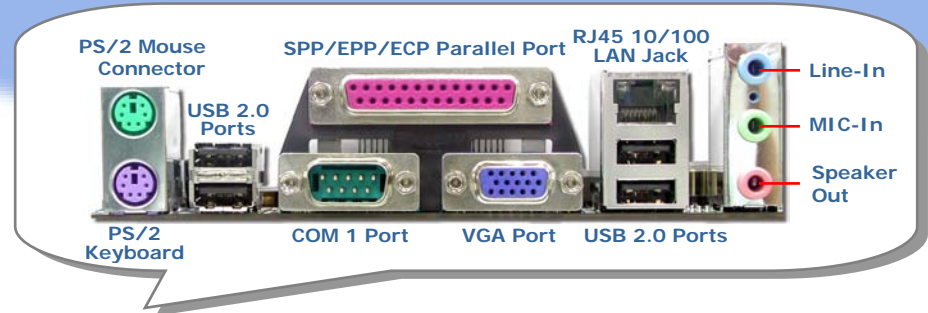
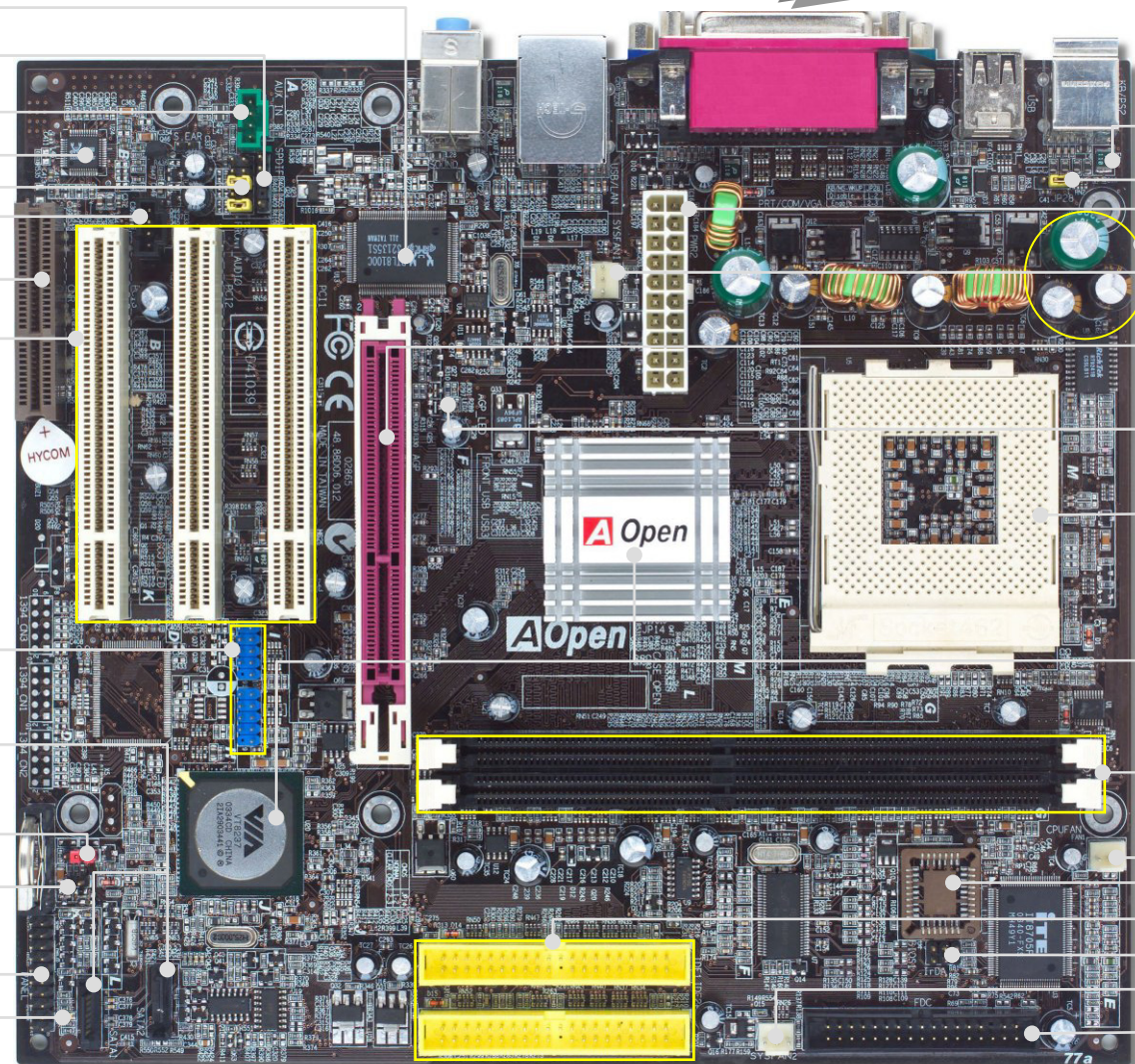


vKM400Am-S / vKM266Pm



- RealTek 10/100 Mbps LAN chip
- S/PDIF Connector
- AUX_IN Connector
- Onboard AC'97 CODEC
- Front Audio Connector
- CD_IN Connector
- CNR Expansion Slot
- 32-bit PCI Expansion Slots x3
- USB 2.0 Connectors x2 (vKM400Am-S)
- USB 2.0 Connector x 1 (vKM266Pm)
- Serial ATA Ports x2
- Supports 150 MB/s Transfer Rate (Only for vKM400Am-S)
- JP14 CMOS Data Clear Jumper
- Case Open Connector
- Front Panel Connector
- BOOT LED



