperconfiguration



**Note: Use the Mainboardlayout picture on page 6 to localies the jumpers**

## Clear CMOS

In order to be able to delete the Bios settings as required quickly and easily, many NMCPE motherboards include a jumper which holds the Bios data in the factory condition and, after a conversion process lasting approx. 5 seconds, deletes the Bios data, converting the unit to the delivery state.

## Keyboard Power On

The keyboard power on function allows you to switch the computer on via the keyboard. Normally you need to set a jumper for this. On NMCPE motherboards this jumper will be found near the I/O shield.

## WOL (Wake On LAN)

The Wake on LAN is a three-pin connection which is provided for connecting to a network card designed for this purpose. This connection is used solely for the purpose of switching on or reactivating the computer via the network card from another computer in the network..



- J 4:** CPU Fan Connector
- J 6:** Case-Fan Connector
- J 5:** Connector für Power FAN

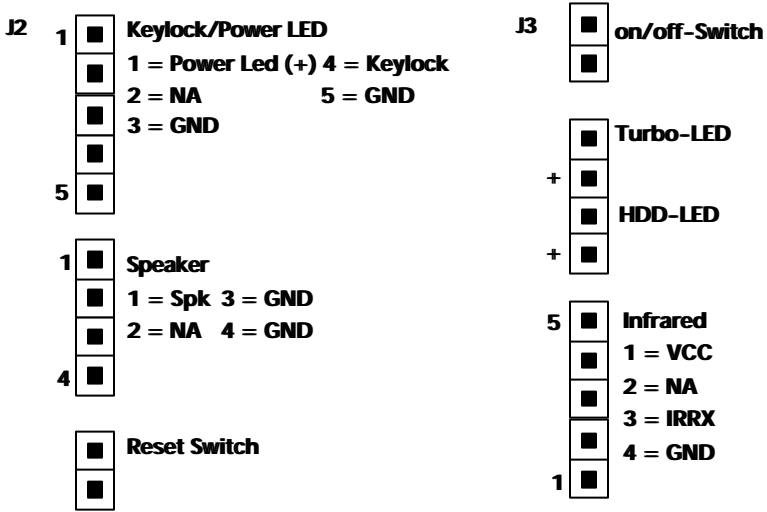


- CD1** CD Audio Connector
- AUX1** AUX Audio Connector



**Note: Use the Mainboardlayout picture on page 6 to localies the jumpers**

## Case Connectors

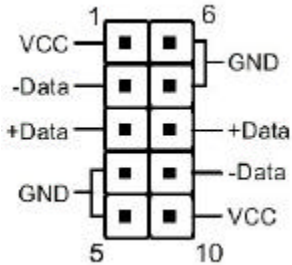


**J2:** Keylock, Speaker, Reset

**J3:** IR Connector TB-LED, HDD-LED, POWER-ON

**Note:** Use the Mainboard layout picture on page 6 to localies the jumpers

## USB 3/4 Connector

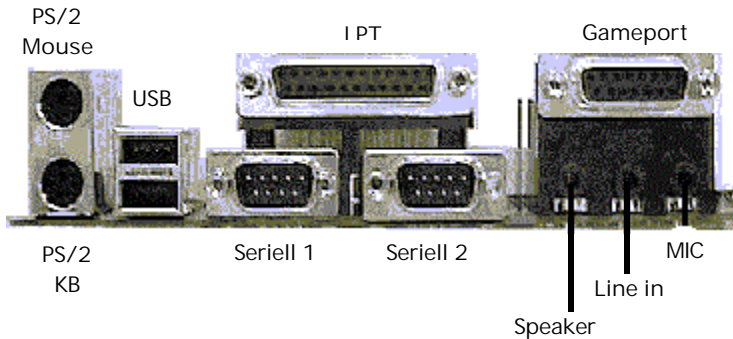


PIN#	Wire Color	Signal Name	Comment
1	Red	Vcc	Cable Power
2	White	-Data	Data
3	Green	+Data	Data
4	Black	Ground	Cable Ground
5	Black	Ground	Cable Ground
6	Black	Ground	Cable Ground
7	Black	Ground	Cable Ground
8	Green	+Data	Data
9	White	-Data	Data
10	Red	Vcc	Cable Power

## The I/O Shield

Before the system can be started up for the first time it is necessary to connect up any external components such as input devices and monitors. On ATX motherboards this is done using the "I/O shield". The I/O shield contains the PS/2 connections, the USB ports and also the serial and parallel connections.

The figure below provides a schematic representation of the connections which you will find on your motherboard.



## Memory configuration

Total Memory	DIMM 1	DIMM2	DIMM 3
= 256MB Maximum	EDO/SDRAM* 8MB, 16MB, 32MB, 64 MB , 128 MB 256MBx1	None	None
= 512MB Maximum	EDO/SDRAM* 8MB, 16MB, 32MB, 64 MB , 128 MB 256MBx1	EDO/SDRAM* 8MB, 16MB, 32MB, 64 MB , 128 MB 256MBx1	None
= 768MB Maximum	EDO/SDRAM* 8MB, 16MB, 32MB, 64 MB , 128 MB 256MBx1	EDO/SDRAM* 8MB, 16MB, 32MB, 64 MB , 128 MB 256MBx1	EDO/SDRAM* 8MB, 16MB, 32MB, 64 MB , 128 MB 256MBx1

\* Supports SDRAM of 8, 16, 32, 64, 128, 256MB DIMM Module.

## DIMM Modul Installation

To remove a memory module simply, follow the guidance provided on the next page.

