FCC Statement and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

The vendor makes no representations or warranties with respect to the contents here of and specially disclaims any implied warranties of merchantability or fitness for any purpose. Since our products are under continual improvement, we reserve the right to make changes without notice.

 Even thought we have taken every care in the preparation of this user's manual, no guarantee is given as to the correctness of its contents.

Contents

English

M7NCG Features

CPU
- Supports the AMD® Socket462 processor up to XP 3000+.
- Running at 200/266/333MHz Front Side Bus.

Chipset
- North Bridge: nFORCE2 Crush 18G IGP Chipset.
- South Bridge: ❶MCP-T Chipset
  ❷High Speed 800Mb/s Hyper-Transport interface to the MCP-T.

Main Memory
- Supports up to 3 DDR devices.
- Supports 200/266/333 MHz (without ECC) DDR devices.
- High performance 128-bit DDR333 Twin Bank Memory Architecture.
- The largest memory capacity is 3GB.

Slots
- Three 32-bit PCI bus master slots.
- One CNR slot
- One AGP slot: ❶AGP3.0 8X interface at 533Mb/s.
  ❷Supports AGP 4X, 8X.

On Board IDE
- Supports four IDE disk drives.
- Supports PIO Mode 4, Master Mode and Ultra DMA 33/66/100/133 Bus Master Mode.

On Board VGA
- GeForce 4MX Series graphics processing unit(GPU).

1394 Chip
- Realtek 8801BL.
- Support 2 ports with transfer rate up to 400Mbps.

Audio
- AC97 2.2 interface.
- PC99 complaint.
- Supports 6 channels.
- S/PDIF Out.

TV Out
- Support s-video output mode

- Display resolution up to 1024 x 768 (including all DOS modes)
- Support TV formats: NTSC-M (North America and Taiwan)
  NTSC-J (Japan)
  PAL (Europe and Asia)

On Board Peripherals
- Supports 360K, 720K, 1.2MB, 1.44MB and 2.88MB floppy disk drivers.
- Supports 2 serial ports.
- Supports 1 multi-mode parallel port. (SPP/EPP/ECP mode)
- Supports PS/2 mouse and PS/2 keyboard
- Supports 2 back USB2.0 ports and 4 front USB2.0 ports.
- Supports S/PDIF Out connector.

BIOS
- AWARD legal Bios.
- Supports APM1.2.
- Supports ACPI.
- Supports USB Function.

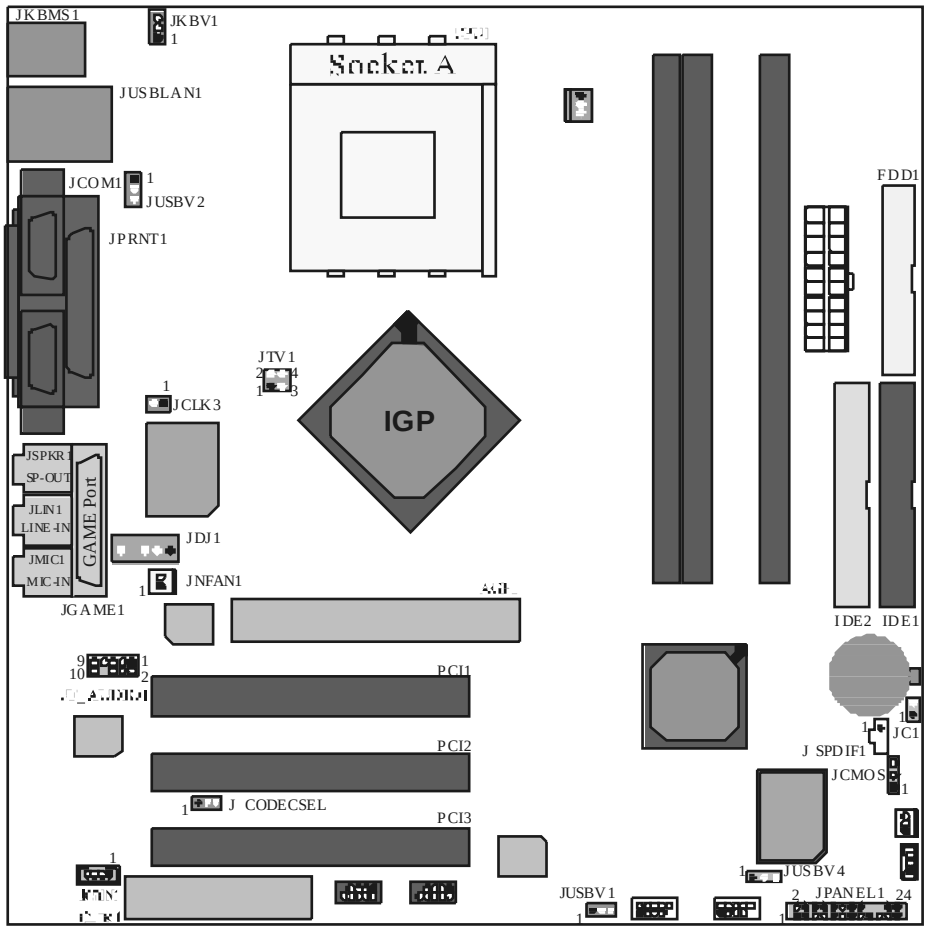
Operating System
- Offers the highest performance for MS-DOS, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

Dimensions
- Micro ATX Form Factor: 24.4cm X 24.4cm (W X L)

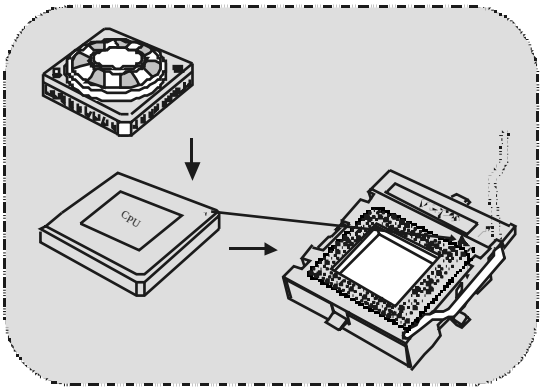
Package contents

- HDD Cable X1
- FDD Cable X1
- Fully Setup Driver CD X1
- User Manual X1
- USB Cable X2 (Optional)
- SPDIF OUT Cable X1 (Optional)
- IEEE 1394 Cable X1

Layout of M7NCG



CPU Installation

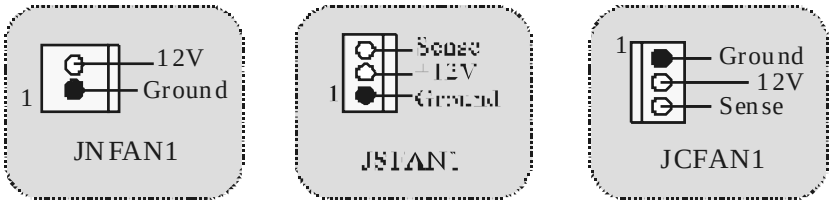


1. Pull the lever sideways away from the socket then raise the lever up to 90-degree angle.

2. Locate Pin A in the socket and look for the white dot or cut edge in the CPU. Match Pin A with the white dot/cut edge then insert the CPU.

3. Press the lever down. Then Put the fan on the CPU and buckle it and put the fan's power poit into the JCFAN1, then to complete the installation.

CPU/ System Fan Headers: JCFAN1/ JSFAN1/ JNFAN1



DDR DIMM Modules: DIMMB1/DIMMB2/ DIMMA1

For Dual-channel DDR (128-bit) high performance, at least 2 or more DIMM modules must be installed. (It has to be the combination of DIMMA and DIMMB.) With only one DIMM installed, the memory performs only at 64-bit.

DRAM Access Time: 2.5V Unbuffered DDR 200/266/333 MHz Type required.
DRAM Type: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM Module (184 pin)

DIMM Socket Location	DDR Module	Total Memory Size (MB)
DIMMB1	64MB/128MB/256MB/512MB/1GB *1	Max is 3GB
DIMMB2	64MB/128MB/256MB/512MB/1GB *1	
DIMMA1	64MB/128MB/256MB/512MB/1GB *1	

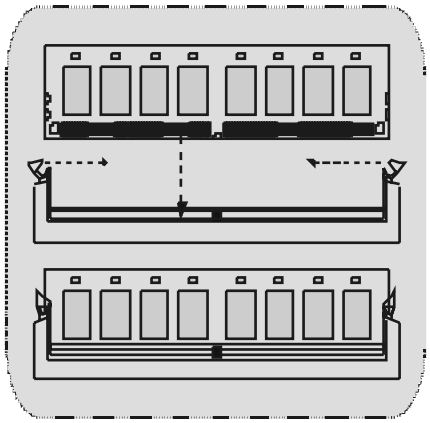
⌦The list shown above for DRAM configuration is only for reference.

How to install a DIMM Module

1. The DIMM socket has a " Plastic Safety Tab", and the DIMM memory module has an "Asymmetrical notch", so the DIMM memory module can only fit into the slot in one direction.

2. Push the tabs out. Insert the DIMM memory modules into the socket at a 90-degree angle, then push down vertically so that it will fit into the place.

3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.



Jumpers, Headers, Connectors & Slots

Hard Disk Connectors: IDE1/ IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA/ 33/ 66/ 100/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).
The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

Floppy Disk Connector: FDD1

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.

Communication Network Riser Slot: CNR1

The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports audio, network and modem only.

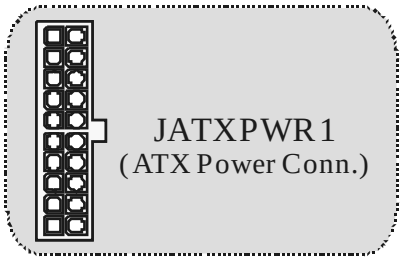
Peripheral Component Interconnect Slots: PCI 1-3

This motherboard is equipped with 3 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards, which has, supplanted the older ISA bus standard in most ports. This PCI slot is designated as 32 bits.

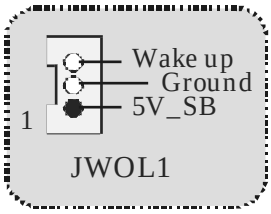
AGP (Accelerated Graphics Port) Slot: AGP1

Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

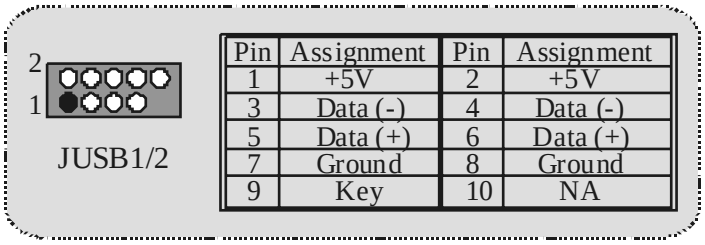
Power Connectors: JATXPWER1



Wake On LAN Header: JWOL1

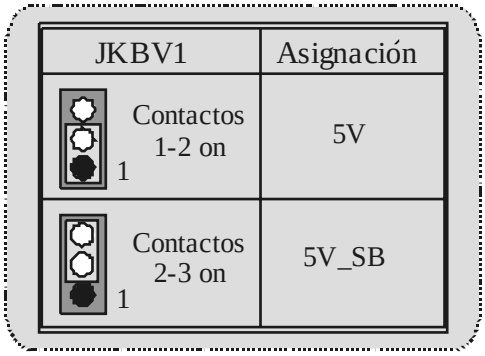


Front USB Header: JUSB1/ JUSB2



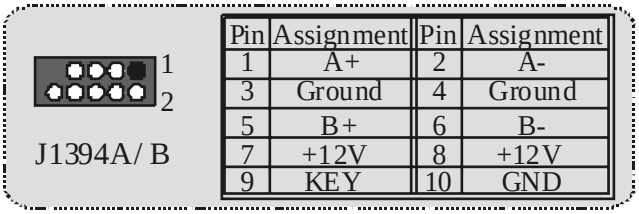
Pin	Assignment	Pin	Assignment
1	+5V	2	+5V
3	Data (-)	4	Data (-)
5	Data (+)	6	Data (+)
7	Ground	8	Ground
9	Key	10	NA

5V/ 5V_SB Selection for KB: JKBV1



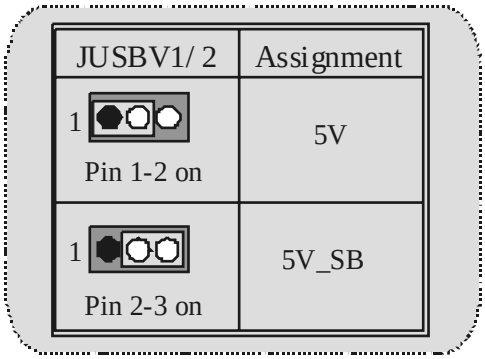
JKBV1	Asignación
Contactos 1-2 on (1)	5V
Contactos 2-3 on (1)	5V_SB

Front 1394 Header: J1394A/ J1394B

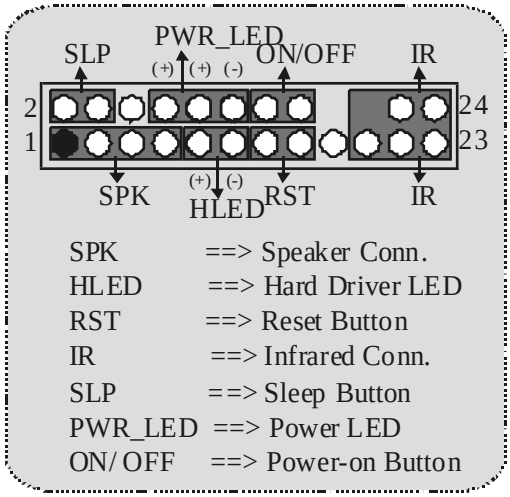


Pin	Assignment	Pin	Assignment
1	A+	2	A-
3	Ground	4	Ground
5	B+	6	B-
7	+12V	8	+12V
9	KEY	10	GND

