

The FCC wants you to know

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modification made to this equipment void the user's authority to operate this equipment.

This equipment generates, uses, and radiates radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- All external cables connecting to this basic unit must be shielded.

Canadian D.O.C. Statement

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations or the Canadian Department of Communications.

Cet appareil numérique n'excede pas les limites de categorie B pour des emissions radio depuis un appareil numérique, comme defini dans les reglementations d'interference radio du Ministère Canadien des Communications.

CE Mark

This equipment is in conformity with the EMC directive.

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PS/2 is regis

Overview

The information in this document is subject to change without notice and should not be construed as a commitment by the manufacturer.

The manufacturer assumes no responsibility for any errors that might appear in this document.

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PS/2 is registered trademark of International Business Machines Corporation.

Important Safety Information

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or clothe for cleaning.
4. For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
7. Do not leave this equipment in an environment unconditioned, storage temperature above 40°C, it may damage the equipment.
8. The openings on the enclosure are for air convection hence protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
9. Make sure the voltage of the power source when connect the equipment to the power outlet.
10. Place the power cord such a way that people can not step on it. Do not place anything over the power cord. The power cord must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not use for long time, disconnect the equipment from mains to avoid being damaged by transient over-voltage.
13. Never pour any liquid into ventilation openings, this could cause fire or electrical shock.

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 - b. Liquid
 - c. The eq
 - d. The eq
 - e. The eq
 - f. If the e
15. CAUTION:
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14. If one of the following situations arises, get the equipment checked by service personnel:

a. The Power cord or plug is damaged.

b. Liquid has penetrated into the equipment.

c. The equipment has been exposed to moisture.

d. The equipment has not worked well or you can not get it work according to user's manual.

e. The equipment has dropped and damaged.

f. If the equipment has obvious sign of breakage.

15. CAUTION: THE COMPUTER IS PROVIDED WITH A BATTERY-POWERED REAL-TIME CLOCK CIRCUIT. THERE IS A DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

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Section 1

Introduction



1.1 **Begin Your Tour In The DIY World**

Congratulations on purchasing this cutting-edge Small Form Factor System. Now you have the reliability and flexibility of a computer that offers powerful computing performance and full multimedia capabilities. As a progressive and compact-sized PC, it allows you to work effectively and play ingeniously with integrated functionality.

For utility, your computer features easy installation with better mechanism such as well-located cables and hard disk drive. Just follow the step-by-step installation guide of the manual, you will find that it is a simple process to set up CPU, memory and hard disk drive that takes only few minutes. And when you open its cover panels, you will admire the innovation of the components like side-blown CPU cooler and special-made power supply that are developed to improve the noise and thermal.

For connectivity and expandability, your computer provides four USB2.0, two IEEE1394, one S/PDIF input and output, and the standard audio ports including headphone, microphone, line-in and line-out connectors, which satisfy you for attaching various digital devices. Besides, there is one AGP and one PCI slots that allow power users to add on the high-end audio and video cards. Users can enjoy a richer gaming experience and enhanced sound quality with built-in graphics engine and S/PDIF jack.

To help you familiarize with your computer, we provide this user's guide including the clear and concise installation guide, trouble-shooting procedure and the other practical information. We hope you will take pleasure in using this computer as much as we enjoy designing it for you.

1.2

This section d
sure you have
items. If there



Small Fo



User's man



Screws f

1.2 Checking the Equipments

This section describes the contents of your computer pages. Before you unpack your computer, make sure you have enough room to set up your system. Then open the package and check the following items. If there are any of the equipments are missing or damaged, contact your dealer immediately.



Small Form Factor System



Driver CD



User's manual



Installation Guide



Thermal Grease



A power cord



Screws Pack

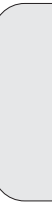


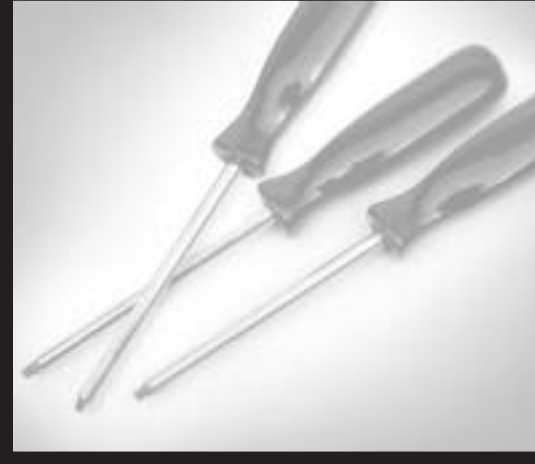
Power Cable for Serial-ATA Hard Disk Drive



Serial-ATA Cable

Se





Section 2

Mainboard Set Up

2.1 Mainboard Features

Model

M7VBA

Hardware

CPU

- Single AMD Socket-A for AMD Athlon/Duron Family processor.
- Running at 200/266/333/400 MHz Front Side Bus.

Chipset

- North Bridge: VIA KM400A.
 - Supports AGP 8X
 - Supports DDR266/DDR333/DDR400
- South Bridge: VT8235/ (VT8237).
 - (VT8237 supports two serial ATA connectors)
 - Supports 6 USB 2.0 ports. (VT8237 supports for 8 USB 2.0 ports.)
 - Supports on board AC'97 Codec.
 - (VT8237 supports RAID 0, RAID 1)

Main Memory

- Supports up to two DDR devices.
- Supports 200/266/333/400 MHz (without ECC) DDR devices.
- Maximum memory size is 2GB.