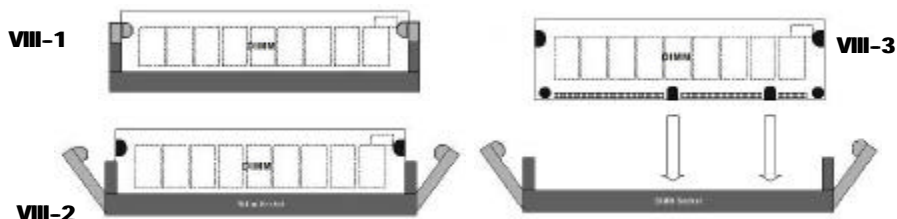
### DIMM Modul

#### Removing the memory

- Unfasten the brackets which are holding the memory module in the socket as shown in Figures VIII-1 and VIII-2. As you loosen the brackets, the module will already lift up a little..
- Now pull the memory module right out of the socket (see Figure VIII-3). If it seems a bit tight, please do not apply any force.

#### Installing memory

- When installing the DIMM module, make sure that the pattern of notches on the pin side of the module agrees with the pattern on the socket as it is not possible to mount the module the other way round.
- When you have inserted the module, lock the brackets as shown in Figure VIII-2.

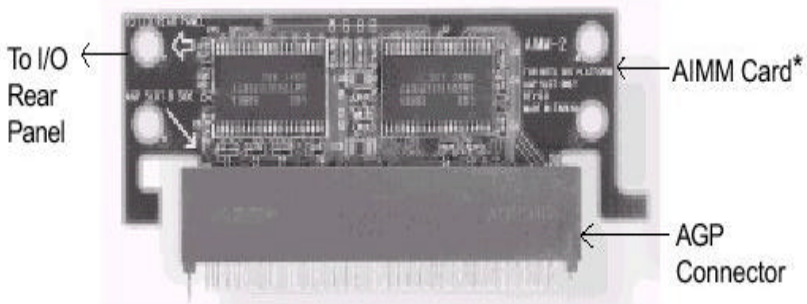


## PC133

VIA has published the PC133 specification as a new DRAM standard. This specification is similar to Intels PC 100 specification. In this specification, precise requirements are defined as to what times and signal tolerances are permitted in order to ensure that the modules in 133MHz motherboards work reliably.

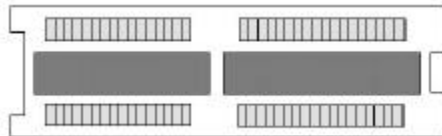
## AIMM Module

- AIMM Card with AGP connector (For integrated graphics to upgrade 4MB display cache).



Note: The AIMM card for Intel 815 chipset M.Bs AGP slot only.  
: The AIMM Card (optional)

## AMR Slot



The 3SAX supports one AMR1 connector to provide a Modem Code (MC) or an Audio/Modem Codec (AMC) configuration. Note the AMR1 connector supports Modem Riser Card (MR), Modem Code (MC) or Audio/ModemCode (AMC) at Secondary only.



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## Technology Information

### Processor

#### The plastic pin grid array

##### **(P.P.G.A.) 370**

The Intel® Celeron™ processors provide power to handle the internet, educational programs, interactive 3D games, and productivity applications. The Intel® Celeron™ processors at 700, 667, 633, 600, 566, 533, 500, 466, 433MHz include integrated L2 cache 128Kbyte. The core for the 700, 667, 633, 600, 566, 533, 500, 466, 433MHz processors have 19M transistors due to the addition of the integrated L2 cache 128Kbyte. All the Intel® Celeron™ processors are available in the plastic pin grid array (P.P.G.A.) form factor.

The P.P.G.A. form factor is compatible with the 370 pin socket. All the Intel® Celeron™ processors are available in the plastic pin grid array (PPGA) package. The PPGA package is compatible with the 370 pin socket and provides more flexibility to design low cost systems by enabling lower profile and smaller systems and providing the potential for reducing costs of processor retention and cooling solutions. Like the Intel® Celeron™ processors that utilize S.E.P.P., the Intel® Celeron™ processors that use P.P.G.A., feature a P6-microarchitecture-based core processor on a single-sided substrate without BSRAM componentry. The Intel® Celeron™ processor at 700, 667, 633, 600, 566, 533, 500, 466, 433, 400, 366, 333, and 300A MHz. Includes Intel MMX™ media enhancement technology. Offers Dynamic Execution technology.

Includes a 32Kbyte (16Kbyte/16Kbyte) non-blocking, level-one cache that provides fast access to heavily used data. Intel Celeron at 700, 667, 633, 600, 566, 533, 500, 466, 433 MHz include integrated L2 cache 128Kbyte. All the Intel® Celeron™ processor utilize the Intel P6 microarchitecture's multi-transaction system bus at 66MHz. The 700, 667, 633, 600, 566, 533, 500, 466, 433MHz processors utilize the Intel® P6 microarchitecture's multi-transaction system bus with the addition of the L2 cache interface. The combination of the L2 cache bus and the processor-to-main-memory system bus increases bandwidth and performance over single-bus processors.

Intel MMX™ technology includes new instructions and data types that allow applications to achieve a new level of performance. Intel's MMX technology is

designed as a set of basic, general-purpose integer instructions that are easily applied to the needs of a wide diversity of multimedia and communications applications. The highlights of the technology are:

- Single Instruction, Multiple Data (SIMD) technique
- 57 new instructions
- Eight 64-bit wide MMX technology registers
- Four new data types
- 

### **Intel® Coppermine processors ( FC-PGA ) 370**

These Coppermine-128K and Coppermine-256K processor is the next addition to the

P6 micro architecture product family. The FC-PGA package is a new addition to the Intel IA-32 processor line and hereafter will be referred to as the iCoppermine FC-PGA processor, or simply iThe processor. The package utilizes the same 370-pin zero insertion force socket (PGA370) used by the Intel Celeron processor. Thermal solutions are attached directly to the back of the processor core package without the use of a thermal plate or heat spreader.

