

KC19+

MAINBOARD MANUAL

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Handling Precautions

Warning:

1. Static electricity may cause damage to the integrated circuits on the mainboard. Before handling any motherboard outside of its protective packaging, ensure that your body is not electrostatically charged.
2. There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or an equivalent type of battery as recommended by the manufacturer.
3. Discard used batteries according to the manufacturer's instructions.

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.
- Ensure add-on cards, mainboards, and models do not come into contact with the golden fingers connectors, plugged into the expansion slot.

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

Trademark

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Handling Precautions

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Overview

The new 1stMainboard KC19+ is an ATX sized Slot 1 motherboard supporting the latest high speed Intel® Pentium® III 450 – 733 MHz and Pentium® II 350 – 450 MHz processors at FSB speeds of 100/133 MHz. With 2 RIMM there is support for up to 1GB of the new industry changing memory technology Rambus DRAM.

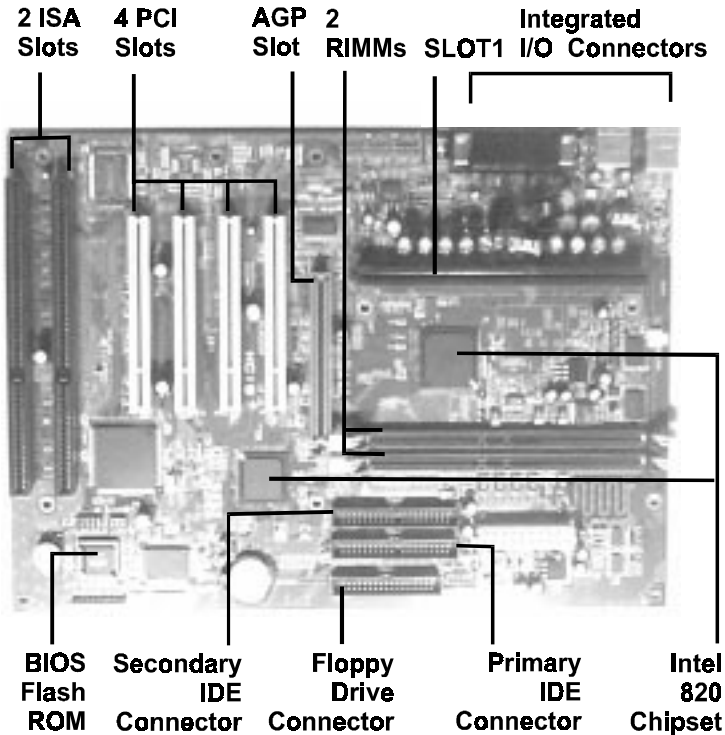
The KC19+ is based around the new Intel 820 Chipset which delivers a new level of superior performance and headroom with next generation RDRAM memory, while also being equipped with ECC memory support. The enhanced performance of AGP 4X graphics technology provides 1GB/s bandwidth, easily supporting new games and upcoming 3D-hardware.

The new HUB Architecture replaces the slow PCI bus (133MB/s) and relieves the previous bottleneck to I/O devices by doubling the bandwidth to 266MB/s. Support for the Ultra DMA/66 protocol and its high-speed interface further ensures that data transfer speeds are improved, especially for long sequential transfers required by audio/visual applications. The Intel 820 provides exceptional onboard audio and video capabilities reducing potential costs for system integrators by eliminating the cost of purchasing and assembling Audio/VGA cards.

Expansion is provided by 1 AGP, 4 PCI and 2 ISA slots. Standard I/O connections include 2 serial ports, 1 parallel port, 1 PS/2 mouse and keyboard connector, 2 USB connectors and 1 media connector (Line-in, Line-out and Mic-in).

The KC19+ is fully PC99 and Y2K compliant, and is ACPI ready, ensuring improved energy efficiency. Other features include hardware monitoring, Wake-On-LAN, CD Pro with enhanced drivers.

The KC19+ Mainboard



Package Checklist

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

- ö The mainboard with one C-RIMM module
- ö This user manual
- ö One floppy disk drive cable
- ö One HDD cable
- ö One ATA-66 cable
- ö CD-Pro Software utilities
- ö CD Plus Software tools

Main Features

■ Easy Installation

BIOS with support for Plug and Play, auto detection of IDE hard drives, LS-120 drives, IDE ZIP drives, Windows 95, Windows 98/98 SE, Windows 2000, and OS/2.

■ Leading Edge Chipset

Intel 820 chipset provide integrated memory controllers with new Dynamic Power Management Architecture (DPMA), concurrent PCI (2.0/2.1), AGP 1.0 compliant and USB.

■ Flexible Processor Support

Onboard CPU Slot supports:

Intel® Pentium® III 450-733+ MHz at 100/133 Front Side Bus

Intel Pentium® II 350-450 MHz at 100 Front Side Bus.

■ Versatile Main Memory Support

Accepts up to 1 GB RDRAM using two Direct RIMMs of 64, 128, 256, 512MB with support for lightning-fast RDRAM (800MHz).

■ Enhanced PCI Bus Master IDE Controller with Ultra DMA/33 and Ultra DMA/66 Support

Integrated Enhanced PCI Bus Master IDE controller features two dual-channel connectors that accept up to four Enhanced IDE devices, including CD-ROM and Tape Backup Drives, as well as Hard Disk Drives supporting the new Ultra DMA/66 protocol. Standard PIO Mode 3, PIO Mode 4, DMA Mode 2, DMA Mode 4 devices are also supported.

■ AGP, ISA, and PCI Expansion Slots

One AGP Bus expansion slot, four PCI Bus expansion slots, and two ISA Bus provide the room to install a full range of add-on cards.

■ Super Multi Input/Output (I/O) Support

Integrated Plug and Play multi-I/O chipset features two high-speed UART 16550 compatible serial ports, one EPP/ECP capable parallel port, and one FDD connector.

