First International Computer, Inc.

FILE NO.
25-11141-00

NEW APPROVAL SHEET

☐ FIC PRODUCT ☐ COMPONENT

▒ MANUAL ☐ MECHANICAL

☐ P.C.B ☐ PURCHASE

☐ POWER SUPPLY ☐ SOFTWARE

DATE	2003.11.21
PART NO	25-11141-00
DESCRIPTION	MANU M/B AM39-LS ENG USER' VA0
MODEL	AM39-LS
REV.	
VENDOR	力 捷
REMARK	

☐Approved by NHRD ▒Approved by FIC-SZ

LINKO	☐ DCC ☐ QA ☐ PMC ☐ CSD
FIC-SZ	▒ DCH ☐ R&D ▒ VENDOR ▒ QA1 ☐ QA2 ☐ IE
NEI-HU	☐ RDCC ☐ VENDOR ☐ FAE ☐ CE
WORLD WIDE	☐ FIC-TX ☐ FIC-BZ ☐ FIC-CZ ▒ FIC-GZ

MANAGER	LEADER	CHECK	INITIAL
楊博丞 2003.11.21	張新政 2003. 11.21	謝群根 2003. 11.21	謝群根 2003. 11.21

RELEASE FROM:FIC R&D

FIRST INTERNATIONAL COMPUTER

COMPONENT APPROVAL SHEET

PART NUMBER	**25-11141-00**	**APPLICANT**	
DESCRIPTION	**MANU M/B AM39-LS ENG USER' VA0**		
WHERE USED			
BRAND		**VENDOR**	力　捷
MODEL(S)	**AM39-LS**	**MARK P/N**	
CONTACT	周 宇 清	**PHONE**	**(0769) 7313082**

COMPONENT	**OK**	**NG**	**COMMENTS:**
FUNCTIONAL TEST	☐	☐	
RELABLITY TEST	☐	☐	
COMPATIBILY TEST	☐	☐	**CE BY:**
			CE CHECK: 謝 群 根

H/W	**OK**	**NG**	**COMMENTS:**
ELECTRICAL SPEC	☐	☐	
ENVIONMENTAL	☐	☐	
COMPATIBILITY FEATURE	☐	☐	**H/W BY: 謝 群 根**

M/E	**OK**	**NG**	**COMMENTS:**
DIMENSION CHECK	☑	☐	
MATERIAL CHECK	☑	☐	
COATING CHECK	☐	☐	
IE CHECK	☐	☐	**M/E BY: 謝 群 根**

EMI & SAFETY	**OK**	**NG**	
SAF-ETY FEATURE	☐	☐	
EMI FEATURE	☐	☐	
MATERIAL CHECK	☐	☐	
LABELING CHECK	☐	☐	**SAFETY BY:**
			EMI BY: 謝 群 根

ATTACHMENTS ☑**SAMPLE** ☐**DRAWING** ☑**SPEC** ☐**PHOTO** ☐ **ECN**

REMARK:

Failure Rate λ (Failure/10^6 hours)= ☐Vendor ☐MIL-HDBK-217F

APPROVAL ☑

TEMPORARY ☐

REJECT ☐

☐**1'ST SOURCE** ☐**2'ND SOURCE**

承 認 書

客 戶　才 眾

品 名　說明書

料 號　25-11141-00

客戶確認簽章

本公司確認簽章

工程部	品管部	品管部經理
曹菊蘭	陳文華	胡培基

送樣日期: 2003 年 11 月 19 日

東莞力捷紙品有限公司

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東莞力捷紙品有限公司

產 品 基 本 資 料

確認意見

附樣:

生 產 技 術 資 料 表					
產 品 編 號	25-11141-00	品 名	說明書	材 質	封頁: 200P 銅西卡 內頁: 70P 蘭白模造
顏 色	BK+877C	表 面 處 理	OPP 膜(正面)	條碼值: 實測值:	無
尺 寸 規 格	148*210mm	成型方式		裁切, 折頁, 膠裝	
核 准	胡 培 基	審 核	曹 菊 蘭	填 表	李 先 芳

K7M-400A

MAINBOARD MANUAL

DOC No.: M03603
Rev. : A0
Date : 11, 2003
Part No. : 25-11141-00

Handling Precautions

Warning:

1. Static electricity may cause damage to the integrated circuits on the motherboard. Before handling any motherboard outside of its protective packaging, ensure that there is no static electric charge in your body.
2. There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer.
3. Discard used batteries according to the manufacturer's instructions.
4. Never run the processor without the heatsink properly and firmly attached. PERMANENT DAMAGE WILL RESULT!

Observe the following basic precautions when handling the motherboard or other computer components:

- Wear a static wrist strap which fits around your wrist and is connected to a natural earth ground.
- Touch a grounded or anti-static surface or a metal fixture such as a water pipe.
- Avoid contacting the components on add-on cards, motherboards, and modules with the *golden fingers* connectors plugged into the expansion slot. It is best to handle system components by their mounting brackets.

The above methods prevent static build-up and cause it to be discharged properly.

Trademark

All trademarks mentioned in this manual are registered properly of the respective owners.

Handling Precautions

Table of Contents

Chapter 3 BIOS Setup

Overview

The new microATX 462-pin board supports a full range of the latest generation AMD® Athlon XP™ processors. The leading edge VIA® chipset was designed to work in the 462-pin package running at the FSB 200/266/333/400 MHz. Built using leading edge technology, the AMD® Athlon XP™ processors provide a significant improvement in performance over previous processors. Two DDR 200/266/333/400 SDRAM sockets allow for up to 2 GB memory capacity. Support for Ultra DMA/133 protocol and its high-speed interface further ensures that data transfer speeds are improved, especially for the long sequential transfers required by audio/visual applications.

The board features onboard audio and LAN function; also, the serial ATA feature replaces the standard parallel ATA physical storage interface and allows future enhancements to the computing platform. It is completely software compatible with parallel ATA, requiring no modification to your operating system. For more details, please read the help file in the lst Utilities CD.

The board comes with a versatile range of I/O features such as serial port COM port, 1 CRT port, 1 parallel port, 1 LAN, 2 optional IEEE 1394, 1 PS/2 mouse and keyboard connector, 8 USB ports, 1 media connector (front audio, Line-in, Line-out and Mic-in). In addition, the board is equipped with 2 dual channel enhanced PCI bus master IDE connectors. Ample expansion is available through 3 PCI and 1AGP to allow enjoyment of the AMD CPU's benefits in internet applicatons, video/3D graphics performance, and so forth.

Other key features are Remote On/Off, Auto Power Failure Recovery, integrated temperature monitoring and system fan control. Also included are a lst Utilities CD with enhanced drivers and a few bundled software solutions.

Package Checklist

If you discover any item below was damaged or lost, please contact your vendor.

Mainboard

Floppy Drive Cable

40-Pin IDE Ribbon Cable

USB Cable (optional)

I/O Shielding

Manual

Drivers

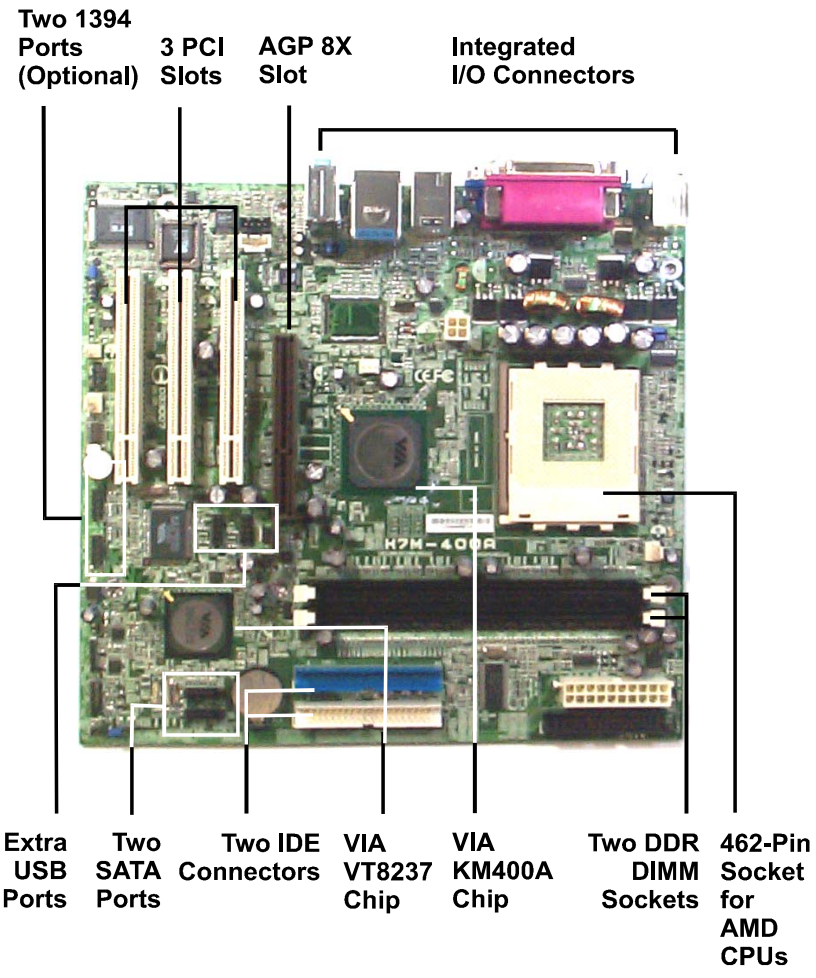
1394 Bracket with Cable (optional)

SATA Power Cable (top)
SATA Data Cable (bottom) (optional)

NOTE: A 1st Utilities CD, which contains patch files, onboard video/ audio chip drivers, related online help and other useful information, can be found in your mainboard package.

Please install it immediately after your Windows operating system installation is complete. Place your 1st Utilities CD in the drive and an operating menu will appear on your monitor. Please select *Auto Installation*. It will automatically detect which software tools (patch files, drivers) the mainboard needs. Press **OK** to go through the whole installation procedure in a very straight forward and easy way. It will also provide you with a custom installation feature to select the patch files and software drivers you want for the onboard chip's use. **The top menu of the 1st Utilities CD lists all the functions that are allowed by this board.**

The K7M-400A Mainboard



Main Features

- **CPU**

  Duron: 1.0 - 1.3 GHz at FSB 200 MHz
  1.6 - 1.8 GHz at FSB 266 MHz
  Athlon : 1.0 - 1.4 GHz at FSB 200/266 MHz
  Athlon XP:
  Palomino Core: 1500+ - 2100+ at FSB 266 MHz
  Thoroughbred Core: 1700+ - 2600+ at FSB 266/333 MHz
  Barton Core: 2500+ - 3200+ at FSB 333/400 MHz

- **Chipset**

  North Bridge: *VIA® KM400A*
  South Bridge: *VIA® VT8237*

- **Memory**

  2 Memory Sockets:
  Support 184-pin DDR 200/266/333/400 MHz
  total Memory Size up to 2 GBs

- **Expansion Slots**

  AGP Slot: Support 2.0 4X/8X (0.8 - 1.5V)
  3 PCI Slots

- **IDE Connections**

  2 IDE Connectors - PIO Mode, Ultra DMA 66/100/133
  Up to 4 Devices

- **SATA Connections**

  2 Ports Controlled by embedded VIA VT8237® SATA Function

- **Audio Features**
  AC97 2.2 compliant
  LINE_IN, LINE_OUT, MICROPHONE_IN Jack
  Front Audio Pinheaders

- **I/O Ports**
  2 IDE Connectors -
  PIO, Bus Master, Ultra DMA 66/100/133
  up to 4 Devices
  - 1 Serial Port COM1 / 1 CRT Port
  2 Serial ATA Connectors
  1 Floppy Connector
  1 Parallel Port
  PS/2 Mouse and PS/2 Keyboard
  8 USB 1.1/2.0 Ports

- **LAN**
  VT6103L™ 10/100M Fast Ethernet
  RTL8110S™ Giga-bit Ethernet *(optional)*

- **Mounting Holes**
  6 Holes

- **Mainboard Size**
  9.0 x 9.6 (unit: inch)

- **IEEE 1394 Ports** *(optional)*
  VT6307L™
  2 Ports
  1 Bracket with Cable

FIC Unique Innovation for Users (NOVUS) -
Enhanced Mainboard Features and System Support

- BIOS Guardian

  BIOS Guardian effectively acts as a fire-wall against viruses that can attack the BIOS while the system is running and when default is enabled.

WARNING:
BIOS Guardian must be disabled before reflashing the BIOS.

NOTE:
Please read Page 3-7 for detail information.

- Easy Key

  Instead of completing the multi-layered BIOS setup process, these 3 Easy Key functions provide direct access to the Sub-Menu when completing BIOS setting adjustments.

  Easy-Keys are as follows:
  Ctrl + p: To load Performance Default settings and restart.
  Ctrl + f: To load Fail-Safe Default settings and restart.

Installation Procedures

The mainboard has several user-adjustable jumpers on the board that allow you to configure your system to suit your requirements. This chapter contains information on the various jumper settings on your mainboard.

To set up your computer, you must complete the following steps:

Step 1 - **Set system jumpers**
Step 2 - **Install memory modules**
Step 3 - **Install the Central Processing Unit (CPU)**
Step 4 - **Install expansion cards**
Step 5 - **Connect ribbon cables, cabinet wires, and power supply**
Step 6 - **Set up BIOS software**
Step 7 - **Install supporting software tools**

WARNING: Excessive torque may damage the mainboard. When using an electric screwdriver on the mainboard, make sure that the torque is set to the allowable range of 5.0 ~ 8.0kg/cm.