Total Memory Size with Unbuffered DIMMs

DIMM Socket Location	DDR Module	Total Memory Size (MB)
DDR1	64MB/128MB/256MB/512MB/1GB *1	Max is 2GB
DDR2	64MB/128MB/256MB/512MB/1GB *1	

*Only for reference

Super I/O

- Chip: ITE I8705.

Slots

- One 32-bit PCI
- One AGP 4X
- One Wireless LAN

On Board IDE

- Supports IDE
- Supports IDE

IEEE 1394 C

- Chip: VIA
- Support 2

Wireless L

- Chip: RTL8
- Full compl
- Supports
- Supports
- Supports
- Keeps netw
- Uses one

LAN

- Chip: VIA
- Supports
- Half/Full d
- Supports

Serial ATA/

- Chip: Vt82
- Supports
- Supports
- Supports
- Compliant
- Data tran

Slots

- One 32-bit PCI bus master slots.
- One AGP 4X/8X slot.
- One Wireless LAN slot. (optional)

On Board IDE

- Supports four IDE disk drives.
- Supports PIO Mode 5, Bride Mode and Ultra DMA 33/66/100/133 Bus Master Mode.

IEEE 1394 Chip

- Chip: VIA VT6307.
- Support 2 ports with transfer up to 400Mb/s.

Wireless LAN (optional)

- Chip: RTL8180L.
- Full compliance with IEEE802.11 and IEEE802.11b specifications.
- Supports Advanced Configuration Power management Interface.(ACPI) and PCI power management system for modern operating systems.
- Supports remote wake-up in both ACPI and APM environments.
- Keeps network maintenance costs low and eliminates usage barriers.
- Uses one RF card for Wireless LAN.

LAN

- Chip: VIA VT6103
- Supports 10 Mb/s and 100 Mb/s auto-negotiation.
- Half/Full duplex capability.
- Supports ACPI power management.

Serial ATA/RAID (optional: only supports for VT8237)

- Chip: Vt8237.
- Supports RAID 0, 1.
- Supports 2 Serial ATA (SATA) ports.
 - Compliant with SATA 1.0 specification
 - Data transfer rates up to 1.5 GB/s

Memory Size (MB)

Max is 2GB

On Board AC'97 Sound Codec

- Chip: CM19739A.
- Compliant with AC'97 specification.
- AC97 2.2 interface.
- Supports 6 channels.
- Supports S/PDIF IN/OUT.

On Board Peripherals

- 1x vertical audio port, 1 x Line-Out port, 1xMic-In port
- 1 x PS/2 mouse connector, 1 x PS/2 keyboard connector
- 1 x S/PDIF-Out connector, 1 x S/PDIF-In connector
- 6 x USB 2.0 Ports (VT8237: 8 x USB 2.0 ports)
- 1 x game port
- 1 x IrDA connector
- 2 x IEEE1394A connector
- 1 x parallel port
- 1 x serial port (COM1)
- 1 x VGA port
- 1 x floppy disk connector

BIOS & Software

BIOS

- Award legal BIOS.
- Supports APM1.2.
- Supports ACPI.
- Supports USB Function.

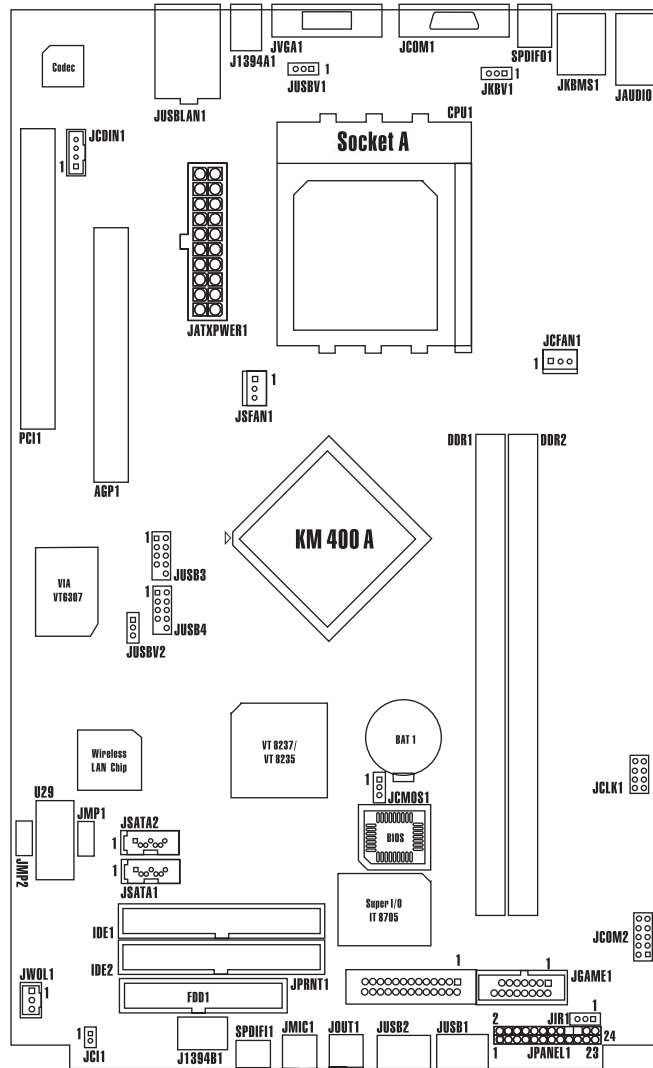
Software

- Supports Warpspeeder™, 9th Touch™, FLASHER™, StudioFun!™ (optional).
- Offers the highest performance for Windows 98 SE, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.