■ Convenient Rear Panel USB Connection Support

Two USB ports integrated in the rear I/O panel with one manufacturing optional USB connector for front panel connection allow convenient and high-speed Plug and Play connections to the growing number of USB compliant peripheral devices on the market.

■ Remote Wake On LAN Support

Onboard Wake On LAN (WOL) connector allows remote management on your network even when the system is powered off. The feature provides a more simple and convenient control for LAN-based networks.

■ Onboard Accelerated Graphics Port (AGP)

The motherboard is installed with one 32-bit AGP bus with a dedicated 66MHz/133MHz path from the graphics card to the system memory (in 4x mode), offering much greater bandwidth than the 32-bit PCI bus. The board is fully compliant with the AGP 1.0 specification. AGP enabled 3D graphics cards can directly access main memory across this fast path instead of using local memory. To make use of the improved AGP performance, the motherboard should be installed with SDRAM type memory and the VGA card Drivers should also be fully AGP compliant. Using Microsoft's Windows 98/SE and Windows 2000 which implement DirectDraw will allow the system to take full use of AGP's benefits without the need to install additional drivers.

ACPI Ready

This mainboard fully implements the new ACPI (Advanced Configuration and Power Interface) 1.0 Hardware and BIOS requirement. If you install a ACPI aware operating system, such as Windows 98/98 SE, you can fully utilize the power saving features under ACPI.

The mainboard is compatible with all other non ACPI-aware operating systems. If you want to setup ACPI features under Windows 98, please follow the instructions below:

Run Windows 98 setup by using **setup/p j** on the command line for installing Windows 98 with the ACPI control features.

If you type **setup** without the parameter **/p j**, Windows 98 will be installed as APM, PnP mode, no ACPI will be used.

For more detailed information, please visit the web site of Microsoft. The URL is : www.microsoft.com/hwtest/.



NOTE: If BIOS date is after 12/02/1999, the ACPI will be installed automatically. Users do not need to setup in the above-mentioned way.

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

■ BIOS Guardian

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

BIOS Guardian can be disabled as follows:

1. Go to BIOS Set Up Menu.
2. Disable BIOS Guardian.
3. Save the setting, and restart system.

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Installation Procedures

The KC19+ 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 switches
- Step 2 - Install system 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 (see Chapter Three)
- Step 7 - Set up 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.

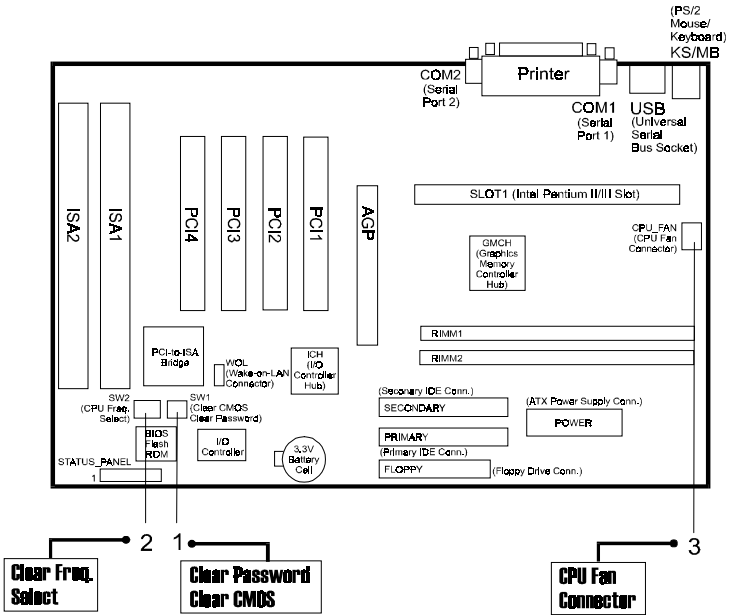
Mainboard components contain very delicate Integrated Circuit (IC) chips. To prevent static electricity from harming any of the mainboard's sensitive components, you should follow the following precautions whenever working on the computer:

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.



QUICK REFERENCE

*This Chapter is intended to aid quick and easy installation.
In the event that more detailed information is required,
please consult the Installation Procedures Chapter.*

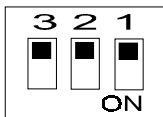


1). CPU Speed Select, Clear CMOS, Clear Password

1.1 CPU Speed Select

Ratio	SW2-1	SW2-2	SW2-3	SW2-4	CPU 100 (MHz)	CPU 133 (MHz)
3	OFF	ON	OFF	OFF	300	400
3.5	OFF	ON	ON	OFF	350	466
4	ON	OFF	OFF	OFF	400	533
4.5	ON	OFF	ON	OFF	450	600
5	ON	ON	OFF	OFF	500	667
5.5	ON	ON	ON	OFF	550	733
6	OFF	OFF	OFF	ON	600	800
6.5	OFF	OFF	ON	ON	650	866
7	OFF	ON	OFF	ON	700	933
7.5	OFF	ON	ON	ON	750	1000
8	ON	OFF	OFF	ON	800	1066

1.2 Clear CMOS/Clear Password



SW1-3: ON to clear password

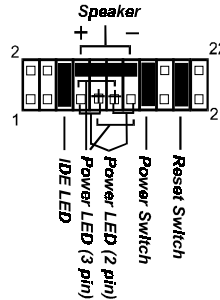
SW1-2: ON to clear CMOS

2). CPU Fan Installation

This connector is linked to the CPU fan. When the system is in suspend mode, the CPU fan will turn off; when it reverts back to full on mode, the fan will turn back on. Without sufficient air circulation, the CPU may overheat resulting in damage to both the CPU and the mainboard.

Damage may occur to the mainboard and/or the CPU fan if these pins are used incorrectly. These are not jumpers, do not place jumper caps over these pins.

3). Front Panel Block Cable Connection



4). Load Setup Defaults

Load default values for all SETUP items or press F9 key to setup defaults.

5). How to Upgrade BIOS



WARNING: Please disable the BIOS feature that related to BIOS Guardian before you start to reflash BIOS.