- Resetable Fuse
- JP28 PS2 KB/Mouse Wakeup Jumper
- ATX Power Connector
- Functional Polymer Capacitor
- SYSFAN1 Connector
- AGP 8X Expansion Slot that supports 8X AGP card (2.1GB/s) (vKM400Am-S)
- AGP 4X Expansion Slot that supports 4X AGP card (1056MB/s) (vKM266Pm)
- AGP Protection LED
- 462-pin CPU Socket with Voltage and Frequency Auto-Detection that supports AMD® Athlon™ / Athlon™ XP/Duron (with CPU Overheat Protection circuit to Athlon™XP/Duron CPU only)
- VIA KM400A/VIA 8237 Chipsets supports FSB 400/333/266 (vKM400Am-S)
- VIA KM266Pro/VIA 8235CE Chipsets that supports FSB 333/266 (vKM266Pm)
- 184-pin DIMMsx2 support 128bit DDR400/333/266 Max. To 2GB (vKM266Pm only supports DDR 333/266)
- CPUFAN Connector
- DieHard BIOS Lite
- IDE Connectors x 2 (ATA 66/100/133 supported)
- IrDA Connector
- SYSFAN2 Connector
- FDD Connector

AOpen reserves the right to revise all the specifications and information contained in this document, which are subject to change without notice.



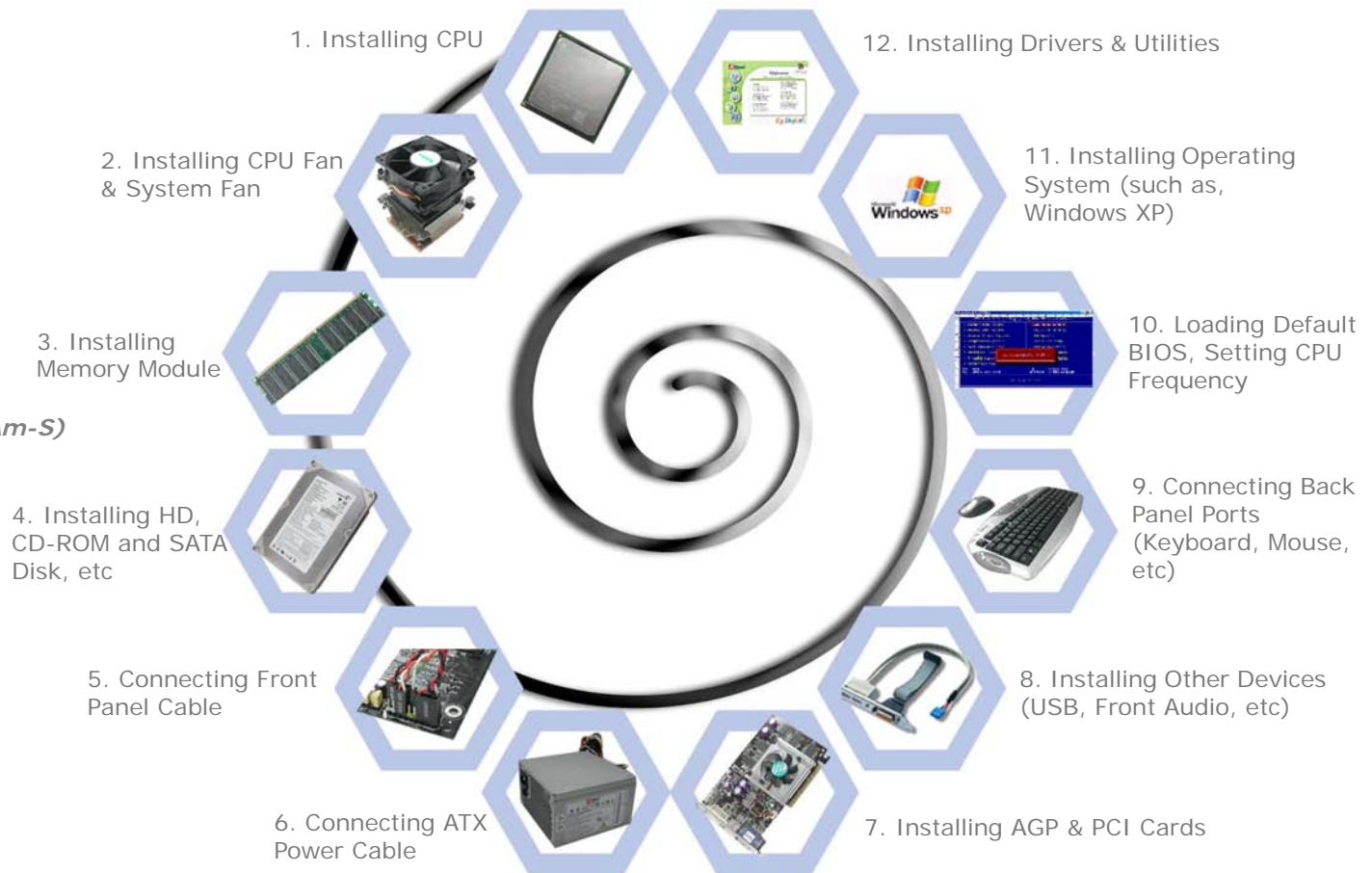
Before You Start

Everything you need to boot this motherboard is included in this Easy Installation Guide. For more information, a complete **Online User's Manual** can be found in the **Bonus Pack CD**. Thanks for the help of saving our earth.