Mainboard components contain very delicate Integrated Circuit (IC) chips. To prevent static electricity from harming any of the sensitive components, you should follow the following precautions whenever working on the computer:

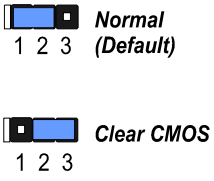
1. Unplug the computer when working on the inside.
2. Hold components by the edges and try not to touch the IC chips, leads, or circuitry.
3. Wear an anti-static wrist strap which fits around the wrist.
4. Place components on a grounded anti-static pad or on the bag that came with the component whenever the components are separated from the system.

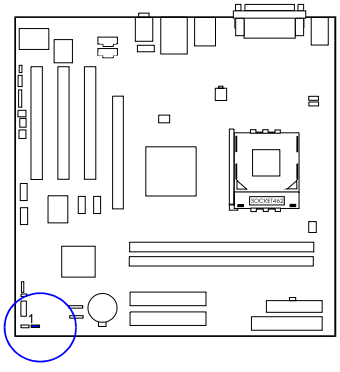
1). Set System Jumpers

Clear CMOS

The CMOS RAM is powered by the onboard button cell battery.
To clear the RTC data:

(1) Turn off your computer;
(2) Open the system case and disconnect the ATX power cable;
(3) Place the jumper cap onto the pinpair 2-3 for at least 6 seconds to clear CMOS data;
(4) Place the jumper cap onto the pinpair 1-2 to normal operation;
(5) Close the system case and connect the ATX power cable;
(6) Turn on your computer until *CMOS checksum error* appears;
(7) Press the *Delete* key as it boots;
(8) Enter the BIOS Setup to re-enter user preferences.



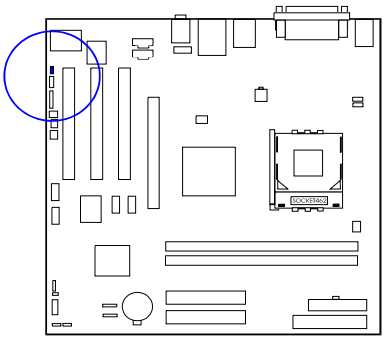


BIOS Protect

The jumper helps to prevent the BIOS ROM from being overwritten by mistake.

Write Enable (Default)

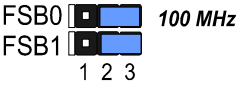
Write Protect



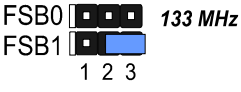
Front Side Bus Frequency

The jumpers together decide the setting of FSB frequency of the mainboard.

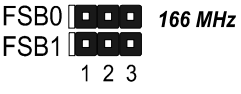
Auto (Default)



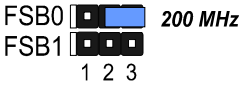
100 MHz



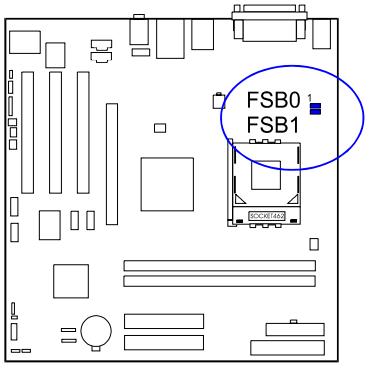
133 MHz



166 MHz

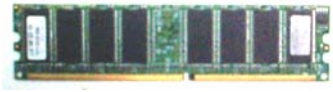


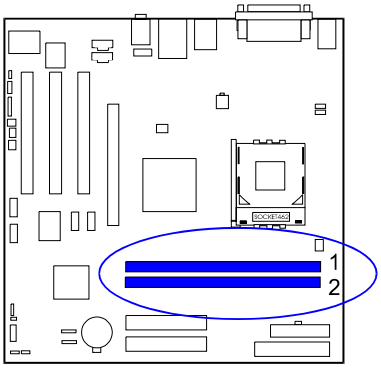
200 MHz



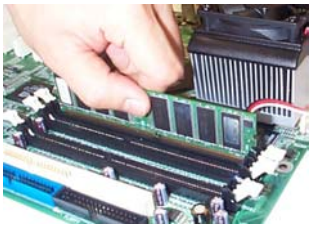
2). Install Memory Modules

1. Locate DDR DIMM sockets on the mainboard.

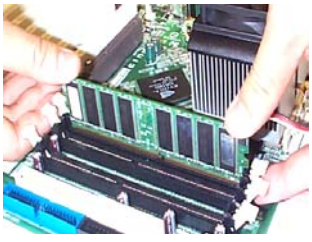




2. Install DDR DIMM straight down into the socket 1 using both hands, then socket 2, and so forth.



3. The clip on both ends of the socket will close up to hold the DDR DIMM in place when the DDR DIMM reaches the socket bottom.



Press the clips outward with both hands to remove the DIMM.

3). Install the CPU

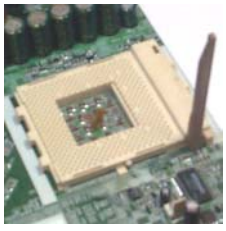
The mainboard has a built-in Switching Voltage Regulator to support CPU Vcore autodetection. That is, it has the ability to detect and recognize the CPU voltage, clock, ratio. Users can view the report about CPU frequency through *Frequency / Voltage Control* on the BIOS Setup Screen.

CAUTION:

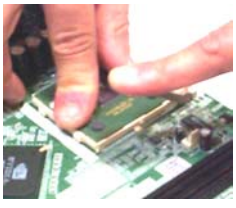
1. The heat sink and fan you installed must be approved by AMD.
2. The mainboard must be placed on a solid surface to avoid shak ing while install the heat sink and fan are installed on the board.
3. The heat sink must make tight contact with the CPU top.
4. Never run the processor without the heat sink properly and firmly attached. PERMANENT DAMAGE WILL RESULT!

The procedures below shows you how to install your CPU and its fan and heatsink. First of all, locate the CPU socket on the mainboard.

1. Swing the lever upward to 90 degree.



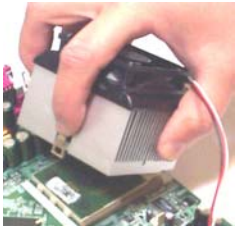
2. Install the CPU, making sure of the pin 1 orientation by aligning the socket corner marking with the socket corner closest to the lever tip. Do not insert the CPU by force. Make sure the processor is fully inserted into the socket on all sides.



Apply some thermal materials, such as paste or tape, on the CPU top; and install a fan with a heatsink is approved by the manufacturer to avoid CPU damage. For detail information, please refer to the CPU manufacturer website.

Affix the CPU by pressing the lever downward and locking it beside the socket.

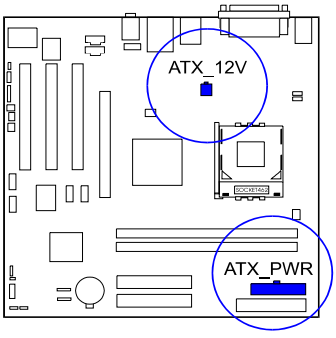
3. Place the fan with heatsink on the CPU top and press down on the two plastic clips, hooking them up with the holes on the two sides of the retention module.



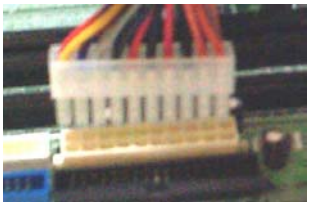
4. Press the white bar on each clip down to fasten the fan set on the retention module.

Connect ATX Power

The 20-hole power plug (1st figure) is connected to the ATX power 20-pin pinheaders. The 4-hole 12V power plug (2nd figure) is inserted in the ATX_12V power connector.



The plug from the power supply can only be inserted in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the pins are aligned.



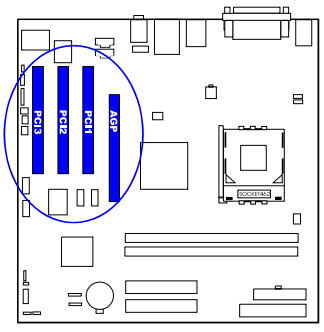
4). Install Expansion Cards

This section describes how to connect an expansion card to one of your system expansion slots. Expansion cards are printed circuit boards that, when connected to the mainboard, increase the capabilities of your system. For example, expansion cards can provide video and sound capabilities. The mainboard features one AGP and three PCI bus expansion slots.

CAUTION:

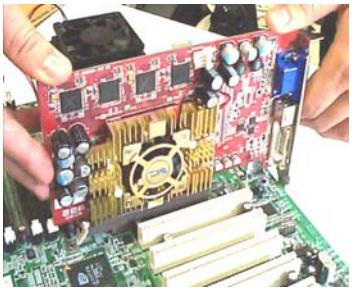
1. Make sure to unplug the power supply when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both the mainboard and expansion cards.
2. Always observe static electricity precautions.
3. Please read Handling Precautions at the start of this manual.

1. Select an available expansion slot.



2. Remove the corresponding slot cover from the computer chassis. Unscrew the mounting screw that secures the slot cover and pull the slot cover out from the computer chassis. Keep the slot cover mounting screw nearby.

3. Push the card firmly into the slot. Push down on one end of the expansion card, then the other. Use this rocking motion until them card is firmly seated inside the expansion slot. Secure the card with the screw removed in Step 2.



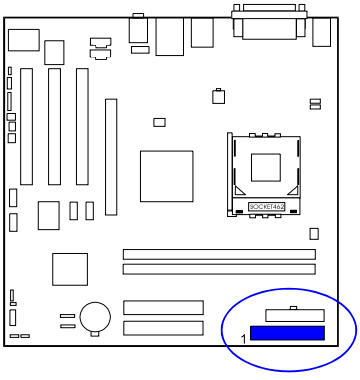
5). Connect Devices

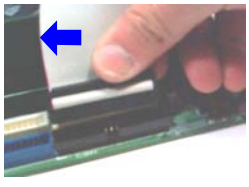
Floppy Diskette Drive Connector

This connector provides the connection with your floppy disk drive.

Insert the floppy ribbon cable (below) onto the floppy connector.

The colored stripe (indicated by the arrow head, right) of the ribbon cable must be the same side as Pin 1.



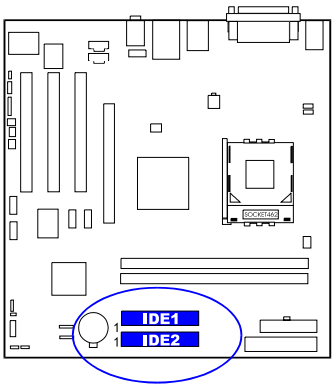


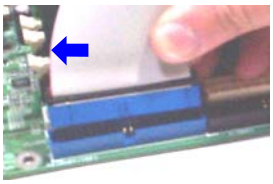
IDE Device Connectors

The two connectors, IDE1 (PRIMARY) and IDE2 (SECONDARY), are used for your IDE hard disk drives, CD drives, LS-120 drives, or IDE ZIP drives.

Insert the floppy ribbon cable (below) onto the floppy connector.

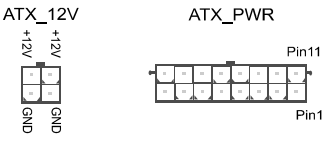
The colored stripe (indicated by the arrow head, right) of the ribbon cable must be the same side as Pin 1.



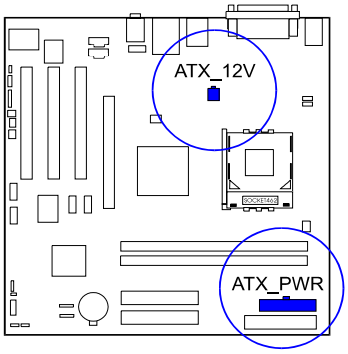


Power Connectors

The 20-pin male block connector is connected to the ATX power supply. The 4-pin male block connector is for the ATX_12V power supply. Both connectors are linked with your ATX power supply. The plug from the power supply can only be inserted in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the pins are aligned.



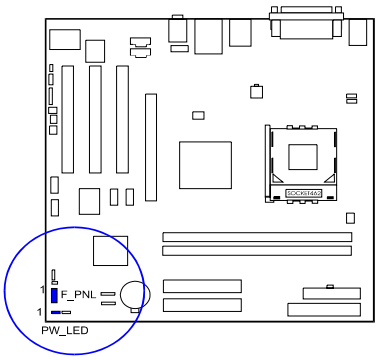
PIN	DEFINITION	PIN	DEFINITION
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS_ON
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	PWR_GOOD	18	-5V
9	5V_SB	19	+5V
10	+12V	20	+5V



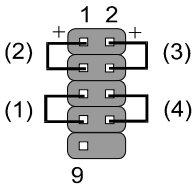
Front Panel Block, Power LED, IR, and Speaker Connector

This block connector includes the connectors for linking with Power LED (3-pin), HDD LED, power button, power/sleep/message waiting button, and the reset button on the front panel of the system case. Please identify the polarities of the plug wires for the case speaker and LEDs.

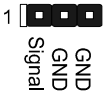
The plug wires (below) polarities of these buttons will not affect the function.



F_PNL
(Intel Spec.)



PW_LED
(Power LED, 2/3 Pins)



LED	Meaning	State
Off	Off	S4/S5
On	Full On	S0
Flash	Sleep	S1/S3

(1) Reset Switch is connected to the reset button. Push this switch to reboot the system instead of turning the power button off and on.

(2) HDD LED is connected to the IDE device indicator. This LED will blink when the hard disk drives are activated.

(3) Power (Single and Dual) /Sleep LED

Please refer to the tables below for the representations of LED states.