1. Format a bootable system floppy diskette by typing the command **format a:/s** in command mode.
2. Visit the the web site of the vendor and visit the BIOS Update page in the related Technical Support section.
3. Select the BIOS file you need and download it to your bootable floppy diskette.
4. Insert the bootable diskette containing the BIOS file into the floppy diskette drive.
5. Assuming that the floppy diskette drive is A, reboot the system by using the A: drive. At the A: > prompt, run the BIOS upgraded file by executing the Flash BIOS utility and the BIOS file with its appropriate extension.

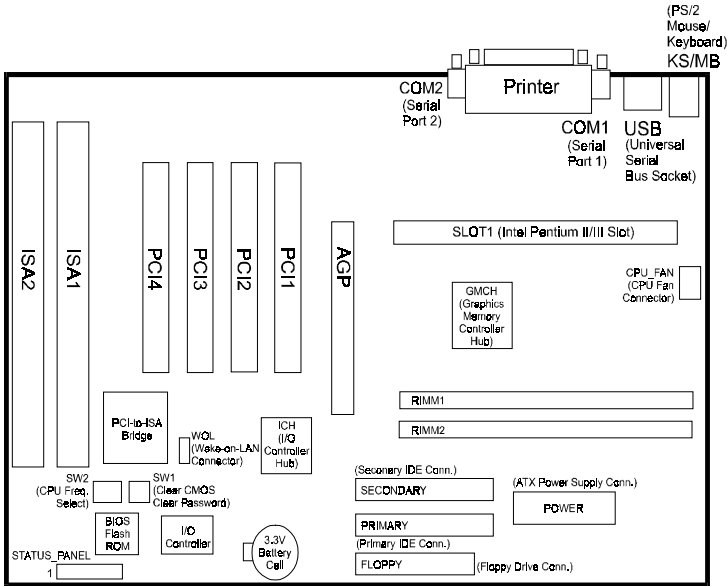
The files **Phlash.exe**, **Platform.bin**, and **ROM file** should be placed in the same directory.

Command: {flash tool file **Phlash.exe**} {space} {downloaded BIOS file, ROM file} <Enter>

Do not turn off or reset the computer during the flash process or there will be a problem booting up your system.

Mainboard Layout

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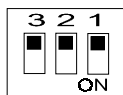


ONBOARD MARK	MEANING	PAGE
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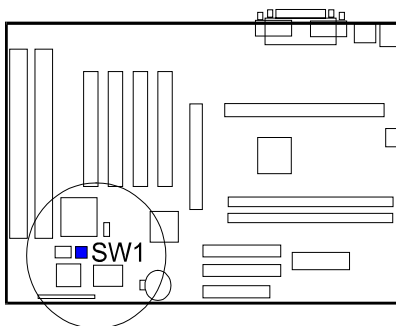
1). Set System Switches

Clear CMOS: SW1-2

The CMOS RAM is powered by the onboard button cell battery. To clear the RTC data: (1) Turn off your computer. (2) Move the CMOS Clear switch SW1-5 to “On” (Enabled). (3) Turn on your computer to display “CMOS checksum error”. (4) Turn off your computer. (5) Move the CMOS Clear switch SW1-5 to “Off” (Disabled). (6) Turn on your computer. (7) Hold down the **Delete** key while booting. (8) Enter the BIOS Setup to re-enter user preferences.

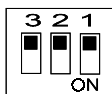


SW1-2: ON to clear CMOS



Clear Password: SW1-3

This switch allows you to enable or disable the password configuration. You may need to enable this switch by moving it to the “On” (Enabled) position if you forget your password. To clear the password setting: (1) Turn off your computer, (2) Move the Clear Password switch SW1-6 to “On” (Enabled), (3) Turn on your computer, (4) Hold down the **Delete** key during bootup and enter BIOS Setup to re-enter user preferences, (5) Turn off your computer, (6) Move the Clear Password switch SW1-6 to “Off” (Disabled), (7) Turn on your computer for the new settings to take effect.



SW1-3: ON to clear password

2). Install Memory Modules

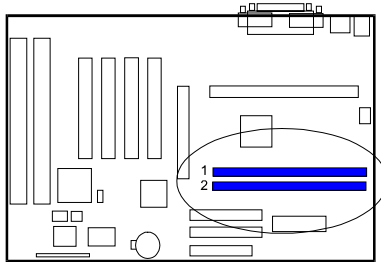
RAM Module Configuration

This mainboard provides two onboard RIMM sockets to support Direct RAMBUS (RDAM) modules. Either 64, 128, 256, 512 MB DIMM can be installed on these two sockets. If one DIMM socket leaves empty, it must have a C-RIMM module on it. (The C-RIMM module comes with this board.) The maximum total memory supported is up to 1 GB.

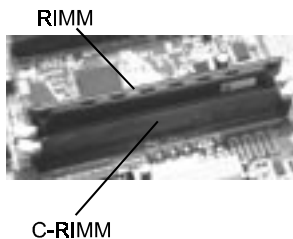


Install and Remove RIMMs

1. Locate the RIMM slots on the mainboard.



2. Install the RIMM straight down into the RIMM slot using both hands.
3. The clip on both ends of the RIMM slot will close up to hold the RIMM in place when the RIMM reaches the slot's bottom.



3). Install the CPU

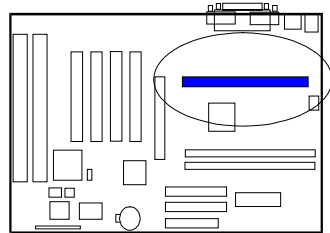
The CPU module resides in the SLOT1 on the motherboard. The Retention Mechanism Assembly that is foldable for saving space when shipping and packing had been installed on the board by the manufacturer. Please follow the steps introduced below to complete the CPU installation.



CAUTION:

1. Always turn the system power off before installing or removing any device.
2. Always observe static electricity precautions. See “Handling Precautions” at the start of this manual.
3. Inserting the chip incorrectly may damage the chip.