Accessory Checklist

- Easy Installation Guide x 1
- 80-Wire IDE Cable x 1
- Serial ATA Power Cable x 1 (only for vKM400Am-S)
- Serial ATA Cable x 1 (only for vKM400Am-S)
- Floppy Drive Cable x 1
- Bonus Pack CD x 1
- I/O Shield x 1

Installing By Yourself



PART NO: 49.88D11.E01

DOC. NO: VKM400AMS-EG-E0406A

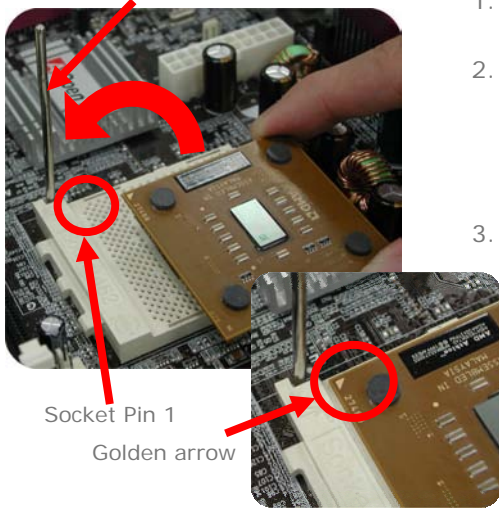


1. Installing CPU

This motherboard supports AMD® Athlon Socket 462 series CPU. Be careful of CPU orientation when you plug it into CPU socket (with CPU Overheat Protection function implemented, the system will be automatically powered off when the temperature of CPU reaches to 97 degree, but it works only on Athlon™XP / Duron CPU. CPU socket lever

1. Pull up the CPU socket lever and up to 90-degree angle.
2. Locate Pin 1 in the socket and look for Golden arrow on the CPU upper interface. Match Pin 1 and golden arrow. Then insert the CPU into the socket.
3. Press down the CPU socket lever and finish CPU installation.

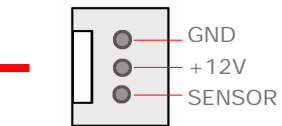
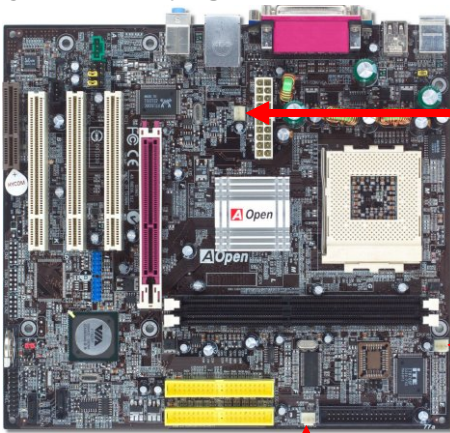
Note: If you do not match the CPU socket Pin 1 and CPU golden arrow well, you may damage the CPU.



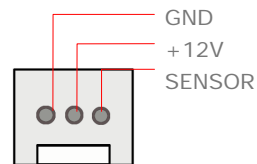
Socket Pin 1
Golden arrow

2. Installing CPU & System Fans

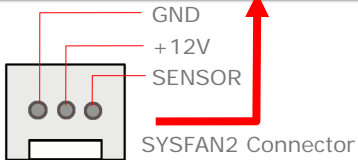
Plug in the CPU fan cable to the 3-pin CPUFAN connector. If you have chassis fan, you can also plug it in SYSFAN1 or SYSFAN2 connector.



SYSFAN1 Connector



CPUFAN Connector

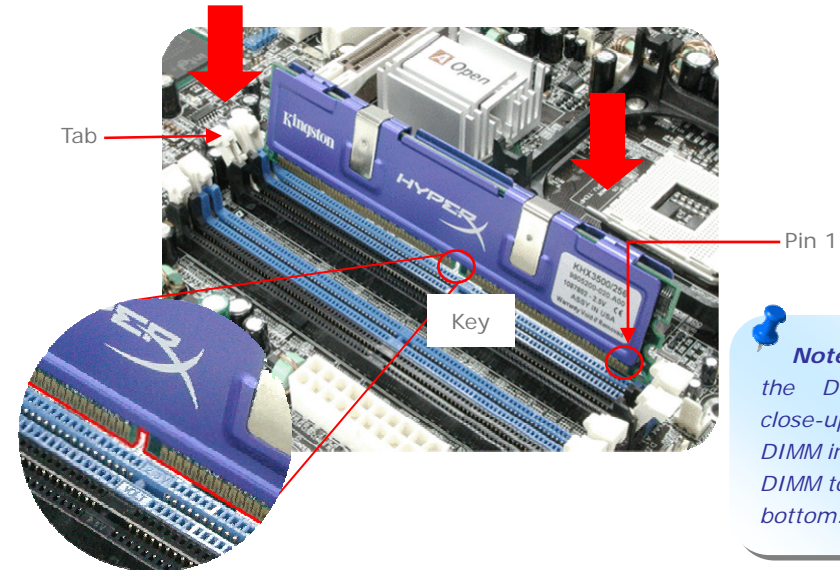


SYSFAN2 Connector

Note: Some CPU fans do not have sensor pin so they cannot support fan monitoring.