The Coppermine processor, like the Intel Celeron, Intel Pentium II and Pentium III in the P6 family processor, implement a Dynamic Execution micro architecture --- a unique combination of multiple branch prediction, data flow analysis, and speculative execution. This enable these processors to deliver higher performance than the Intel Pentium processor, while maintaining binary compatibility with all previous Intel Architecture processors. The processor also executes Intel MMX technology instructions for enhanced media and communication performance just as it™s predecessor the Intel Pentium III processor. Additionally the Coppermine FC-PGA processor executes streaming SIMD (Single-Instruction Multiple Data) Extensions for enhanced floating point and 3-D application performance. The concept of processor identification, via CPUID, is extended in the processor family with the addition of a processor serial number. The processor utilizes multiple low-power states such as AutoHALT, StopGrant, Sleep and Deep Sleep to conserve power during idle times.

## Coppermine Identifikationstable

	100MHz Discret Cache (Katmai)	133MHz Discret Cache (Katmai)	100MHz Advanced Transfer Cache (Coppermine)	133MHz Advanced Transfer Cache (Coppermine)
500 MHz	P3P	-	P3PE	P3PEB
533 MHz	-	P3PB	-	P3PEB
550 MHz	P3P	-	P3PE	P3PEB
600 MHz	-	P3PB	-	P3PEB
650 MHz	-	-	P3PE	-
700 MHz	-	-	P3PE	-
733 MHz	-	-	-	P3PEB
750 MHz	-	-	P3PE	-
800 MHz	-	-	P3PE	P3PEB
850 MHz	-	-	P3PE	-
866 MHz	-	-	-	P3PEB
900 MHz	-	-	P3PE	-
933 MHz	-	-	-	P3PEB
950 MHz	-	-	P3PE	-
1GHz	-	-	-	P3PEB

- P3P Pentium® III Prozessor  
 E Copperminekernel  
 B 133MHz external Busclk

## **Accelerated Graphics Port**

Typically, 3D graphics rendering requires a tremendous amount of memory, and demands ever increasing throughput speed as well. As 3D products for the personal computer become more and more popular, these demands will only increase. This will cause a rise in costs for both end users and manufacturers. Lowering these costs as well as improving performance is the primary motivation behind AGP. By providing a massive increase in the bandwidth available between the video card and the processor, it will assist in relieving some of these pressures for quite sometime.

## **Hardware Monitoring**

Hardware monitoring allows you to monitor various aspects of your systems operations and status. The features include CPU temperature, voltage and RPM of fan.

## **ATA/UDMA 33/66**

Advanced Technology Attachment, also known as Integrated Drive Electronics (IDE), is a standard electronic interface used between a computer motherboard's bus and the computer's disk storage devices. With IDE, the disk drive controller is built into the logic board in the disk drive. There are two different important standards at this moment.

ATA 33 ( UDMA33 ) and ATA 66 ( UDMA 66 ). UDMA stands for Ultra Memory Direct Access. The different between both standards is not only the max. datatransfer. UDMA needs a 40 pin cable and UDMA 66 needs a 80 pin cable. To use a UDMA 66 device your mainboard has to support UDMA 66.

## **AMR Card**

AMR stands for Audio Modem Riser Card, a special Card which changes the digital signals from the AC 97 Codec. Some chipsets like the Intel® 800 series have the capability to generate digital sound and modem signals. To use this signals with standard devices like speakers or to get an internet connect you have to change this digital signal to analog signals. This is the function of the AMR Card. The AMR Card works in a special AMR slot which is installed on the mainboard.

## **USB ( Universal Serial Bus )**

USB (**U**niversal **S**erial **B**us) is an interface developed by Intel which can be used in many applications. It is a variation of the IEEE 1394 ("Firewire"), which is also used outside computers. Up to 127 devices can be connected to the USB cable and the data transfer rate is up to 1MB/second, which is also sufficient for scanners and printers. These devices can be unplugged and plugged in during operation. Windows 95 OSR 2.5 and Windows 98 detect the change automatically and install the appropriate drivers.

## **STR ( Suspend To RAM )**

The NMCPE-3SAX supports the STR power management state by maintaining the appropriate states on the SDRAM interface signals. The power source must be kept alive to the SDRAM during STR (ACPI S3).

1. To enable the ACPI function and use the STR functionally to save your system energy, you are recommended to confirm the following requirements:

- a. In BIOS, please select "ACPI function: Enable" and "ACPI Suspend Type: S3(STR)" in the Power Management Setup menu.
- b. Then, please type the following before installing the Windows ® 98:  
{Driver}:> Setup /p j

If the Windows ® 98 installed in your system without the parameters above, please do refer your manual or contact Microsoft for more detail and then upgrade the system to support ACPI function.

- c. Restart your system.
  - d. Getting in to the "Advanced" of the Power Management icon of Control Panel, and selecting the "Stand By" in the Power Buttons.
2. Getting start with STR function, please click the START button and choose Shut Down icon. Then, select the Stand By option in the Shut Down Windows box to let system go to STR mode. Here are the differences between STR power saving mode and Green (or Suspend) mode:
- a. It is the most advanced Power Management mode
  - b. It cuts all the power supplied to peripherals except to Memory - max. power
  - It saves and keeps all on-screen data including any executed applications to SDRAM.
  - d. You must push the Power button connected with onboard J3 pin to wake up you system (not to click to mouse or press keyboard to wake up the system.) Just pushing Power button, your system will quickly back to the last screen for you.

## The BIOS

This chapter covers the setting and functions of the Bios, its commands and their significance, as well as the possible consequences of the settings. In this chapter you will find the AWARD Bios functions for the chipsets used on your NMCPE motherboard. This means that you will find Bios functions described which are not available on your NMCPE motherboard.

### What is the Bios?

The Bios (Basic Input Output System) is a kind of mini-operating system which configures your computer on start-up. Chip-specific settings such as the simple specification of the hard disk types used and the date are defined here and, if requested, these are backed up in the so-called CMOS. CMOS is a small battery-powered memory which retains the settings even after the computer has been switched off. This means that it is not necessary to keep reconfiguring the Bios.