 **Note:** repr

2.2 Layout And Components Index



 **Note:** represents the first pin.

Windows Me, Windows XP,

The illustration
"close". If no
jumper whos

Components Index

- **Back Panel Connectors**
- **PCI1: Peripheral Component**
- **JCDIN1: CD-Rom Audio-In Header**
- **AGP1: Accelerated Graphics Port Slot**
- **JATXPWR1: ATX Power Connector**
- **JUSBV2: Power Source Selection for JUSB3-4**
- **U29: Wireless LAN Slot (optional)**
- **JSATA1-2: Serial ATA Connectors (optional)**
- **IDE1-2: Hard Disk Connectors**
- **JWOL1: Wake On LAN Header**
- **JCI1: Case Open Connector (optional)**
- **FDD1: Floppy Disk Connector**
- **Front Panel Connectors**
- **JPRNT1: Printer connector**
- **JCMOS1: Clear CMOS Jumper**
- **JGAME1: Game Header**
- **JUSB3/4: Front USB Headers (JUSB 3: Optional)**
- **JGAME1: Game Header (optional)**
- **JPANEL1: Front Panel connector**
- **JCOM2: serial port connector**
- **JCLK1: CPU Frequency Selection**
- **DDR1/DDR2: DDR DIMM Modules**
- **JSFAN1: System Fan Header**
- **JCFAN: CPU Fan Header**
- **JKBV1: Power Source Selection for Keyboard**
- **JUSBV1: Power Source Selection for JUSBLAN1**

Jumpers,

• **Floppy Dis**
The motherbo
and 2.88M fle

• **Hard Disk**
The motherbo
and Ultra DM
(secondary).
hard disk dri

• **Periphera**
This motherbo
Interconnect,

• **Accelerat**
Your monitor
slots, but it is
of AGP techn

2.3 Jumpers, Headers, Connectors and Slots

The illustration shows how to set up jumpers. When the Jumper cap is placed on pins, the jumper is "close". If no jumper cap is placed on the pins, the jumper is "open". The illustration shows a 3-pin jumper whose pin1 and 2 are "close" when jumper cap is placed on these 2 pins.



Jumper open



Jumper close



Pin1-2 close

Jumpers, Headers, Connectors and Slots

- Floppy Disk Connector: FDD1

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

- Hard Disk Connectors: IDE1 / IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~5, Bus Master, and Ultra DMA 33/ 66/ 100/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary). The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

- Peripheral Component Interconnect Slots: PCI 1

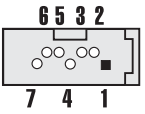
This motherboard is equipped with 1 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.

- Accelerated Graphics Port Slot: AGP1


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

• Serial ATA Connector: JSATA1/JSATA2 (Optional: only support for VT8237)

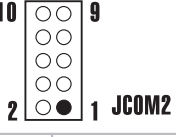
The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 1.0 spec and can transfer data with 1.5GHz speed.

 <p>JSATA1/JSATA2</p>	Pin	Assignment	Pin	Assignment
	1	Ground	2	TX +
	3	TX -	4	Ground
	5	RX -	6	RX +
	7	Ground		

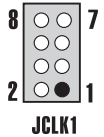
• Case Open Connector: JCI1 (optional)

 <p>JCI1</p>	Pin	Assignment
	1	Case Open Signal
	2	Ground

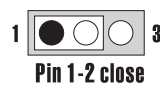
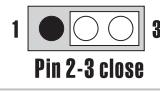
• COM2 Header: JCOM2

 <p>JCOM2</p>			
Pin	Assignment	Pin	Assignment
1	RIN1	2	RIN3
3	DOUT2	4	DOUT3
5	Ground	6	RIN2
7	DOUT1	8	RIN4
9	-XR11	10	NA

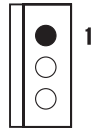
• CPU Frequency Selection: JCLK1

	CPU	1-2	3-4	5-6	7-8
	100	Close	Close	Open	Open
	133	Open	Close	Open	Open
	166	Open	Open	Open	Open
	200	Close	Open	Open	Open

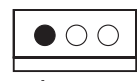
• Power Source Selection for KB: JKBV1

JKBV1	Assignment	Description
	+5V	+5V for keyboard and mouse
	+5V Standby Voltage	PS/2 Mouse and PS/2 Keyboard are powered with +5V standby voltage

• CPU Fan Headers: JCFAN1

	Pin	Assignment
	1	Ground
	2	FAN RPM Sense
	3	FAN rpm Rate Sense

• System Fan Headers: JSFAN1

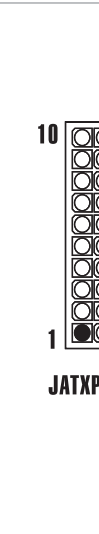
	Pin	Assignment
	1	Ground
	2	FAN RPM Sense
	3	FAN rpm Rate Sense

• Front Panel Connector: JPANEL1



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	2	Sleep Control	Sleep Button
3	NA		4	Ground	
5	NA		6	NA	NA
7	Speaker		8	Power LED (+)	Power LED
9	HDD LED (+)	10	Power LED (+)		
11	HDD LED (-)	12	Power LED (-)		
13	Ground	Reset Button	14	Power Button	Power-on Button
15	Reset Control		16	Ground	
17	NA	IrDA Connector	18	KEY	IrDA Connector
19	NA		20	KEY	
21	+5V		22	Ground	
23	IRTX		24	IRRX	

• Power Co



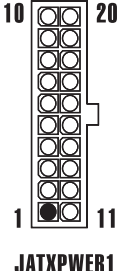
• Clear CMOS



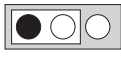
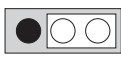
- *Clear CMOS
- Remove A
- Set the ju
- Wait for f
- Set the ju
- Power on
- Reset you

• Power Connectors: JATXPWR1

Pin	Assignment	Pin	Assignment
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PS_ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PW_OK	18	-5V
9	Standby Voltage +5V	19	+5V
10	+12V	20	+5V



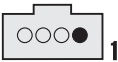
• Clear CMOS Jumper: JCMOS1

JCMOS1		Assignment
1	 3	Pin 1-2 close Normal Operation (default)
1	 3	Pin 2-3 close Clear CMOS Data


*Clear CMOS Procedures:

- Remove AC power line.
- Set the jumper to "Pin 2-3 Close".
- Wait for five seconds.
- Set the jumper to "Pin 1-2 Close".
- Power on the AC.
- Reset your desired password or clear the CMOS data.