3. Installing Memory Modules

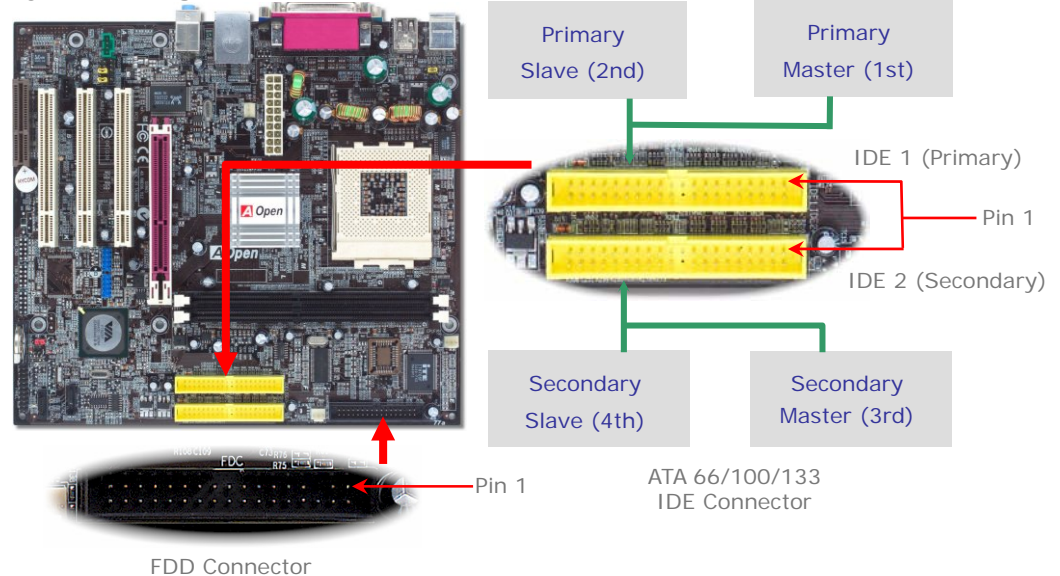
DIMM slots are designed in Black which are very easy to recognize. Insert the module straight down to the DIMM slot with both hands and press down firmly until the DIMM module is securely in place.



Note: The tabs of the DIMM slot will close-up to hold the DIMM in place when the DIMM touches the slot's bottom.

4. Connecting IDE and Floppy Cables

Connect 34-pin floppy cable and 40-pin, 80-wire IDE cable to floppy connector FDD and IDE connector. Be careful of the pin1 orientation. Wrong orientation may cause system damage.

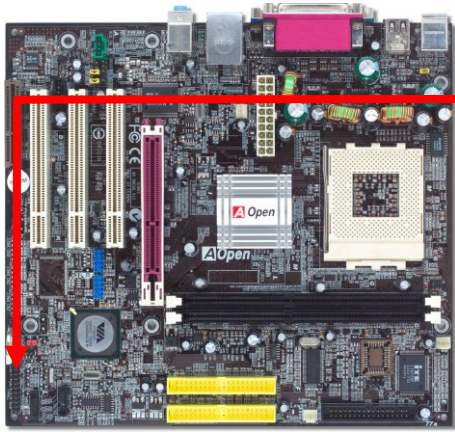


FDD Connector

ATA 66/100/133
IDE Connector

5. Connecting Front Panel Cable

Attach the power LED, speaker, and reset switch connectors to the corresponding pins. If you enable "Suspend Mode" item in BIOS Setup, the ACPI & Power LED will keep flashing while the system is in suspend mode. Locate the power switch cable from your ATX housing. It is 2-pin female connector from the housing front panel. Plug this connector to the soft-power switch connector marked *SPWR*.

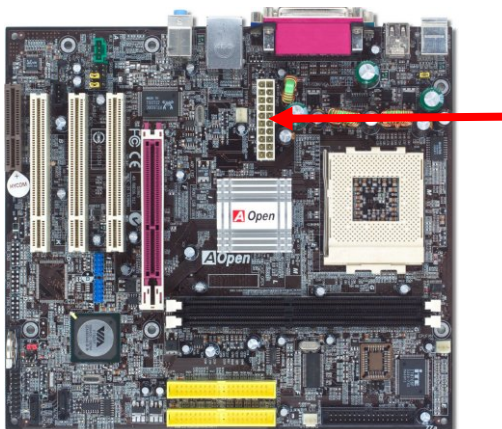


1		
NC		Power Switch
NC		GND
+5V		Power LED-
HDD LED		GND
HDD LED		Power LED+
+5V		NC
+5V		GND
GND		GND
NC		RESET
SPEAKER		GND

Front Panel Connector

6. Connecting ATX Power Cables

This motherboard comes with a 20-pin ATX power connector as shown below. Make sure you plug in the right direction.



+12V		+5V
5VSB		+5V
PW-OK		-5V
COM		COM
+5V		COM
COM		COM
+5V		PS-ON
COM		COM
+3.3V		-12V
+3.3V		+3.3V

7. Power-on and Loading BIOS Setup

Del

After you finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, press during POST (Power On Self Test). Choose "Load Setup Defaults" for recommended optimal performance.

Phoenix - AwardBIOS CMOS Setup Utility

- ▶ Standard CMOS Features
- ▶ Advanced BIOS Features
- ▶ Advanced Chipset Features
- ▶ Integrated Peripherals
- ▶ Power Management Setup
- ▶ PnP/PCI Configurations
- ▶ Silent BIOS/HW Monitor
- ▶ Frequency/Voltage Control

- Load Setup Defaults
- Load Turbo Defaults
- Set Password
- Save & Exit Setup
- Exit Without Saving
- Load EEPROM Defaults
- Save EEPROM Defaults
- ▶ Credits

Warning: Please avoid of using "Load Turbo Defaults", unless you are sure your system components (CPU, RAM, HDD, etc.) are good enough for turbo setting.

8. AOpen Bonus Pack CD

You can use the auto-run menu of Bonus CD disc. Choose the utility or driver, select model name and complete installation.

AOpen Bonus Pack

Motherboard Online Manual
Acrobat Reader
DocuCom Reader
Motherboard Drivers
Hardware Monitor Utility
Norton Antivirus
Norton CrashGuard
3Deep E-Color
Microsoft DirectX 8.1
AConfig
Exit

Motherboard Drivers

Please select your motherboard and OS from the following list,
click "OK" to install driver;
or click "Cancel" to the previous window.

VKM400Am-S Windows XP

Please Select a Driver from this list to install

VIA Hyperion 4in1 driver
VIA/S3G UniChrome Graphics Win2K/XP Driver
Realtek Avance AC97 Audio Driver
Realtek RTL8139/810x NIC Driver
VIA USB 2.0 Driver
VIA SATA RAID Driver

Installs drivers of your motherboard, including Chipset, VGA, LAN, RAID, IDE and Audio drivers. You have to refer to the user's manual to check what chipset your motherboard is based on.