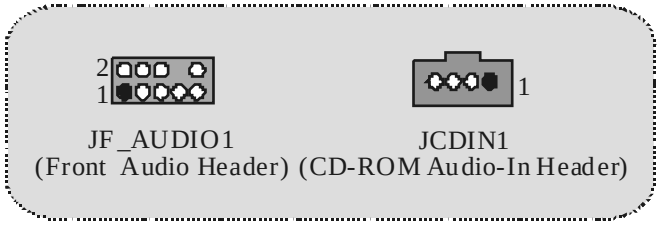
5V/5V_SB Selection for USB: JUSBV1/JUSBV2/ (JUSBV4=>optional)



Front Panel Connector: JPANEL1



Audio Subsystem: JF_AUDIO1/JCDIN1

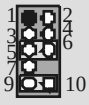
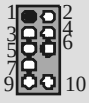


JF_AUDIO1

Pin	Assignment	Pin	Assignment
1	Mic In	2	Ground
3	Mic Power	4	Audio Power
5	RT Line Out	6	RT Line Out
7	Reserved	8	Key
9	LFT Line Out	10	LFT Line Out

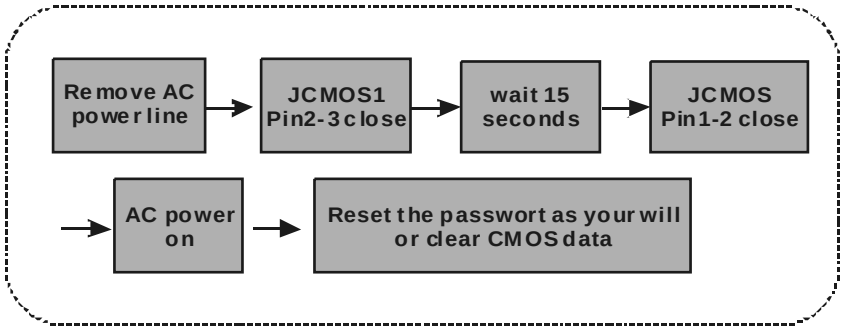
⌦ JF_AUDIO1 only support 2CH.

Front Panel Audio Connector/ Jumper Block

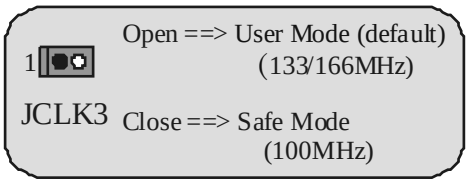
Jumper Setting	*Configuration*
 Pin 5 and 6 Pin 9 and 10	Audio line out signals are routed to the back panel audio line out connector.
 No jumpers installed	Audio line out and mic in signals are available for front panel audio connectors.

Clear CMOS Jumper: JCMOS

JCMOS	Assignment
 Pin 1-2 on 1	Normal Operation (default)
 Pin 2-3 on 1	Clear CMOS Data



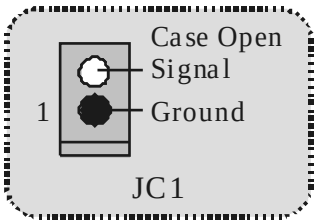
Frequency Selection: JCLK3



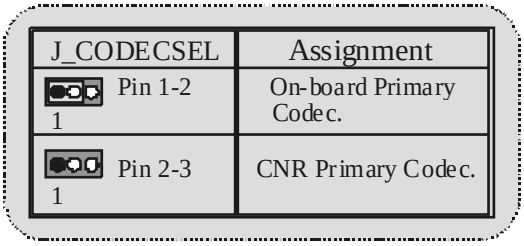
Note: When overclock function failed and system is unable to boot-up, please follow the instruction below:

1. Turn off the system.
2. Closed the JCLK3 jumper.
3. Turn on the system.
4. Enter CMOS setup menu and load defaults settings.
5. Turn off the system.
6. Open the JCLK3 jumper.
7. Turn on the system.

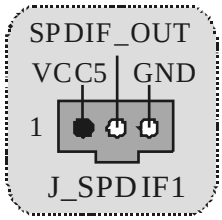
Case Open Connector: JC1



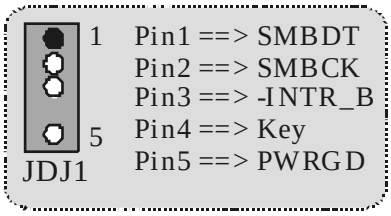
CNR Codec Primary/Secondary Selection: J_CODECSEL



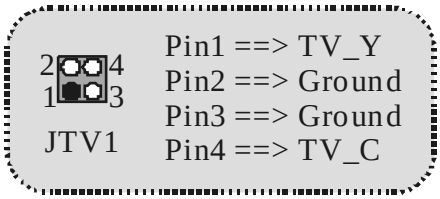
Digital Audio Connector: J_SPDIF1



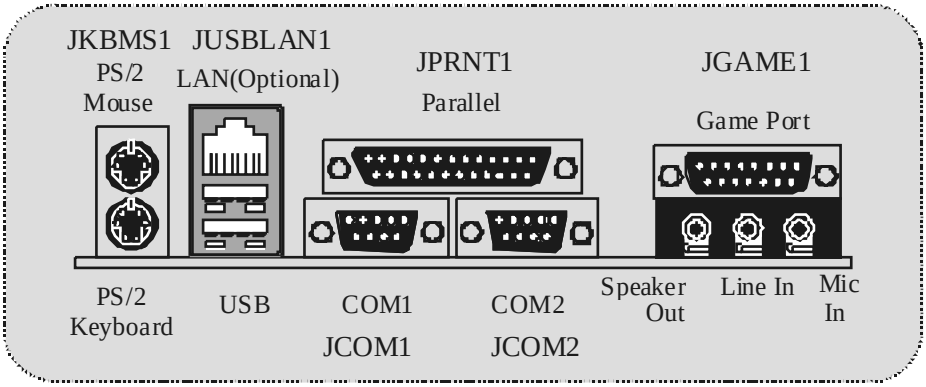
Audio DJ Header: JDJ1 (only supports version 3.0)



TV Out Header: JTV1 (only supports with version 3.0)



Back Panel Connectors



The LED indicator for Lan port status:

Status / Speed	Normal	Download
10Mbps	Right light: green Left light: no	Light: blink
100Mbps	Right light: green Left light: orange	Light: blink

Español

Características del M7NCG

CPU
- Soporta procesador AMD® Zócalo 462 de hasta XP 3000+.
- Corriendo a 200/266/333MHz FSB.

Chipset
- North Bridge: nFORCE2 Crush18G IGP Chipset.
- South Bridge: ❶MCP-T Chipset
  ❷High Speed 800Mb/s Hyper-Transport interface para el MCP-T.

Memoria Principal
- Soporta hasta 3 dispositivos DDR.
- Soporto 200/266/333MHz (sin ECC) dispositivos DDR.
- High performance 128-bit DDR333 Twin Bank Memory Architecture.
- Capacidad máxima de memoria es 3GB.

Ranuras
- Tres ranuras de 32-bit PCI bus master.
- Una ranura CNR.
- Una ranura AGP: ❶AGP3.0 8X interface a 533Mb/s.
  ❷Soporta AGP 4X, 8X.

On Board IDE
- Soporta cuatro discos IDE.
- Soporta Modo 4 PIO, Modo Master y Ultra DMA 33/66/100/133 Bus Modo Master.

On Board VGA
- GeForce 4MX Series Unidad Gráficos de Proceso (GPU).

Chip 1394
- Realtek 8801BL.
- Soporta 2 puertos con transferencia de hasta 400Mbps.

Audio
- Interface AC97 2.2.
- PC99 complaint.
- Soports 6 canales.
- S/PDIF Out.

TV Out (solamente para versión 3.0)
- Soporta modos-video output.

- Resolución de pantalla de hasta 1024 x 768 (incluyendo todos los modos DOS)
- Soporta formatos de TV: NTSC-M (América del Norte y Taiwan)
  NTSC-J (Japón)
  PAL (Europa y Asia)

Periféricos On Board
- Soporta 360K, 720K, 1.2MB, 1.44MB y 2.88MB unidad de disquete
- Soporta 2 puertos serie
- Soporta 1 multi-modo del puerto paralelo (modos SPP/EPP/ECP)
- Soporta ratón PS/2 y teclado PS/2.
- Soporta 2 puertos USB2.0 traseros y 4 puertos USB2.0 delanteros.
- Soporta conector S/PDIF Out.

BIOS
- AWARD legal Bios.
- Soporta APM1.2.
- Soporta ACPI.
- Soporta función USB.

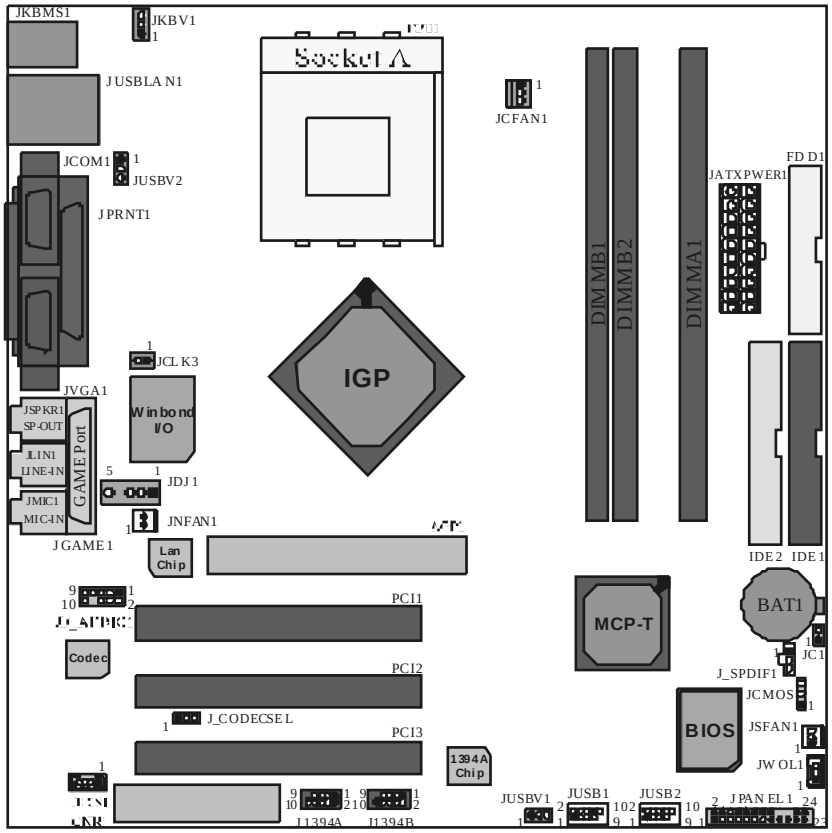
Sistemas Operativos
- Ofrece alto rendimiento en MS-DOS, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

Dimensión
- Factor de Forma Micro ATX: 24.4cm X 24.4cm (W X L)

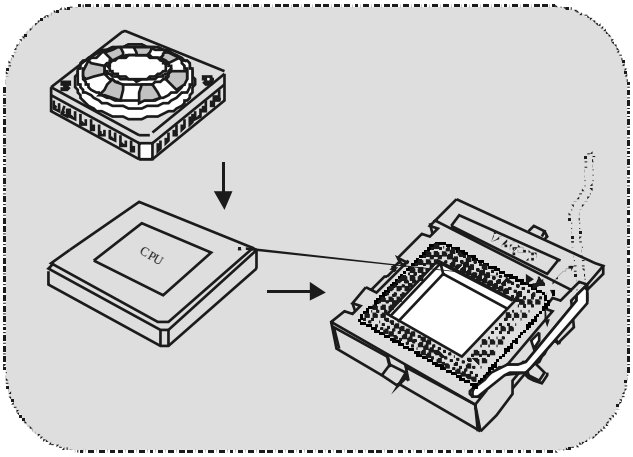
Contenido del Paquete

- Cable HDD X1
- Cable FDD X1
- Configuración Completa del Driver CD X1
- Manual del Usuario X 1
- Cable USB X2 (Opcional)
- Cable SPDIF OUT X1 (Opcional)
- Cable IEEE 1394 X1

Disposición del M7NCG



Instalación de la CPU

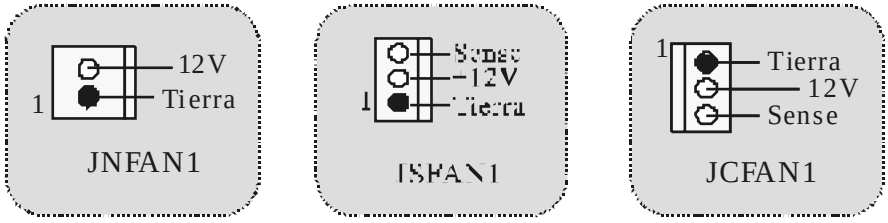


1. Tire de la palanca del lado del zócalo, luego levante la palanca hasta un ángulo de 90 grados.

2. Sitúe el contacto A del zócalo y busque el punto blanco o corte el borde en la CPU. Empareje el contacto A con el punto blanco/ corte del borde, luego inserte la CPU.

3. Presione la palanca para abajo. Ponga el ventilador en la CPU y abróchelo. Luego ponga el puerto de corriente del ventilador en el JCFAN1. Y ya habrá completado su instalación.