A distinction is made in the Bios chips not only between type or manufacturer but also as regards the storage capacity of the chip. Generally, 128KB ( 1MBit ) and 256KB ( 2 MBit )-sized chips are used on the motherboards. More recent versions of the Bios are available in 512KB.

The capacity is usually stated as a 1 (= 128KB) or a 2 (= 256KB) [see circle above]. The complete type designation gives the voltage to be used during the flash process.

On the next few pages the individual setup menu options and the options provided under each option will be explained.

## BIOS Setup

- Power on the computer and press the <Del> key immediately, this will bring you into the BIOS CMOS SETUP UTILITY.
- It is possible for the CMOS battery to fail, this will cause data loss in the CMOS only. If this does happen you will need to reconfigure your BIOS settings.

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

<ul style="list-style-type: none"> <li>&gt; <b>Standard CMOS Features</b></li> <li>&gt; <b>Advanced BIOS Features</b></li> <li>&gt; <b>Advanced Chipset Features</b></li> <li>&gt; <b>Integrated Peripherals</b></li> <li>&gt; <b>Power Management Setup</b></li> <li>&gt; <b>PnP/PCI Configuration</b></li> <li>&gt; <b>PC Health Status</b></li> </ul>	<ul style="list-style-type: none"> <li>&gt; <b>Frequency/Voltage Control</b></li> <li><b>Load Fail-Safe Defaults</b></li> <li><b>Load Optimized Defaults</b></li> <li><b>Set Supervisor Password</b></li> <li><b>Set User Password</b></li> <li><b>Save &amp; Exit Setup</b></li> <li><b>Exit without Saving</b></li> </ul>
<p><b>ESC: Quit      F9 : Menu in Bios</b>  <b>F10: Save &amp; Exit Setup</b></p>	<p><b>- ↑ ↓ → : Select Item</b></p>

The following steps will take you to the main Bios menu.

- Switch on your computer or perform a hardware RESET (not recommended if you have any applications running). After a few system checks, the message “Press DEL to enter SETUP” will appear.
- Press the <DEL> key to start the Award Bios program and the following menu will appear.

Choose one of the options and press <ENTER>. Adjust the settings under this option to your system (see details further on).

- You can press <ESC> at any time to leave the submenu.
- In the main menu, select <Save & Exit Setup> to save your changes and then start your system up again. Select <Exit Without Saving> to cancel the changes and start your system up again..

The various options in the main menu are explained in the sections below.



## **Standard CMOS Features**

Use this menu for basic system configuration.

## **Advanced BIOS Features**

Use this menu to set the Advanced Features available on your system.

## **Advanced Chipset Features**

Use this menu to change the values in the chipset registers and optimize your system™s performance.

## **Integrated Peripherals**

Use this menu to specify your settings for integrated peripherals.

## **Power Management Setup**

Use this menu to specify your settings for power management.

## **PnP / PCI Configuration**

This entry appears if your system supports PnP / PCI.

## **PC Health Status**

This item is only show the system health status (include Voltage, Fan speed, CPU temperature...)

## **Frequency/Voltage Control**

Use this menu to specify your settings for frequency/voltage control.

## **Load Fail-Safe Defaults**

Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.

## **Load Optimized Defaults**

Use this menu to load the BIOS default values that are factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.

## Standard CMOS Setup

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

<b>Date ( mm:dd:yy )</b>	<b>Mon. Jan 24 2000</b>	<b>Item Help</b>
<b>Time ( hh:mm:cc )</b>	<b>9 , 47 , 2</b>	<b>Menu Level ▶</b>
▶ <b>IDE Primary Master</b>	<b>Press Enter None</b>	
▶ <b>IDE Primary Slave</b>	<b>Press Enter None</b>	
▶ <b>IDE Secondary Master</b>	<b>Press Enter None</b>	
▶ <b>IDE Secondary Slave</b>	<b>Press Enter None</b>	
<b>Drive A</b>	<b>1,44M. 3,5 in.</b>	
<b>Drive B</b>	<b>None</b>	
<b>Video</b>	<b>EGA/VGA</b>	
<b>Halt On</b>	<b>All, But Keyboard</b>	
<b>Base Memory</b>	<b>640K</b>	
<b>Extended Memory</b>	<b>31744K</b>	
<b>Total memory</b>	<b>32788</b>	
<b>- / @ -&gt; : Move Enter: Select</b>	<b>+ / - / PU / PD : Value</b>	<b>ESC:Exit F1:General Help</b>
<b>F5: Previous Values</b>	<b>F6:Fail Save Defaults</b>	<b>F7:Optimized Defaults</b>

1. Select "STANDARD CMOS SETUP" from the main menu. Use the arrow keys to move between the menu options. The individual menu options can be modified by using the PgUp/PgDn/+/- keys. Some fields allow you to make direct inputs. The individual commands are explained on the next page.

## THE BIOS

The table on below shows you the available options you will find in the standard CMOS Setup

Item	Options	Description
Date	Month DD YYYY	Set the system date. Note that the „Day™ automatically changes when you set the date
Time	HH : MM : SS	Set the system time
IDE Primary Master	Options are in its sub menu (described in Table 3)	Press <Enter> to enter the sub menu of detailed options
IDE Primary Slave	Options are in its sub menu (described in Table 3)	Press <Enter> to enter the sub Menu of detailed options
IDE SecondaryMaster	Options are in its sub menu (described in Table 3)	Press <Enter> to enter the sub menu of detailed options
IDE Secondary Slave	Options are in its sub menu (described in Table 3)	Press <Enter> to enter the sub menu of detailed options
Drive A Drive B	None 360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in	Select the type of floppy disk drive installed in your system
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device
Halt On	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
Base Memory	N/A	Displays the amount of conventional memory detected during boot up
Extended Memory	N/A	Displays the amount of Extended memory detected during boot up
Total Memory	N/A	Displays the total memory available in the System

## Advanced Bios Feature

This section allows you to configure your system for basic operation. You have the opportunity to select the system™s default speed, boot-up sequence, keyboard operation, shadowing and security.