Setting CPU Voltage & Frequency

Setting CPU Core Voltage

This motherboard supports Voltage ID (VID) function to detect CPU voltage automatically during power-on. It is unnecessary for you to set CPU voltage by yourself.

Setting CPU Frequency

This motherboard is CPU jumper-less design, you can set CPU frequency through 1MHz stepping CPU Overclocking in the BIOS. CPU Core Frequency = CPU FSB clock x CPU Ratio. However, all CPU now selling in the market belong to "Fixed Multiplier". That means users can not adjust the CPU Ratio but only change CPU FSB clock to achieve overclocking.

(Users do the overclocking at their own risk!!)

BIOS Setup > Frequency / Voltage Control > CPU Speed Setup

CPU Ratio	From 5.5x to 16.5x step 0.5x; 17x to 18x step 1x
CPU FSB (Adjustment manually)	FSB= 100MHz-255MHz by 1MHz Stepping CPU Overclocking

CPU	CPU Core Freq.	EV6 Bus Clock	Ratio
Athlon 1.33G	1.33GHz	266MHz	10.0x
Athlon 1.4G	1.4GHz	266MHz	10.5x
AthlonXP 1500+	1.3GHz	266MHz	10.0x
AthlonXP 1600+	1.4GHz	266MHz	10.5x
AthlonXP 1700+	1.46GHz	266MHz	11.0x
AthlonXP 1800+	1.53GHz	266MHz	11.5x
AthlonXP 1900+	1.6GHz	266MHz	12.0x
AthlonXP 2000+	1.667GHz	266MHz	12.5x
AthlonXP 2100+	1.73GHz	266MHz	13x
AthlonXP 2200+	1.80GHz	266MHz	13.5x
AthlonXP 2400+	2.0GHz	266MHz	15x
AthlonXP 2600+	2.13GHz	266MHz	16x
AthlonXP 2500+	1.83GHz	333MHz	11x
AthlonXP 2700+	2.16GHz	333MHz	13x
AthlonXP 2800+	2.083GHz	333MHz	12.5x
AthlonXP 3000+	2.167GHz	333MHz	13x
AthlonXP 3200+	2.2GHz	400MHz	11x

Note: With CPU speed changing rapidly, there might be faster CPU on the market by the time you received this installation guide. This table is kindly for your references only.

Note: Some CPU fans do not have sensor pin so they cannot support fan monitoring.

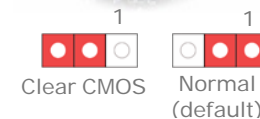
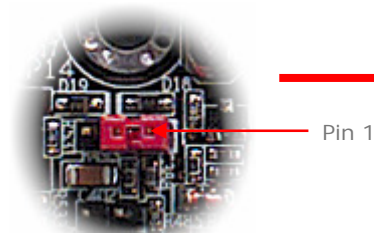
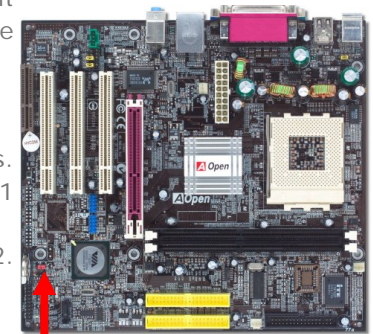
Note: vKM266Pm only supports FSB 333/266.

Warning: To avoid possible CPU damage caused by overheat, CPU Overheat Protection circuit had been especially designed on this motherboard. System will automatically power off when this motherboard detects the CPU temperature higher than 97 degrees centigrade.

JP14 Clear CMOS

You can clear CMOS to restore system default setting. To clear the CMOS, follow the procedure below.

1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR2.
3. Locate JP14 and short pins 2-3 for a few seconds.
4. Return JP14 to its normal setting by shorting pin 1 & pin 2.
5. Connect ATX power cable back to connector PWR2.

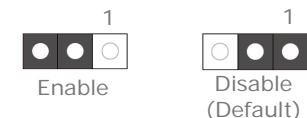
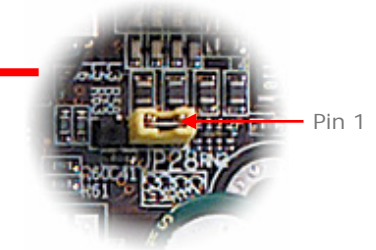
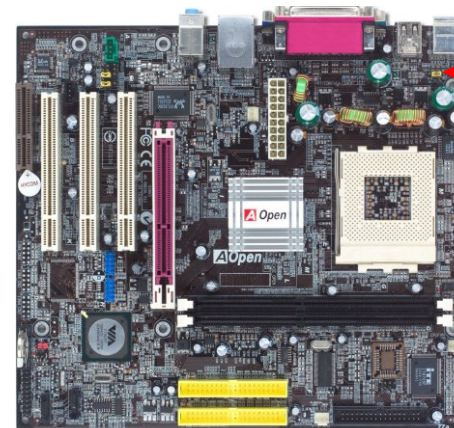


Tip: When should I Clear CMOS?