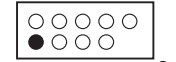
• **CD-ROM Audio-In Header: JCDIN1**

 <p>JCDIN1</p>	Pin	Assignment
	1	Left Channel Input
	2	Ground
	3	Ground
	4	Right Channel Input

• **Wake On LAN Header: JWOL1**

 <p>JWOL1</p>	Pin	Assignment
	1	+5V_SB
	2	Ground
	3	Wake up

• **Front USB Header: JUSB 3/JUSB 4 (JUSB3:Optional)**

 <p>JUSB3/4</p>	Pin	Assignment	Pin	Assignment
	1	+5V(fused)	2	+5V(fused)
	3	USBN	4	USBN
	5	USBP	6	USBP
	7	Ground	8	Ground
	9	KEY	10	NC

• **Power So**


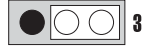
	Pin
1	Pin
1	Pin

Note: In or on pin

• **Game Head**

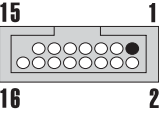
Pin
1
3
5
7
9
11
13
15

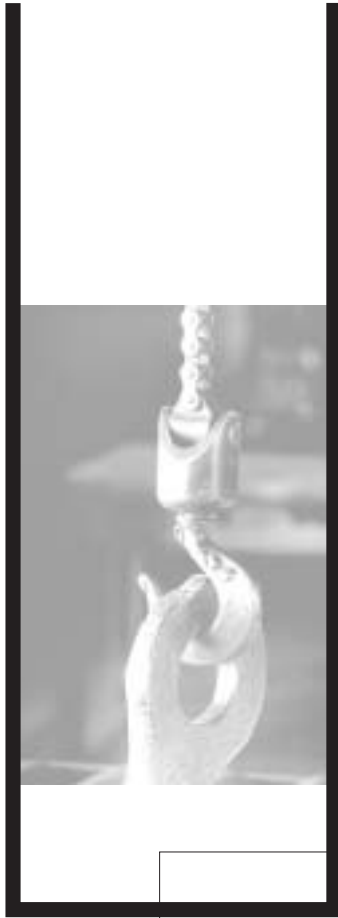
• Power Source Selection for USB: JUSBV1 / JUSBV2

JUSBV1/JUSBV2	Assignment	Description
 Pin 1-2 close	+5V	JUSBV1: 5V for JRJ45USB1 port JUSBV2: 5V for JUSB3/4 ports
 Pin 2-3 close	+5V Standby Voltage	JUSBV1: JRJ45USB1 port powered with standby voltage of 5V JUSBV2: JUSB 3/4 ports powered with standby voltage of 5V

Note: In order to power-on USB devices function, "JUSBV1/JUSBV2" jumper cap should be placed on pin 2-3 respectively.

• Game Header: JGAME1 (Optional)

 15 16 1 2 JGAME1			
Pin	Assignment	Pin	Assignment
1	+5V	2	+5V
3	Joystick B Button 1	4	Joystick A Button 1
5	Joystick B Coordinate X	6	Joystick A Coordinate X
7	MIDI Output	8	Ground
9	Joystick B Coordinate Y	10	Ground
11	Joystick B Button 2	12	Joystick A Coordinate Y
13	MIDI Output	14	Joystick A Button 2
15	NA	16	+5V



Section 3

Peripheral Connections

3.1 Overview

Your computer offers the following connectors for peripheral devices. As these devices are provided by third-parties, be sure that they function correctly when connected to your computer before you purchase them.

Front Panel Connectors :

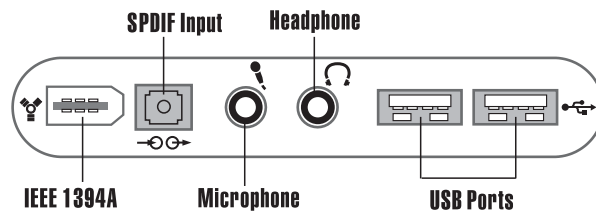
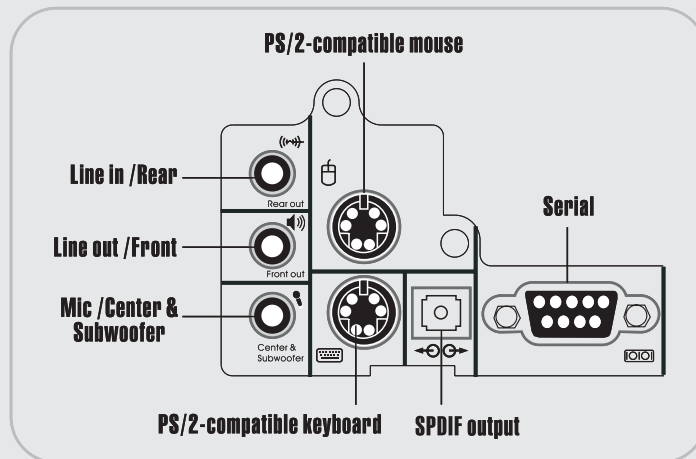


Figure 3.1

Back Panel Connectors :



3.2

Before you c

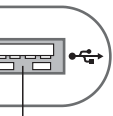
- Turn off th
- Read the i
- Insert the
- Install the
- sure you t
- Restart th

3.2 Connecting Peripheral Devices

Before you connect any peripherals, observe the following instructions.