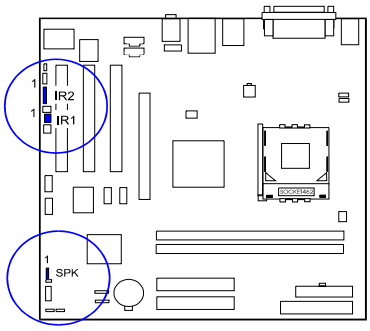
There is another 3-Pin Power LED connector on board for some cases that have a 3-pin plug.

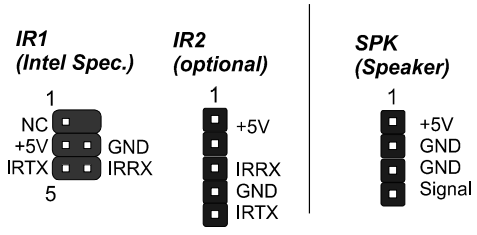
LED	Meaning	State
Off	Off	S4/S5
Green	Full On	S0
Other Colors	Sleep	S1/S3

(4) Power Button is connected with the power button. Pushing this switch allows the system to be turned on and off rather than using the power supply button.

IR1/IR2 is a pinheader that is used for linking with your ID device to allow transmission of data to another system that also supports the IR feature.

Speaker is connected with the case speaker.

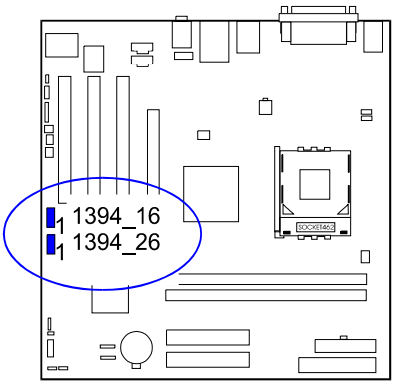




NOTE: To use IR functions you must adjust the BIOS features introduced in the section of *Integrated Peripherals*, Chapter 3, for your IR devices.

1394 Connectors (optional)

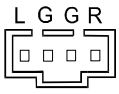
The 2 optional 1394 pinheaders on the board provides you, by an optional bracket with cable (see the figure below), with two connections for peripherals which have 1394 connectors. The pin definitions of the 1394 pinheaders are listed below also.

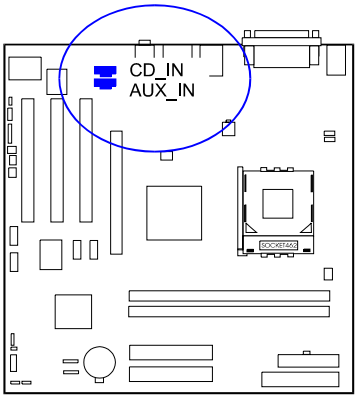


PIN	DEFINITION
1	TA+
2	TA-
3	GND
4	GND
5	TB+
6	TB-
7	+12V
8	+12V
9	Key
10	GND

CD Audio-In Connectors

The connectors, CD_IN and AUX_IN, are for CD-ROM drive audio analog input use. The pin assignment are: Pin 1 is Left, Pin2 and 3 are GND, Pin 4 is Right.

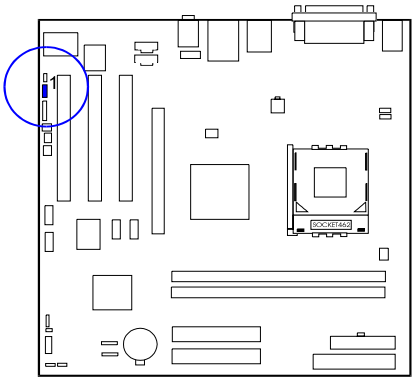




CAUTION: Improper orientation of SPDIF connection may cause damage of your device.

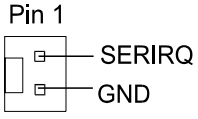
SPDIF Out Connector

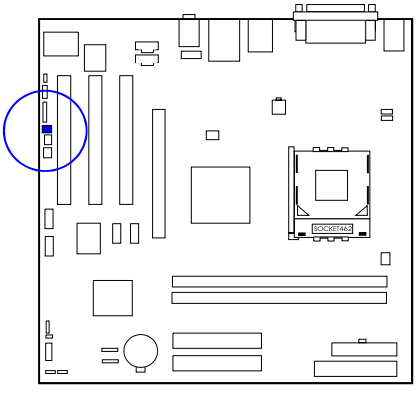
The mainboard equipped one 1x3 pinheader. It is used for SPDIF digital audio output. Pin 1 is +5V, Pin 2 is SPDIF, Pin3 is GND.



Serial IRQ Connector

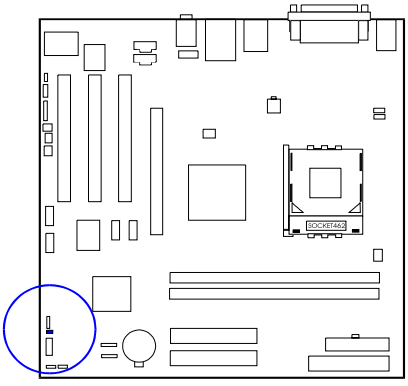
This 2-pin connector is used for some system integration use.





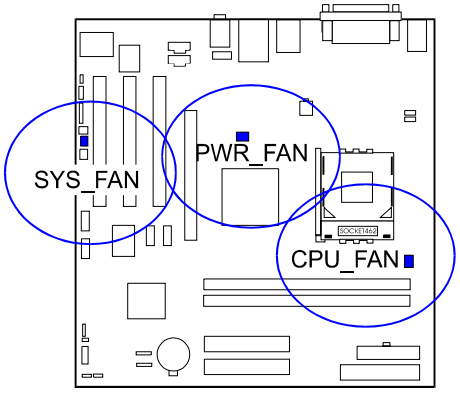
Chassis Intrusion Connector

This connector is for a chassis designed with intrusion detection feature. It needs a chassis intrusion sensoror on the chassis. If a chassis part is moved, the sensor activates and releases a signal in order to this connector to record a chassis intrusion event. Pin 1is Signal, Pin 2 is GND.



Fan Connectors

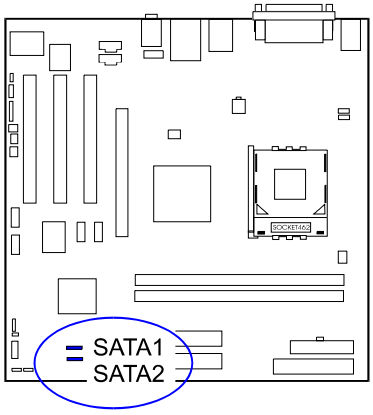
The two connectors, CPU_FAN and SYS_FAN are linked to the CPU fan and case fan, respectively. PWR_FAN can be used with the power supply cooling fan. Pin1 is GND, Pin2 is +12V, Pin3 is Signal.



Serial ATA Connectors

The 2 SATA connectors provide you with connections to serial ATA devices that conform to the Serial ATA specification. Serial ATA supports all ATA and ATAPI devices. The pictures below left show the two SATA cables (the top one is for power; the bottom one is for data).

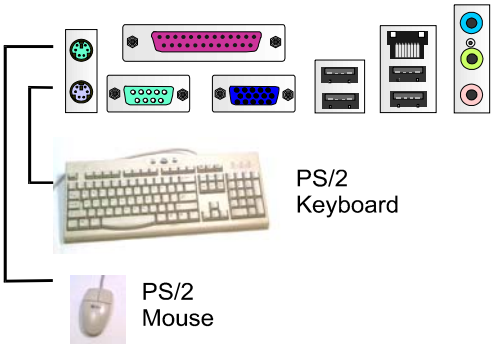
PIN	DEFINITION
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

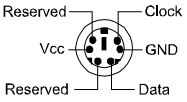


NOTE: To use SATA functions must adjust BIOS features introduced in the section of *Integrated Peripherals*, Chapter 3, for your SATA devices.

PS/2 Keyboard and Mouse Connector

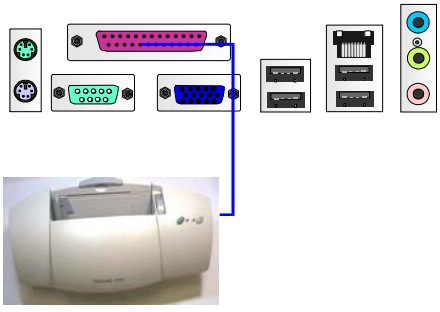
These two 6-pin female (PS/2 keyboard is purple color and PS/2 mouse is green color) connectors are used for your PS/2 keyboard and PS/2 mouse.



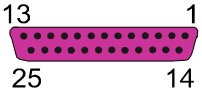


Printer Connector

This 25-pin D-Sub female connector (burgundy-colored) is attached to your printer.



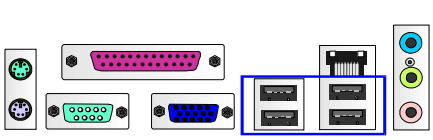
Printer

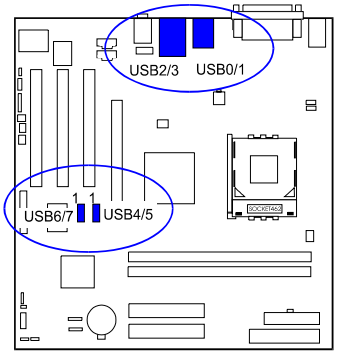


PIN	DEFINITION
1	*STROBE*
2 - 9	*DATA 0 - 7*
10	*ACK#*
11	*BUSY*
12	*PE*
13	*SELECT*
14	*AUTO FEED#*
15	*ERR#*
16	*INIT#*
17	*SLIN#*
18-25	*GND*

Universal Serial Bus Connectors

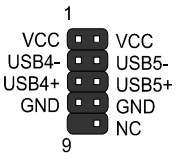
The mainbaord has six USB ports; four USB black jacks that are integrated on the edge of the board, the other two USB pinheaders on the board. They allows uses to attach to USB devices either from the rear or front panels. The USB cable that comes with your mainboard is used to connecting between the USB pinheaders and rear panel. (See the photo below).





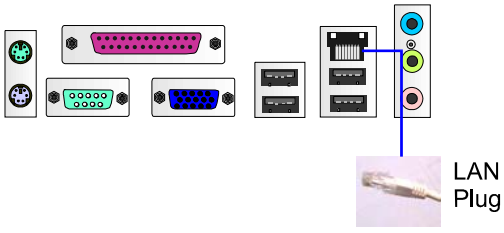
The figure at right shows the pin assignments of the USB4/5. Those of USB6/7 are similar.

USB4/5



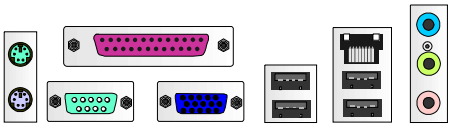
RJ45 LAN Connector

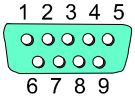
The LAN (RJ45 port) jack is used for the LAN cable plug.



Serial Port Connector

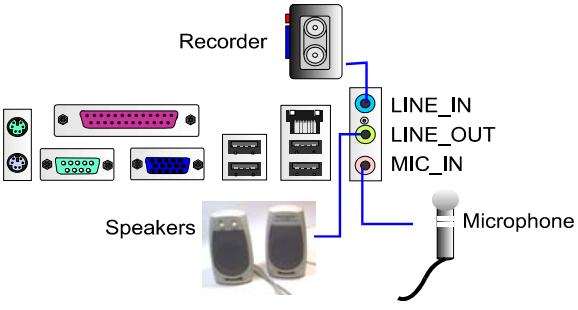
COM1 (teal colored 9-pin D-sub male connector) allows you to connect with your device that use a serial port, such as a serial mouse or an external modem.





Audio I/O Jacks

LINE_OUT (lime) can be connected to headphones or preferably powered speakers. LINE_IN (light blue) allows tape players or other audio sources to be recorded by your computer or played through the LINE_OUT. MIC_IN (pink) allows microphones to be connected for audio input.

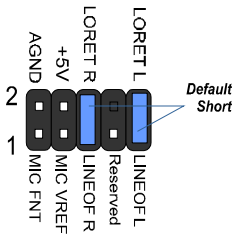


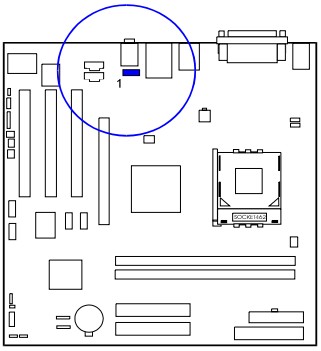
PIN	
1	
2	
3	
4	
5	
6	
7	
8	
9	

NOTE: LINE_IN, LINE_OUT, and MICROPHONE jacks can be used the 5.1-channel audio output with its software tool.

Front Audio Connector

The mainboard has a front panel audio F_AUDIO connector (Intel spec.). It allows users to attach the audio device via the front panel (instead of the rear panel) by a ribbon cable that in some cases.
Its pin definitions are resented below.

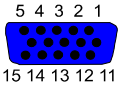




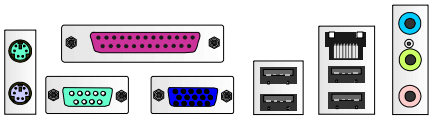
NOTE: If you do not use F_AUDIO, please keep the pinpair 5-6, 9-10 short as default; also, when the front headphone is plugged in, the rear audio output will be disabled.

CRT Connector

This connector is linked to your monitor. The pinheaders pin assignments are shown at right side.