1. Boot fails because of overclocking...
2. Forget password...
3. Troubleshooting...

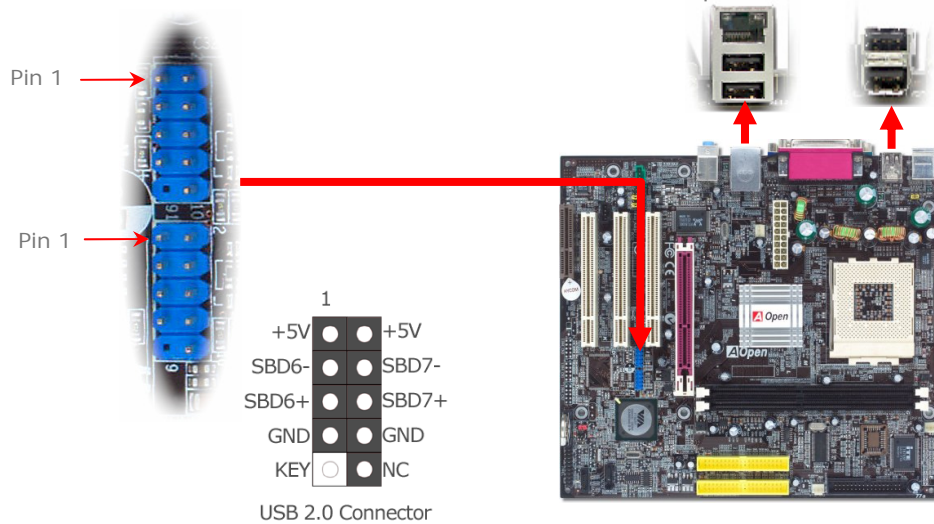
JP28 Keyboard/Mouse Wakeup Jumper

This motherboard provides keyboard / mouse wake-up function. You can use JP28 to enable or disable this function, which could resume your system from suspend mode with keyboard or mouse. The factory default setting is "Disable" (1-2), and you may enable this function by setting the jumper to 2-3.



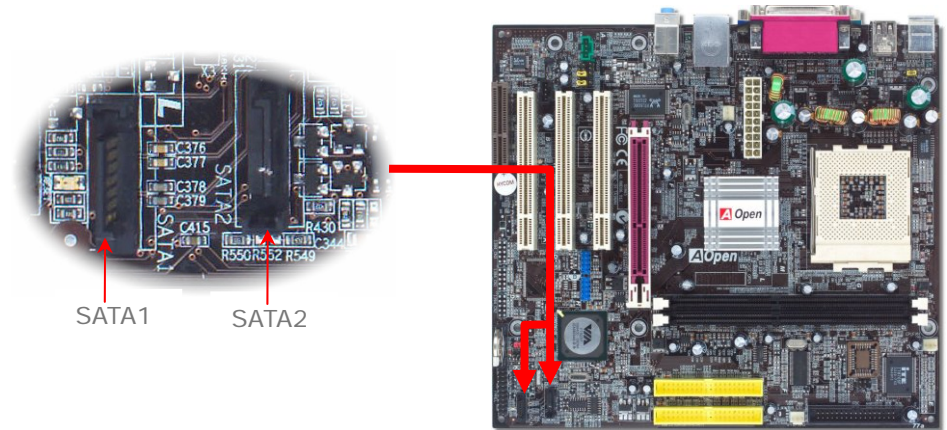
USB 2.0 Connectors

This motherboard provides eight USB 2.0 (vKM400Am-S) / six USB2.0 (vKM266Pm) ports to connect USB devices, such as mouse, keyboard, modem, printer, etc. There are four ports on the back panel. You can use proper cables to connect the Front USB connector to USB modules or front panel of chassis.



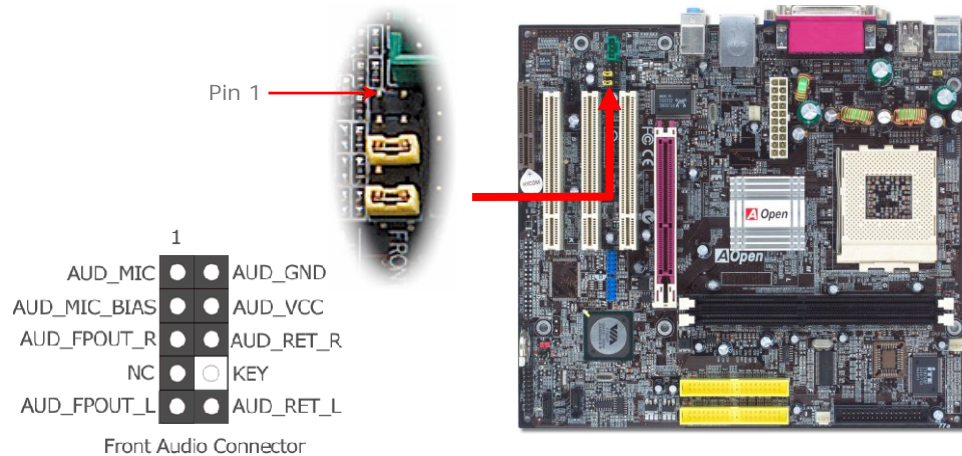
Serial ATA Connectors (only for vKM400Am-S)

To connect a serial ATA disk, you have to have a 7-pin serial ATA cable. Connect two ends of the serial ATA cable to the serial ATA header on the motherboard and the disk. Like every other traditional disk, you also have to connect a power cable. Please be noted that it is a jumper free implement; you don't need to set jumpers to define a master or slave disk. When serial ATA hard disks are installed on serial ATA ports, the one connected on SATA1 will be set as the first boot device automatically. **Please note that it doesn't support Hot-Plug in function.**



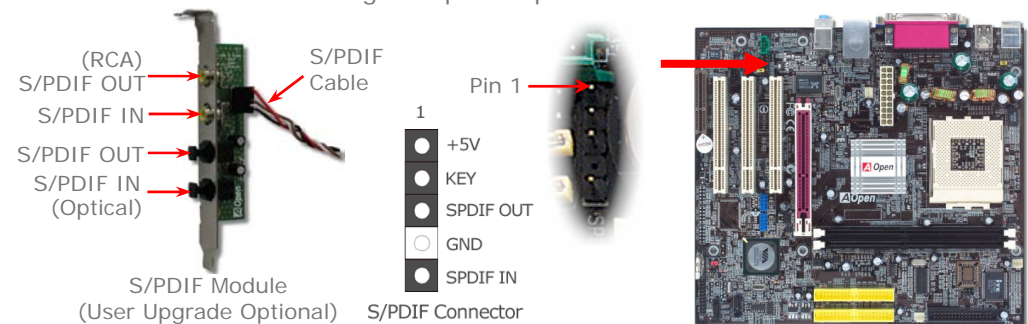
Front Audio Connector

If the housing has been designed with an audio port on the front panel, you'll be able to connect onboard audio to front panel through this connector. By the way, please remove 5-6 and 9-10 jumper caps from the Front Audio Connector before connecting the cable. Please do not remove these 5-6 and 9-10 yellow jumper caps if there's no audio port on the front panel.