CPU/ Cabezal del Sistema de Ventilación: JCFAN1/ JSFAN1/ JNFAN1



Módulos DDR DIMM: DIMMB1/DIMMB2/ DIMMA1

Para un alto funcionamiento, Dual-channel DDR (128-bit), por lo menos 2 o más módulos DIMM debe ser instalado. (Tiene que ser la combinación del DIMMA y DIMMB.) Con solamente un DIMM instalado, la memoria funciona solamente a 64-bit.

DRAM Tiempo de Acceso: 2.5V Unbuffered DDR 200/266/333 MHz Tipo requerido.
DRAM Tipo: 64MB/ 128MB/ 256MB/ 512MB/ 1GB Módulos DIMM (184 contactos)

Localización del Zócalo DIMM	Módulo DDR	Total del Tamaño de Memoria (MB)
DIMMB1	64MB/128MB/256MB/512MB/1GB *1	Máximo 3GB
DIMMB2	64MB/128MB/256MB/512MB/1GB *1	

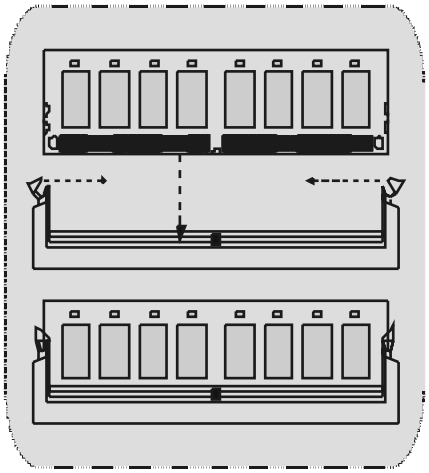
⌦La lista de arriba para la configuración DRAM es solamente para referencia.

Cómo instalar un módulo DIMM

1. El zócalo DIMM tiene una lengüeta plástica de seguridad y el módulo de memoria DIMM tiene una muesca asimétrica, así el módulo de memoria DIMM puede caber solamente en la ranura de una sóla dirección.

2. Tire la lengüeta hacia afuera. Inserte los módulos de memoria DIMM en el zócalo a los 90 grados, luego empuje hacia abajo verticalmente de modo que encaje en el lugar.

3. Los agujeros de montaje y las lengüetas plásticas deben caber por sobre el borde y sostenga los módulos de memoria DIMM en el lugar.



Conectores, Cabezales, Puentes y Ranuras

Conectores del Disco Duro: IDE1/ IDE2

La placa madre tiene un controlador de 32-bit PCI IDE que proporciona Modo PIO 0~4, Bus Master, y funcionalida Ultra DMA / 33/ 66/ 100. Tiene dos conectores HDD IDE1 (primario) y IDE2 (secundario).
El conector IDE puede conectar a un master y un drive esclavo, así puede conectar hasta cuatro discos rígidos. El primer disco duro debe estar siempre conectado al IDE1.

Conector para el Disquete: FDD1

La placa madre proporciona un conector estándar del disquete (FDC) que soporta 360K, 720K, 1.2M, 1.44M y 2.88M tipos de disquete. Éste conector utiliza los cables de cinta proporcionados por el disquete.

Ranura de Banda de Suspensión de Comunicación y Red: CNR1

La especificación CNR es una abierta Industria Estándar de Arquitectura, y define una tarjeta hardware escalable de interface en el que soporta audio, red y módem.

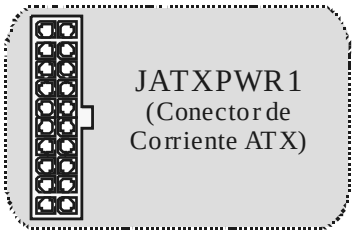
Ranura de Interconexión del Componente Periférico: PCI1-3

Ésta placa madre está equipado con 3 ranuras PCI. PCI es la sigla para Interconexión del Componente Periférico, y es un estándar bus para la tarjeta de expansión en el que reemplaza, en su mayoría de las partes, al antiguo estándar ISA bus. Las ranuras de PCI están desiñados con 32 bits.

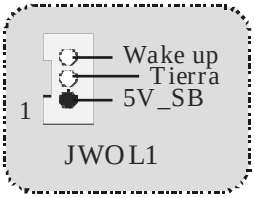
Ranura del Puerto Acelerado para Gráficos: AGP1

Su monitor se fijará directamente a la tarjeta de video. Ésta placa madre soporta tarjetas de video para ranuras PCI, y también está equipado con un Puerto Acelerado para Gráficos (AGP/ solamente soporta 1.5V y 4X tarjeta AGP). Ésta tarjeta AGP tomará ventaja de la tecnología del AGP para el mejoramiento de la eficiencia y funcionamiento del video, especialmente con gráficos 3D.

Conector de Corriente: JATXPWER1



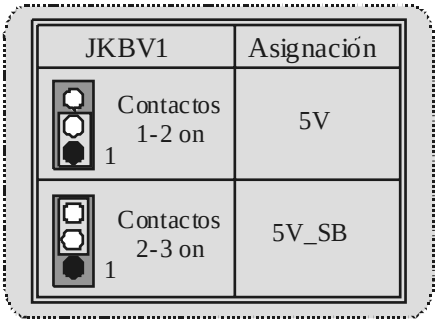
Cabezal Wake On LAN: JWOL1



Cabezal Frontal USB: JUSB1/ JUSB2

Contactos	Asignación	Contactos	Asignación
1	+5V	2	+5V
3	Data (-)	4	Data (-)
5	Data (+)	6	Data (+)
7	Tierra	8	Tierra
9	Key	10	NA

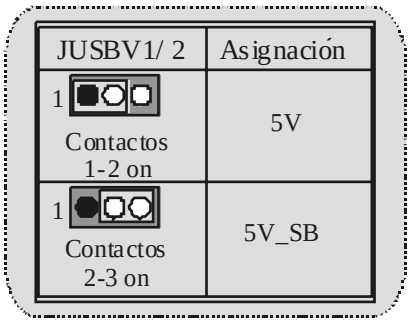
5V/ 5V_SB Selección para KB: JKBV1



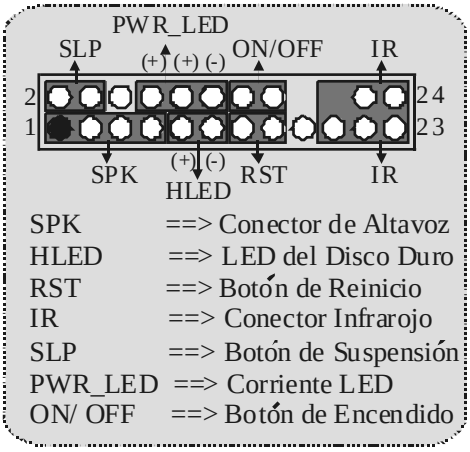
Cabezal Frontal 1394: J1394A/ J1394B

Contactos	Asignación	Contactos	Asignación
1	A+	2	A-
3	Tierra	4	Tierra
5	B+	6	B-
7	+12V	8	+12V
9	KEY	10	GND

5V/ 5V_SB Selección para USB: JUSBV1/JUSBV2



Conector del Panel Frontal: JPANEL1



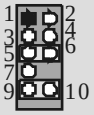
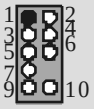
Subsistema de Audio: JF_AUDIO1/ JCDIN1

JF_AUDIO1

Contactos	Asignación	Contactos	Asignación
1	Entrada del MIC	2	Tierra
3	Corriente del MIC	4	Corriente de Audio
5	RT Salida de Linea	6	RT Salida de Linea
7	Reservado	8	Key
9	LFT Salida de Linea	10	LFT Salida de Linea

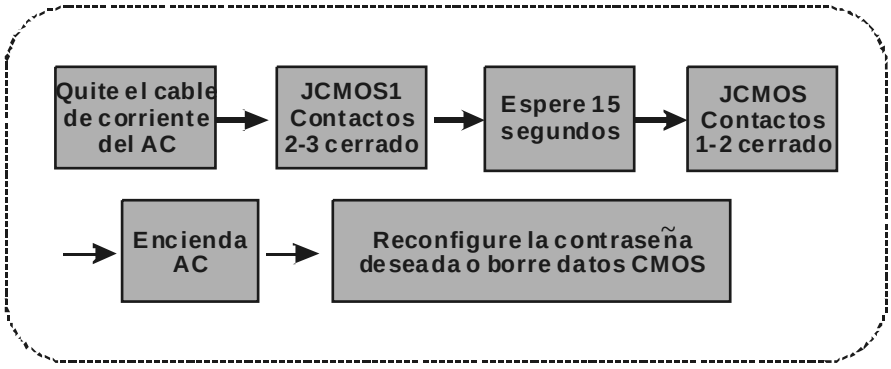
⌦JF_AUDIO1 only support 2CH.

Conector del Panel Frontal de Audio/ Jumper Block

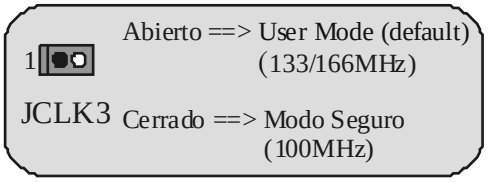
Jumper Setting	*Configuración*
 Contacto 5 & 6 Contacto 9 & 10	La señal de salida de linea del Audio encamina al conector de la salida de linea del Audio ubicado en el panel trasero.
 No jumpers installed	La señal de salida de linea del Audio y la señal del entrada del mic estan disponibles desde el conector de Audio del panel frontal.

Clear CMOS Jumper: JCMOS

JCMOS	Asignación
 Contacto 1-2 on	Operación Normal (default)
 Contacto 2-3 on	Borrar Datos CMOS



Selección de Frecuencia: JCLK3



Nota: Cuando la función del overclock falla y el sistema no pueda encenderse, por favor siga las sigientes instrucciones:

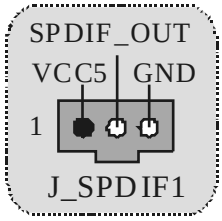
1. Apague el sistema.
2. Inserte el puerte JCLK3 en cerrado.
3. Prenda el sistema.
4. Entre al menu de la configuración del CMOS y cargue las configuraciones defaults.
5. Apague el sistema.
6. Inserte el puerte JCLK3 en abierto.
7. Prenda el sistema.

Conector de la Carcasa Abierta: JC1

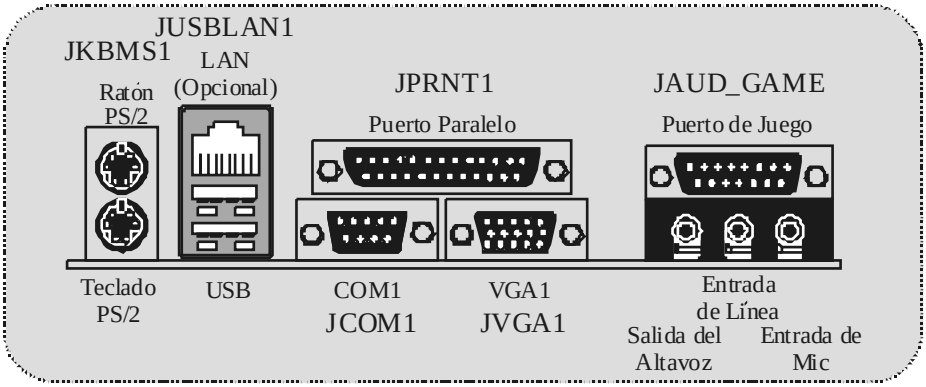
Selección CNR Codec Primario/ Secundario: J_CODECSEL

J_CODECSEL	Asignacion
1 Contacto 1-2	Codec Primario integrado en la placa madre.
1 Contacto 2-3	CNR Codec Primario.

Conector Digital de Audio: J_SPDIF1



Conectores del Panel Trasero



Estado del Indicador LED del LAN:

Estado / Velocidad	Normal	Bajando Datos
10Mbps	Indicador Derecho: Verde Indicador Izquierdo: Nada	Luz: Parpadeando
100Mbps	Indicador Derecho: Verde Indicador Izquierdo: Naranja	Luz: Parpadeando

Deutsch

M7NCG Features

CPU
- Unterstützung für AMD Prozessor(Sockel462) bis zu XP 3000+.
- FSB mit 200/266MHz..

Chipsatz
- Northbridge: nFORCE2 Crush 18G IGP Chipsatz.
- Southbridge: ❶MCP-T.
  ❷ 800Mb/s Hohe Geschwindigkeit : Hyper-Transport -Interface zu den MCP-T Chipsatz.

Hauptspeicher
- Unterstützung für 3 DDR Geräte.
- Unterstützung für 200/266/333MHz(ohne ECC) DDR Geräte.
- 128-bit High-Performance DDR333 mit der Twin- Bank Architektur.
- Die maximale Speichergröße ist 3GB.

Slots
- Drei 32-Bit PCI -Bus-Slots.
- Ein CNR-Slot.
- Ein AGP-Slot: ❶AGP3.0 8X Interface mit 533Mb/s.
  ❷ Unterstützung für AGP 4X, 8X.

On Board IDE
- Unterstützung für vier IDE Diskettenlaufwerke.
- Unterstützung für PIO Modus 4, Master Modus und Ultra DMA 33/66/100/133 Bus Master Modus.

On Board VGA
- GeForce 4MX Series graphics processing unit(GPU).

1394 Chip
- Realtek 8801Bl mit drei 1394 Anschlüssen unterstützt bis zu 400Mbit/s Transferrate.

Audio
- AC97-2.2-Interface.
- PC99 kompatibel.
- Unterstützung für 6-Kanal.
- S/PDIF Ausgabe.