PIN	DEFINITION
1	RED
2	GREEN
3	BLUE
4	VCC
5	GND
6	GND
7	GND
8	GND
9	VCC
10	GND
11	VCC
12	DDC DATA
13	HSYNC
14	VSYNC
15	DDC CLK



CRT

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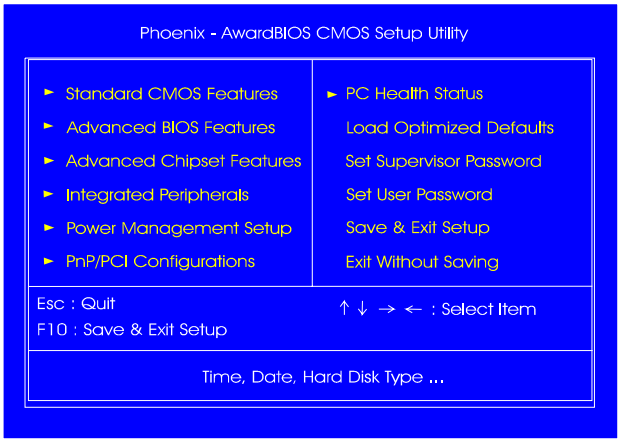
BIOS Setup

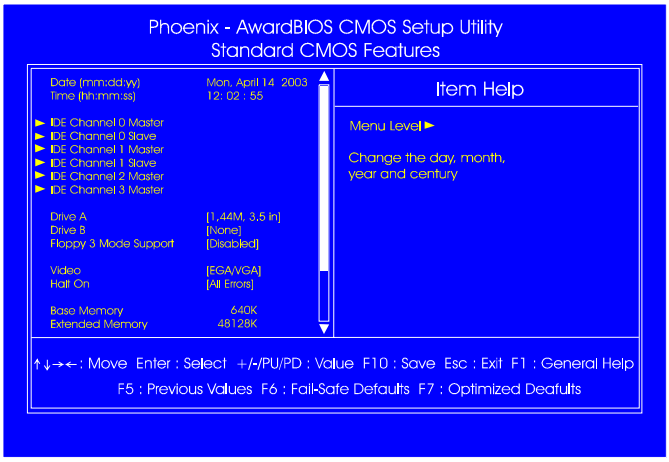
The mainboard comes with a chip from Award BIOS that contains the ROM Setup information for your system. This chip serves as an interface between the processor and the rest of the mainboard components. This section explains the information contained in the Setup program and tells you how to modify the settings according to your system configuration.

CMOS Setup Utility



The Setup Utility program allows updates to the mainboard configuration settings. The BIOS setup values will be saved in the CMOS. Setup is executed when the user changes system configurations; changes the system backup battery or the system detects a configuration error and asks the user to run the Setup program. Use the arrow keys to select and press **Enter** to run the selected program.

Standard CMOS Setup



The Standard CMOS Setup screen is displayed above. Each item may have one or more option settings. The system BIOS automatically detects memory size, thus no changes are necessary. Use the arrow keys to highlight the item and then use **PgUp** or **PgDn** keys to select the value you want in each item.

Date

To set the date, highlight the *Date* field and then press **Page Up/Page Down** or +/- keys to set the current date. Follow the month, day and year format.

Time

To set the time, highlight the *Time* field and then press **Page Up/Page Down** or +/- keys to set the current time. Follow the hour, minute, and second format.

Hard Disks

This field records the specifications for all non-SCSI hard drives installed in the system. The onboard PCI IDE connectors provide Primary and Secondary channels for connecting up to four IDE hard disks or other IDE devices. Each channel can support up to two hard disks, the first of which is the *Master* and the second is the *Slave*.

Hard Disk Configurations

Capacity:	The hard disk size. The unit is Bytes.
Cylinder:	The cylinder number of the hard disk.
Head:	The read/write head number at the hard disk.
Precomp:	The cylinder number of which the disk drive changes the write current.
Landing Zone:	The cylinder number on which the disk drive heads (read/write) are seated when the disk drive is parked.
Sector:	The sector number of each track defined on the hard disk.

Drive A / Drive B

This field records the types of floppy drives installed in the system. To enter the configuration value for a particular drive, highlight its corresponding field and then select the drive type using the **left-** or **right-arrow** key.

Floppy 3 Mode Support

This is a Japanese standard floppy type drive.

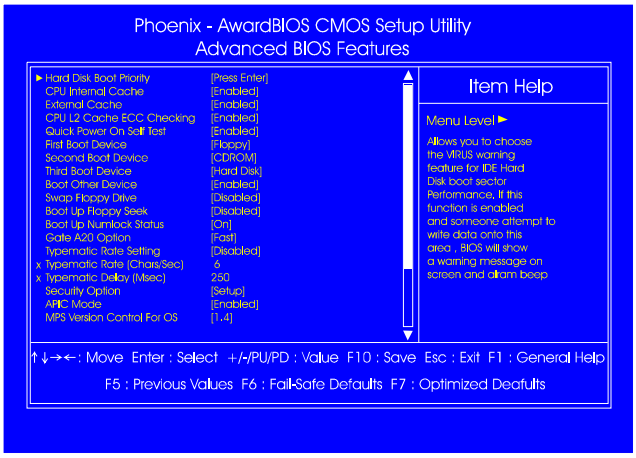
Video

Set this field to the type of video display card installed in the system.

Halt On

This field determines which types of errors will cause the system to halt.

Advanced BIOS Features



Hard Disk Boot Priority

This feature will auto detect all hard disks of bootable devices on the system. It also allows you to select hard disk device booting priority.

CPU Internal Cache

This controls the status of the processor's internal cache area.
The options are: Enabled, Disabled.

External Cache

This controls the status of the external (L2) cache area.
The options are: Enabled, Disabled.

CPU L2 Cache ECC Checking

Set the ECC (Error-Correcting Code) feature for Level 2 cache. Facilitates error detection/correction when data passes through Level 2 cache.
The options are: Enabled, Disabled.

Quick Power On Self Test

When enabled, allows the BIOS to bypass the extensive memory test.
The options are: Enabled, Disabled.

First/Second/Third Boot Device

This feature allows you to select the boot device priority.
The options are: Floppy, LS120, Hard Disk, CDROM, ZIP100, USB-FDD, USB-ZIP, USB-CDROM, LAN, Disabled.

Boot Other Device

This feature allows you to select the boot device priority.
The options are: Enabled, Disabled.

Swap Floppy Drive

Allows you to switch the order in which the operating system accesses the floppy drives during boot up. The options are: Enabled, Disabled.

Boot Up Floppy Seek

When enabled, assigns the BIOS to perform floppy diskette drive tests by issuing the time-consuming seek commands.
The options are: Enabled, Disabled.

Boot Up Numlock Status

When set to On, allows the BIOS to automatically enable the Num Lock Function when the system boots up. The options are: On, Off.

Gate A20 Option

When set at Fast, allows a faster access response under Protected mode.
The options are: Fast, Normal.

Typematic Rate Setting

The term typematic means that when a keyboard key is held down, the character is repeatedly entered until the key is released.
The options are: Disabled, Enabled.

Typematic Rate (Chars/Sec)

This feature is available only if the above item, Typematic Rate Setting, is set at Enabled. Sets the rate of a character repeat when the key is held down. The options are: 6, 8, 10, 12, 15, 20, 24, 30.

Typematic Delay (Msec)

This feature is available only if the item, Typematic Rate Setting, is set at Enabled. Sets the delay time before a character is repeated.
The options are: 250, 500, 750, 1000 millisecond.

Security Option

Allows you to set the security level of the system.The options: Setup, System.

APIC Mode

Allows you to decide if the system enters the APIC (Advanced Programmable Interrupt Controller) mode or not for more IRQs can be released.
The options are: Enabled, Disabled.

MPS Version Control For OS

When two CPUs are onboard (not a feature of this board) this feature allows you to select Multi-Processor Spec. (MPS) version control for OS when the logo test executes. The options are: 1.1, 1.4.

OS Select For DRAM > 64MB

If your operating system (OS) is OS/2, select the option OS2. Otherwise, stay with the default setting Non-OS2.The options are: Non-OS2, OS2.

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

S.M.A.R.T. stands for Self-Monitoring and Analysis Reporting Technology which allows your hard disk drive to report any read/write errors and issues a warning with LDCM installed. The options: Disabled, Enabled.

Video BIOS Shadow

Enabling this feature will copy the video BIOS to shadow RAM, it will improve the system performance. The options are: Enabled, Disabled.

BIOS Guardian

It allows the system to prevent computer viruses. Users will need to disable it to update BIOS. The options are: Enabled, Disabled.

NOTE: Please disable the BIOS Guardian feature before you start to reflash BIOS.

BIOS Guardian and Reflash BIOS

BIOS Guardian by default is enabled, thus effectively acting as a fire-wall against viruses that can attack the BIOS while the system is running. It must be disabled before you reflash BIOS.

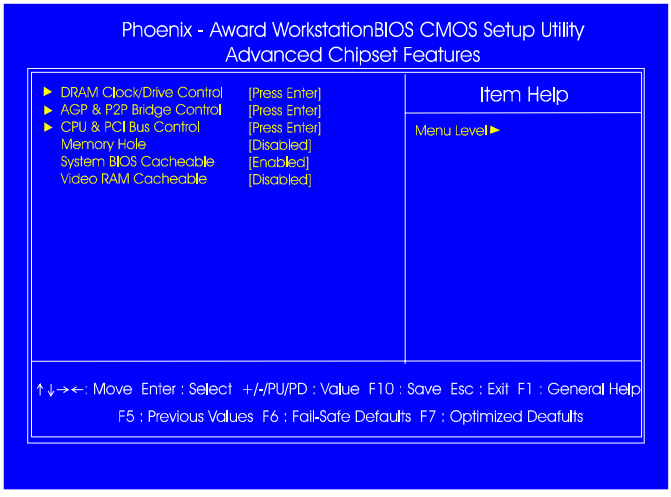
The steps below show you how to turn the BIOS Guardian off and on when you want to reflash the BIOS:

1. Press **Del** key while booting and go to CMOS Setup Utility menu.
2. Go to the Advanced BIOS Features submenu.
3. Set the feature BIOS Guardian at *Disabled*.
4. Save the setting and exit. The system will restart.
5. The POST screen holds; A message about BIOS Guardian shows.
6. Press the **Space Bar**.
7. Reflash the BIOS. Restart the system after you are finished.
8. The POST screen holds; A message about BIOS Guardian shows.
9. Press **G** key. The feature, BIOS Guardian, will be enabled again.

Full Screen LOGO Show

This decides whether or not the full screen logo is shown during system boot ups. The options are: Enabled, Disabled.

Advanced Chipset Features



DRAM Clock/Drive Control

Current FSB Frequency, Current DRAM Frequency

This item allows you to get current FSB and DRAM frequencies.

DRAM Clock

The feature allows users to select the DRAM clock.
The options are: 133 MHz, 166 MHz, 200 MHz, By SPD.

DRAM Timing

This feature allows user to select the way to set DRAM timing.
The options are: Manual, Auto By SPD, Turbo, Ultra.

DRAM CAS Latency

If the CAS latency of your installed memory medule is 2 Cycle, The selection 2 will enhance system performance. The options are: 1.5, 2, 2.5, 3.

Bank Interleave

This item allows users to select the bank interleave function of DRAM, when the feature DRAM Timing By SPD set at Disabled.
The options are: Disabled, 2 Bank, 4 Bank.

Precharge to Active (Trp)

This item allows users to set the clock time from Precharge to Active command. The options are: 2T, 3T, 4T, 5T.

Active to Precharge (Tras)

This item allows users to set the clock time from Active to Precharge command. The options are: 6T, 7T, 8T, 9T.

Active to CMD (Trcd)

This item allows users to set the clock time from Active to Read/Write Delay command. The options are: 2T, 3T, 4T, 5T.

DRAM Burst Length

This item allows users to set DRAM burst length.
The options are: 4, 8.

DRAM Command Rate

This item allows users to set Address Time After command.
The options are: 2T Command, l T Command.

Write Recovery Time

This item allows users to set write recovery time.
The options are: 2T, 3T.

tWTR

This item allows users to set DRAM tWTR timing control.
The options are: 2T, 1T.

AGP & P2P Bridge Control

AGP Aperture Size

It allows you to select the main memory frame size for AGP use.
The options list presents all provided possibilities.

AGP Mode

This feature allows users to select the AGP mode when an AGP add-on card installed. The options are: 4X, 2X, 1X.

AGP Driving Control / AGP Driving Value

These two features allow user to improve the performance of AGP card manually by pressing Page Down/Page UP key if necessary.
The options of AGP Driving Control are: Auto, Manual.

AGP Fast Write

This feature allows you to set AGP fast write mode.
The options are: Disabled, Enabled.

AGP Master 1 WS Write

When enabled, the AGP bus master write access to DRAMs will add one wait-state cycle. The options are: Enabled, Disabled.

AGP Master 1 WS Read

When enabled, the AGP bus master read access to the DRAMs will add one wait-state cycle. The options are: Disabled, Enabled.

AGP 3.0 Calibration cycle

This feature allows users to enable or disable AGP 3.0cablibration cycle. The options are: Disabled, Enabled.

VGA Share Memory Size

It allows user to select the frame buffer size of VGA share memory. The options are: Disabled, 16M, 32M, 64M.

CPU Direct Access FB

It allows user to enable or disable the direct access from CPU to frame buffer of onboard video chip. The options are: Disabled, Enabled.

CPU & PCI Bus Control

PCI1/2 Master 0 WS Write

When enabled, allows a zero-wait-state-cycle delay when the PCI1/2 master drive writes data to DRAM. The options are: Enabled, Disabled.

PCI1/2 Post Write

When enabled, allows the CPU to PCI1/2 master drive excutes post write. The options are: Enabled, Disabled.AGP Master 1 WS Write
When enabled, the AGP bus master write access to DRAMs will add one wait-state cycle. The options are: Enabled, Disabled.