### CMOS Setup Utility – Copyright (C) 1984–2000 Award Software Advanced Bios Feature

Virus Warning	Disabled	▲	Item Help
CPU Internal Cache	Enabled		Menu Level ▶
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	LS/ZIP		
Other Boot Device	Enabled		
Swap Floppy Drive	Disabled		
Boot Up Floppy Seek	Enabled		
Boot Up Numlock Status	On		
Gate A20 Open	Fast		
Typematic Rate Setting	Disabled		
x Typematic Rate ( Chars/sec )	6		
x Typematic Delay	250		
Security Option	Setup		
OS Select For DRAM > 64 MB	None-OS2		
HDD S.M.A.R.T. Capability	Enabled	▼	
- ~ @ ~ : Move Enter: Select      + / - / P U / P D : Value F10: Save      ESC: Exit F1: General Help F5: Previous Values      F6: Fail Save Defaults      F7: Optimized Defaults			

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings.

#### ➤ Virus Warning

If this option is enabled, the Bios stops the PC in the event of any write access to the boot sector or the partition table and does not resume until the user confirms that the operation should proceed. However, the Bios cannot distinguish real viruses from an operating system reinstallation and will warn of a possible virus attack in either case.

#### Setting options:

- Enabled
- Disabled (default setting)

**Recommendation:** you should enable this option after installing the operating system as it will help to arrest any viruses. Care should be exercised when running boot managers. Sometimes these write data to the boot sector during boot-up, so that an alarm is triggered every time this happens. In this case you should disable the option.

➤ **CPU Internal / External Cache**

Every CPU today possesses an internal buffer (level 1 or "L1" cache). Pentium® II/III processors also have an L2 cache on the CPU printed circuit board. With this cache option it is possible to prevent access to the cache – this makes the processor work significantly more slowly.

**Setting options:**

- **Enabled (default setting)**
- **Disabled**

**Recommendation:** make sure that the two options are both selected. Otherwise your PC will not work at its full potential speed. Often when the operating system crashes it is possible to disable the cache in order to test whether this has a fault. If the problems disappear after disabling, then you may assume that the cache is faulty.

➤ **First/Second/Third/Other Boot Device**

This field is used to specify the order in which the various drives will be addressed. In other words, the entry here determines where the system should begin its search for an operating system. The first drive in the sequence which has a bootable system is used.

**Setting options:**

- **A, C, SCSI / C, A, SCSI / SCSI, C, A / LS/Zip,C / C,CDROM,A**
- **CDROM,C,A / Conly**

**Recommendation:** enter the drive on which the operating system is installed first. After that, choose drive A. This will allow you to boot up your computer from a diskette in case the primary boot drive fails. If you mainly boot up from diskette, you should put that drive in first place

➤ **Boot up NumLock Status**

This option specifies whether the numeric keypad should be locked on during the boot-up procedure.

**Setting options:**

- **Enabled**
- **Disabled (default setting)**

**Recommendation:** you can either enable or disable this option, as you please. This setting does not affect system performance.

➤ **Swap Floppy Drive**

If the system has two floppy drives, you can swap the logical drive name assignments.

**Setting options:**

- **Enabled**
- **Disabled.**

➤ **Boot Up Floppy Seek**

Seeks disk drives during boot up. Disabling speeds boot up.

**Setting options:**

- **Enabled**
- **Disabled.**

➤ **Security Option**

This option is used to specify whether when a password is assigned only the Bios is accessed or the entire system.

**Setting options:**

- **Setup (default setting)**
- **System**

**Recommendation:** *only define a password for your system if you really need it. If you forget your password, the only way to access the system is via CMOS Reset..*

➤ **OS Select for DRAM > 64MB**

This function is intended for operating OS/2 with more than 64MB RAM. In version 3.0, OS/2 can only address 64 MB of RAM.

**Setting options:**

- **NON-OS2 (default setting)**
- **OS2**

**Recommendation:** *if you use Windows 3.11 you should set this option to Disabled. If you use OS/2 as the operating system and have installed more than 64 MB RAM but have only been able to use 64 MB up to now, you should set this option to Enabled.*

## Advanced Chipset Feature

Under Chipset Feature Setup you can enter settings relating to the control of the memory as well as defining some special chipset settings.

**CMOS Setup Utility – Copyright ( C ) 1984–2000 Award Software**  
**Advanced Chipset Feature**

SDRAM Latency Time	3	▲ ▼	<b>Item Help</b>
SDRAM Cycle Time Tras/Trc	6/8		Menu Level ▶
Ras to Cas Delay	3		
RAS Precharge Time	3		
System Bios Cachable	Disabled		
Video Bios Cachable	Disabled		
Memory Hole at 15 M	Disabled		
CPU Latency Timer	Enabled		
Delayed Transaction	Enabled		
On Chip Video Size	64M		
AGP Graphics Aperture Size	64M		
← → : Move Enter: Select      +/-/PU/PD: Value F10: Save      ESC: Exit F1: General Help F5: Previous Values      F6: Fail Save Defaults      F7: Optimized Defaults			

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings. The various options are explained over the next few pages.

### ➤ SDRAM CAS Latency Time

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing.

**The Choice:**

- 2
- 3

**Recommendation:** tuning at this point can easily turn a stable system into one likely to crash at any minute. You should therefore rely on the automatic configuration performed by the SPD chip. If you use old SDRAM modules, you should first test the automatic timings in the SDRAM Configuration option

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➤ **SDRAM Cycle Time Tras/Trc**

Select the number of SCLKs for an access cycle.