TV-Ausgabe (für version 3.0)
- Unterstützung für S-Video Ausgabe Modus.

- Anzeige Auflösung bis zu 1024 x 768 (erthält alle DOS-Modi)
- Unterstützung für die TV Formate: NTSC-M (Norden Amerika und Taiwan)
  NTSL-J (Japan)
  PAL (Europa und Asien)

On Board Peripherals
- 1 Floppy-Port mit Unterstützung für 2 Diskettenlaufwerke (360KB, 720KB, 1.2MB, 1.44MB und 2.88MB)
- 2 serielle Schnittstellen.
- 1 parallele Schnittstelle mit Unterstützung für SPP/EPP/ECP-Modus.
- Unterstützung für PS/2-Maus und PS/2 -Tastatur.
- Unterstützung für sechs USB 2.0-Ports. (hinten X4, vorn X2)
- Unterstützung für S/PDIF Ausgabe Anschluss.

BIOS
- Unterstützung für AWARD legal Bios.
- Unterstützung für APM 1.2.
- Unterstützung für ACPI.
- Unterstützung für USB Function.

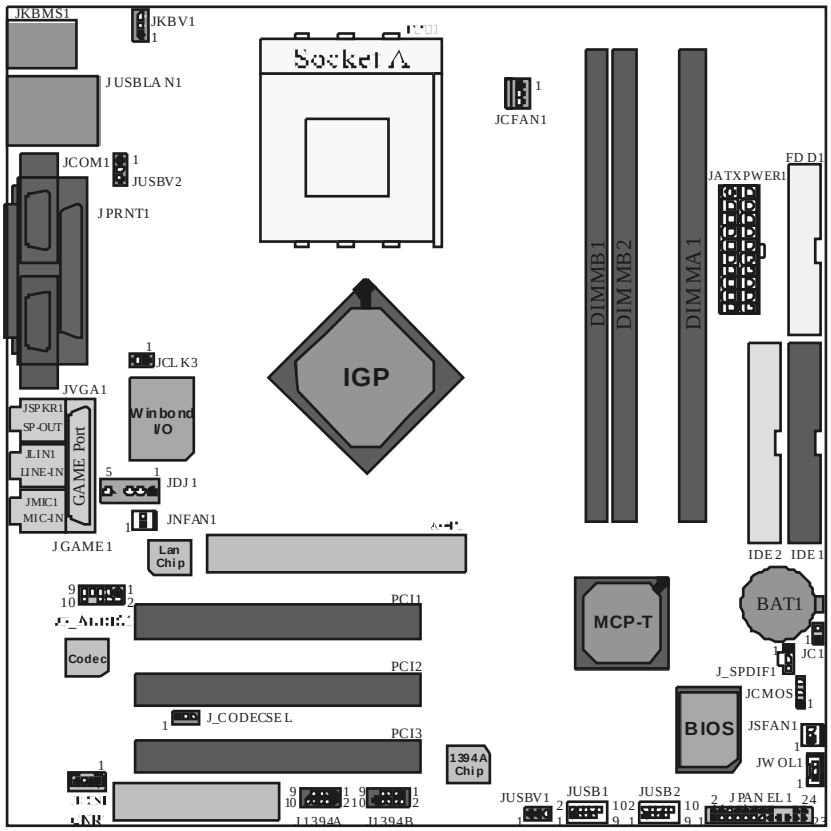
Operating System
- Unterstützung für die am meisten verbreiteten Betriebsysteme wie Windows 2000, Windows ME, Windows XP, LINUX and SCO UNIX.

Dimensions
- Micro ATX Form-Factor: 24.4cm X 24.4cm (W X L)

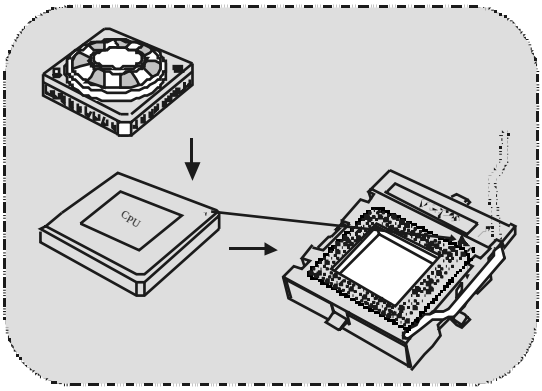
Verpackungsinhalt

- HDD Kable X 1
- FDD Kable X 1
- Treiber CD für Installation X 1
- Benutzer Handbuch X 1
- USB Kable X 2 (optional)
- I/O-Rückwand für ATX Gehäuse X 1 (optional)
- SPDIF-Ausgang-Kable X1 (optional)
- IEEE 1394 Kable X1

Layout des M7NCG



Installation der CPU

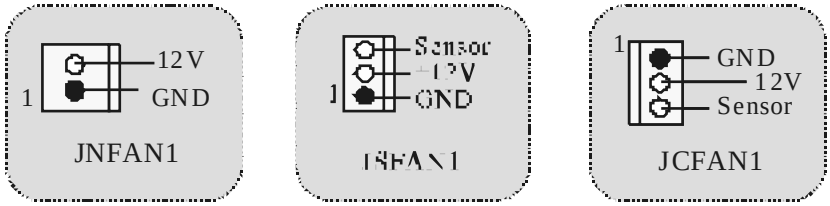


1. Ziehen Sie den Hebel seitwärts von der Sockel und neigen Sie ihn um 90-Grad nach oben.

2. Suchen Sie Pin A im Sockel und den weißen Punkt oder die Abschnittkante in der CPU. Passen Sie Pin A mit dem weißen Punkt/der Abschnittkante zusammen und legen Sie danach die CPU ein.

3. Drücken Sie den Hebel nach unten. Befestigen Sie danach den Lüfter auf die CPU und schließen Sie die Stromschnittstelle des Lüfters an JCFAN1 an und beenden Sie die Installation.

CPU/ System Fan Headers: JCFAN1/ JSFAN1/ JNFAN1



DDR-DIMM-Modules: DIMMB1/DIMMB2/ DIMMA1

Für Dual-Kanal DDR(128bit) High-Performance mußt man mindenstens zwei oder mehr DIMM-Modules installieren. (Der Speicher mußt in der Kombination von DIMMA und DIMMB installiert werden.)

DRAM Zugriffszeit: 2.5V unbuffered DDR 200/266/333 MHz Typen erfordert.
DRAM Typen: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM-Module (184 pin)

DIMM-Sockel Standort	DDR-Module	Speichergröße (MB)
DIMMB1	64MB/128MB/256MB/512MB/1GB *1	maximal 3GB
DIMMB2	64MB/128MB/256MB/512MB/1GB *1	
DIMMA1	64MB/128MB/256MB/512MB/1GB *1	

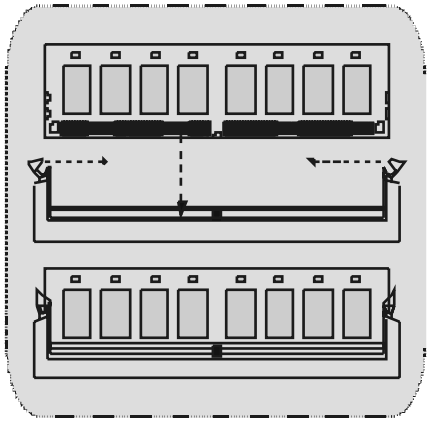
⌦Die obere Liste für DRAM-Konfiguration wird als Referenz

Installation von DIMM-Modulen

1. DDR DIMM hat nur eine Passkerbe in der Mitte des Moduls. Das Modul passt nur in einer Richtung.

2. Ziehen Sie die Plastikklammer an beiden Enden der DIMM-Steckplätze aus, dann setzen Sie das DIMM-Modual im 90-Grad-Winkel in den DIMM-Steckplatz und drücken es nach unten.

3. Schließen Sie die Plastikklammer, um das DiMM-Modul zu verriegeln.



Jumper, Header, Anschlüsse & Slots

Festplattenanschlüsse: IDE1 und IDE2

Das Mainboard hat einen 32-Bit Enhanced PCI IDE-Controller, der die Modi PIO0~4, Bus Master sowie die Ultra DMA/33/66/100/133- Funktion zur Verfügung stellt. Dieser ist mit zweii HDD-Anschlüssen versehen IDE1 (primär) und IDE2 (sekundär).
Die IDE-Anschlüsse können eine Master- und eine Slave-Festplatte verbinden, so dass bis zu 4 Festplatten angeschlossen werden können. Die erste Festplatte sollte immer an IDE1 angeschlossen werden.

Diskettenanschluss: FDD1

Das Motherboard enthält einen standardmäßigen Diskettenanschluss, der 360K-, 720K-, 1.2M-, 1.44M- und 2.88M-Disketten unterstützt. Dieser Anschluss unterstützt die mitgelieferte Bandkabel des Diskettenlaufwerks.

Communication Network Riser Slot: CNR1

Die CNR-Angaben entsprechen einer offenen Industry Standard Architecture, und sie definieren eine Hardware-skalierbare Riser-Card-Schnittstelle, welche nur Audio, Netzwerk und Modem unterstützt.

Peripheral Component Interconnect Slots: PCI1-3

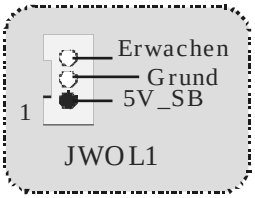
Dieses Motherboard ist mit 3 standardmäßigen PCI-Slots ausgestattet. PCI steht für Peripheral Component Interconnect und bezieht sich auf einem Busstandard für Erweiterungskarten, der den älteren ISA-Busstandard in den meisten Schnittstellen ersetzt hat. Dieser PCI-Slot ist für 32 bits vorgesehen.

Accelerated Graphics Port Slot: AGP1

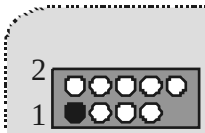
Ihr Monitor wird direkt an die Grafikkarte angeschlossen. Dieses Motherboard unterstützt Grafikkarten für PCI-Slots, aber es ist auch mit einem Accelerated Graphics Port ausgestattet. AGP-Karten verwenden die AGP-Technologie, um die Wirksamkeit und Leistung von Videosignalen zu verbessern, besonders wenn es sich um 3D-Grafiken handelt.

Stromversorgungsanschluss: JATXPWR1

Wake On LAN Header: JWOL1



Front USB Header: JUSB1/ JUSB2



Pin	Beschreibung	Pin	Beschreibung
1	+5V	2	+5V
3	Data (-)	4	Data (-)
5	Data (+)	6	Data (+)
7	GND	8	GND
9	KEY	10	NA

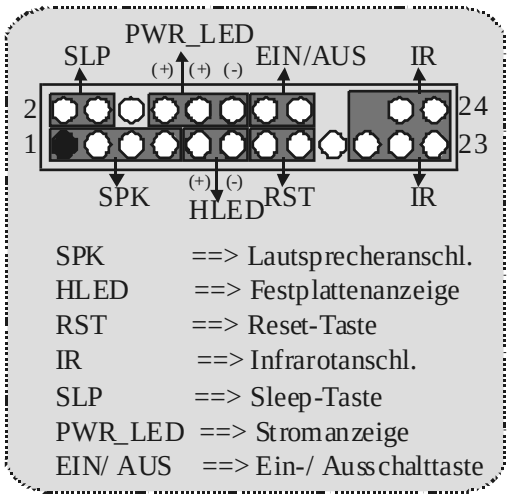
Front 1394 Header: J1394A/ J1394B

Pin	Beschreibung	Pin	Beschreibung
1	A+	2	A-
3	GND	4	GND
5	B+	6	B-
7	+12V	8	+12V
9	KEY	10	GND

5V/ 5V_SB Auswahl für USB: JUSBV1/JUSBV2

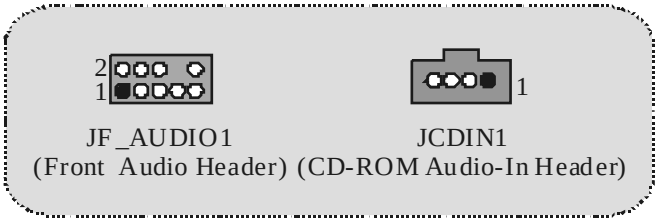
JUSBV1/ 2	Beschreibung
1 Pin 1-2 geschlossen	5V
1 Pin 2-3 geschlossen	5V_SB

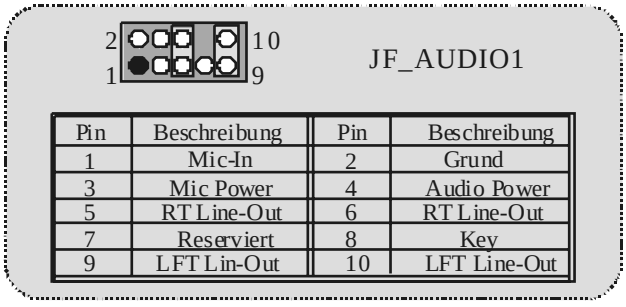
Anschlüsse auf der Vorderseite: JPANEL1



SPK ==> Lautsprecheranschl.
HLED ==> Festplattenanzeige
RST ==> Reset-Taste
IR ==> Infrarotanschl.
SLP ==> Sleep-Taste
PWR_LED ==> Stromanzeige
EIN/ AUS ==> Ein-/ Ausschalttaste

Audio Subsystem: JF_AUDIO1/ JCDIN1

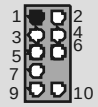




Pin	Beschreibung	Pin	Beschreibung
1	Mic-In	2	Grund
3	Mic Power	4	Audio Power
5	RT Line-Out	6	RT Line-Out
7	Reserviert	8	Key
9	LFT Lin-Out	10	LFT Line-Out

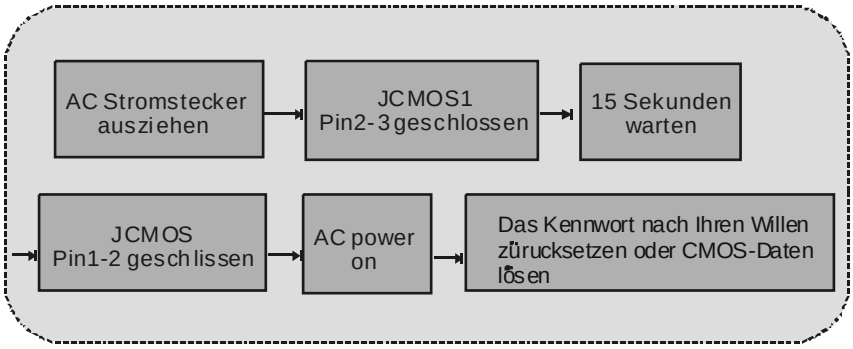
⌧ JF_AUDIO1 unterstützt nur 2-Kanal.