VLink 8X Support

Enables VLink 8X support.
The options are: Enabled, Disabled.

PCI Delay Transaction

Enable this feature to abort the current PCI master cycle and to accept the new PCI master request, it reaccepts the original PCI master and returns the PCI data phase to the original PCI master.
The options are: Disabled, Enabled.

Memory Hole

When you install a Legacy ISA card, this feature allows you to select the memory hole address range of the ISA cycle when the processor accesses the selected address area. Please read your card manual for detail information. When disabled, the memory hole at the (15-16MB) address will be treated as a DRAM cycle when the processor accesses the15~16MB address area. The options are: 15M - 16M, Disabled.

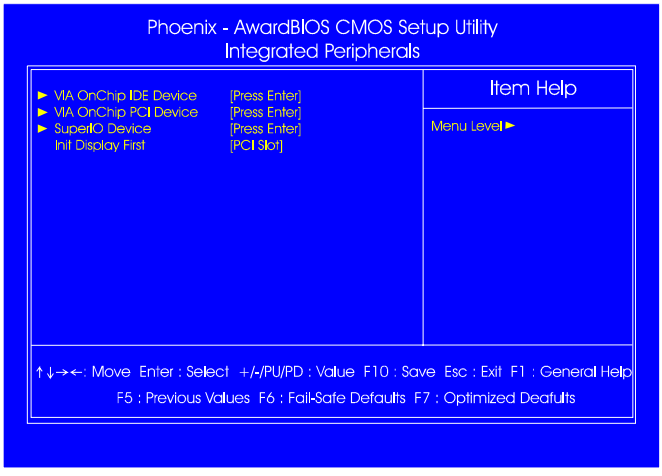
System BIOS Cacheable

When enabled, allows the ROM area F000H-FFFFH to be cacheable when cache controller is activated. The options are: Enabled, Disabled.

Video RAM Cacheable

When enabled, allows the video RAM area to be cacheable.
The options are: Enabled, Disabled.

Integrated Peripherals



VIA OnChip IDE Device

OnChip SATA

This item allows you to diable the serial ATA controller embedded in South Bridge. The options are: Auto, Disabled.

SATA Mode

This item allows users to select the serial ATA mode
The options are: IDE, Raid.

IDE DMA transfer access

This item allows users to disable the IDE DMA (Direct Memory Access) transfer access function. The options are: Enabled, Disabled.

OnChip IDE Channel0/1

When enabled, this allows you to use the onboard primary/secondary PCI IDE. The options are: Enabled, Disabled.

IDE Prefetch Mode

When set at Enabled, it allows data to be posted to and prefetched from the primary IDE data ports. Data prefetching is initiated when a data port read occurs. The read prefetch eliments latency to the IDE data ports and allows them to be performed back to back for the highest possible PIO data transfer rates. The first data port read of a sector is called the demand read. Subsequent data port reads from the sector are called prefetch reads. The demand read and all prefetch reads must be of the same size (16 or 32 bits). The options are: Enabled, Disabled.

Primary Master/Slave PIO

Allows an automatic or a manual configuration of the PCI primary IDE hard drive (master/slave) mode.

Secondary Master/Slave PIO

Allows an automatic or a manual configuration of the PCI secondary IDE hard drive (master/slave) mode.
The options are: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

Primary Master/Slave UDMA

Allows an automatic configuration of the PCI primary IDE hard drive (master/slave) mode if Ultra DMA is supported both on the motherboard and the hard disk. The options are: Auto, Disabled.

Secondary Master/Slave UDMA

Allows an automatic configuration of the PCI secondary IDE hard drive (master/slave) mode if Ultra DMA is supported both on the motherboard and the hard disk. The options are: Auto, 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 read/writes per sector the drive can support.
The options are: Enabled, Disabled.

VIA OnChip PCI Device

VIA-3058 AC97 Audio

It allows users to disable AC97 audio function in South Bridge.
The options are: Auto, Disabled.

VIA-3043 Onchip LAN

It allows users to disable onboard LAN feature.
The options are: Enabled, Disabled.

Onboard Lan Boot ROM

Enables and disables the onboard LAN Boot ROM.
The options are: Enabled, Disabled.

Onboard 1394 Device

It allows users to disable the onboard 1394 feature.
The options are: Enabled, Disabled.

OnChip USB Controller

Disable this option if you are not using the onboard USB 1.1 and USB 2.0 feature. The options are: Disabled, Enabled.

OnChip USB2.0 Controller

It allows users to disable the onboard USB2.0 Enhanced Host Controller Interface (EHCI) function. The options are: Enabled, Disabled.

USB Keyboard Support

Your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard Device. When set at Auto, the BIOS will detect if USB keyboard is installed automatically.

The options are: Auto, Enabled, Disabled.

SuperIO Device

Onboard FDC Controller

When enabled, the floppy diskette drive (FDD) controller is activated.

The options are: Enabled, Disabled.

Onboard Serial Port 1

If the serial port 1 uses the onboard I/O controller, you can modify your serial port parameters.

The options are: 3F8/IRQ4, 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3, Disabled.

IR Controller Port

Allows you to enable the IR function. The options are: Enabled, Disabled.

IR Mode Select

Allows you to select the IR modes. The options are: IrDA, ASKIR, SCR.

IR Duplex Mode

Allows you to select the IR modes. The options are: Full, Half.

Onboard Parallel Port

Allows you to select from a given set of parameters if the parallel port uses the onboard I/O controller.

The options are: Disabled, 378/IRQ7, 278/IRQ5, 3BC/IRQ7.

Parallel Port Mode

Allows you to connect with an advanced printer via the port mode it supports. The options are: SPP, ECP, EPP, EPP+ECP.

ECP Mode Use DMA

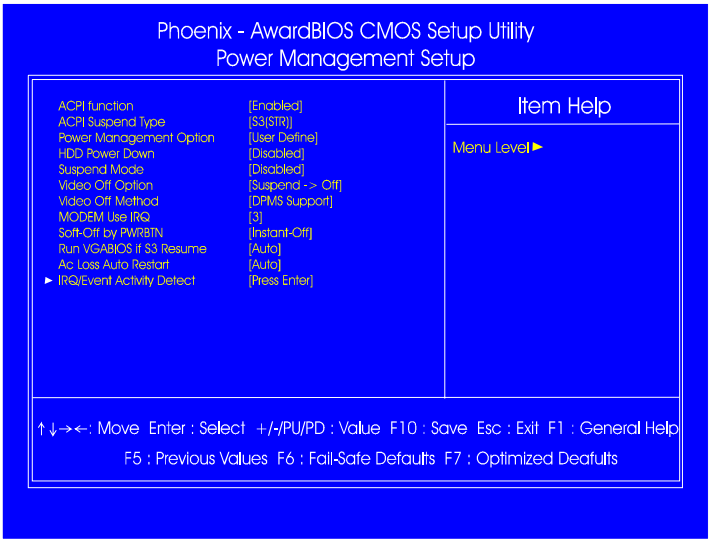
This feature allows you to select Direct Memory Access (DMA) channel.

The options are: 1, 3.

Init Display First

When you install an AGP VGA card and a PCI VGA card on the board, this feature allows you to select which card the first initiation of the monitor display comes from. The options are: PCI Slot, AGP.

Power Management Setup



ACPI function

This item allows you to disable the ACPI function.
The options are: Enabled, Disabled.

ACPI Suspend Type

This item allows you to select suspend mode when the system is in ACPI mode. The options are: S1 (POS), S3 (PTR), S1&S3.

Power Management Option

This item allows you to adjust the power management features.
Select *User Define* for configuring your own power management features. *Min Saving* initiates all predefined timers in their minimum values. *Max Saving*, on the other hand, initiates maximum values.
The options are: User Define, Min Saving, Max Saving.

HDD Power Down

This option lets the BIOS turn the HDD motor off when the systemis in Suspend mode. Selecting 1 Min,..,15 Min allows you to define the HDD idle time before the HDD enters the Power Saving Mode.

The options 1 Min,..,15 Min will not work concurrently. When HDD is in the Power Saving Mode, any access to the HDD will wake the HDD up.

The options are: Disabled, 1 Min,..,15 Min.

Suspend Mode

When disabled, the system will not enter Suspend mode. The specified time option defines the idle time the system takes before it enters Suspend mode. The options are: Disable, 1, 2, 4, 8, 10, 20, 30, 40 Min, 1 Hour.

Video Off Option

This feature provides the selections of the video display power saving mode. The option Suspend - Off allows the video display to go blank if the system enters Suspend mode. The option All Modes - Off allows the video display to go blank if the system enters Doze mode or Suspend mode. The option Always On allows the video display to stay in Standby mode even when the system enters Doze or Suspend mode.

The options are: Suspend - Off, All Modes -> Off, Always On.

Video Off Method

The option *V/H SYNC+Blank* allows the BIOS to blank off screen display by turning off the V-Sync and H-Sync signals sent from add-on VGA card. *DPMS Support* allows the BIOS to blank off screen display by your add-on VGA card which supports DPMS (Display Power Management Signaling function). *Blank Screen* allows the BIOS to blank off screen display by turning off the red-green-blue signals.

The options are: V/H SYNC+Blank, DPMS Support, Blank Screen.

MODEM Use IRQ

This feature allows you to select the IRQ# to meet your modem IRQ#.

The options are: NA, 3, 4, 5, 7, 9, 10, 11.

Soft-Off by PWRBTN

The selection Delay 4 Sec. will allow the system shut down after 4 seconds after the power button is pressed. The selection Instant-Off will allow the system shut down immediately once the power button is pressed.
The settings are: Delay 4 Sec, Instant-Off.

Run VGABIOS if S3 Resume

This feature allows you to decide the way that VGA BIOS should be called when the system resumes from an S3 state, if the above feature is set at S3 (PTR) or S1&S3. The options are Auto, Yes, No.

Ac Loss Auto Restart

When the system is shut down owing to the power failure, the system will not be back to power on by itself. This feature allows you to set the system back to which power status of the system when the system power is resumed. It always will be back to on if set at On. The system always be back to off if set at Off. The options are Auto, On, Off.

IRQ/Event Activity Detect

USB Resume from S1-S3

This item allows you to wake-up the system by USB device when you save the computer power at S1-S3. The options are: Enabled, Disabled.

PowerOn by PCI Card

When set at Enabled, any PCI-PM event awakes the system from a PCI-PM controlled state. The options are Disabled, Enabled.

Modem Ring Resume

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

RTC Alarm Resume

Enabled allows you to set the time the system will be turned on from the system power-off status. The options are: Enabled, Disabled.

Date (of Month)

This feature allows you to set the day of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled. The options are: 0, 1..31.

Resume Time (hh:mm:ss)

If an ATX power supply is installed and when RTC Alarm Resume is Enabled, this feature allows you to set the time of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled.

The options are: hh (*hour*) - 0, 1, 2,.., 23; mm (*minute*) - 0, 1, 2,..,59; ss (*second*) - 0, 1, 2,..,59.

IRQs Activity Monitoring

Primary INTR

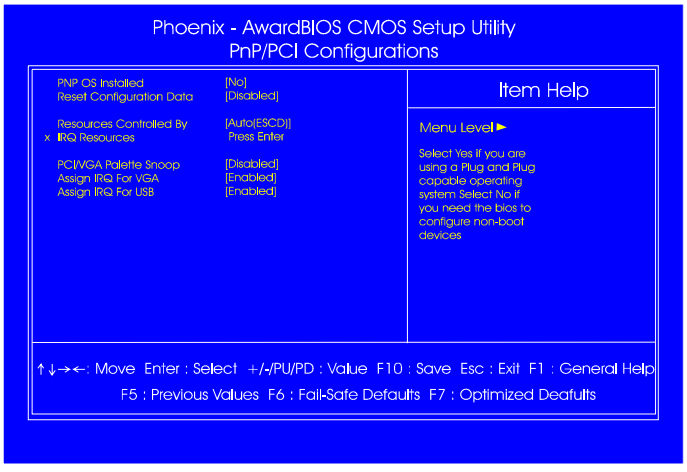
If set at ON, the Primary interrupt (the Primary option in the feature of IRQ# Acitivity) will make the power management wake up the system.

The options are: ON, OFF.

IRQs 3-15

Allows you to set system to monitor IRQs 3-15 for activity to awaken system from a power management mode.

PnP/PCI Configurations



PNP OS Installed

If your operating system supports Plug-and-Play, such as Windows NT, Windows 95, select Yes. The options are: No, Yes.

Reset Configuration Data

Enabling this, resets the system Extended System Configuration Data (ESCD) when you exit Setup, if you have installed a new add-on card and the system reconfiguration has caused such a serious conflict that the operating system can not boot. The options are: Disabled, Enabled.

Resources Controlled By

If set at Auto, the BIOS arranges all system resources. If there exists a conflict, select *Manual*. The options are: Auto (ESCD), Manual.

If *manual* is chosen, after the feature **IRQ Resources** is pressed, the **IRQ-Assigned To** are: PCI Device, Reserved. When resources are controlled manually, assign each system interrupt a type, depending on which device type uses the interrupt.

PCI/VGA Palette Snoop

Set this feature to be enabled if any ISA adapter card installed in the system requires the VGA palette snoop function.

The options are: Disabled, Enabled.

Assign IRQ For VGA

If your PCI VGA card devices do not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.