**The Choice:**

5/7

6/8

➤ **SDRAM RAS-to-CAS Delay**

This field lets you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. *Fast* gives faster performance; and *Slow* gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

**The Choice:**

2

3

**Recommendation:** *the performance gains you can expect are negligible and are definitely not worth the risk of an unstable computer. Only make an entry here if you are familiar with the specification of your memory.*

➤ **SDRAM RAS Precharge Time**

If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete and the DRAM may fail to retain data. **Fast** gives faster performance; and **Slow** gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

**The Choice:**

2

3

**Recommendation:** *once again we recommend that you accept the automatic setting configured by SPD. If your modules do not work with the automatic setting, you should perform a manual configuration.*

➤ **Delayed Transaction**

This option enables the 32-bit write buffer during data transfer over the PCI bus. To ensure full compatibility with PCI standard 2.1, Delayed Transaction must be set to Enabled.

**Setting options:**

- Enabled
- Disabled

**Recommendation:** *set the Delayed Transaction option to Enabled. Problems may only be expected on PCI motherboards of the first generation (older than three years) or if there is still an older PCI plug-in printed-circuit board in the PCI bus.*



➤ **AGP Graphics Aperture Size (MB)**

AGP video cards can use random access memory as texture memory. The Graphics Address Remapping Table (GART) transfers graphics data from the video memory to the random access memory and back again. To AGP video cards the memory provided by the RAM appears as continuous. In reality, however, it does not have to be continuous – the GART only maps the memory as a continuous block. The size of the block defines the size of the memory address window for the AGP.

**Setting options:**

- 4 / 8 / 16 / 32 / 64 / 128 / 256

**Recommendation:** *do not change anything unless this would mean having to accept limitations when running games. The standard value is 64 MB. If this value is reduced, no memory is released. The aperture size is a virtual size and does not really require the specified memory.*

## Onboard Display Cache Setting

Setting the onboard display cache timing.

➤ **CAS # Latency**

Select the local memory clock periods.

**The Choice: 2, 3**

➤ **Paging Mode Control**

Select the paging mode control.

**The Choice: Close, Open.**

➤ **RAS-to-CAS Override**

Select the display cache clock periods control.

**The Choice: by CAS# LT, Override(2).**

➤ **RAS# Timing**

This item controls RAS# active to Protegra, and refresh to RAS# active delay ( in local memory clocks).

**The Choice: Fast, Slow.**

➤ **RAS# Precharge Timing**

This item controls RAS# precharge (in local memory clocks).

**The choice: Fast, Slow.**

## Power Management Setup

This group of functions is provided so that you can enable and adjust the Power Management function.

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

ACPI Function	Enabled	Item Help
▶ ACPI Suspend Type	S3 (STR)	Menu Level ▶
Power Management	Press Enter	
Video Off Method	DPMS	
Suspend Type	Stop Grant	
Video Off Option	Yes	
Modem use IRQ	3	
Suspend Mode	Disabled	
Soft-Off by PWRBTN	Instant OFF	
HDD Power Down	15 Min	
▶ Wake Up by PCI Card	Press Enter	
Power On By Ring	Disabled	
CPU Thermal-Throttling	50%	
Resume by Alarm	Disabled	
* Date (of Month)	0 0 0	
* Time (hh:mm:ss)	0	
** Reload Global Timer Events	**	
Primary IDE 0	Disabled	
~-@- : Move Enter: Select                      +/-/PU/PD: Value F10: Save                      ESC: Exit F1: General Help F5: Previous Values                                  F6: Fail Save Defaults                                  F7: Optimized Defaults		

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings.

The various options are explained over the next few pages.

### ➤ ACPI Function

This field allows you to enable or disable the ACPI function of the board. ACPI allows the operating system to take over direct control of the Power Management and Plug and Play functions of a computer.

#### Setting options:

- Enabled
- Disabled

**Recommendation:** to ensure that the ACPI functions run normally, you must be careful on two points. First, your operating system must support ACPI, something which up to now only Microsoft® Windows® 98 has done. Secondly, all devices and additional installed cards on your system, both hardware and software (drivers), must fully support ACPI..

➤ **ACPI Suspend Type**

This item allows you to select S1(POS) or S3(STR) function.

**Setting Options**

- **S1 ( POS )**
- **S3 ( STR )**

➤ **Power Management**

This parameter is used to set the various modes which are responsible for reducing power consumption.

**Setting options:**

- **User Define**
- **Max Define**
- **Min Define**

➤ **Soft-OFF by PWRBTN**

This parameter defines the method by which you switch off the computer.

**Setting options:**

- **Delay 4sec.**
- **Instant Off**

**Recommendation:** choose the Instant Off setting, as this will allow you to switch the computer on and off via a simple click of a button.

➤ **MODEM Use IRQ**

This option allows you to specify the interrupt line of any modem which is installed. Activities on this line wake the computer up e.g. in order to receive a fax.

**Setting options:**

- **3-11**
- **NA**

**Recommendation:** set one free IRQ

## PnP/PCI Configuration

This menu option contains the functions which control the Plug and Play and the IRQ assignment.

### CMOS Setup Utility – Copyright (C) 1984–2000 Award Software PnP PCI Configurations

Reset Configuration Data	Disabled	Item Help
Resources Controlled By	Auto (ESCD)	Menu Level ►
x IRQ Resources	Press Enter	
PCI/VGA Palette Snoop	Instant OFF	
INT Pin 1 Use IRQ No.	Auto	
INT Pin 1 Use IRQ No.	Auto	
INT Pin 1 Use IRQ No.	Auto	
~@~ :Move Enter: Select      +/-/PU/PD:Value F10:Save      ESC:Exit F1:General Help F5: Previous Values      F6:Fail Save Defaults      F7:Optimized Defaults		

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings. The various options are explained over the next few pages.

#### ➤ Resources Controlled By

This option allows you to choose whether the system should assign the IRQs automatically or whether this should be done manually.

#### Setting options:

- Auto
- Manual

**Recommendation:** *provided you have not installed any critical (older ISA cards) components on your system, you should let the Bios perform this assignment automatically*

➤ **Reset Configuration Data**

If you select **Enabled**, all the settings relating to Plug&Play and IRQs will be reset and replaced by the default settings.