- Turn off the computer and the peripheral device.
- Read the instructions on the manual or guide provided by the device manufacturer carefully.
- Insert the connector that comes from the device manufacturer to the proper I/O port.
- Install the drivers or other software that's required by the device so they operate correctly. Make sure you turn off the computer and the peripheral device before connecting them.
- Restart the computer if you are being asked to.

Devices are provided
computer before you



ports

Figure 3.1

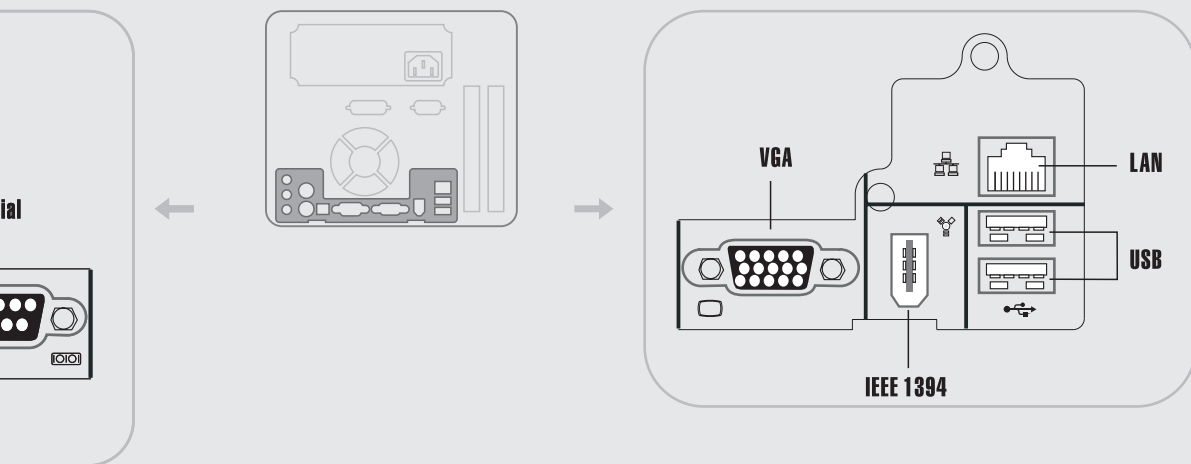


Figure 3.2

Connecting monitor

To connect a monitor, plug the monitor cable into the VGA port located on the rear panel of your computer.

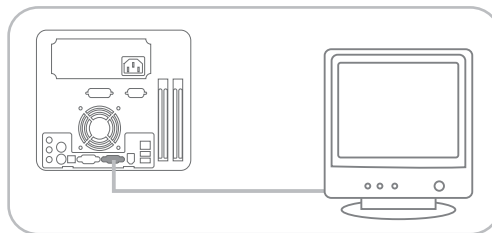


Figure 3.3

Connecting mouse and keyboard

Most of mouse and keyboard are PS/2 compliant. However, lots of the latest keyboard and mouse use the USB connectors instead of PS/2. Before connecting mouse and keyboard, make sure the connector is USB compliant or PS/2 compliant.

- Plug the mouse cable into the USB port (if your mouse uses the PS/2 connector, plug the cable into the green PS/2 port located on the rear panel of your computer).
- Plug the keyboard cable into the USB port (if your keyboard uses the PS/2 connector, plug the cable into the purple PS/2 port located on the rear panel of your computer).

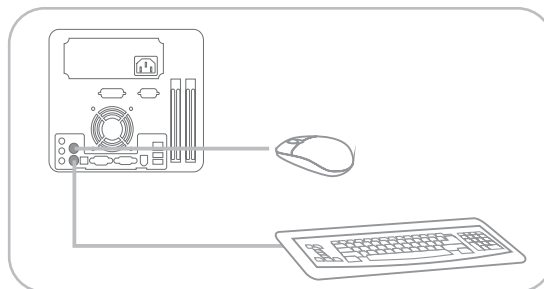


Figure 3.4

Connecting

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Connecting USB Devices

Your computer is equipped with four standard USB 2.0 ports as the figure 3.5 shown. The USB 2.0 connector is backward compatible with the USB1.1. You can obtain USB-compatible devices such as USB mouse, USB keyboard, digital camera, scanner, flash disk...etc. Any device that supports this standard can be connected to this port.

- Have the symbol of USB connector facing up.
- Insert the connector to the USB port.
- The OS will automatically detect the device and install the driver for the device.
- If the OS does not have the driver for your device, install the driver from the driver CD that is provided by the device manufacturer.

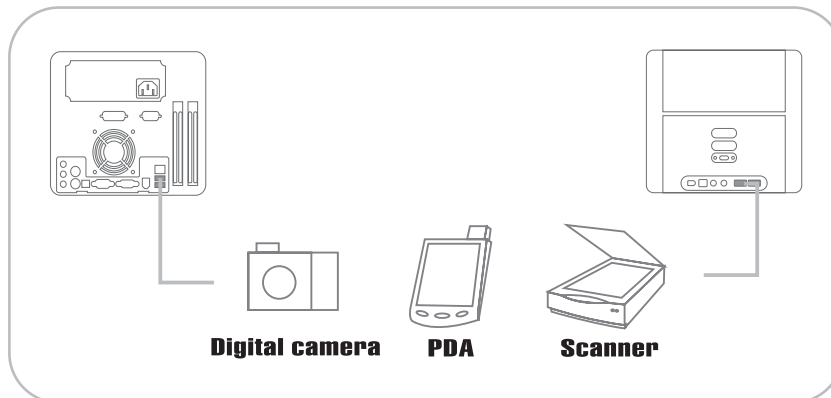


Figure 3.5

Note: The USB devices support "hot plugging," eliminating the need to power down or restart the computer when attaching a new peripheral. You can plug any USB device into any port at any time, even when the system is running.