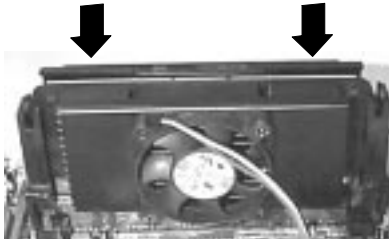
1. Locate SLOT1 on the mainboard.



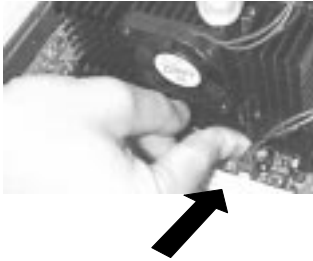
2. Pull out two columns of the Retention Mechanism Assembly upward to the right position.



3. Insert the CPU module downward along with the columns of the Retention Mechanism Assembly until it is inserted the SLOT1 firmly.

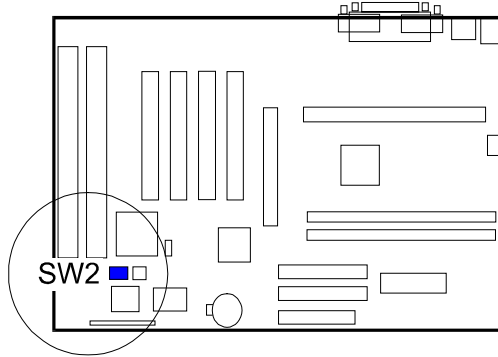


4. Hook the Heatsink Top Support to the Heatsink Support Base to affix the CPU module.



5. Connect the wire plug with the CPU fan.

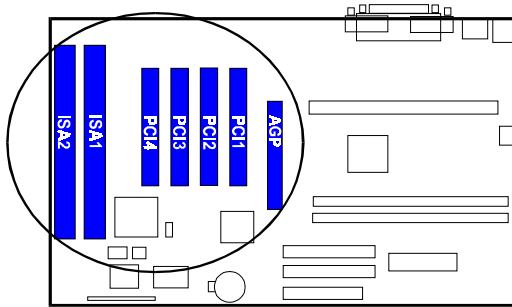
CPU Frequency Selection



Ratio	SW2-1	SW2-2	SW2-3	SW2-4	CPU 100 (MHz)	CPU 133 (MHz)
3	OFF	ON	OFF	OFF	300	400
3.5	OFF	ON	ON	OFF	350	466
4	ON	OFF	OFF	OFF	400	533
4.5	ON	OFF	ON	OFF	450	600
5	ON	ON	OFF	OFF	500	667
5.5	ON	ON	ON	OFF	550	733
6	OFF	OFF	OFF	ON	600	800
6.5	OFF	OFF	ON	ON	650	866
7	OFF	ON	OFF	ON	700	933
7.5	OFF	ON	ON	ON	750	1000
8	ON	OFF	OFF	ON	800	1066

4). Install Expansion Cards

This section describes how to connect an expansion card to one of your system's 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 four PCI bus, two ISA bus and one AGP bus expansion slot.



CAUTION: Please ensure 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.

Always observe static electricity precautions.

Please read "Handling Precautions" at the start of this manual.

To install an expansion card, follow the steps below:

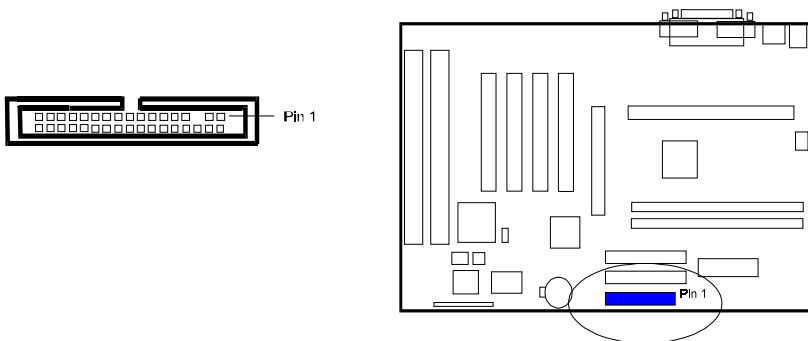
1. Remove the computer chassis cover and select an empty expansion slot.
2. Remove the corresponding slot cover from the computer chassis. Unscrew the mounting screw that secures the slot cover and pull the slot cover out from the computer chassis. Keep the slot cover mounting screw nearby.

3. Holding the edge of the peripheral card, carefully align the edge connector with the expansion slot.
4. Push the card firmly into the slot. Push down on one end of the expansion card, then the other. Use this “rocking” motion until the add-on card is firmly seated inside the expansion slot.
5. Secure the board with the mounting screw removed in Step 2. Make sure that the card has been placed evenly and completely into the expansion slot.
6. Replace the computer system’s cover.
7. Setup the BIOS if necessary.
8. Install the necessary software drivers for the expansion card.

5). Connect Devices

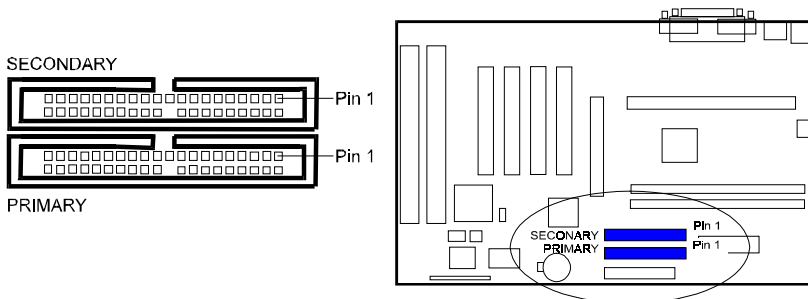
Floppy Diskette Drive Connector: FLOPPY

This connector provides the connection with your floppy disk drive. The red stripe of the ribbon cable must be the same side with the Pin 1.