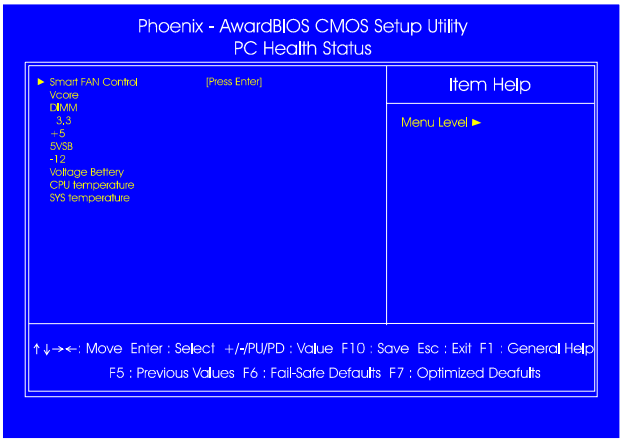
The options are: Enabled, Disabled.

Assign IRQ For USB

If your USB devices do not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.

The options are: Enabled, Disabled.

PC Health Status



Smart FAN Control

This feature allows users to configure parameters of cooling fans.

The rest of the items allow end users and technicians to monitor data provided by the BIOS on this mainboard. They are not user-configurable.

Load Optimized Defaults

This submenu is selected for default settings which provide the best system performance.

Supervisor/User Password

To enable the Supervisor/User passwords, select the item from the Standard CMOS Setup. You will be prompted to create your own password. Type your password up to eight characters and press Enter. You will be asked to confirm the password. Type the password again and press Enter. To disable the password, press Enter twice when you are prompted to enter a password. A message appears, confirming the password is disabled.

Under the BIOS Feature Setup, if *Setup* is selected under the Security Option field and the Supervisor/User Password is enabled, you will be prompted for a password every time you try to enter the CMOS Setup Utility. If *System* is selected and the Supervisor/User Password is enabled, you will be requested to enter the Password every time you reboot the system or enter the CMOS Setup utility.

Save and Exit Setup

After you have made changes under Setup, press Esc to return to the main menu. Move the cursor to Save and Exit Setup or press F10 and then press Y to change the CMOS Setup. If you did not change anything, press Esc again or move the cursor to Exit Without Saving and press Y to retain the Setup settings. The following message will appear at the center of the screen to allow you to save data to CMOS and exit the setup utility: **SAVE to CMOS and EXIT (Y/N)?**

Exit without Saving

If you select this feature, the following message will appear at the center of the screen to allow you to exit the setup utility without saving CMOS modifications: **Quit Without Saving (Y/N)?**

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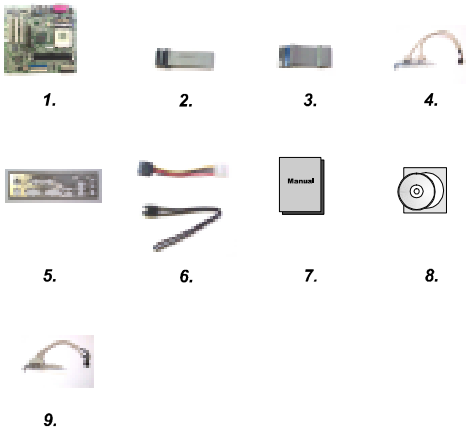
Bevor Sie beginnen

Diese Kurzanleitung zusammen mit dem EZ-Handbuch unterstützt Sie bei der Installation des Computersystems. Details entnehmen Sie bitte dem Handbuch.

1. Statische Elektrizität kann die integrierten Schaltungen auf dem Motherboard beschädigen. Bevor Sie ein Motherboard aus seiner Schützhülle herausnehmen, sollten Sie sicherstellen, dass sich keine statische Elektrizität auf Ihrem Körper befindet.
2. Betreiben Sie den Prozessor nie ohne richtig und fest angebrachtem Kühlkörper. EINE PERMANENTE BESCHÄDIGUNG IST DIE FOLGE!

Prüfen des Kartoninhalts

Müssen Sie feststellen, dass eines der folgenden Gegenstände beschädigt ist oder fehlt, dann kontaktieren Sie bitte Ihre Verkaufsstelle.
1. Mainboard 2. Kabel des Diskettenlaufwerks 3. 40-pol. IDE-Flachbandkabel 4. USB-Kabel 5. E/A-Abschirmung 6. 2 SATA-Kabel (optional) 7. Anleitung 8. Treiber 9. 1394-Kabel (optional)



1. *2.* *3.* *4.*

5. *6.* *7.* *8.*

9.

Installation der Hardware

CPU

1. Ziehen Sie den Hebel bis 90 Grad nach oben.

2. Installieren Sie die CPU und achten Sie dabei darauf, das der Stift 1 mit der Markierung auf der Sockelecke, die der Hebelspitze am nächsten liegt, ausgerichtet ist. Stecken Sie die CPU nicht gewaltsam hinein.

Tragen Sie auf der CPU einige thermische Materialien auf; installieren Sie auch einen Lüfter mit Kühlkörper, der vom CPU-Hersteller genehmigt ist. Befestigen Sie die CPU, indem Sie den Hebel herunterdrücken und sie dadurch verriegeln.

3. Legen Sie den Lüfter mit Kühlkörper auf die CPU und drücken Sie die zwei Plastikklemmen herunter, damit sie in die Löcher auf beiden Seiten des Retentionsmoduls einhaken.

4. Drücken Sie weiße Leiste auf jedem Clip nach unten, um das Lüfterset am Retentionsmodul zu befestigen.

Arbeitsspeicher

1. Finden Sie die DDR-DIMM-Sockel auf dem Mainboard.

2. Stecken Sie das DDR-DIMM mit beiden Händen gerade nach unten in den Sockel 1 hinein, dann in Sockel 2, usw.

3. Die Klemme an beiden Enden des Sockels schließt sich, um das DDR-DIMM festzuhalten, wenn das DDR-DIMM den Sockelboden erreicht.

Einbauen des Mainboards

1. Bei Verwendung eines elektrischen Schraubenziehers sollten Sie das Drehmoment auf 5,0 ~ 8,0 kg/cm einstellen.
2. Achten Sie auf scharfe Gerätekanten.

1. Finden Sie die Befestigungslöcher auf dem Mainboard.

2. Legen Sie das Mainboard auf den Rahmen im Gehäuseinnern. Achten Sie darauf, dass das Mainboard und der Rahmen miteinander ausgerichtet sind.

3. Befestigen Sie das Mainboard mit Kupferstützen.

Anschließen von Geräten

1. Finden Sie den Rahmen und die Aufnahme des Diskettenlaufwerks am Gehäuse.

2. Schieben Sie das Laufwerk von der Vorderseite in den Rahmen hinein.

3. Befestigen Sie das Laufwerk mit Schrauben am Rahmen.

4. Schließen Sie das Flachbandkabel und die Leitungsdrähte des Diskettenlaufwerks an. Die farbige Linie auf dem Flachbandkabel (mit blauem Pfeilkopf) muss sich auf der gleichen Seite befinden, wie Stift 1 des Anschlusses.

Anschließen eines CD/DVD-Laufwerks

1. Finden Sie den Rahmen und die Aufnahme des CD/DVD-Laufwerks am Gehäuse.

2. Schieben Sie das Laufwerk von der Vorderseite in den Rahmen hinein.

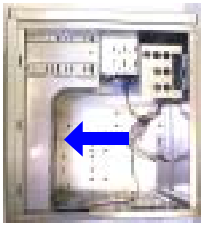
3. Befestigen Sie das Laufwerk mit Schrauben am Rahmen.

4. Schließen Sie das IDE-Flachbandkabel und die Leitungsdrähte an. Die farbige Linie auf dem Flachbandkabel (mit blauem Pfeilkopf) muss sich auf der gleichen Seite befinden, wie Stift 1 des Anschlusses.


Anschließen einer Festplatte

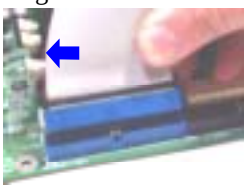
1. Finden Sie den Rahmen und die Aufnahme der Festplatte am Gehäuse.

2. Schieben Sie die Festplatte von der Rückseite des Rahmens hinein, wie der Pfeilkopf anzeigt.



3. Befestigen Sie das Laufwerk mit Schrauben am Rahmen.

4. Schließen Sie das IDE-Flachbandkabel und die Leitungsdrähte an. Die farbige Linie auf dem Flachbandkabel (mit blauem Pfeilkopf) muss sich auf der gleichen Seite befinden, wie Stift 1 des Anschlusses.




Installieren von Karten

1. Wählen Sie einen verfügbaren Kartensteckplatz aus.

2. Entfernen Sie die Abdeckung des Steckplatzes vom Gehäuse.

3. Stecken Sie die Karte fest in den Steckplatz hinein. Befestigen Sie die Karte mit der Schraube.

Anschließen des ATX-Netzteils

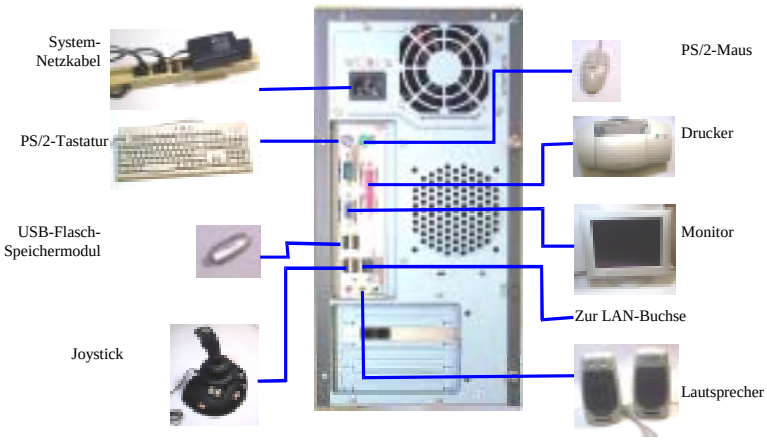
Der Netzstecker mit 20 Löchern wird mit dem ATX-Netzanschluss verbunden. Der Netzstecker mit 4 Löchern wird mit dem ATX_12V-Netzanschluss verbunden.

Montieren des Systemgehäuses

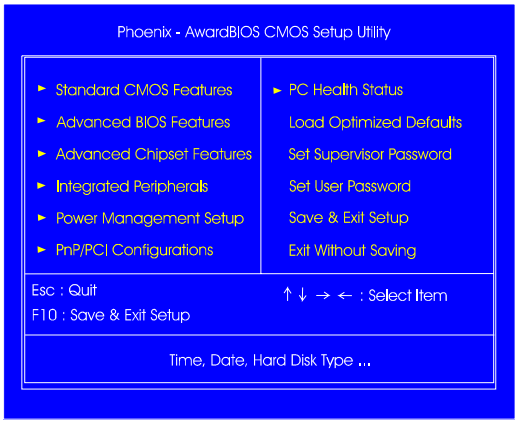
Setzen Sie die Abdeckung auf das Gehäuse und ziehen Sie die Schrauben auf dem Gehäuse (in Pfeilrichtung) mit einem Schraubenzieher oder mit Ihren Fingern fest an.

Anschließen von Peripheriegeräten

Schließen Sie Peripheriegeräte über die Rück-/Vorderseite an Ihr System an.



BIOS-Setup



Standard CMOS Setup

Markieren Sie den Menüpunkt mit den Pfeiltasten und wählen Sie den Wert für jeden Punkt mit den Tasten Bild-Nach-oben oder Bild-Nach-unten aus.

Treiberinstallation

Drivers

Legen Sie die 1. Utility-CD in das CD-Laufwerk. Das obere Menü erscheint im Bildschirm. Wählen Sie den Punkt Drivers, um die automatische Treiberinstallation einzuleiten.

Help

Dieser Punkt informiert Sie über die Funktionen und die Treiber. Er ist sehr hilfreich bei der Installation.

Software Bundle

Dieser Punkt verfügt über einige nützliche Software-Werkzeuge, die Sie bei der Verwaltung Ihres Computersystems unterstützen.

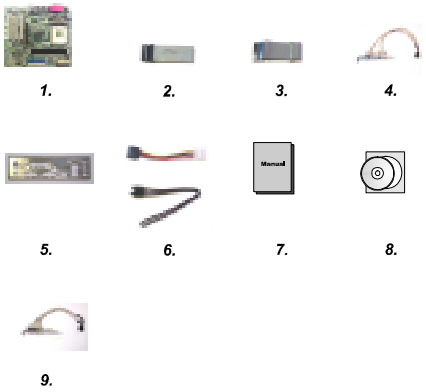
Avant de commencer

Le présent guide de référence facile et le guide EZ ont pour but de vous aider à installer votre système informatique. Pour des informations plus détaillées, veuillez vous reporter au manuel de l'utilisateur.

1. L'électricité statique risque d'endommager les circuits intégrés sur la carte mère. Avant de sortir une carte mère de son emballage protecteur, vérifiez que vous n'êtes pas porteur d'une charge d'électricité statique.
2. Ne jamais utilisé le processeur sans avoir installé correctement et solidement un dissipateur de chaleur. CELA RISQUERAIT DE CAUSER DES DOMMAGES IRREVERSIBLES !

Liste de contrôle du paquet

Si vous vous rendez compte que l'un de ces éléments est manquant ou endommagé, prenez immédiatement contact avec votre revendeur.
1. Carte mere 2. Câble pour lecteur de disquettes 3. Câble ruban IDE 80 broches 4. Câble USB 5. Protection E/S 6. Câble SATA (optionnel)7. Manuel 8. Pilotes 9. Câble 1394 (optionnel)



Installation de l'équipement

Microprocesseur :

1. Faites pivoter le levier vers le haut de 90 degrés.

2. Installez le microprocesseur et vérifiez l'orientation de la broche 1 en alignant le coin marqué du socle avec le coin du socle le plus près de la pointe du levier. Ne pas forcer lors de l'insertion du microprocesseur.