Connecting IEEE1394 Devices

Your computer is equipped with two IEEE1394 connectors as the figure 3.6 shown, which enhance the connectivity of the computer and allow users to connect more electronics devices such as desktop digital cameras, digital VCRs, high resolution color printers, scanners, set-top boxes, and more. The IEEE 1394 devices also support "hot plugging", eliminating the need to power down or restart the computer when attaching a new peripheral like USB devices.

- Match the shape of the IEEE 1394 connector to the IEEE 1394 port.
- Insert the connector, and make sure that it is connected.
- The OS will start running and automatically install the driver for the device.
- If the OS does not have the driver for your device, install the driver from the driver CD that is Provided by the device manufacturer.

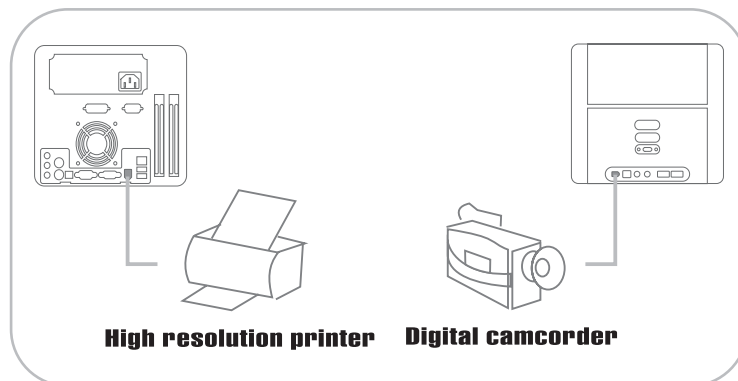


Figure 3.6

Connecting Audio Equipment

Your computer is equipped with the following audio ports, which offer wide-range applications.

- **S/PDIF (Sony/Philips Digital Interface) jack:** S/PDIF is a standard audio transfer file format, which provides digital audio instead of analog audio through optical fiber.

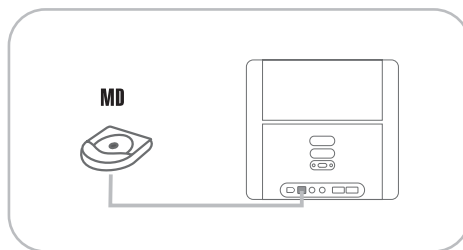


Figure 3.7

- **"Headphone" jack:** Use this jack to connect stereo headphone or amplified speakers to your computer.
- **"Microphone" jack:** Use this jack to connect microphone.
- **"Line-in" jack:** Use this jack to enjoy stereo audio from the external source such as CD/Tape player and other audio appliance.
- **"Line-out" jack:** Use this jack to connect the computer's audio output to an external tape recorder, Or to the inputs of speakers.

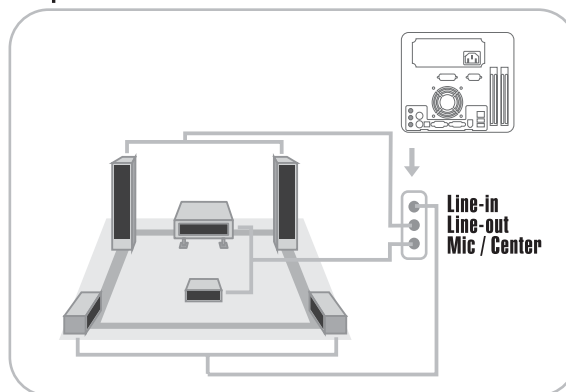


Figure 3.8

Connecting Printer

Your computer provides the expansion port for parallel cable on the rear panel. If users would like to attach the printer through the parallel port, please contact your dealer to purchase the cable kits. However, many printers are now using USB as their input connector.

Connecting the printer port:

- Match the pins and the shape of the printer connector to the printer port.
- Plug it in firmly.
- Tighten it up with the locking screw on the connector.
- Install the driver from the driver CD or diskette provided by the printer manufacturer.
- Restart the computer if asked to by the OS.

Connecting the printer via USB port:

- Plug the USB connector to one of the USB port on your computer.
- Your OS should start running and install the printer driver for you.
- However, if your OS does not have the driver, please install it from the driver CD or diskette that is provided by the printer manufacturer.

 **Note:** To install the printer driver, please refer to the guide your printer manufacturer provides for you.

Connecting LAN

You can connect your computer with another computer system or get on broadband Internet connection by using the LAN port.

Connect your computer to a network as follows:

- The LAN jack is located on the back of your computer.
- Plug an RJ-45 network cable in the LAN jack.
- The other end should be connected to a network hub or switch, or to a peer computer.



Section 4

Software Utility

If users would like to use the cable kits.

Manufacturer.

CD or diskette that is

Manufacturer provides for

and Internet connection

computer.



4.1 Installing Drivers and Utilities

Driver Setup

We provide an installation wizard, Driver CD Installation Utility (SETUP.EXE), LOCATED in the root of Driver CD to let users install some common used drivers conveniently.