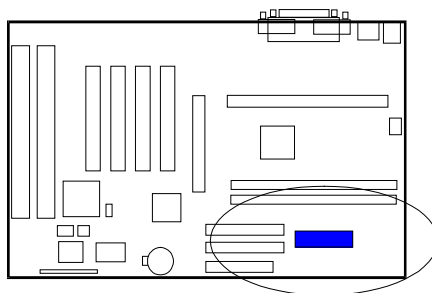
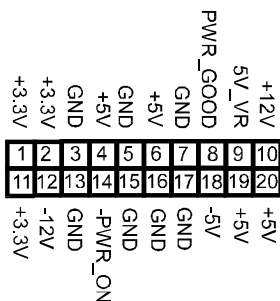
IDE HDD Device Connectors: PRIMARY, SECONDARY

These two connectors are used for your IDE hard disk drives, CD drives, LS-120 drives, or IDE ZIP drives. The red stripe of the ribbon cable must be the same side with the Pin 1.



ATX Power Connector: POWER

This 20-pin male block connector is connected to the ATX power supply. The plug from the power supply will only insert in one orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that the pins are aligned.

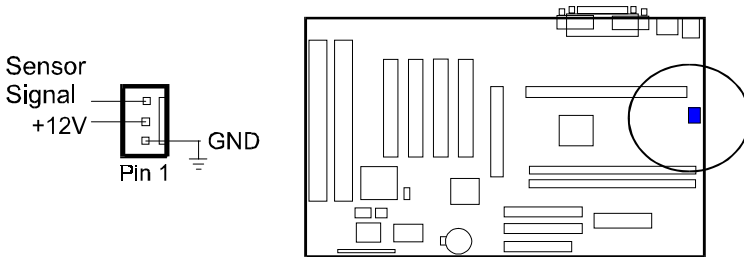


NOTE: The power supply must provide +3.3V voltage.

CPU Fan Connector: CPU_FAN

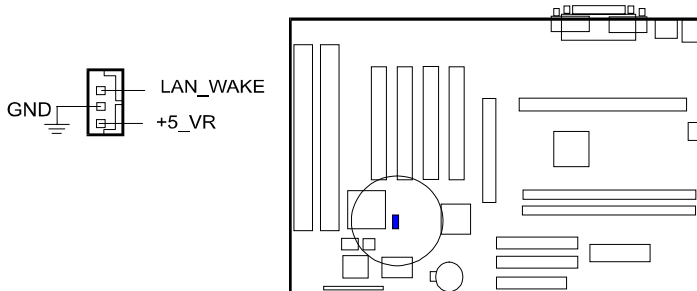
This connector is linked to the CPU fan. When the system is in suspend mode, the CPU fan will turn off; when it reverts back to full-on mode, the fan will turn back on. Please refer to the CPU fan installation manual for more information.

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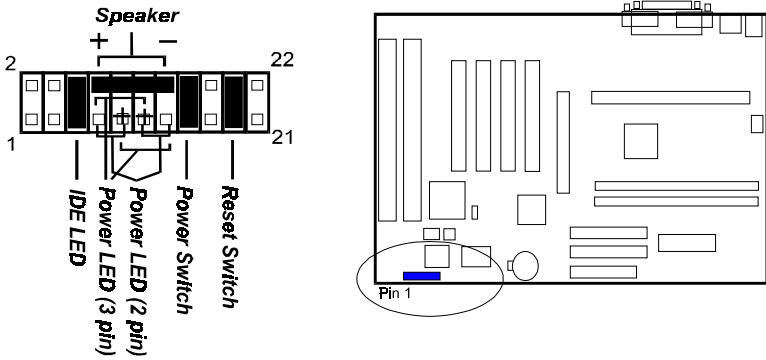
Wake-On-Lan Connector: WOL

This 3-pin connector allows system management by the removal of servers via your WOL supporting network adaptor.



Front Panel Block Connector: STATUS_PANEL

This block connector includes the connectors for linking with IDE LED, power LED, power switch, reset switch and speaker on the front panel of the system case. Please identify polarities of plug wires for the case speaker and LEDs. Please ask vendor about this information when you buy them and install the system by yourself. The plug wires' polarities of these buttons will not affect the function.



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

Power Switch is connected with remote power (soft power) switch. Push this switch This switch allows the system to be turned on and off rather than using the power supply switch.

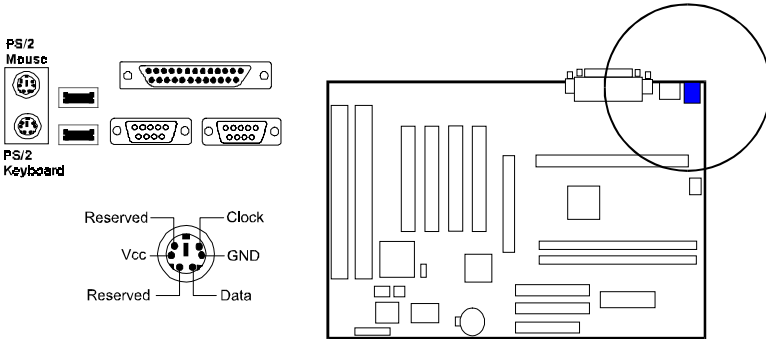
Power LED is connected with the system power indicator to indicate whether the system is on/off. It will blink when the system enters suspend mode.

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

Speaker is connected with the case speaker.