**Setting options:**

- Enabled
- Disabled

**Recommendation:** *only set this function if a conflict occurs when new components are installed.*

➤ **PCI/VGA Palette Snoop**

Leave this field at Disabled.

**Choices are Enabled, Disabled.**

➤ **INT Pin1 to Pin4 Assignment**

These settings allow the user to specify what IRQ will be assigned to PCI devices in the chosen slot. Options available: Auto,3,4,5,7,9,10,11,12,14 & 15. The defaults are Auto.

## Integrated Peripherals

Under Integrated Peripherals you can enable or disable the IDE ports. The UDMA functions and control of the serial and parallel interfaces are also specified here.

### CMOS Setup Utility – Copyright (C) 1984–2000 Award Software Integrated Peripherals

OnChip IDE Channel 0	Enabled	▲	<b>Item Help</b>
OnChip IDE Channel 0	Enabled		Menu Level ▶
IDE Prefetch Mode	Enabled		
IDE Master PIO	Auto		
IDE Slave PIO	Auto		
IDE Master PIO	Auto		
IDE Master PIO	Auto		
IDE Slave UDMA	Auto		
IDE Slave UDMA	Auto		
IDE Master UDMA	Auto		
IDE Master UDMA	Auto		
USB Controller	Disabled		
USB Keyboard	Disabled		
Init Display First	Onboard/AGP		
IDE HDD Block Mode	Enabled		
Power On Function	Hot Key		
Keyboard PW On Password	Enter		
Hot Key Power On	Ctrl-F1	▼	
--[F6]-- : Move Enter: Select                      +/-/PU/PD: Value F10: Save                      ESC: Exit F1: General Help F5: Previous Values                                  F6: Fail Save Defaults                                  F7: Optimized Defaults			

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings. The various options are explained over the next few pages.

#### ➤ On chip Primary/Secondary PCI IDE

This option enables the first IDE port.

##### Setting options:

- Enabled
- Disabled

**Recommendation:** if you want to connect any drives to this port, the option must be enabled.

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

This parameter is used to specify the PIO mode of your hard disk.

##### Setting options:

- Mode 0-4
- Auto

**Recommendation:** if you do not know the PIO mode of your hard disk, select Auto.

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

This parameter is used to specify whether the drives on each of the connected UDMA ports can be used.

**Setting options:**

- Enabled
- Disabled

**Recommendation:** *the UDMA setting for a given port depends on the UDMA capability of the drives used.*

➤ **USB Controller**

Select **Enabled** if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals.

**The choice: Enabled, Disabled.**

➤ **USB Legacy Device Support**

Select **Enabled** if your system contains a Universal Serial Bus (USB) controller and you have a USB Legacy Device (Keyboard, Mouse).

**The choice: Enabled, Disabled.**

➤ **Init Display First**

This option is used to initialize the video card. If two screen settings are possible on your system, then you should specify here whether the PCI or the AGP video card should be the first card to be initialized.

**Setting options: PCI , AGP**

**Recommendation:** *if two screen settings are possible, select the card which you would like to use as the first video card.*

➤ **AC97 Audio**

This item allows you to decide to Auto/disable the 815 chipset family to support AC97 Audio.

The function setting AC97 Audio Codec states. The system default is Auto.

➤ **AC97 Modem**

This item allows you to decide to enable/disable the ICH chipset family to support AC97 Modem.

Select Enable of AC97 Modem item, you must be primary Modem Riser Card (MR) in hardware.

**The choice: Auto, Disabled.**

➤ **Onboard FDD Controller**

This option enables or disables the floppy disk drive controller.

**Setting options:**

- **Enabled (default setting)**
- **Disabled**

➤ **USB Keyboard Support**

To enable USB keyboard support, set this parameter to **Enabled**.

**Setting options:**

Enabled

Disabled (default setting)

**Recommendation:** if you would like to use a USB keyboard, set this parameter to Enabled.

➤ **On Board Serial Port 1/2**

This parameter is responsible for the serial On Board interfaces. It is used to specify the address of the relevant interface

*Setting options.*

**Einstellmöglichkeiten:**

**Auto / 2E8/IRQ3 / 2F8/IRQ3 / 3E8/IRQ4 / 3F8/IRQ4 / Disabled**

**Recommendation:** choose either Auto or else the default settings

➤ **Onboard Parallel port:**

This parameter is responsible for the parallel On Board interfaces. It is used to specify the address of the relevant interface

**Setting options.**

378H: **Onboard LPT Port and Address is 378H and IRQ7.**

278H: **Onboard LPT Port and Address is 278H and IRQ5.**

3BCH: **Onboard LPT Port and Address is 3BCH and IRQ7.**

Disabled: **Disabled the Onboard Parallel Port.**

➤ **Onboard Parallel Port Mode :**

This field allows the user to select the parallel port mode. The default is Normal.

**Setting Options:**

**Normal:** **Standard mode. IBM PC/AT Compatible bidirectional parallel port.**

**EPP:** **Enhanced Parallel Port mode.**

**ECP:** **Extended Capabilities Port mode.**

**EPP+ECP:** **ECP Mode & EPP Mode.**



➤ **PWRON After PW-Fail**

The system will stay of or power on after a power interrupte.

The default is OFF.

**Fomer-Status:** Stay off or power on depend on system safe shut-down or power fail.

**ON** : System always power on after a power interrupte.

**OFF** : System always stay off after a power interrupte.

## PC Health Status

**CMOS Setup Utility – Copyright ( C ) 1984-2000 Award Software**  
**PC Health Status**

Current CPU Temp.	31°C/87°F	Item Help  Menu Level ►
Current System Temp.	0°C/32°F	
Current CPU Fan Speed	6135RPM	
Current Chassis Fan Speed	Auto (ESCD)	
Vcore	1.62V	
3.3V stand by	3.20V	
3.3V	3.22V	
5V	5.01V	
12V	12.12V	
← → Move Enter: Select      +/-/PU/PD: Value F10: Save      ESC: Exit F1: General Help F5: Previous Values      F6: Fail Save Defaults      F7: Optimized Defaults		

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings.

