FA13

MAINBOARD MANUAL

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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

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

Handling Precautions

Overview

The new Socket 370 1stMainboard FA13 supports the latest high speed Intel® Pentium® III 450 – 933* MHz and Celeron ™ 433 – 633* MHz processors at FSB speeds of 66/100/133 MHz. Support for the new Cyrix III processors is also provided at a FSB speed of 100MHz. The 1stMainboard FA13 is constructed around the ever popular and reliable VIA® Apollo Pro 133 chipset and with 4 DIMM offers support for up to 1 GB of SDRAM memory with ECC.

The 1stMainboard FA13 comes with a versatile range of I/O features such as 2 serial ports, 1 parallel port, 1 PS/2 mouse and 1 keyboard connector, 2 USB connectors. In addition, the 1stMainboard FA13 comes equipped with 2 dual channeled enhanced PCI bus master IDE connectors. This ATX sized solution has plenty of room for expansion through 1 AGP, 5 PCI and 2 optional ISA slots.

The 1stMainboard FA13 also boasts Auto Power Failure Recovery, Keyboard/ Mouse Power On functions, is ACPI ready and is also PC99 (ISA option) and Y2K compliant. Included is the CD Pro disc with enhanced drivers and the new CD Plus package containing 9 bundled software solutions including Norton AntiVirus, Ghost, Virtual Drive.

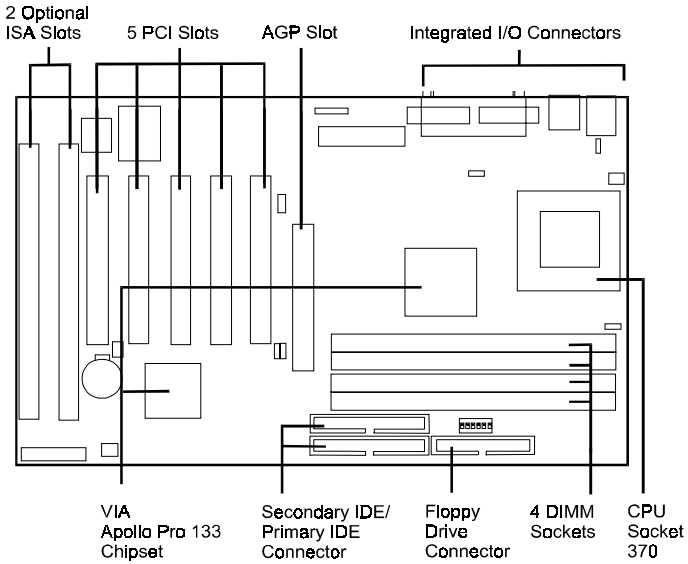
** Not yet tested*

Package Checklist

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

- ☑ The mainboard
- ☑ This user manual
- ☑ One FDD cable
- ☑ One HDD cable
- ☑ Advantage Card
- ☑ One ATA/66 cable
- ☑ Two Software CDs (CD Pro, CD Plus and its manual)

The FA13 Mainboard



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, Windows 2000, Windows NT 4.0,and OS/2.

- Leading Edge Chipset

  VIA Apollo Pro 133 chipset includes a CPU interface controller, integrated memory controller, integrated power management unit, concurrent PCI (PCI v.2.0 and 2.1), 3D video, IDE and ISA bus controller.

- Versatile Main Memory Support

  Accepts up to 1 GB DRAM using four DIMMs of 32, 64, 128, 256MB with support for lightning-fast SDRAM (66/100/133 MHz).

- Flexible Processor Support

  Onboard CPU socket supports:
  Intel® Pentium ®III Processor FC-PGA 450-950* and up at 100/133 MHz FSB

  Intel® Pentium ®III Processor FC-PGA 750 MHz at 100 MHz FSB
  and
  Intel® Pentium ®III Processor FC-PGA 733 MHz at 133 MHz FSB

  Intel® Celeron™ PPGA 433-633* MHz and up* at 66 MHz FSB
  Cyrix® III 433/466/500/533/566 MHz* and up* at 100/133MHz FSB
  (*: not tested yet)

- ISA and PCI Expansion Slots

  Two 16-bit ISA Bus and five 32-bit PCI Bus expansion slots provide the room to install a full range of add-on cards.

NOTE:
1. The PCI5 slot is shared with the (optional) ISA1 Slot.
2. The PCI5 slot only allows a slave card on it.

- Enhanced PCI Bus Master IDE Controller with 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 Ultra DMA/33/66 protocol. Standard PIO Mode 3, PIO Mode 4, DMA Mode 2, DMA Mode 4 devices are also supported.

- USB Support
  The integrated I/O connector on the edge of the board for allowing convenient, high-speed Plug and Play connections (up to four USB ports) to the growing number of USB compliant external peripheral devices on the market.