PS/2 Keyboard and Mouse Connector: KB, MS

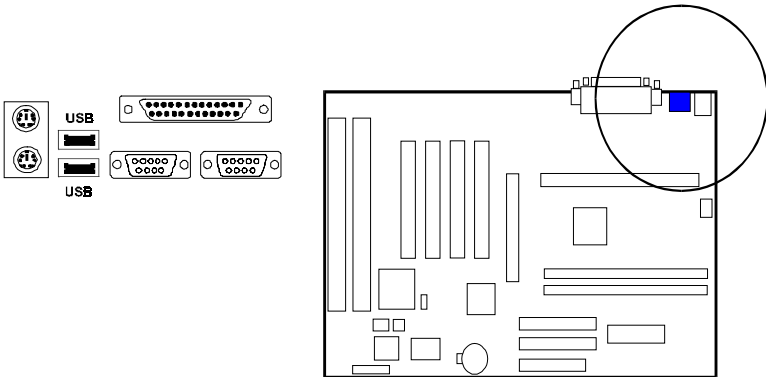
These two 6-pin female connectors are used for your PS/2 keyboard and PS/2 mouse.



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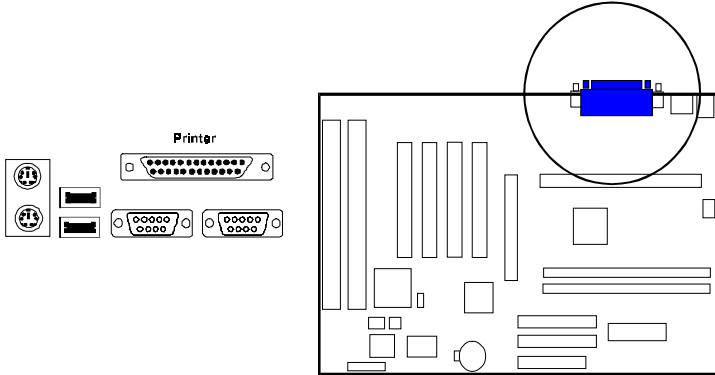
Universal Serial Bus Connectors: USB

These two connectors integrated on the edge of the board are used for linking with USB peripheral devices. Please note your operating system must support USB features, such as MS Windows 98/98SE/2000, MS Windows 95 OSR2.5 with USB Supplement.



Printer Connector: LPT

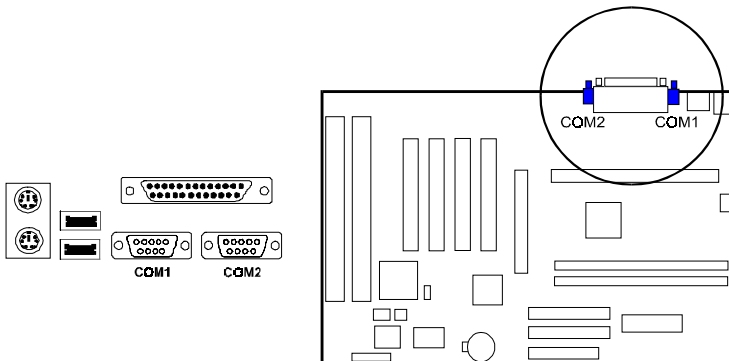
This 25-pin D-Sub female connector is attached to your printer.



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Serial Port Connectors: COM1, COM2

COM1 and COM2 allow you to connect your devices that use serial ports, such as a serial mouse or an external modem.



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BIOS Setup

The mainboard comes with the Phoenix BIOS chip that contains the ROM Setup information of your system. This chip serves as an interface between the processor and the rest of the mainboard's 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

Phoenix BIOS Setup Utility					
Main	Advanced	Security	Boot	Power	Exit
PnP Operating System		[No]	Item Specific Help		
Reset Configuration Date:		[No]	Selects whether the BIOS or a Plug-and-Play operating system (such as Windows 95) configures Plug-and-Play devices. This also affects integrated devices that are set to <Auto>.		
PS/2 Mouse		[Auto Detect]			
System Time:		[15:06:08]			
System Date:		[12/15/1999]			
NumLock:		[Auto]			
Key Click:		[Disabled]			
Keyboard auto-repeat rate:		[30/Sec]			
Keyboard auto-repeat delay:		[1/2 Sec]			
Process Serial Number		[Disabled]			
After Power Failure		[Stay Off]			
F1 Help	↑↓ Selected Item	F7/F8 Change Values	F9 Setup Default		
Esc Exit	←→ Select Menu	Enter Select ► Sub-Menu	F10 Previous Values		

A Setup program, built into the system BIOS, is stored in the CMOS RAM. This Setup utility program allows changes to the mainboard configuration settings. It is executed when the user changes system configuration; user changes 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.

Each item may have one or more option settings. A brief explanation was offered beside the target feature. The system BIOS automatically detects memory size, thus no changes are necessary. Use the arrow keys to highlight the item and then use Enter key to select the value you want in each item. The bottom of the top menu lists all of these keys that to opeature the setup menus.

Six setup menu screens are provided for users to configure the BIOS settings. They are-

Main:	Setup system resoureces for hardware.
Advanced:	Advanced features for the core chipset of the board.
Security:	Input your passwords and setup security features.
Boot:	Setup boot options arnd power supply parameters
Power:	Configure power management features.
Exit:	Change or unchange the settings



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

FAQs

General FAQs

How do I know which version BIOS I have?

Check it on the boot screen, click [Pause/Break] button to give you time to write it down.

How to install a PS/2 mouse?

Enable PS/2 in Advanced Setup (AMI BIOS). There is a label on the board which points to pin number one when connecting the PS/2 mouse adapter on the board. The Pin number two is not connected because the female connector (on PS/2 Mouse adapter) doesn't have wire on number two slot. The PS/2 mouse port is a 5 pins pin header which is located beside keyboard socket.

Can I use ECC memory?

Yes, provided your chipset supports it. Check your manual (Overview section) or consult the chipset manufacturer's Web site (Intel or VIA).

How do I know which FLASH chip I have?

Partially remove the sticker from the chip to check the name of the manufacturer. Usually the jumper setting is set correctly in the factory.

How can I get the USB drivers?

Download Microsoft USB Supplement and a set of generic USB Drivers from Drivers and Utilities Page. You must have Windows 950B (Service Release II, "Windows97") to install these. These drivers resolve the yellow exclamation mark problem (Unknown Devices, USB) in Device Manager. It is recommended to install Windows 98/98 SE; as it provides built-in USB drivers.