Audio-Anschlüsse für die Vorderseite/Jumper-Block

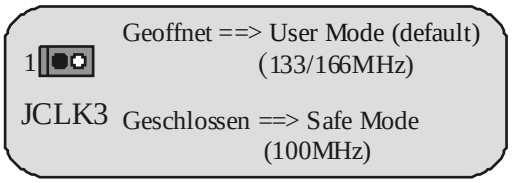
Jumper-Einstellen	*Konfiguration*
 Pin 5 und 6 Pin 9 und 10	Audio-Ausgang-Singals werden zu der Audio-Ausgang-Anschluss an der Rückwand geleitet.
 Kein Jumper installieren	Audio-Ausgang- und Mic-In-Singals sind verfügbar für Audio-Anschlüsse an der Vorderseite.

Clear CMOS Jumper: JCMOS

JCMOS1	Beschreibung
 Pin 1-2 geschlossen	Normale Operation (Default)
 Pin 2-3 geschlossen	CMOS-Daten löschen



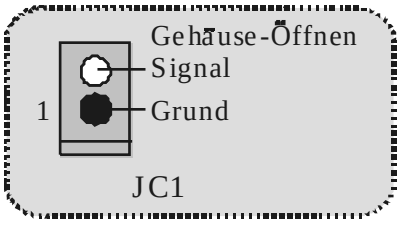
Frequenz Auswahl: JCLK3



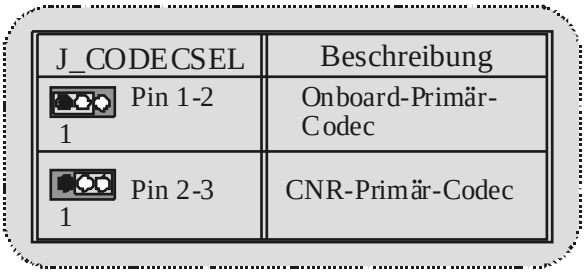
Anmerkung: Wenn "Überspannng Funktion" nicht gelungen ist folgen Sie bitte die Instruktion darunter:

1. Bitte vausschalton Sie den AC-Notzstecker.
2. Lassen Sie Pin 1-2 v on JCLK3 geschlossen sein.
3. Schließen Sie den AC-Notzstecker an.
4. Betreten Sie "CMOS Setup Menü" und wählen sie Default-Setting.
5. Ausschalten Sie den AC-Netzstecker wieder.
6. Lassen Sie Pin 1-2 v on JCLK3 geöffnet sein.

Case Open Connector: JC1

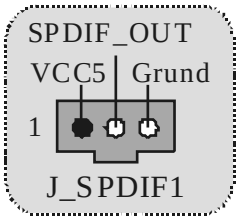


Auswahl für Primär/Sekundär CNR-Codec: J_CODECSEL

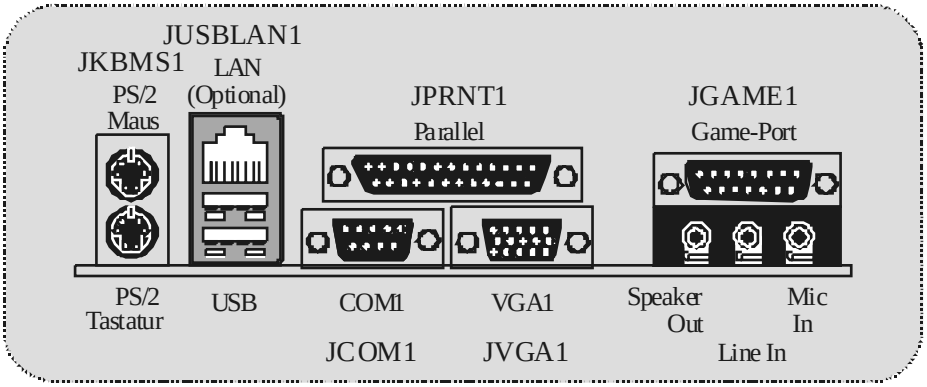


J_CODECSEL	Beschreibung
Pin 1-2 (1)	Onboard-Primär-Codec
Pin 2-3 (1)	CNR-Primär-Codec

Digital-Audio-Anschluss: J_SPDIF1



Anschlüsse auf der Rückseite



Die Signallampe für Lan-Port Status:

Status / Geschwindigkeit	Normal	Download
10Mbps	Lampe von rechts: grün Lampe von links: kein	Lampe: blinken
100Mbps	Lampe von rechts: grün Lampe von links: orange	Lampe: blinken

Français

M7NCG Particularités

CPU
- Soutient le processeur d'AMD ® Socket462 jusqu'à XP 3000 +.
- Dirigeant à Autobus de Côté 200/266/333MHz de Devant.

Chipset
- Pont du Nord : nFORCE2 Crush18G IGP Chipset.
- Pont du Sud : ❶MCP-T Chipset.
  ❷Hyper de vitesse haute 800Mb/s-transporte l'interface au MCP-T.

Mémoire Principale
- Soutient jusqu'aux dispositifs de 3 DDR.
- Soutient les dispositifs de DDR 200/266/333MHz (sans CEE).
- Haute exécution(performance) 128 particules DDR333 Architecture de Mémoire(souvenir) de Banque de Jumeau.
- La plus grande capacité de mémoire(souvenir) est 3GB.

Fentes
- Trois fentes de maître d'autobus PCI 32 bits.
- Une fente CNR.
- Une fente AGP : * AGP3.0 8X interface à 533Mb/s.
  * Supports AGP 4X, 8X.

À bord IDE
- Soutient quatre lecteurs de disques d'IDE.
- Soutient PIO Mode 4, le Mode de Maître et le Mode de Maître d'Autobus de DMA Ultra 33/66/100/133.
-

À bord VGA
- GeForce 4MX graphisme de Série traitement d'unité (GPU).

1394 Chip
- Realtek 8801BL.
- Soutiennent 2 ports avec le taux de transfert jusqu'à 400Mbps.

Audio
- AC97 2.2 interface.
- PC99 plainte.
- Soutient 6 canaux.
- S/PDIF Out.

TV Out (seulment pour version 3.0)
- Soutient s-video output mode.
- Affichant une résolution de 1024 x 768 pixels (incluyant tout DOS mode)
- Soutient TV format : NTSC-M (Nord-Américain et Taiwan)
  NTSC-J (Japon)
  PAL (Europe et Asie)

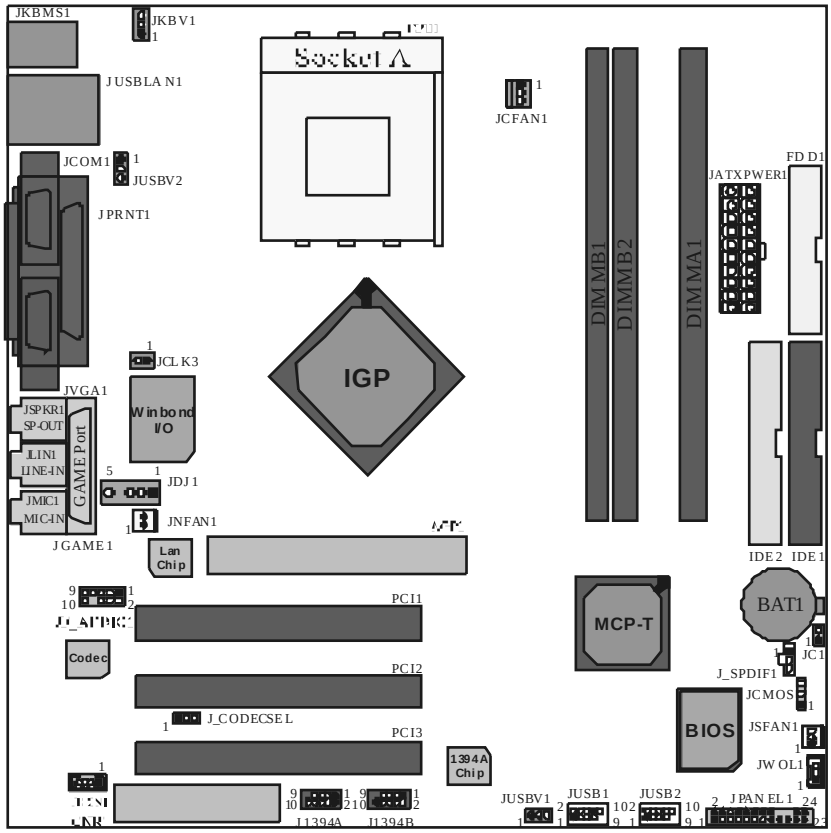
À bord Périphériques
- Soutient 360Ko, 720Ko, 1.2MB, 1.44MB et 2.88MB des conducteurs de disquette.
- Soutient 2 ports périodiques.
- Soutient 1 multi-mode le port parallèle. (SPP/EPP/ECP mode)
- Soutient souris de PS/2 et clavier de PS/2.
- Soutient 2 ports d'USB2.0 en arrière et 4 ports d'USB2.0 en avant.
- Soutient S/PDIF Out connecteur.

BIOS
- ACCORDENT le BIOS légal.
- Soutient APM1.2.
- Soutient ACPI.
- Soutient la Fonction d'USB.

Système de Fonctionnement
- Offre l'exécution(performance) la plus haute pour MS-DOS, Windows 2000, des Fenêtres Moi, des Fenêtres XP, SCO UNIX etc.
-

Dimensions
- Micro Facteur de Forme d'ATX : 24.4cm X 24.4cm (W X L)

Dessin d'M7NCG



9th Touch™ is NICE TOUCH

[9th Touch] means users could enjoy the speed, safety & convenience when respective booting requirement. The easiest way is just to touch 「F9」 function key during booting procedure to choose any device you like to boot for the system. Forget about entering CMOS, rebooting activities. In addition, at the same time, the system configuration will be very safe.

1. Please insert the boctable CD/Floppy Disk into the boot devices.
2. Press "F9" after powering on the system.
3. Use the Arrow key to select the boot devices.
4. Press "Enter" to start the boot-up process.

BIOS STAR -[FLASHER™]

Regularly, when users want to update BIOS, there are two steps to be followed. First, move to DOS environment. Second, use and maybe download the flash utility to update the BIOS. Unfortunately, there is no DOS support under WindowsR XP. Moreover, it takes time to prepare the right flash utility and make a Bootable Floppy Disk if necessary. BIOSTAR's [FLASHER™] technology integrates flash utility function onto BIOS firmware. The advantage is users do not need neither to enter DOS nor to prepare the utility. Just simply enter CMOS and do it.

Flasher Step by Step

1. Download the latest BIOS file from the BIOSTAR website to a floppy disk.
2. Insert the disk that contains the newest BIOS file into the floppy drive.
3. Power ON the computer.
4. Press [DEL] to enter CMOS setup.
5. Select " Upgrade BIOS " item then press Enter, refer to Figure 1.

Figure 1

6. Press " ArrowUp/Down " key to choose BIOS file, refer to Figure 2

Figure 2

7. Press [Enter] to load the BIOS from the floppy disk, refer to Figure 3.

Figure 3

8. At the prompt "Are you sure to flash (Y/N) ", press [Y] to flash BIOS or [N] to cancel the flashing process, refer to Figure 4.

Figure 4

8. After pressing [Y], the flash starts to process, refer to Figure 5.

10. A message " Flash done, Restart System (Y/N) " will appear if the system was successfully updated the BIOS, refer to Figure 6.

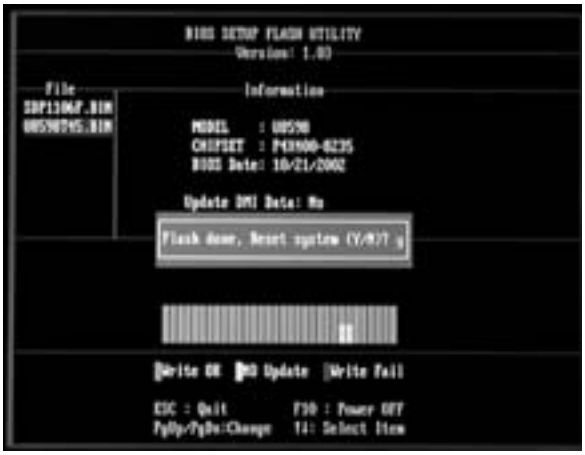


Figure 6

11. Press [Enter], then the flashing is done!

Watchdog Technology

It is important to know that when overclocking, the system can be at a vulnerable state. Therefore, the BIOSTAR Watchdog Technology was designed to protect your PC under dangerous over-clock situations. Any over-clocking that reaches the threshold settings, the Watchdog Technology will disable your system from rebooting in the BIOS setting. Under this circumstance, please power off your PC. After that, press <Insert> and power on your system simultaneously to restart your system. This user-friendly design can save you from squandering your time on opening the case just to clear the CMOS. In the end, thanks to the Watchdog Technology, everything is back at a safe and sound!