S/PDIF (Sony/Philips Digital Interface) Connector

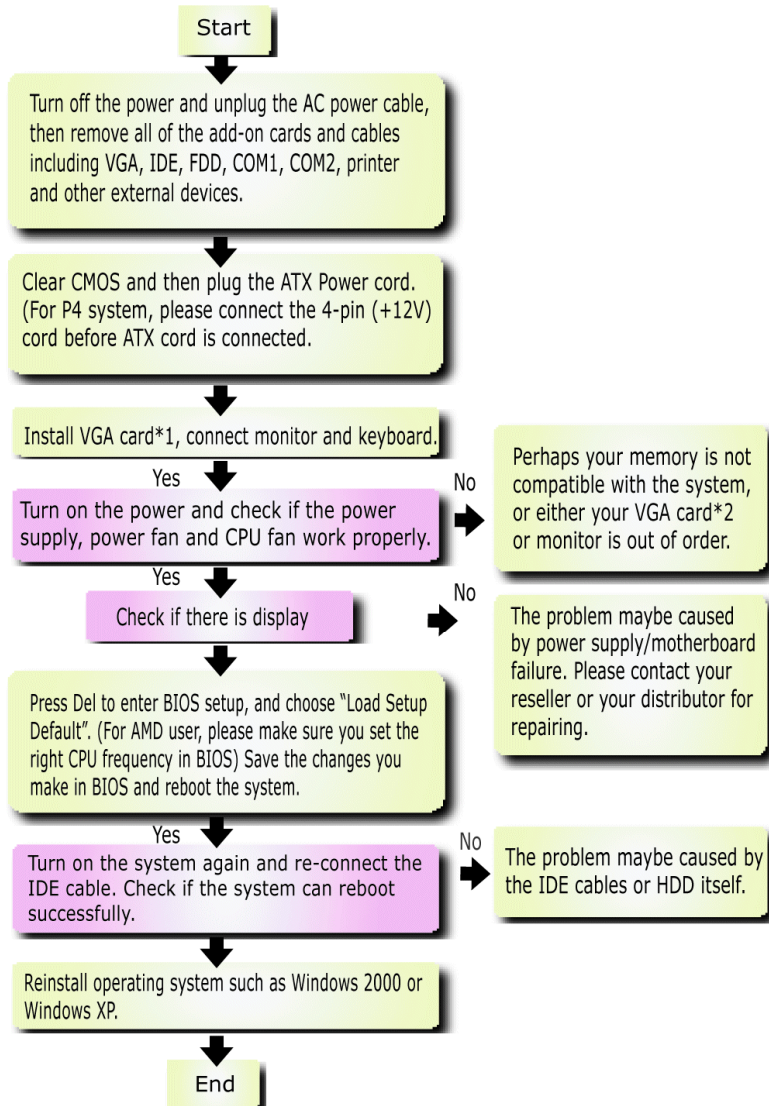
S/PDIF (Sony/Philips Digital Interface) is a newest audio transfer file format, which provides impressive audio quality through optical fiber and allows you to enjoy digital audio instead of analog audio. Through a specific audio cable, you can connect the S/PDIF connector to other end of the S/PDIF audio module, which bears S/PDIF digital output. Normally there are two S/PDIF outputs as shown, one for RCA connector, the most common one used for consumer audio products, and the other for optical connector with better audio quality. Same as outputs, you can also connect RCA or optical audio products to input connectors on the module and have the voice or music come out from your computer. However, you must have a S/PDIF supported speaker/amplifier/decoder with S/PDIF digital input/output to connect to the S/PDIF digital input/output to make the most out of this function.





Troubleshooting

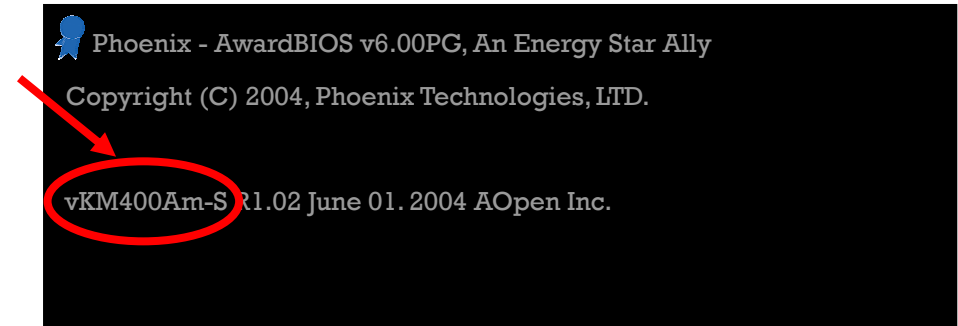
If you encounter any trouble to boot your system, follow the procedures accordingly to resolve the problem.



*1 The VGA card is not necessary to be installed if your monitor is connected to the onboard VGA port.
 *2 If you connect to the onboard VGA port and no screen displays, then your onboard VGA device might have problem.