What is the DMI utility used for?

The DMI Configuration Utility can be used to maintain the Management Information Format Database (MIFD). DMI is also able to auto-detect and record information pertinent to a computers system such as the CPU type, CPU speed and internal/external frequencies and memory size. The onboard BIOS detects as much system information as possible and stores it in a 4KB Block in the motherboards Flash EPROM and allows the DMI to retrieve data from this database. The DMI utility also allows the system integrator or end user to add additional information into the MIFD such as serial numbers, housing configuration and vendor information. This information cannot be detected by the motherboards BIOS and has to manually entered through the DMI Configuration utility and updated into the MIFD.

Where can I get the drivers for PCI set motherboards?

To download the drivers you need, visit the chipset vendor's website Drivers and Utilities Page. There you will see links to FAQs and other Web sites that explain in detail how to install the drivers.

How do I use the DMI Utility?

Take care in using this utility as your system can become totally unusable after altering and saving some configurations on DMI. DMI Utility should not be run from Windows or DOS version higher than v6.22.

If you accidentally alter some settings using DMI Utility under Windows95 (or MS-DOS that comes with it), flash the system BIOS immediately, do not reboot. (We recommend using DOS 6.22 as Win 95 (when applying the DMI Utility) will sometimes show a insufficient error message, when loading the Flash Utility. In that case, the other option is to use the Boot Block feature on the BIOS. Use an ISA VGA card for the system to allow them to boot at least on drive "A" (using DOS 6.22 of course) so you will be able to flash the BIOS at least. If you use DMI from Windows95 DOS prompt or Restart in MS-DOS mode, you will not be able to restart the PC.

Why not update BIOS?

In 90% of cases, a BIOS update is released to address a problem with a particular piece of hardware or software. Therefore, the new BIOS gives the system some new (different) parameters to work with. Newer BIOS'es contain all fixes from previous versions. If the fix list of a new BIOS does NOT address any of problems that you may have, it is unreasonable to update BIOS only for sake of it, because you may be using a combination of hardware/software that is incompatible and yet-untested with the BIOS version you're upgrading to.

It is recommended to refrain from updating BIOS without a good reason. If you don't see your problem listed in the fix list, do not update BIOS. It is better go to a shareware Web site (winfiles.com, shareware.com, tucows.com) and update your software.

And finally, some 10% of BIOS updates contain new CPU ID strings and code enhancements (ACPI, etc.). For those an update is recommended only when it is necessary (i.e. the processor ID does not display properly, the system must have ACPI, etc.).

A typical situation occurs when a user wants to update BIOS because the new version supports a CPU he/she "plans" to buy sometime in the future. With some bad luck, the user ends up with a wrong BIOS (wrong PCB, or chipset, or I/O or all of them) and a destroyed BIOS.

BIOS FAQs



WARNING: Please disable the BIOS feature that related to BIOS Guardian before you start to reflash BIOS. Also, do not turn off or reset the computer during the flash process.

How do I flash a new BIOS?

The mainboard package provides a BIOS flash software tool in the software utility CD-ROM. This software feature is provided for upgrading BIOS use. Play the CD-ROM, click on *Browse CD*, select *Flash*, then choose the BIOS vendor that provided the BIOS this board came with. Please print the relating README file and read it first. For more information, please visit FIC Online at www.fic.com.tw.

Downloading BIOS File

Format a bootable system diskette and then, visit the FIC website at www.fic.com.tw. Click *BIOS/Drivers Update* item under **BIOS** group, then select the BIOS file you need. Download it to your bootable diskette.

Upgrading BIOS File

Place the bootable diskette containing the BIOS file in the diskette drive (Assume the diskette drive is A.), and reboot the system from the A drive. At the A: > prompt, execute the BIOS upgrading procedure by entering the Flash BIOS utility and the BIOS file with its extension. (*The files Phlash.exe and Platform.bin should be placed in the same directory.*)

Command: {flash tool file **Phlash.exe**} {space} {downloaded BIOS file}
<Enter>

The other parameters are listed in the related README file, please read it if necessary.

After press the *Enter* key, type Y to the message **Press “Y” to Continue, “N” to Reboot**. Press *Enter* key. When the message **Press Any Key to Restart the System**, appears, the procedure is completed. Press any key to reboot.

What is "Hardware-based intelligent virus protection"?

This is a new BIOS feature based on anti-virus (AV) software that protects the system from boot-time viruses. It is intelligent in the sense that it uses rules modeled after viruses behavior. For example, it can tell the difference between normal writing to HDD boot sector and virus-attempted writing. It unloads after boot-up so it does not provide total protection and is not intended to serve as replacement for regular anti-virus software.

This utility only includes a Scan Function and not a Virus Delete Function. There are no virus definition files to update.

When I try to flash BIOS I get an error message saying there is a wrong part number. Why?

Flash EPROM ("BIOS") chips used on FIC motherboards vary (Intel, AMD, Fujitsu, etc.). As far as this problem is concerned, there are two possible reasons:

- a) You may have used a wrong BIOS or flash utility. Verify that both the BIOS file and the flash utility are the right versions.
- b) The flash utility you used did not recognize the type of flash EPROM installed on your motherboard. Verify that you have the right files and if you're sure in that, ignore the warning.

I updated my BIOS and am not satisfied with the result (slower performance, new bugs, etc.). What now?

Restore the old BIOS or wait until a newer BIOS is available. You should use the flash utility supplied with the old BIOS and NOT the flash utility you got with the new BIOS. If you do not know what flash utility it was, consult the Web support pages or contact technical support.

Windows 98/98 SE FAQs

What is the correct installation procedure for VIA-based mainboards?