You can use the function keys here. The function keys produce the following effects:

The various options are explained over the next few pages.

➤ **Current CPU Temperature:**

This is the current temperature of the CPU.

➤ **Current System Temperature:**

This is the Current temperature of the system.

➤ **Current CPU FAN Speed:**

The current CPU fan speed in RPMs.

➤ **Current Chassis FAN Speed:**

The current chassis fan speed in RPMs.

➤ **CPU(V) : The voltage level of the CPU(Vcore/Vcache).**

3.3V, 5V, 12V: The voltage level of the switch power supply.

# Frequency/Voltage Control

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

System Memory Frequency	Host CLK	Item Help Menu Level ►
Auto Detect DIMM/PCI Clk	Enabled	
CPU Host/PCI/Spread Spec.	Default	
CPU Clock Ratio	x3	
← → : Move    Enter: Select    + / - / P / D : Value    F10: Save    ESC: Exit    F1: General Help F5: Previous Values    F6: Fail Save Defaults    F7: Optimized Defaults		

Use the cursor keys to select the option. Use the PgUp/PgDn/+/-keys to adjust the settings. The various options are explained over the next few pages

➤ **Auto Detect DIMM/PCI Clk**

This function has the same background as Spread Spectrum. If there are any unused PCI and/or DIMM slots, this function prevents the slots being controlled by the clock generator. The function also affects the radiation characteristics.

**Setting options:**

- Enabled
- Disabled

**Recommendation:** leave this option set to Enabled.

➤ **CPU/SDRAM/AGP/PCI/Spd Spec**

The mainboard is designed to set the CPU/SDRAM/AGP/PCI clock at jumperfree. This item allows you to select the CPU Host speed and PCI clock speed by .Enterle key. If ifdefault1A is means the CPU Host speed that depend on the CPU 100MHz or 133MHz.

➤ **CPU Clock Ratio**

This item allows you to select the CPU ratio. If the CPU ratio is fixed. This item was no function. Configuration options: [3.x]...[7x], [7.5x], [8.x].

➤ **CPU Vcore Voltage**

This item allows you to increase the CPU Vcore Voltage.

## **Load Fail-Safe Defaults**

To load the default settings on your motherboard, enter "Y" at the prompt and hit the carriage return key.

## **Load Optimized Defaults**

When you press <Enter> on this item you get a confirmation dialog box with a message similar to: Load Optimized Defaults (Y/N) ? N  
Pressing ,Y™ loads the default values that are factory settings for optimal performance system operations.

## **Supervisor Password**

This option is used to enter the password (Administrator) for access to Bios setup, boot-up and saving in CMOS.

## **User Password**

This option is used to specify the password for access to your PC.

### **Recommendation:**

*Do not use this function unless it is absolutely necessary. We recommend that you keep the password ready to hand in a safe place in case you forget it.*

## **Save & Exit setup**

This option saves your settings and terminates setup.

## **Exit without saving**

If this option is selected, setup is terminated without the settings having been saved..

## Bios Update

If you want to replace the Bios version on your system with an update, the sections below contain guidance on how to perform an update in a simple fashion.

NMCPE cannot guarantee that no errors will occur during the flash procedure, even if you follow these instructions to the letter.

### Bios flash procedure

*Do not perform any Bios update unless it is really necessary. Flash updating the Bios is entirely at your own risk.*

- Download the necessary flash program Awdflash.exe (if possible, the latest version) from the Internet, together with the associated xxx.bin file which goes with your board. Make sure you only use the file designed for your board and for the size of the EEPROM that you have on the board.
- Create a system diskette, which should contain only the data necessary for booting up. Copy the two files (flash program and bin file) to this system diskette.
- Boot up the computer using this system diskette (not a start-up diskette).
- Start the Awdflash.exe program and enter the correct name of the \*.bin file (including the BIN suffix). The example below illustrates the syntax which has to be used.
  - **[drive] :\ [flash program] [name of Bios file] /[parameters]**

Here is a specific example:

- **awdf flash bx0604.bin /py /sn**
- This specific example instructs the flash program to program the Bios file specified without prior user prompting and not to create a backup of the original Bios file.

- Another option is to simply invoke the flash program, as follows:  
**[drive]:\ [flash program]**

Here is a specific example:

**A:\awdfflash**

- This entry triggers a sequence in which first of all you are prompted to enter the name of the file to be flashed. Enter the correct name including the file suffix and confirm by pressing <Enter>.
- Confirm that you want to back up your entries and enter a name xyz.bin for the Bios which is to be backed up.
- The next prompt relates to backing up the Bios file. Enter "Y" if you want the Bios to be backed up. If you want to back up the Bios, enter a name of your choice for the file. Do not forget to give it the suffix .bin.
- After the Bios has been successfully flashed, press F1 to perform a Reset (reboots the computer) or F10 to terminate the program.
- When the computer starts up again, load the setup defaults in the Bios and check your individual entries..

## Programmparameter

py	Program flash memory;
pn	No programming
sy	Save BIOSfile to Disk
sn	No save
?	„Hilfefunktion“

## Notes

### Liability and Warranty

NMCPE Peripherals Europe GmbH generally will not accept liability or any claims under warranty where damage or malfunctions arise as a consequence of:

- failure to observe the operating instructions;
- incorrect operation and improper use;
- use for a purpose other than that intended;
- overclocking
- use of spare parts and purchased parts which have not been expressly approved by the manufacturer;
- reconstruction and modifications which have not been approved by the manufacturer;
- improper maintenance and servicing.

The conditions of warranty and liability contained in NMCPE-GmbH's general terms and conditions shall apply.

### Technical Changes

NMCPE GmbH reserves the right to make changes without prior notice to the illustrations and factual content of this manual in order to reflect technical developments. This affects particularly any measures which promote technical progress.

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