Appliquez des matériaux thermiques au sommet du microprocesseur ; et installez un ventilateur avec dissipateur de chaleur agréé par le fabricant du microprocesseur. Fixez le microprocesseur en position en abaissant le levier et en le verrouillant.

3. Placez le ventilateur avec dissipateur de chaleur sur le microprocesseur et appuyez sur les deux clips en plastique pour les enclencher dans les orifices sur le module de rétention sur les deux côtés.

4. Appuyez sur la barre blanche sur chaque clips pour fixer l'ensemble de ventilation sur le module de rétention.

Mémoire

1. Repérez les emplacements DDR DIMM sur la carte mère.

2. Installez un module DDR DIMM directement dans le socle 1 en vous servant de vos deux mains, puis dans le socle 2, et ainsi de suite.

3. Les clips situés aux deux extrémités du socle se refermeront pour maintenir le module DDR DIMM en position lorsque le module DDR DIMM atteindra la base du socle.

Montage de la carte mère

1. Lorsque vous utilisez un tournevis électrique, la torsion doit être réglée entre 5,0 et 8,0kg/cm.
2. Faites attention aux bords tranchants des éléments.

1. Repérez les orifices de montage sur la carte mère.

2. Placez la carte au-dessus du cadre dans la châssis. Vérifiez que la carte et le cadre sont bien alignés.

3. Fixez la carte mère à l'aide des plots en cuivre.

Branchement de périphériques

1. Repérez le cadre pour lecteur de disquettes et pour disque dur sur le châssis.

2. Placez l'unité dans le cadre en l'insérant par le panneau avant.

3. Fixez l'unité sur le cadre avec des vis.

4. Connectez le câble ruban et les fils d'alimentation du lecteur de disquettes. La ligne colorée du câble ruban (indiquée par une flèche bleue) doit être du même côté que la broche 1 du connecteur.

Connexion d'un lecteur de CD/DVD

1. Repérez le cadre pour unité CD/DVD sur le châssis.

2. Placez l'unité dans le cadre en l'insérant par le panneau avant.

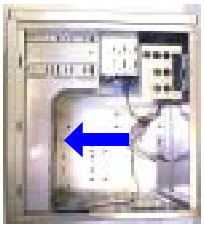
3. Fixez l'unité sur le cadre avec des vis.

4. Connectez le câble ruban IDE et les fils d'alimentation. La ligne colorée du câble (indiquée par une flèche bleue) doit être du même côté que la broche 1 du connecteur.


Connexion du Disque dur

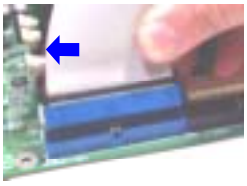
1. Repérez le cadre pour unité de disque dur sur le châssis.

2. Placez le disque dur en l'insérant à l'arrière du cadre ainsi qu'indiqué par la flèche.



3. Fixez l'unité sur le cadre avec des vis.

4. Connectez le câble ruban IDE et les fils d'alimentation. La ligne colorée du câble (indiquée par une flèche bleue) doit être du même côté que la broche 1 du connecteur.




Installation des cartes

1. Sélectionnez un emplacement disponible pour carte.

2. Démontez le capot d'emplacement du châssis.

3. Poussez fermement la carte dans l'emplacement. Fixez la carte avec la vis.

Connexion de l'unité d'alimentation ATX

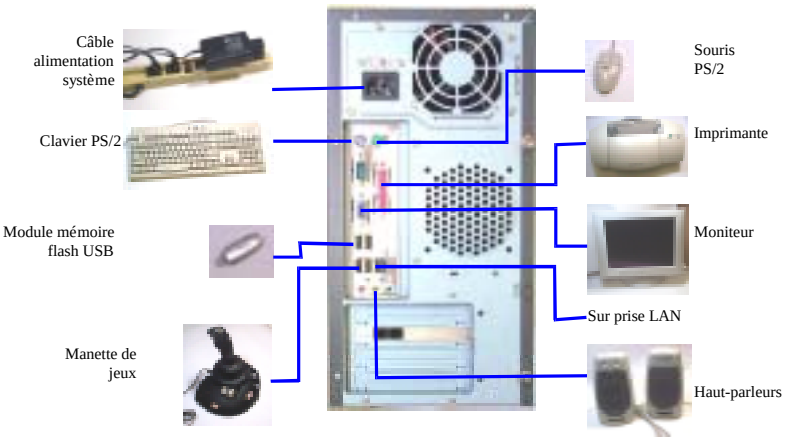
La prise d'alimentation 20 orifices sert à connecter le connecteur de l'unité d'alimentation ATX. La prise d'alimentation 4 orifices sert à brancher le connecteur d'alimentation ATX_12V.

Montage du boîtier système

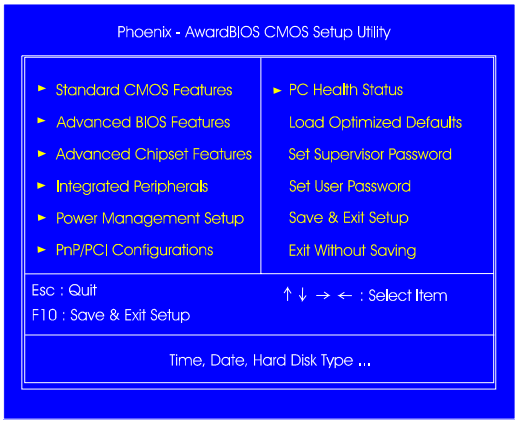
Placez le capot sur le châssis et fixez à l'aide des vis sur le capot (ainsi qu'indiqué par les flèches), soit avec un tournevis soit avec les doigts, et serrez-les.

Branchement d'équipements périphériques

Vous pouvez brancher des équipements périphériques sur le panneau arrière ou avant de votre système.



Configuration BIOS



Configuration CMOS standard

Utilisez les touches fléchées pour sélectionner l'élément voulu et utilisez les touches Pages préc. et Page suiv. pour sélectionner la valeur voulue pour chaque élément.

Installation des pilotes

Pilotes

Placez le premier CD utilitaires dans votre lecteur de CD. Le menu principal s'affichera à l'écran. Sélectionnez l'élément Pilotes pour lancer la fonction d'exécution automatique.

Aide

Cette option vous donne des informations concernant les fonctions et les pilotes. Lisez attentivement car cela vous aidera pour l'installation.

Logiciels d'accompagnement

Cette option vous permet d'avoir des outils logiciels utiles qui vous aideront à générer votre système informatique.

Antes de comenzar

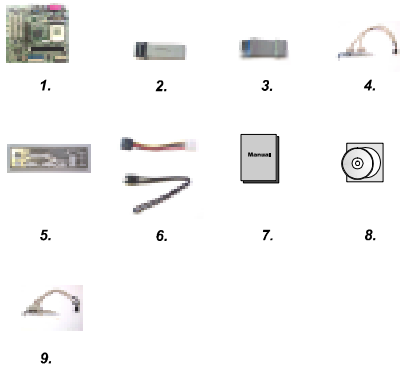
Esta referencia rápida junto con la guí aEZ se usan para ofrecerle asistencia al instalar el sistema en su ordenador. Para más información, lea el manual del usuario.

1. La electricidad estática puede causar daños a los circuitos integrados de la placa base. Antes de manipular la placa base fuera de su bolsa protectora, asegúrese de que su cuerpo no esta cargado con electricidad estática.
2. Nunca ponga el procesador en funcionamiento sin adjuntar firmemente el disipador. ¡ PODRÍ AN OCURRIR DAÑOS PERM ANENTES!

Lista de Comprobación de Paquete

Si descubre que falta algún elemento o está dañado, póngase en contacto con su distribuidor.

1. Placa Base 2. Cable de unidad de disco flexible
3. Cable IDE de 40 pin 4. Cable USB 5. Blindaje E/S 6. Cable SATA *(opcional)* 7. Manual 8. Controladores 9. Cable1394 *(opcional)*



Instalación de hardware

CPU

1. Deslice la palanca hasta 90 grados.

2. Instale la CPU y asegúrese de que la orientación del pin 1 está alineada con la esquina más cercana a la punta de la palanca. No fuerce la inserción de la CPU.

Aplique algo de material térmico en la parte superior de la CPU e instale un ventilador con disipador aprobado por el fabricante de la CPU. Fije la CPU presionando la palanca hacia abajo y bloqueándola.

3. Coloque el ventilador con el disipador en la parte superior de la CPU y enganche los dos ganchos de plástico en el módulo de retención por los dos lados.

4. Presione la barra blanca en cada gancho para asegurar el ventilador en el módulo de retención.

Memoria

1. Localice las ranuras DIMM DDR en la placa base.

2. Installe los DIMM DDR en las ranura 1 usando ambas manos, después en la ranura 2, y así continuamente.

3. Se cerrarán ambos extremos de la ranura para sostener el DIMM DDR en su lugar cuando el DIMM DDR llegue al fondo de la ranura.

Montaje de la Placa Base

1. Si usa un destornillador eléctrico, debe ajustar la fuerza en el rango de 5.0 ~ 8.0kg/cm.
2. Tenga cuidado con los lados afilados de los dispositivos.

1. Localice los agujeros de montaje en la placa base.

2. Coloque la placa en su lugar en la caja. Asegúrese de que la placa y la caja están alineadas.

3. fije la placa base con las barras de cobre.

Conexión de los dispositivos

1. Localice los huecos de la unidad de disco flexible y unidades de almacenamiento en la caja.

2. Coloque la unidad desde el lado del panel frontal en el hueco.

3. Fije la unidad en el hueco con los tornillos.

4. Conente el cable de la unidad y los cables de alimentación. La linea de color en el cable (señalada con una flecha azul) debe estar en el mismo lado que el pin1 del conector.

Conexión de unidad de CD/DVD

1. Localice los huecos de la unidad de CD/DVD y unidades de almacenamiento en la caja.

2. Coloque la unidad desde el lado del panel frontal en el hueco.

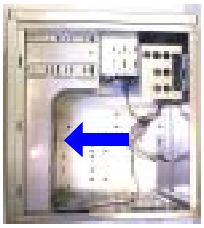
3. Fije la unidad en el hueco con los tornillos.

4. Conecte el cable IDE de la unidad y los cables de alimentación. La linea de color en el cable (señalada con una flecha azul) debe estar en el mismo lado que el pin1 del conector.


Conexión del Disco Duro

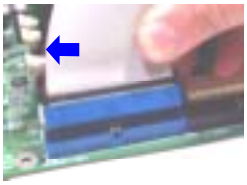
1. Localice los huecos de disco duro en la caja.

2. Coloque el disco duro desde la parte trasera como indica la flecha.



3. Fije la unidad en el hueco con los tornillos.

4. Conecte el cable IDE de la unidad y los cables de alimentación. La linea de color en el cable (señalada con una flecha azul) debe estar en el mismo lado que el pin1 del conector.




Instalación de Tarjetas

1. Seleccione una ranura de tarjeta disponible.

2. Quite la cubierta de la ranura del chasis.

3. Presione la tarjeta firmemente en la ranura. Asegure la tarjeta con el tornillo.

Conexión de la alimentación ATX

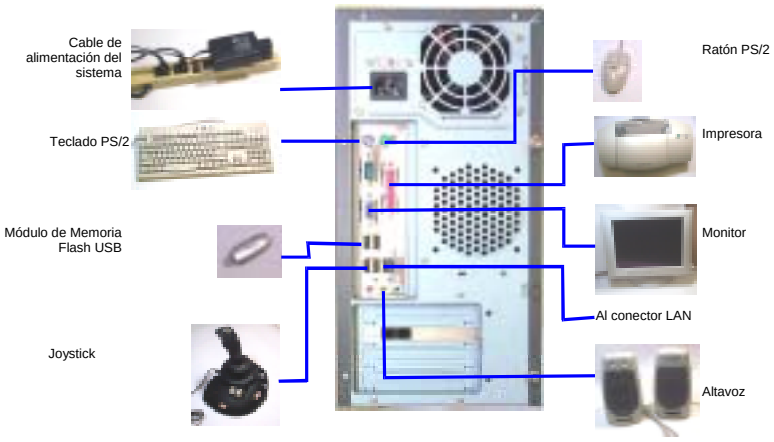
El conector de 20 agujeros se conecta al conector de energí a ATX. El enchufe de 4 agujeros se conecta al conector de energía ATX_12V.

Ensamblaje de la Caja del Sistema

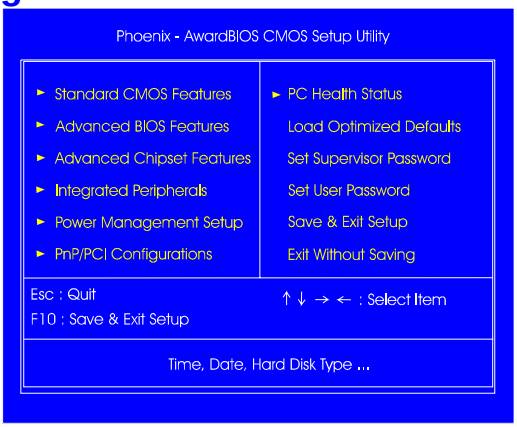
Coloque la cubierta en la caja y asegure los tornillos en la cubierta (como muestran las flechas) con un destornillador o con los dedos.

Conexión de Dispositivos Periféricos

Conecte los dispositivos periféricos al sistema por madio del panel trasero/frontal.



Configuración BIOS



Configuración CMOS estándar

Use las teclas de cursor para resaltar el elemento y usar las teclas AvPág y RePág para seleccionar el valor que desee para cada elemento.