Trouble Shooting

PROBABLE	SOLUTION
No power to the system at all Power light don't illuminate, fan inside power supply does not turn on. Indicator light on keyboard does not turn on	* Make sure power cable is securely plugged in * Replace cable * Contact technical support

PROBABLE	SOLUTION
System inoperative. Keyboard lights are on, power indicator lights are lit, hard drive is spinning.	* Using even pressure on both ends of the DIMM, press down firmly until the module snaps into place.

PROBABLE	SOLUTION
System does not boot from hard disk drive, can be booted from CD-ROM drive.	* Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. * Backing up the hard drive is extremely important. All hard disks are capable of breaking down at anytime.

PROBABLE	SOLUTION
System only boots from CD-ROM. Hard disk can be read and applications can be used but booting from hard disk is impossible.	* Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.

PROBABLE	SOLUTION
Screen message says “Invalid Configuration” or “CMOS Failure.”	* Review system’s equipment . Make sure correct information is in setup.

PROBABLE	SOLUTION
Cannot boot system after installing second hard drive.	* Set master/slave jumpers correctly. * Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with other drives.

Solución de Problemas

CAUSA PROBABLE	SOLUCIÓN
No hay corriente en el sistema. La luz de corriente no ilumina, ventilador dentro de la fuente de alimentación apagada. Indicador de luz del teclado apagado.	* Asegúrese que el cable de transmisión esté seguramente enchufado. * Reemplace el cable. * Contacte ayuda técnica.

CAUSA PROBABLE	SOLUCIÓN
Sistema inoperativo. Luz del teclado encendido, luz de indicador de corriente iluminado, disco rígido está girando.	* Presione los dos extremos del DIMM, presione para abajo firmemente hasta que el módulo encaje en el lugar.

CAUSA PROBABLE	SOLUCIÓN
Sistema no arranca desde el disco rígido, puede ser arrancado desde el CD-ROM drive.	* Controle el cable de ejecución desde el disco hasta el disco del controlador. Asegúrese de que ambos lados estén enchufados con seguridad; controle el tipo de disco en la configuración estándar CMOS. * Copiando el disco rígido es extremadamente importante. Todos los discos rígidos son capaces de dañarse en cualquier momento.

CAUSA PROBABLE	SOLUCIÓN
Sistema solamente arranca desde el CD-ROM. Disco rígido puede leer y aplicaciones pueden ser usados pero el arranque desde el disco rígido es imposible.	* Copie datos y documentos de aplicación. Vuelva a formatear el disco rígido. Vuelva a instalar las aplicaciones y datos usando el disco de copiado.

CAUSA PROBABLE	SOLUCIÓN
Mensaje de pantalla "Invalid Configuration" o "CMOS Failure."	* Revise el equipo del sistema. Asegúrese de que la información configurada sea correcta.

CAUSA PROBABLE	SOLUCIÓN
No puede arrancar después de instalar el segundo disco rígido.	* Fije correctamente el puente master/esclavo. * Ejecute el programa SETUP y seleccione el tipo de disco correcto. Llame a una manufacturación del disco para compatibilidad con otros discos.

Problemlösung

MÖGLICHE URSACHE	LÖSUNG
Das System hat keine Spannungsversorgung. Die Stromanzeige leuchtet nicht, der Lüfter im Inneren der Stromversorgung wird nicht eingeschaltet. Tastaturleuchten sind nicht an.	* Versichern Sie sich, dass das Stromkabel richtig angebracht ist * Ersetzen Sie das Stromkabel * Wenden Sie sich an Ihre Kundendienststelle

MÖGLICHE URSACHE	LÖSUNG
Das System funktioniert nicht. Die Tastaturleuchten sind an, die Stromanzeige leuchtet, die Festplatte dreht sich.	* Drücken Sie das DIMM-Modul bei gleichem Druck an beide Seiten, bis es einrastet.

MÖGLICHE URSACHE	LÖSUNG
Das System wird von der Festplatte nicht hochgefahren, vom CD-ROM-Treiber aber ja.	* Überprüfen Sie das Kabel zwischen Festplatte und Festplatten-Controller. Versichern Sie sich, dass beide Enden richtig angebracht sind; überprüfen Sie den Laufwerktyp in der standardmäßigen CMOS-Einrichtung. * Ein Backup der Festplatte ist sehr wichtig. Alle Festplatten können irgendwann beschädigt werden.

MÖGLICHE URSACHE	LÖSUNG
Das System wird nur von der CD-ROM hochgefahren. Die Festplatte wird gelesen und die Anwendungen sind funktionsfähig, aber es ist nicht möglich, das System von der Festplatte zu starten.	* Machen Sie eine Sicherungskopie von allen Daten und Anwendungsdateien. Formatieren Sie die Festplatte und reinstallieren Sie die Anwendungen und Daten mit Hilfe von Backup-Disks.

MÖGLICHE URSACHE	LÖSUNG
Auf dem Bildschirm erscheint die Meldung "Ungültige Konfiguration" oder "CMOS Fehler."	* Überprüfen Sie die Systemkomponenten und versichern Sie sich, das diese richtig eingerichtet sind.

MÖGLICHE URSACHE	LÖSUNG
Das System kann nach der Installation einer zweiten Festplatte nicht hochgefahren werden.	* Setzen Sie die Master/Slave-Jumper richtig ein. * Führen Sie das SETUP-Programm aus und wählen Sie die richtigen Laufwerktypen. Wenden Sie sich an den Laufwerkhersteller, um die Kompatibilität mit anderen Laufwerken zu überprüfen.

06/24/2003

M7NCG BIOS Setup

BIOS Setup

Introduction

This manual discussed Award™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The Award BIOS™ installed in your computer system's ROM (Read Only Memory) is a custom version of an industry standard BIOS. This means that it supports AMD K7 processor input/output system. The BIOS provides critical low-level support for standard devices such as disk drives and serial and parallel ports.

Adding important has customized the Award BIOS™, but nonstandard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

The rest of this manual is intended to guide you through the process of configuring your system using Setup.

Plug and Play Support

These AWARD BIOS supports the Plug and Play Version 1.0A specification. ESCD (Extended System Configuration Data) write is supported.

EPA Green PC Support

This AWARD BIOS supports Version 1.03 of the EPA Green PC specification.

APM Support

These AWARD BIOS supports Version 1.1&1.2 of the Advanced Power Management (APM) specification. Power management features are implemented via the System Management Interrupt (SMI). Sleep and Suspend power management modes are supported. Power to the hard disk drives and video monitors can be managed by this AWARD BIOS.

PCI Bus Support

This AWARD BIOS also supports Version 2.1 of the Intel PCI (Peripheral Component Interconnect) local bus specification.

DRAM Support

DDR SDRAM (Double Data Rate Synchronous DRAM) are supported.

Supported CPUs

This AWARD BIOS supports the AMD® K7 CPU.

Using Setup

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

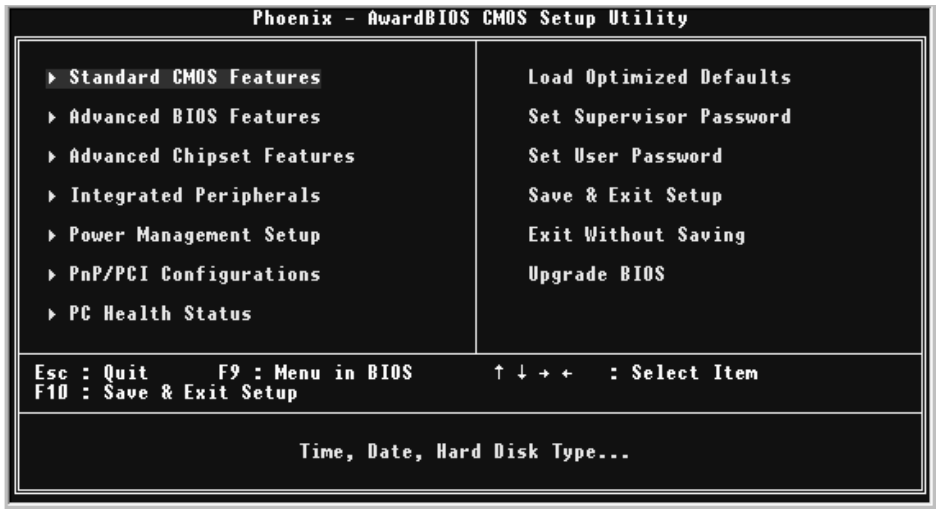
Keystroke	Function
Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item on the left (menu bar)
Right arrow	Move to the item on the right (menu bar)
Move Enter	Move to the item you desired
PgUp key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
+ Key	Increase the numeric value or make changes
- Key	Decrease the numeric value or make changes
Esc key	Main Menu – Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu – Exit Current page and return to Main Menu
F1 key	General help on Setup navigation keys
F5 key	Load previous values from CMOS
F7 key	Load the optimized defaults
F10 key	Save all the CMOS changes and exit

1 Main Menu

Once you enter Award BIOS™ CMOS Setup Utility, the Main Menu will appear on the screen. The Main Menu allows you to select from several setup functions. Use the arrow keys to select among the items and press <Enter> to accept and enter the sub-menu.

> *!! WARNING !!*
>
> The information about BIOS defaults on manual (**Figure 1,2,3,4,5,6,7,8,9**) is just for reference, please refer to the BIOS installed on board, for update information.

■ **Figure 1. Main Menu**



Standard CMOS Features

This submenu contains industry standard configurable options.

Advanced BIOS Features

This submenu allows you to configure enhanced features of the BIOS.

Advanced Chipset Features

This submenu allows you to configure special chipset features.

Integrated Peripherals

This submenu allows you to configure certain IDE hard drive options and Programmed Input/ Output features.

Power Management Setup

This submenu allows you to configure the power management features.

PnP/PCI Configurations

This submenu allows you to configure certain "Plug and Play" and PCI options.

PC Health Status

This submenu allows you to monitor the hardware of your system.

Load Optimized Defaults

This selection allows you to reload the BIOS when the system is having problems particularly with the boot sequence. These configurations are factory settings optimized for this system. A confirmation message will be displayed before defaults are set.

Set Supervisor Password

Setting the supervisor password will prohibit everyone except the supervisor from making changes using the CMOS Setup Utility. You will be prompted with to enter a password.

Set User Password

If the Supervisor Password is not set, then the User Password will function in the same way as the Supervisor Password. If the Supervisor Password is set and the User Password is set, the "User" will only be able to view configurations but will not be able to change them.

Save & Exit Setup

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

Exit Without Saving

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

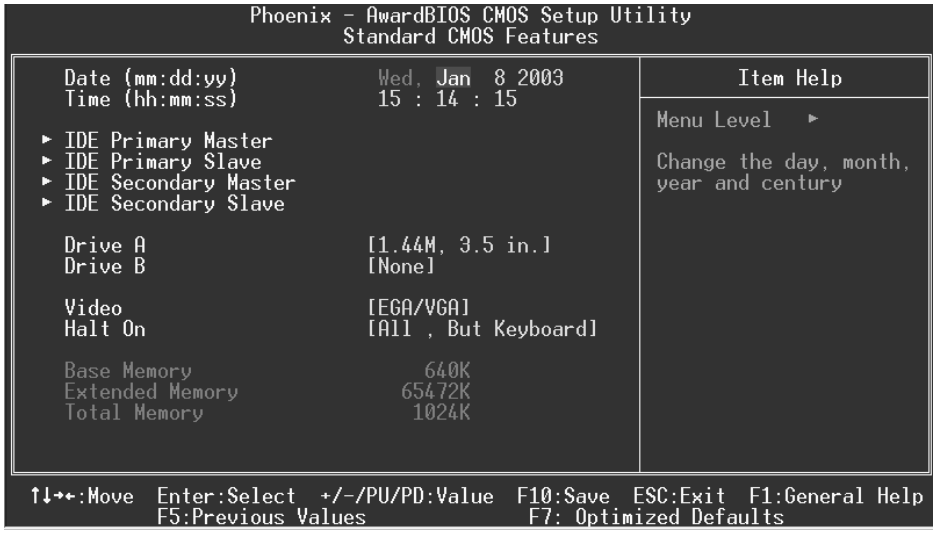
Upgrade BIOS

This submenu allows you to upgrade bios.

2 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the<PgUp> or <PgDn> keys to select the value you want in each item.