The Wizard can automatically detect OS and switch to the proper page, so you don't need to worry about installing the wrong drivers. You can simply put Driver CD into the optical drive (CD-ROM, DVD ROM, or Combo depends on your configuration) and the Installation Utility will auto run or you can launch the Driver CD Installation Utility manually.

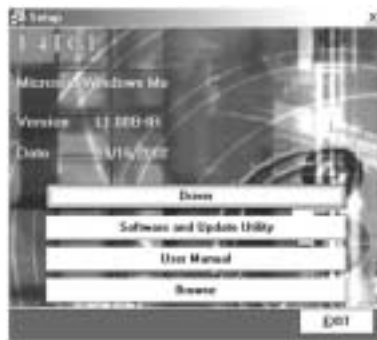


Figure 4.1

There are two kinds of Installation Procedure:

- Automatically install drivers from CD by using CD installation utility:
 1. Simply put Driver CD into your optical drive.
 2. The Installation wizard will auto run and show the name of the main board on the upper left of the menu (See figure 4.1).
 3. Use the mouse cursor to click the Driver option on the page.
 4. Driver setup utility will search for the devices you have.

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5. The utility will start a page with the drivers you may need.
 6. Click on the driver you want to install.
 7. The utility will invoke other applications to complete the rest of installation.
 8. Follow the installing instructions to finish the installation.
 9. Click on the next driver you want to install.
 10. Repeat steps 6 to 8 until you have installed all the drivers the utility has for you.
- If the Driver and utility installation CD does not auto run, please follow the next steps after you place the CD into the optical drive.
 1. Place the Driver CD into the optical drive.
 2. Double click on My Computer.
 3. Double click on your optical drive to browse the CD.
 4. Double click the Setup.exe file to run the utility manually.
 5. Use the mouse cursor to click the Driver option on the page. 6.Driver setup utility will search for the devices you have.
 7. The utility will start a page with the drivers you may need.
 8. Click on the driver you want to install.
 9. The utility will invoke other applications to complete the rest of installation.
 10. Follow the installing instructions to finish the installation.
 11. Click on the next driver you want to install.
 12. Repeat steps 8 to 10 until you have installed all the drivers the utility has for you.

Installing Utilities

We also provide you some very useful utilities to enhance the experience of your computer. Just like installing drivers for your computer, you can follow the steps for installing driver until the menu of figure 4.1 shows up. Then, please go through the following steps.

- 1. Click Software and Update Utility option.**
- 2. Click on the software you want to install.**
- 3. The installation utility will start the installation wizard for the software you choose.**
- 4. Follow the instruction steps of the wizard.**
- 5. Repeat steps 2 to 4 if you want to install more.**
- 6. When you are done, simply close the Installation Utility.**



oose.

Trouble Shooting

Section 5

This section attempts to provide some tips for troubleshooting problems, as well as answer some frequently asked questions



5.1 System Does Not Start

- **No LEDs light and no sound can be heard from the computer:**
 1. **Make sure that the power cable is plugged in security. Inspect the cable to make sure there is no visible damage.**
 2. **Plug another, known-working appliance into the outlet to make sure the outlet is functioning. If available, try to use a different power cable.**
 3. **If the power cable and wall socket are OK, There may be a power supply failure. Contact your computer dealer for technical support and service.**
- **Keyboard and power LEDs light, and sound comes from the computer, but the monitor remains blank:**
 1. **Make sure the monitor is turned on and its power cable is securely plugged into a working outlet.**
 2. **Make sure the monitor display cable is plugged securely into the back of the computer. If available, try a different monitor, or try the monitor on a different VGA-compatible computer.**
 3. **If the monitor is powered on and known to be working, there may be a problem with the computer Main circuit board. Contact your computer dealer for technical support and service.**

5.2

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5.2 Keyboard and Mouse Problems

- **Keyboard doesn't take input, but mouse pointer moves when mouse is moved:**
 1. Make sure the keyboard, mouse or receiver is connected when you start the computer.
 2. If you inadvertently start the system with the keyboard disconnected, shut down the system by pressing and holding the power button on the system unit for at least four seconds.

- **Keyboard doesn't take input; mouse pointer does not move:**
 1. Make sure the mouse plug is inserted in the mouse connector on your computer and the keyboard plug is inserted into the keyboard connector on your computer.

5.3 USB Device Problems

- **Plug in any USB device but the display shows up as an unknown device in the Device Manager**
 1. **Install the driver for your USB device.**
 2. **Then plug in your USB device.**
- **USB device works when first plugged in, but does not work after system is woken from Standby mode:**
 1. **Force the device to configure by unplugging and then plugging it back in.**
 2. **Use a complete shutdown (hold the power button for four seconds) whenever you stop the system. It will force all devices to be reconfigured the next time the system starts.**

5.4

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5.4 Software Problem

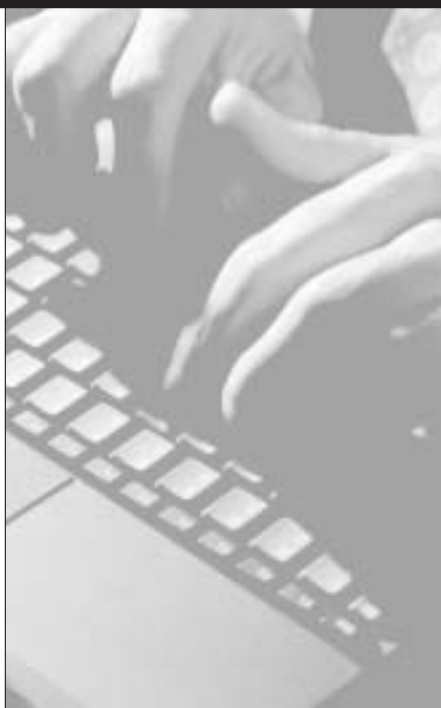
Good software is tested thoroughly before you receive it. However, software developers are human, and sometimes software encounters a situation that the programmers did not anticipate.