There are four steps:

- 1) Go to BIOS Setup and enable USB
- 2) Install Win98/98 SE on your system
- 3) Install the patch files and other drivers that are contained in the CD-Pro
- 4) Install your add-on card drivers



NOTE: If your video performance became unstable after the above installation was completed (especially if a VGA card driver was installed in Step 4), please execute Step 3 again. It should solve the problem. This is possible as most probably, the driver version of the add-on card is earlier than that of the patch files and drivers contained in the CD-Pro.

Windows 95 FAQs

How can I know if a software is compatible with FIC mainboards?

Each FIC board is tested with a variety of operating systems and applications. Compatibility reports are published every time new or updated models of a motherboard are released. Compatibility reports can be downloaded from individual mainboard support pages or from the FIC FTP Server (opens in a new window).

Windows95 shows an exclamation mark next to USB device on my mainboard. Is there any driver that can help me?

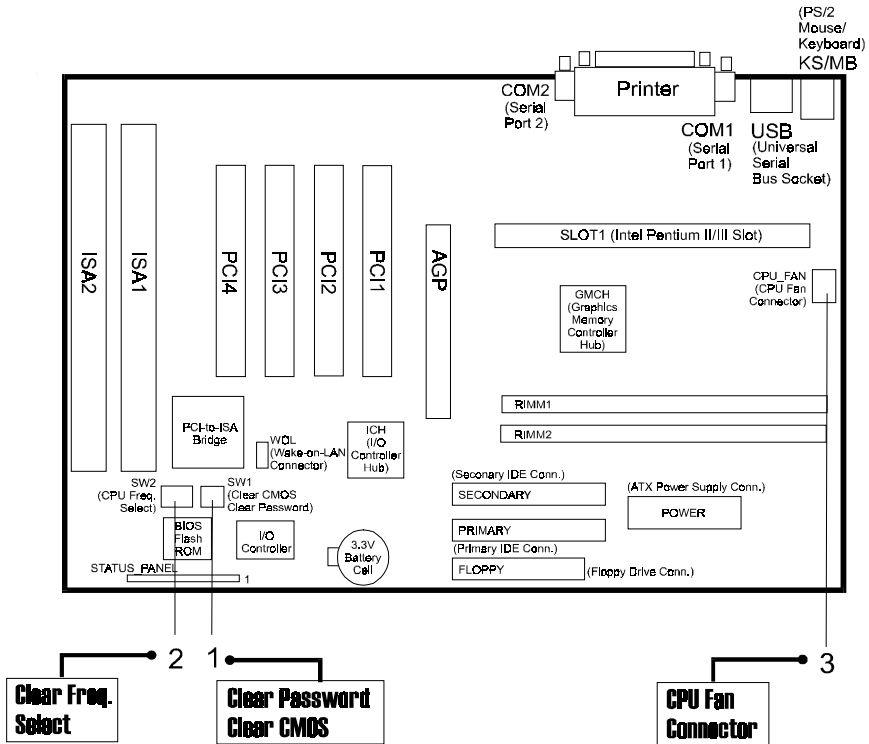
If an exclamation mark appears on the USB Serial Bus, PC Bridge, the Windows 95 does not support your USB device. You will need to install the USB drivers to fix it.



 **QUICK REFERENCE**

*This Chapter is intended to aid quick and easy installation.
In the event that more detailed information is required,
please consult the Installation Procedures Chapter.*

KC19+ Quick Reference

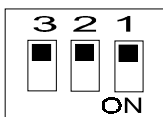


1). CPU Speed Select, Clear CMOS, Clear Password

1.1 CPU Speed Select

Ratio	SW2-1	SW2-2	SW2-3	SW2-4	CPU 100 (MHz)	CPU 133 (MHz)
3	OFF	ON	OFF	OFF	300	400
3.5	OFF	ON	ON	OFF	350	466
4	ON	OFF	OFF	OFF	400	533
4.5	ON	OFF	ON	OFF	450	600
5	ON	ON	OFF	OFF	500	667
5.5	ON	ON	ON	OFF	550	733
6	OFF	OFF	OFF	ON	600	800
6.5	OFF	OFF	ON	ON	650	866
7	OFF	ON	OFF	ON	700	933
7.5	OFF	ON	ON	ON	750	1000
8	ON	OFF	OFF	ON	800	1066

1.2 Clear CMOS/Clear Password



SW1-3: ON to clear password

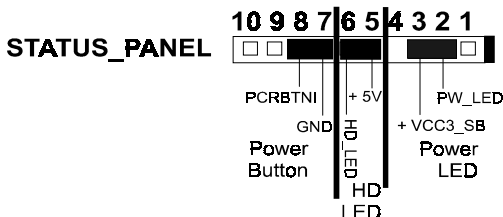
SW1-2: ON to clear CMOS

2). CPU Fan Installation

This connector is linked to the CPU fan. When the system is in suspend mode, the CPU fan will turn off; when it reverts back to full on mode, the fan will turn back on. Without sufficient air circulation, the CPU may overheat resulting in damage to both the CPU and the mainboard.

Damage may occur to the mainboard and/or the CPU fan if these pins are used incorrectly. These are not jumpers, do not place jumper caps over these pins.

3). Front Panel Block Cable Connection



4). Load Setup Defaults

Load default values for all SETUP items or press F9 key to setup defaults.

5). How to Upgrade BIOS

1. Format a bootable system floppy diskette by typing the command **format a:/s** in command mode.
2. Visit the the web site of the vendor and visit the BIOS Update page in the related Technical Support section.
3. Select the BIOS file you need and download it to your bootable floppy diskette.
4. Insert the bootable diskette containing the BIOS file into the floppy diskette drive.
5. Assuming that the floppy diskette drive is A, reboot the system by using the A: drive. At the A: > prompt, run the BIOS upgraded file by executing the Flash BIOS utility and the BIOS file with its appropriate extension.

The files **Phlash.exe**, **Platform.bin**, and **ROM file** should be placed in the same directory.

Command: {flash tool file **Phlash.exe**} {space} {downloaded BIOS file, ROM file} <Enter>

Do not turn off or reset the computer during the flash process or there will be a problem booting up your system.