- **Figure 2. Standard CMOS Setup**



Main Menu Selections

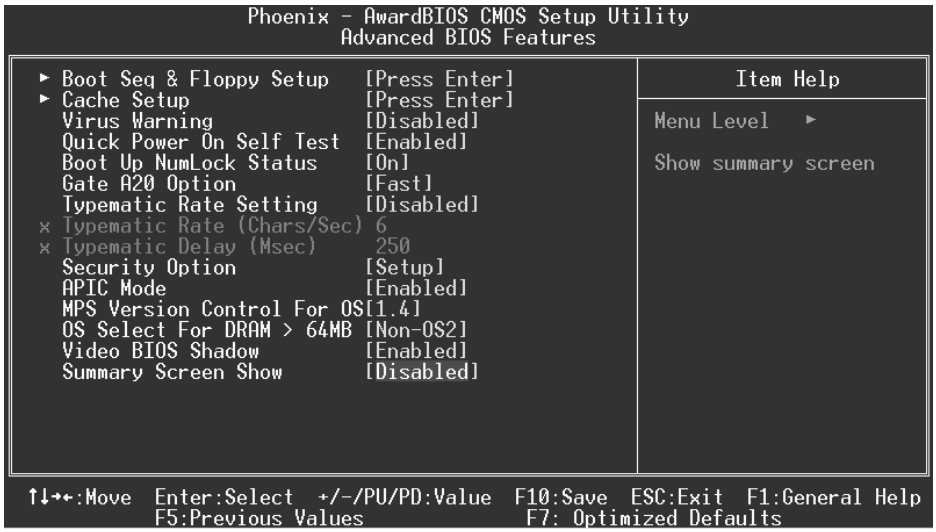
This table shows the selections that you can make on the Main Menu.

Item	Options	Description
Date	mm : dd : yy	Set the system date. Note that the 'Day' automatically changes when you set the date.
Time	hh : mm : ss	Set the system internal clock.
IDE Primary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options
IDE Primary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Master	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
IDE Secondary Slave	Options are in its sub menu.	Press <Enter> to enter the sub menu of detailed options.
Drive A Drive B	360K, 5.25 in 1.2M, 5.25 in 720K, 3.5 in 1.44M, 3.5 in 2.88M, 3.5 in None	Select the type of floppy disk drive installed in your system.
Video	EGA/VGA CGA 40 CGA 80 MONO	Select the default video device.

Item	Options	Description
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.

3 Advanced BIOS Features

■ **Figure 3. Advanced BIOS Setup**



Boot Seq & Floppy Setup

First/ Second/ Third/ Boot Other Device
These BIOS attempt to load the operating system from the device in the sequence selected in these items.
The Choices: Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1, HDD-2, HDD-3, ZIP100, LAN, HPT370, Disabled, Enabled.

Swap Floppy Drive
For systems with two floppy drives, this option allows you to swap logical drive assignments.
The Choices: Disabled (default), Enabled.

Boot Up Floppy Seek
Enabling this option will test the floppy drives to determine if they have 40 or 80 tracks. Disabling this option reduces the time it takes to boot-up.
The Choices: Disabled, **Enabled** (default).

Cache Setup

CPU Internal Cache
Depending on the CPU/chipset in use, you may be able to increase memory access time with this option.
The Choices:

Enabled (default)	Enable cache.
Disabled	Disable cache.

External Cache
This option you to enable or disable "Level 2" secondary cache on the CPU, which may improve performance.
The Choices:

Enabled (default)	Enable cache.
Disabled	Disable cache.

Virus Warning

This option allows you to choose the Virus Warning feature that is used to protect the IDE Hard Disk boot sector. If this function is enabled and an attempt is made to write to the boot sector, BIOS will display a warning message on the screen and sound an alarm beep.

Disabled (default)	Virus protection is disabled.
Enabled	Virus protection is activated.

Quick Power On Self Test

Enabling this option will cause an abridged version of the Power On Self-Test (POST) to execute after you power up the computer.

Enabled (default)	Enable quick POST.
Disabled	Normal POST.

Boot Up NumLock Status

Selects the NumLock. State after power on.

On (default)	Numpad is number keys.
Off	Numpad is arrow keys.

Gate A20 Option

Select if chipset or keyboard controller should control Gate A20.

Normal	A pin in the keyboard controller controls Gate A20.
Fast (default)	Lets chipset control Gate A20.

Typematic Rate Setting

When a key is held down, the keystroke will repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be configured.

The Choices: Disabled (default), Enabled.

Typematic Rate (Chars/Sec)

Sets the rate at which a keystroke is repeated when you hold the key down.

The Choices: 6 (default)**,** 8,10,12,15,20,24,30.

Typematic Delay (Msec)

Sets the delay time after the key is held down before it begins to repeat the keystroke.

The Choices: 250 (default)**,** 500,750,1000.

Security Option

This option will enable only individuals with passwords to bring the system online and/or to use the CMOS Setup Utility.

System	A password is required for the system to boot and is also required to access the Setup Utility.
Setup (default)	A password is required to access the Setup Utility only.

This will only apply if passwords are set from the Setup main menu.

APIC Mode

By selecting Enabled enables ACPI device mode reporting from the BIOS to the operating system.

The Choices: Enabled (default), Disabled.

MPS Version Control For OS

The BIOS supports version 1.1 and 1.4 of the Intel multiprocessor specification.
Select version supported by the operation system running on this computer.

The Choices: 1.4 (default), 1.1.

OS Select For DRAM > 64MB

A choice other than Non-OS2 is only used for OS2 systems with memory exceeding 64MB.

The Choices: Non-OS2 (default), OS2.

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

The Choices:

Enabled (default)	Optional ROM is enabled.
Disabled	Optional ROM is disabled.

Summary Screen Show

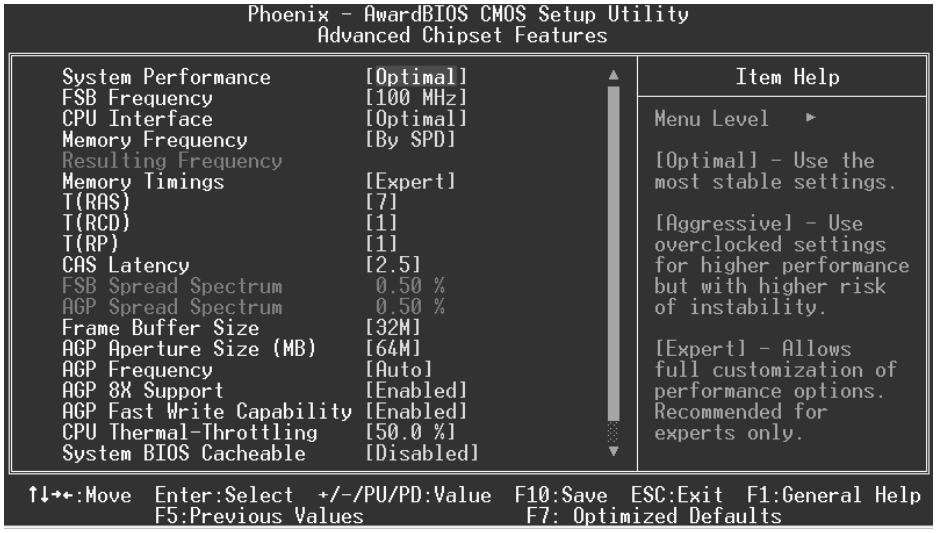
This item allows you to enable/ disable display the Summary Screen Show.

The Choices: Disabled (default), Enabled.

4 Advanced Chipset Features

This submenu allows you to configure the specific features of the chipset installed on your system. This chipset manage bus speeds and access to system memory resources, such as DRAM. It also coordinates communications with the PCI bus. The default settings that came with your system have been optimized and therefore should not be changed unless you are suspicious that the settings have been changed incorrectly.

■ **Figure 4. Advanced Chipset Setup**



System Performance

Optimal (Default)
This item allows you to use the most stable settings.

Aggressive
This item allows you to use the overclocked settings for higher performance but with higher risk of inestability.

Expert
This item allows full customization of performance

FSB Frequency

This item allows you to select the FSB Frequency.
The Choices: 100MHz (Default)

CPU Interface

Optimal (Default)
This item allows you to use the most stable CPU/ FSB parameters.

Aggressive
This item allows you to use overclocked CPU/ FSB parameters.

Memory Frequency

Select "Auto" for best performance.
The Choices: By SPD (Default), 50%, 60%, 66%, 75%, 80%, 83%, 100%, 120%, 125%, 133%, 150%, 166%, 200%, Auto.

Memory Timings

Optimal (Default)
This item allows you to use the most stable settings.

Expert
This item allows you to enter timings manually.

T(RAS) (Row-active Delay)

This item allows you to set System Performance to "Optimal" to use the delay recommended by the DIMM's manufacturer.
The Choices: 7 (Default), 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15.

T(RCD) (RAS-to-CAS Delay)

This item allows you to set System Performance to "Optimal" to use the delay recommended by the DIMM's manufacturer.
The Choices: 1 (Default), 2, 3, 4, 5, 6, 7.

T (RP) (Row-precharge Delay)

This item allows you to set System Performance to "Optimal" to use the delay recommended by the DIMM's manufacturer.
The Choices: 1 (Default), 2, 3, 4, 5, 6, 7.

CAS Latency

This item allows you to set System Performance to "Optimal" to use the delay recommended by the DIMM's manufacturer.
The Choices: 2.5 (Default), 2.0, 3.0.

FSB Spread Spectrum

This item allows you to select the FSB Spread Spectrum.
The Choices: 0.50 (Default).

AGP Spread Spectrum

This item allows you to select the AGP Spread Spectrum.
The Choices: 0.50 (Default).

Frame Buffer Size

This item allows you to select the Frame Buffer Size.
The Choices: 32M (Default), 8M, 16M, 64M, 128M, Disabled.

AGP Aperture Size (MB)

Select the size of the Accelerated Graphics Port (AGP) aperture. The apertures 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.
The Choices: 64 (default), 4, 8, 16, 32, 128, 256.

AGP Frequency

This item allows you to select the AGP Frequency.
The Choices: Auto (Default), 50MHz, 66MHz, 67MHz, 68MHz, 69MHz, 70MHz, 71MHz, 72MHz, 73MHz, 74MHz, 75MHz, 76MHz, 77MHz, 78MHz, 79MHz, 80MHz, 81MHz, 82MHz, 83MHz, 84MHz, 85MHz, 86MHz, 87MHz, 90MHz, 93MHz, 95MHz, 97MHz, 100MHz.

AGP 8X Support

This item allows you to enable or disable AGP 8X Support.
The Choices: Enabled (Default), Disabled.

AGP Fast Write Capability

This item allows you Enabled or Disabled AGP Fast Write Capability.
The Choices: Enabled (Default), Disabled.

CPU Thermal Throttling

This item allows you to select the CPU Thermal Throttling.
The Choices: 50% (Default), Disabled, 87.5%, 75%, 62.5%, 37.5%, 25%, 12.5%.

System BIOS Cacheable

Selecting Enabled allows you caching of the system BIOS ROM at F0000h~FFFFFh, resulting a better system performance. However, if any program writes to this memory area, a system error may result.
The Choices: Enabled, **Disabled** (default).

Video RAM Cacheable

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

The Choices: Disabled (default), Enabled.

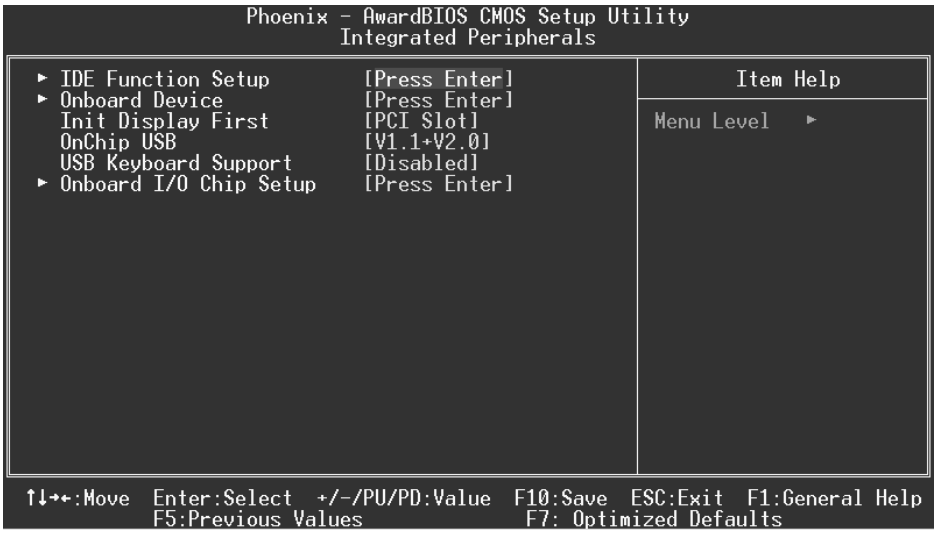
TV Mode Support

This option allows you to decide whether or not to connect the computer with a television.

The Choices: Disabled (default), Enabled.

5 Integrated Peripherals

■ **Figure 5. Integrated Peripherals**



IDE Function Setup

The chipset contains a PCI IDE interface with support for two IDE channels.
Select "Enabled" to activate the first and / or second IDE interface. If you install a primary and / or secondary add-in IDE interface, select "Disabled" to deactivate an interface. If you highlight the literal "Press Enter" next to the "Onchip IDE Control" label and then press the enter key, it will take you a submenu with the following options:

OnChip IDE Channel 0/1
The motherboard chipset contains a PCI IDE interface with support for two IDE channels. Select "Enabled" to activate the first and/or second IDE interface. Select "Disabled" to deactivate an interface if you are going to install a primary and/or secondary add-in IDE interface.
The Choices: Enabled (default), Disabled.

IDE Primary / Secondary Master / Slave PIO
The IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the IDE devices that the onboard IDE interface supports. Modes 0 through 4 provides successively increased performance. In Auto mode, the system automatically determines the best mode for each device.
The Choices: Auto (default), Mode0, Mode1, Mode2, Mode3, Mode4.

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

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

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 mode (most new drives do), select Enabled for automatic detection of the optimal number of block read / write per sector where the drive can support.
The Choices: Enabled (default), Disabled.

Onboard Device

AC97 Audio
This item allows you to decide to enable/ disable to support AC97 Audio.
The Choices: Auto (default), Disabled.