- A problem behaves erratically or refuses to accept user input:
 1. Wait a while. The problem might be busy processing data or waiting for some event, such as network activity.
 2. If possible, use the task bar to switch to other problems, save any documents that might be open, and close other programs. Then attempt to close the program that is misbehaving.
 3. If the problem does not close, press **Ctrl + Alt + Del** Keys together only once. The computer will give you the option of ending the task or waiting longer. If you press **Ctrl + Alt + Del** a second time, the computer will restart again if it can.
 4. Check for patches to fix from the software developer. Download the file/files and execute to update your software.
 5. As a last resort, if the computer totally ignores the mouse, keyboard, and power button, you can unplug the power cable, wait a moment, and then plug the power cable back in. It will force the computer to restart.
 6. If the problem persists, contact your computer dealer for technical support and service.



Section 6

Taking care of Your Computer



6.1 General Maintenance

Before you install any computer component, we recommend that you read the following instruction.

- Electrostatic discharge can damage the components of your computer. Do not remove a component from its protective packaging until you are ready to install it.
- Avoid transporting or using your computer in dirty or dusty environments. Use a clean container when you transport the computer.
- Avoid getting dirt and dust in the optical drive.
- Avoid spilling liquids on the computer.
- You can occasionally use a vacuum to clean the ports.
- Make sure that the computer is turned off before unplugging it.
- When you disconnect cords, remember to pull them by the plugs and not by the cords themselves. It will prevent damage to the cords, plugs, ports, and jacks.
- Maintain your OS environment by doing scan disk, virus scan, and defragment regularly.

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6.2 Safe Use of The System

To ensure that you can use your computer safely and correctly and increase the working lifetime of your computer, please read the following instructions. You will also reduce the chance of damage to your computer and personal injury to yourself.

- Be aware of all cautions and follow the instructions that may be marked on the computer.
- Except as described elsewhere in this manual, refer all servicing to qualified personnel.
Immediately shut off the computer and refer for servicing under the following conditions:
 1. When the power cord or plug is damaged or frayed.
 2. If liquid spills on the computer.
 3. If the computer is dropped or the chassis is damaged.
- Never push any objects of any kind into chassis openings. They may touch dangerous voltage points or short parts, which could result in fire or electrical shock.
- Turn off the computer before installing or removing a peripheral device, except USB, or IEEE 1394 devices.
- Turn off the computer and unplug it before cleaning.
- Do not expose the computer to direct sunlight.
- Keep the computer away from any magnetic devices or TVs.
- Do not use the computer in a dusty or dirty working area. Dust can damage and/or cause contamination of the unit, which can result in malfunction.
- Do not use your computer on an unstable working surface to prevent your computer from being knocked over and damaged.
- Keep all liquids away from the computer and its accessories.



Appendix

Installing Motherboard



A.1 Installing Mainboard

Before installing mainboard, users have to remove the two-side and top cover panels. Then remove the front cover panel for inserting the mainboard into the chassis.

Removing The Front Cover Panel

- There are four quick joints on the reverse side of front panel bezel as figure A.2. Press the quick joint hooks outward to release the front panel bezel.



Figure A.1

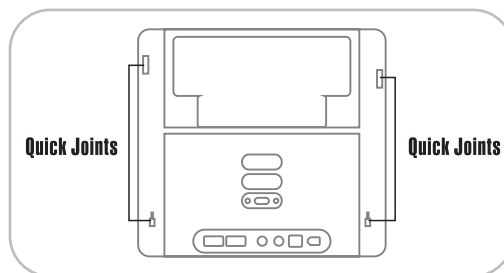


Figure A.2

- Use the screwdriver to remove the two screws on the base of chassis.



Figure A.3

nels. Then remove



Figure A.1

is

Figure A.2



Figure A.3

- Then use the screwdriver to remove the two screws on the top of front cover panel.



Figure A.4

Installing the mainboard

- Insert the mainboard from the side into the base of the chassis and place it close to the Back panel.

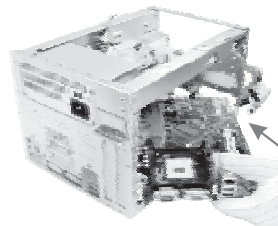


Figure A.5

- After fixing the mainboard on the base of the chassis, you will find there are six mounting holes of screws on the computer chassis and the mainboard. Use the screwdriver to fasten the screws.

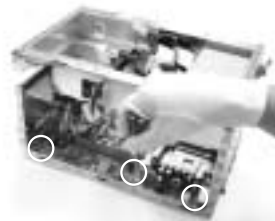


Figure A.6

- Connect the cable of LEDs indicator and front-panel switches to "JPANEL1" connector on the Mainboard.

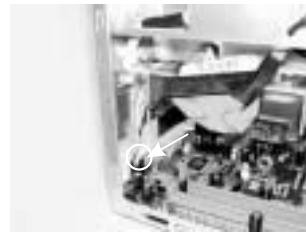


Figure A.7

- Connect the cable of system fan to "JSFAN1" connector on the mainboard.



Figure A.8

Completing the Installing

- Place the front panel back and fix it with four screws to complete the installation of mainboard.



Figure A.9

Note: The figures show the locations of connectors on M7NBA mainboard. Please refer to section 2 -- the mainboard layout of M7VBA for the correct locations of the connectors.