Instalación de controladores

Controladores

coloque su CD de controladores en la unidad de CD. Aparecerá el menú superior en la pantalla. Seleccione los Controladores para iniciar la función de ejecución automática.

Ayuda

Le ofrece informaciónacerca de las funciones y controladores. Si la lee encontrará ayuda para la instalación.

Paquete de software

Este elemento le ofrece algunas herramientas útiles para ayudarle a administrar su sistema.

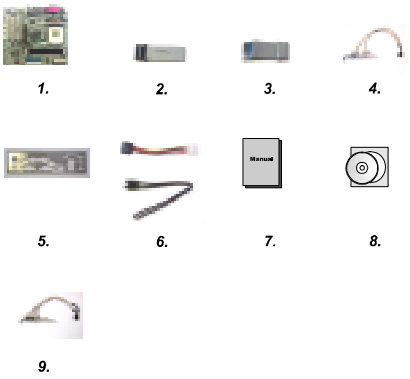
開始之前

本快速參考指南和 EZ 指南可以幫助您安裝電腦系統。有關的詳細資訊，請閱讀用戶手冊。

1. 靜電可能會損壞主板上的積體電路。從保護袋中取出主板進行操作時，應確保身上沒有靜電。
2. 在沒有正確牢固地安裝散熱片之前，切勿運行處理器。否則，可能導致永久損壞！

包裝物品清單

如果下列任何物品損壞或缺失，請與經銷商聯繫。1. 主板 2. 軟碟驅動器帶線 3. 80-針 IDE 帶線 4. USB 線 5. I/O 護蓋 6. SATA 線 (選購) 7.手冊 8. 驅動程式 9. 1394 線 (選購)



安裝硬體

CPU

1. 將鎖杆向上擡起 90 度。

2. 安裝 CPU，將插座拐角標記對準距離鎖杆頂端最近的插座拐角，確保管腳 1 的方向正確。不要用力插入 CPU。

在 CPU 上面塗上一層熱物質；然後安裝經過 CPU 製造商認可的帶散熱片的風扇。向下按鎖杆並鎖緊以固定 CPU。

3. 將帶散熱片的風扇放在 CPU 上面，然後向下按兩個塑膠夾以鈎住支撐塊兩側的孔。

4. 向下按每個塑膠夾上的白色扳杆，將風扇套件固定到支撐塊上。

記憶體

1. 在主板上找到 DDR DIMM 插槽。

2. 用雙手將第一條 DDR DIMM 垂直向下插入插槽 1 中，第二條插入插槽 2 中，依次類推。

3. 當 DDR DIMM 到達插槽底部後，插槽兩端的卡子將鎖緊以使 DDR DIMM 安裝到位。

安裝主板

1. 當使用電動螺絲刀時，將轉矩設置在允許的範圍內：5.0 ~ 8.0kg/cm。
2. 小心不要被設備的邊緣劃傷。

1. 在主板上找到安裝孔。

2. 將主板放在機箱內的托架上。務必對齊主板和托架。

3. 用銅的栓棒固定主板。

連接設備

1. 在機箱上找到軟碟驅動器托架和存放位置。

2. 從前面板一側將驅動器推入託架中。

3. 用螺絲將驅動器固定在托架上。

4. 連接軟帶線和電源線。帶線上的彩色線（帶藍色箭頭）必須與插口的管腳 1 位於同一側。

連接 CD/DVD 驅動器

1. 在機箱上找到 CD/DVD 驅動器托架和存放位置。

2. 從前面板一側將驅動器推入託架中。

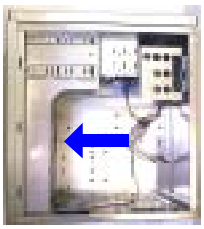
3. 用螺絲將驅動器固定在托架上。

4. 連接 IDE 帶線和電源線。帶線上的彩色線（帶藍色箭頭）必須與插口的管腳 1 位於同一側。


連接硬碟驅動器

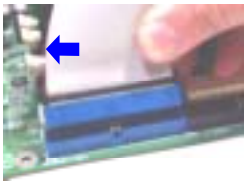
1. 在機箱上找到硬碟驅動器托架和存放位置。

2. 將硬碟驅動器從托架後部裝入，如箭頭所示。



3. 用螺絲將驅動器固定在托架上。

4. 連接 IDE 帶線和電源線。帶線上的彩色線（帶藍色箭頭）必須與插口的管腳 1 位於同一側。




安裝卡

1. 選擇一個空閒的卡槽。

2. 從機箱上卸下槽蓋。

3. 將卡用力按入插槽中。用螺絲固定卡。

連接 ATX 電源

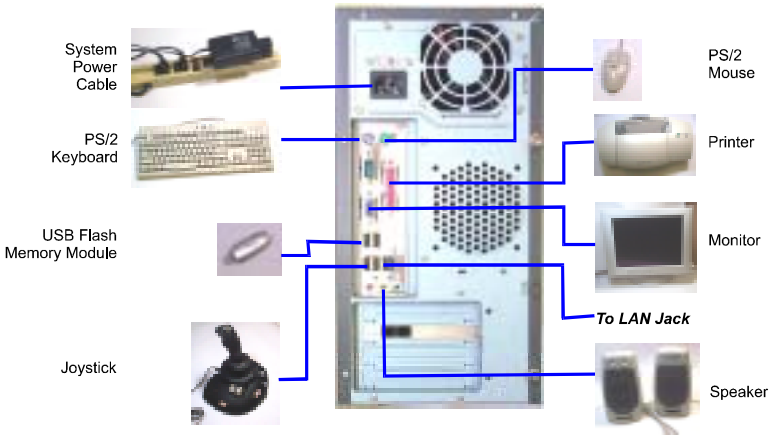
20-孔電源插頭連接到 ATX 電源插口上。4-孔電源插頭連接到 ATX_12V 電源插口上。

組裝系統機箱

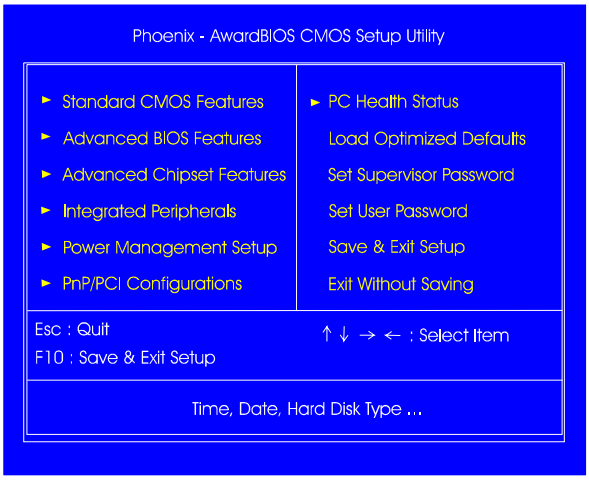
裝上機箱蓋，然後用螺絲刀或手擰緊蓋上的螺絲，如箭頭所示。

連接外設

通過前/後面板將外設連接到系統。



BIOS 設置



標準 CMOS 設置

使用箭頭鍵高亮顯示專案，然後使用 PgUp 或 PgDn 鍵爲每個專案選擇合適的值。

安裝驅動程式

驅動程式

將第一張實用程式光碟插入光碟驅動器中。頂級功能表將顯示在螢幕上。選擇專案“驅動程式”將啓動自動運行功能。

幫助

此專案提供與功能和驅動程式有關的一些資訊。閱讀這些資訊將對安裝有所幫助。

附帶軟體

此專案提供一些有用的軟體工具以幫助您管理電腦系統。

开始之前

本快速参考指南和 EZ 指南可以帮助您安装计算机系统。有关的详细信息，请阅读用户手册。

1. 静电可能会损坏主板上的集成电路。从保护袋中取出主板进行操作时，应确保身上没有静电。
2. 在没有正确牢固地安装散热片之前，切勿运行处理器。否则，可能导致永久损坏！

包装物品清单

如果下列任何物品损坏或缺失，请与经销商联系。
1. 主板 2. 软盘驱动器带线 3. 40-针 IDE 带线 4. USB 线 5. I/O 护盖 6. SATA 线 (选件) 7. 手册 8. 驱动程序 9. 1394 线 (选件)


1.


2.


3.


4.


5.


6.

7.


8.


9.

安装硬件

CPU

1. 将锁杆向上抬起 90 度。

2. 安装 CPU，将插座拐角标记对准距离锁杆顶端最近的插座拐角，确保管脚 1 的方向正确。不要用力插入 CPU。

在 CPU 上面涂上一层热物质；然后安装经过 CPU 制造商认可的带散热片的风扇。向下按锁杆并锁紧以固定 CPU。

3. 将带散热片的风扇放在 CPU 上面，然后向下按两个塑料夹以钩住支撑块两侧的孔。

4. 向下按每个塑料夹上的白色扳杆，将风扇套件固定到支撑块上。

内存

1. 在主板上找到 DDR DIMM 插槽。

2. 用双手将第一条 DDR DIMM 垂直向下插入插槽 1 中，第二条插入插槽 2 中，依次类推。

3. 当 DDR DIMM 到达插槽底部后，插槽两端的卡子将锁紧以使 DDR DIMM 安装到位。

安装主板

1. 当使用电动螺丝刀时，将转矩设置在允许的范围内：5.0 ~ 8.0kg/cm。
2. 小心不要被设备的边缘划伤。

1. 在主板上找到安装孔。

2. 将主板放在机箱内的托架上。务必对齐主板和托架。

3. 用铜的栓棒固定主板。

连接设备

1. 在机箱上找到软盘驱动器托架和存放位置。

2. 从前面板一侧将驱动器推入托架中。

3. 用螺丝将驱动器固定在托架上。

4. 连接软带线和电源线。带线上的彩色线（带蓝色箭头）必须与插口的管脚 1 位于同一侧。

连接 CD/DVD 驱动器

1. 在机箱上找到 CD/DVD 驱动器托架和存放位置。

2. 从前面板一侧将驱动器推入托架中。

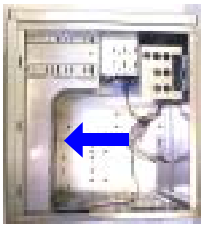
3. 用螺丝将驱动器固定在托架上。

4. 连接 IDE 带线和电源线。带线上的彩色线（带蓝色箭头）必须与插口的管脚 1 位于同一侧。


连接硬盘驱动器

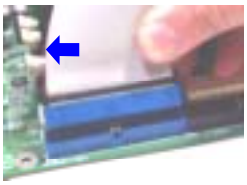
1. 在机箱上找到硬盘驱动器托架和存放位置。

2. 将硬盘驱动器从托架后部装入，如箭头所示。



3. 用螺丝将驱动器固定在托架上。

4. 连接 IDE 带线和电源线。带线上的彩色线（带蓝色箭头）必须与插口的管脚 1 位于同一侧。




安装卡

1. 选择一个空闲的卡槽。

2. 从机箱上卸下槽盖。

3. 将卡用力按入插槽中。用螺丝固定卡。

连接 ATX 电源

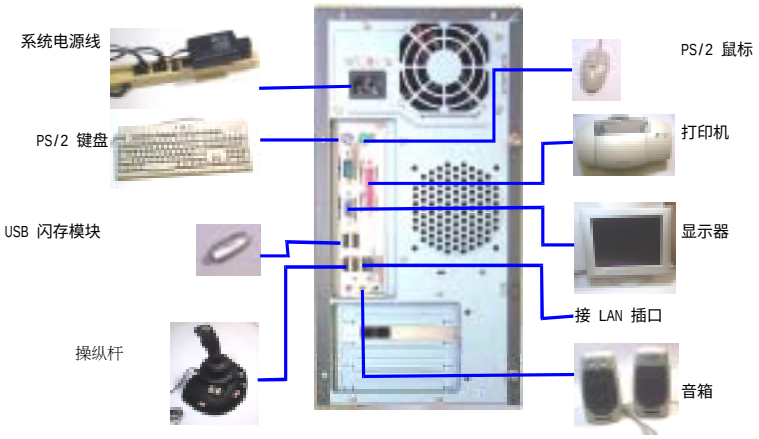
20-孔电源插头连接到 ATX 电源插口上。4-孔电源插头连接到 ATX_12V 电源插口上。

组装系统机箱

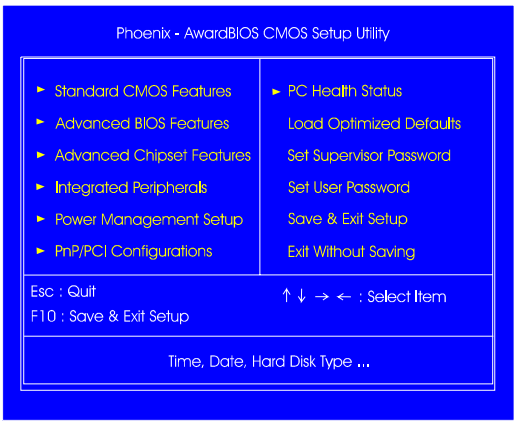
装上机箱盖，然后用螺丝刀或手拧紧盖上的螺丝，如箭头所示。

连接外设

通过前/后面板将外设连接到系统。



BIOS 设置



标准 CMOS 设置

使用箭头键高亮显示项目，然后使用 PgUp 或 PgDn 键为每个项目选择合适的值。

安装驱动程序

驱动程序

将第一张实用程序光盘插入光盘驱动器中。顶级菜单将显示在屏幕上。选择项目“ 驱动程序 ”将启动自动运行功能。

帮助

此项目提供与功能和驱动程序有关的一些信息。阅读这些信息将对安装有所帮助。

附带软件

此项目提供一些有用的软件工具以帮助您管理计算机系统。