AC97 Modem
This item allows you to decide to enable/ disable to support AC97 Modem.
The Choices: Auto (default), Disabled.

MAC LAN (nVIDIA)
This item allows you to select MAC LAN.
The Choices: Auto (Default), Disabled.

Machine MAC (NV) Address
This item allows you to enable or disable Machine MAC Address.
The Choices: Disabled (Default), Enabled.

Onchip 1394 Chip
This item allows you to set the Onchip 1394 Chip.
The Choices: Auto (Default), Disabled.

Init Display First

This item allows you to decide to active whether PCI Slot or on-chip VGA first.
The Choices: Onboard/AGP, **PCI Solt** (default).

OnChip USB

This item allows you to set the onchip USB.
The Choices: V1.1+V2.0 (default), Disabled, V1.1.

USB Keyboard Support

The default value is Disabled.

Enabled	Enable USB Keyboard Support.
Disabled (default)	Disable USB Keyboard Support.

Onboard I/O Chip Setup

Power On Function
This item allows you to choose the powen on function.
The Choices: Button only (default), Password, Hot Key, Mouse Left, Mouse Right, Any Key, Keyboard 98.

KB Power on Possword
Input password and press Enter to set the Keyboard power on password .

HOT Key power ON
Input password and press Enter to set the Keyboard power on password .
The Choices: Ctrl-F1(default) , Ctrl-F2 , Ctrl-F3 , Ctrl-F4 , Ctrl-F5, Ctrl-F6 , Ctrl-F7 , Ctrl-F8 , Ctrl-F9, Ctrl-F10 , Ctrl-F11 , Ctrl-F12 .

Onboard FDC Controller
Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If install and FDC or the system has no floppy drive, select Disabled in this field.
The Choices: Enabled (default), Disabled.

Onboard Serial Port 1
Select an address and corresponding interrupt for the first and second serial ports.
The Choices: 3F8/IRQ4 (default), Disabled, Auto, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3.

Onboard Serial Port2
Select an address and corresponding interrupt for the first and second serial ports.
The Choices: Disabled (default), 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, Auto.

UART Mode Select
This item allows you to determine which Infra Red (IR) function of onboard I/O chip.
The Choices: Normal, ASKIR, **IrDA** (default).

RxD, TxD Active
This item allows you to determine which Infrared (IR) function of onboard I/O chip.
The Choices: Hi / Lo (default), Hi / Hi, Lo / Hi, Lo / Lo.

IR Transmission Delay
This item allows you to enable/disable IR transmission delay.
The Choices: Enabled (default), Disabled.

UR2 Duplex Mode
Select the value required by the IR device connected to the IR port. Full-duplex mode permits simultaneous two-direction transmission. Half-duplex mode permits transmission in one direction only at a time.
The Choices: Half (default), Full.

Use IR Pins
Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.
The Choices: IR-Rx2Tx2 (default), RxD2, TxD2.

Onboard Parallel Port
This item allows you to determine access onboard parallel port controller with which I/O address.
The Choices: 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode
The default value is SPP.

SPP (default)	Using Parallel port as Standard Printer Port.
EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port
ECP+EPP	Using Parallel port as ECP & EPP mode.

EPP Mode Select
Select EPP port type 1.7 or 1.9.
The Choices: EPP 1.7(default), EPP1.9.

ECP Mode Use DMA
Select a DMA Channel for the port.
The Choices: 3 (default), 1.

Game Port Address
Game Port I/O Address.
The Choices: 201 (default), 209, Disabled.

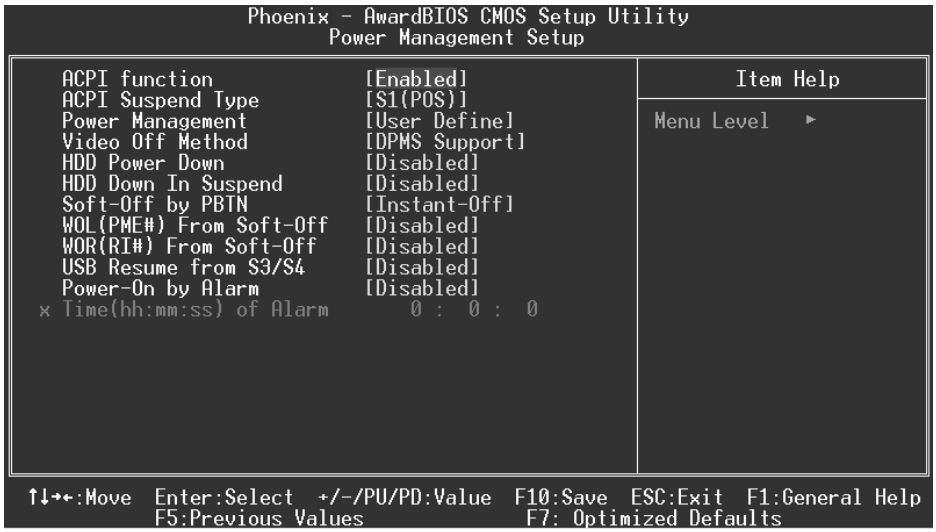
Midi Port Address
Midi Port Base I/O Address.
The Choices: 330 (default), 300, 290, Disabled.

Midi Port IRQ
This determines the IRQ in which the Midi Port can use.
The Choices: 10 (default), 5.

6 Power Management Setup

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

- **Figure 6. Power Management Setup**



ACPI function

This item displays the status of the Advanced Configuration and Power Management (ACPI).

The Choices: Enabled (default), Disabled.

ACPI Suspend Type

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

The Choices: S1 (POS) (default)		Power on Suspend
	S3 (STR)	Suspend to RAM
	S1 & S3	POS+STR

Power Management

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:

1.HDD Power Down.

2.Suspend Mode.

There are four options of Power Management, three of which have fixed mode settings

Min. Power Saving

Minimum power management.
Suspend Mode = 1 hr.
HDD Power Down = 15 min

Max. Power Saving

Maximum power management only available for sl CPU's.
Suspend Mode = 1 min.
HDD Power Down = 1 min.

User Defined (default)

Allows 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.

Video Off Method

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

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 (default)

Initial display power management signaling.

HDD Power Down

When enabled, the hard disk drive will power down and after a set time of system inactivity. All other devices remain active.
The Choices: Disabled (default), 1 Min, 2 Min, 3 Min, 4 Min, 5 Min, 6 Min, 7 Min,8 Min, 9 Min, 10 Min, 11 Min, 12 Min, 13 Min, 14 Min, 15Min.

HDD Down In Suspend

This item allows you to enable or disable HDD Down In Suspend.
The Choices: Disabled (Default), Enabled.

Soft-Off by PWR-BTTN

Pressing the power button for more than 4 seconds forces the system to enter the

Soft-Off state when the system has "hung."
The Choices: Delay 4 Sec, **Instant-Off** (default).

WOL (PME#) From Soft-Off

This item allows you to enable or disable the WOL (PME#) From Soft-Off.
The Choices: Disabled (Default), Enabled.

WOR (RI#) From Soft-Off

This item allows you to enable or disable the WOR (RI#) From Soft-Off.
The Choices: Disabled (Default), Enabled.

USB Resume from S3/ S4

This item allows you to enable or disable USB Resume from S3/ S4.
The Choices: Disabled (Default), Enabled.

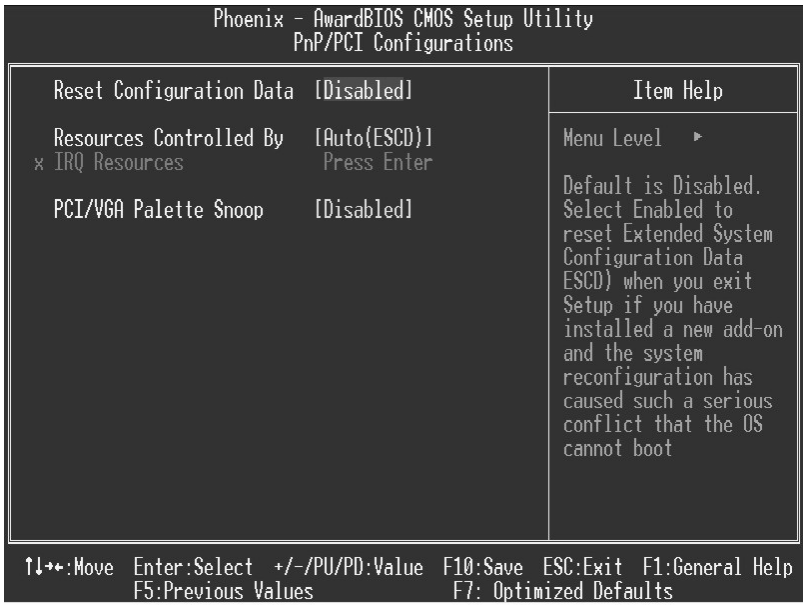
Power-On by Alarm

This item allows you to enable or disabled power on by alarm.
The Choices: Disabled (Default), Enabled.

7 PnP/PCI Configurations

This section describes configuring the PCI bus system. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed of the CPU itself uses when communicating with its own special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

■ **Figure 7. PnP/PCI Configurations**



Reset Configuration Data

The system BIOS supports the PnP feature which requires the system to record which resources are assigned and protects resources from conflict. Every peripheral device has a node, which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved in the system BIOS. If the Disabled (default) option is chosen, the system's ESCD will update only when the new configuration varies from the last one. If the Enabled option is chosen, the system is forced to update ESCDs and then is automatically set to the "Disabled" mode.

The above settings will be shown on the screen only if "Manual" is chosen for the resources controlled by function.
Legacy is the term, which signifies that a resource is assigned to the ISA Bus and provides

non-PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

The Choices: Disabled (default), Enabled.

Resources Controlled By

By Choosing "**Auto(ESCD)**" (default), the system BIOS will detect the system resources and automatically assign the relative IRQ and DMA channel for each peripheral.By Choosing "Manual", the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O port conflicts.

IRQ Resources

This submenu will allow you to assign each system interrupt a type, depending on the type of device using the interrupt. When you press the "Press Enter" tag, you will be directed to a submenu that will allow you to configure the system interrupts. This is only configurable when "Resources Controlled By" is set to "Manual".

IRQ-3	assigned to	PCI Device
IRQ-4	assigned to	PCI Device
IRQ-5	assigned to	PCI Device
IRQ-7	assigned to	PCI Device
IRQ-9	assigned to	PCI Device
IRQ-10	assigned to	PCI Device
IRQ-11	assigned to	PCI Device
IRQ-12	assigned to	PCI Device
IRQ-14	assigned to	PCI Device
IRQ-15	assigned to	PCI Device

PCI / VGA Palette Snoop

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

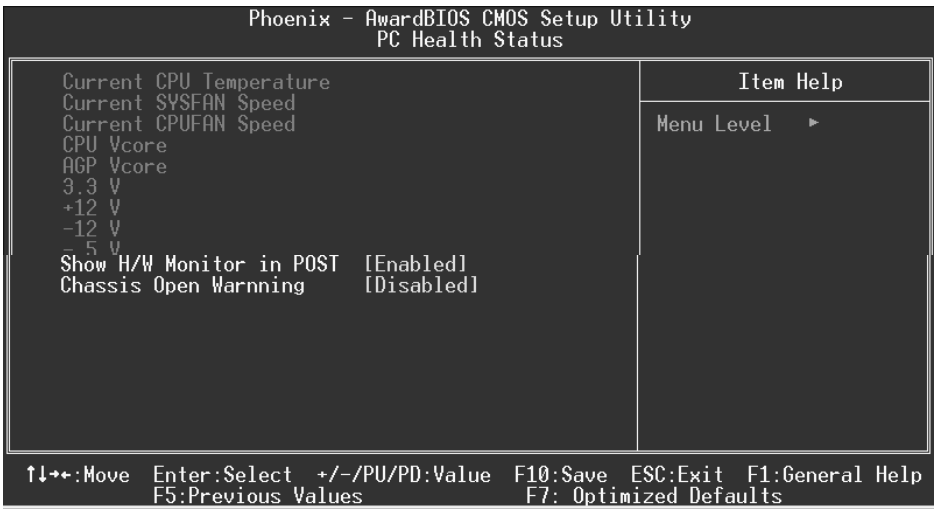
However, the color information coming from the VGA controller is drawn from the palette table inside the VGA controller to generate the proper colors, and the graphic controller needs to know what is in the palette of the VGA controller. To do this, the non-VGA graphic controller watches for the Write access to the VGA palette and registers the snoop data. In PCI based systems, where the VGA controller is on the PCI bus and a non-VGA graphic controller is on an ISA bus, the Write Access to the palette will not show up on the ISA bus if the PCI VGA controller responds to the Write.

In this case, the PCI VGA controller should not respond to the Write, it should only snoop the data and permit the access to be forwarded to the ISA bus. The non-VGA ISA graphic controller can then snoop the data on the ISA bus. Unless you have the above situation, you should disable this option.

Disabled (default)	Disables the function.
Enabled	Enables the function.

8 PC Health Status

■ **Figure 8. PC Health Status**



Current CPU Temperature

Show you the current CPU temperature.

Current SYSFAN Speed

This field displays the current SYSFAN speed.

Current CPUFAN Speed

This field displays the current CPUFAN speed.

CPU Vcore/AGP Vcore/AGP Voltage/+3.3V/+12V/-12V/-5V

Detect the system's voltage status automatically.

Show H/W Monitor in POST

If you computer contain a monitoring system, it will show PC health status during POST stage. The item offers several delay time to select you want.
The Choices: Enabled (default), Disabled.

Chassis Open Warning

This item allows you to enable or disable Chassis Open Warning beep.
The Choices: Disabled (Default), Enabled.