Model name and BIOS version

Model name and BIOS version can be found on upper left corner of first boot screen (POST screen). For example:



vKM400Am-S is model name of motherboard; R1.02 is BIOS version

Register Your Motherboard

Thanks for choosing AOpen product, please register this motherboard at <http://club.aopen.com.tw/productreg/> to become a Gold member of Club AOpen, and to ensure high service quality and priority from AOpen. You will also have a chance to play slot machine game to win prize from AOpen. Please prepare the following information before you start: **Model Name, Part Number (P/N), Serial Number (S/N) and Purchase Date**. The Part Number and Serial number are printed on bar code label. You can find this bar code label on the outside packing or on component side of PCB. For example:



Part No.

Serial No.

P/N: 91.88110.201 is part number, S/N: 91949378KN73 is serial number.

Phoenix-Award BIOS ERROR Message

Beep Sound	Message
1 short(Beep)	System booting is normally.
1 long - 1 short(Beep)	DRAM ERROR
1 long - 2 short(Beep)	Display card or monitor connected error
1 long - 3 short(Beep)	Keyboard Error
Long(Beep) continuous	DRAM hasn't inset correctly.

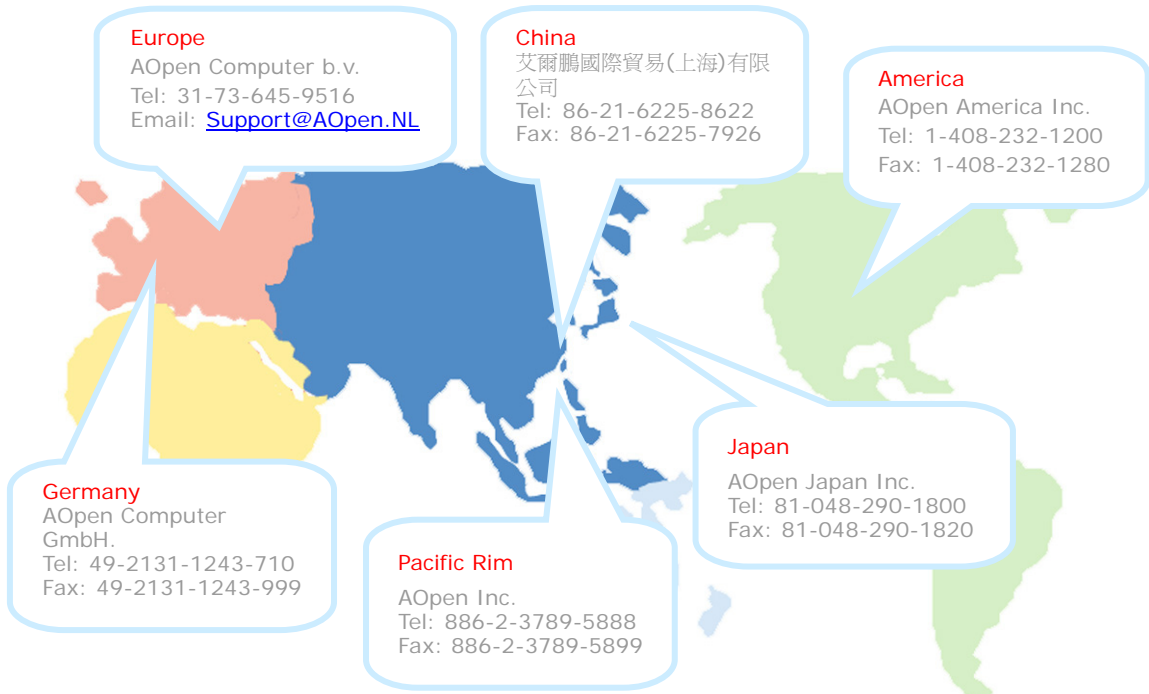


Technical Support

Dear Customer,

Thanks for choosing AOpen products. We invite you to register at <http://www.aopen.com> to become a Gold Member of Club AOpen so as to ensure quality service in the future. In order to maintain the best service to every customer of us, we recommend you to follow the procedures below and seek help from our branches according to the region you buy the product. With your help, we can then continue to provide efficient and the best quality service to every customer.

Thanks very much for your understanding!



Europe	Email: Support@AOpen.NL
Pacific Rim	http://www.aopen.com.tw/tech/default.htm
China:	http://www.aopen.com.cn/tech/default.htm
Germany	http://www.aopencom.de/tech/default.htm
America	http://usa.aopen.com/tech/default.htm
Japan	http://www.aopen.co.jp/tech/default.htm

Online Manual: To download manual, please log on and then select your preferred language. Under "Type" directory, choose "Manuals" to go to our manual database. You can also find the manual and EIG in AOpen Bonus Pack.
<http://download.aopen.com.tw/downloads>

Test Report: We recommend you to choose board/card/device from the compatibility test reports for assembling your PC. It may prevent incompatibility problems.
<http://english.aopen.com.tw/tech/report/default.htm>

FAQ: Here we list problems that users often encounter and FAQ (Frequently Asked Questions). You may select your preferred language after log on, and may be able to find a solution to your problem.
<http://club.aopen.com.tw/faq/>

Download Software: After log on and having language selected, you may get the latest updated BIOS/utility and drivers you need under "Type" directory. In most case, newer versions of drivers and BIOS have solved earlier bugs or compatibility problems.
<http://download.aopen.com.tw/downloads>

eForum: AOpen eForum is provided to discuss our products with other users, in which your problem probably had been discussed before or will be answered. After log on, you may select your preferred language under "Multi-language".
<http://club.aopen.com.tw/forum>

Contact Us: Please prepare detail system configuration and error symptom before contacting us. The part number, serial number and BIOS version are also very helpful.

Contact Distributors/Resellers: We sell our products through resellers and integrators. They should know your system configuration very well and should be able to solve your problem efficiently and provide important reference for you.