NOTE: USB3 connector is manufacturing optional.

- Remote Wake-Up Support
  One LAN wake-up connector, WOL, supports LAN cards equipped for remote wake-up functionality; also, an additional Wake-On-Ring connector awakes the system while the ring signal via modem.

- 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 IR connector, one EPP/ECP capable parallel port, and one FDD connector.

- SB-LINKô for the Audio Card with PCI Bus
  The 2x3 pin SB-LINKô header accepts the Creative CT4600 series PCI audio cards with PCI solution to connect the Legacy Sound Blasterò compatible audio to the PCI bus.

- Onboard Accelerated Graphics Port (AGP)
  The motherboard is installed one 32-bit AGP bus with a dedicated 66MHz/133MHz path from the graphics card to the system memory offering much greater bandwidth than the 32-bit PCI bus does. 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 and drivers should also be fully AGP compliant. Using Microsoft's Windows 98 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 ACPI aware operating system, such as Windows 98, you fully utilized the power saving under ACPI. *(Windows 2000 Professional supports ACPI functions.)*

It is compatible with all other none ACPI operating systems. If you want to setup ACPI feature under Windows 98, please follow the description below:
Run Windows 98 setup by using **setup/p j** on the command line for installing Windows 98 with the ACPI control feature.
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 detail information, please visit the web site of Microsoft. Its address 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

■ LogoGenie

A user friendly GUI supporting Windows 98, LogoGenie allows you to customize, create or select a Logo which will be displayed when the system is booting.

Before execute this LogoGenie function, please make sure the related BIOS feature, BIOS Guardian, is disabled; and refer to its related README file.

NOTE:
1. LogGenie supports Award BIOS only.
2. If you create a Logo file (.bmp) by LogoGenie, the file size must be 640 x 464 x 16 colors (around 145K).

To enable this utility, please proceed as follows:

1. Insert CD Pro 4.X. Select LogoGenie from the Menu and follow the installation instructions.
2. After LogoGenie has been installed, go to Windows Start Box. In Programs Menu, select LogoGenie. Click three check boxes in the pop-up menu for making sure of the BIOS feature (*BIOS Guardian*) and other anti-virus software are disabled. Read README file carefully. After all these, the next procedure proceeds.
3. In LogoGenie Dialogue Box, choose one of 3 options; and then proceed as introduced in 4 or 5 steps listed on the left hand side of the Dialogue Box.
4. After complete the last step, press OK. The system will reboot to restore the BIOS with your new customized Logo.
5. The system will automatically restart with your customized Logo that appears in background.

WARNING: While excute Step3 below, please do not turn off the sytsem power in order to avoid BIOS damage.

■ BIOS Guardian

BIOS Guardian by default is enabled. It must be disabled in order to reflash BIOS, thus effectively acts 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. (Press **Del** key while booting.)
2. Go to BIOS Features Set Up Submenu.
3. Disable BIOS Guardian.
4. Save the setting, and restart system.

NOTE: However, if it is disabled and while boot the system, the POST screen will be held and shows you the message to let you know the current status of BIOS Guardian. To press **G** key will enable the BIOS Guardian again; or simply to press the **space bar** will continue the booting process.

■ Easy Key

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

Easy-Keys are as follows:

Ctrl + c: To enter clock settings menu.
Ctrl + p: To load Performance Default settings and restart.
Ctrl + f: To load Fail-Safe Default settings and restart.

■ Overclock Partner

Should the system not start because clock speed settings have been increased to a speed incompatible with the system, the Overclock Partner allows you to reboot at system default settings, protecting hardware from any damages caused by changes to the BIOS.

Complete the following steps:

1. Turn the system off.
2. Restart while holding down the **Insert** key. It is important that the **Insert** key is held down until the default clock speed is shown on the POST screen.
3. Enter BIOS setting menu, and re-set clock speed desired or default.

■ Clockometer

Clockometer is a Windows 98 compatible, attractive and user friendly Graphic User Interface (GUI). Clockometer enables you to change clock speed settings directly, without having to enter the BIOS Sub-Menus. With the on-screen display panel you can easily monitor your new clock speed settings with gauges that identify your system speed, Front Side Bus settings and CPU Ratios

On screen buttons:

1. "+" and "-" buttons : adjust the Front Side Bus (FSB)and CPU ratio. (the 'hand' cursor means the active button)
2. "OK" button : changes the FSB and CPU ratio (if adjustable) set tings right away. If you do not save your new setting, your system will not implement the new setting when rebooting the next time.
3. "SAVE" button : save your new settings for rebooting the computer.
4. "Quit" button will escape the Clockometer program.
5. In order to run the other application programs more smoothly, it is strongly recommended to restart your computer after completing any adjustments.

Installation Procedures

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

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

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

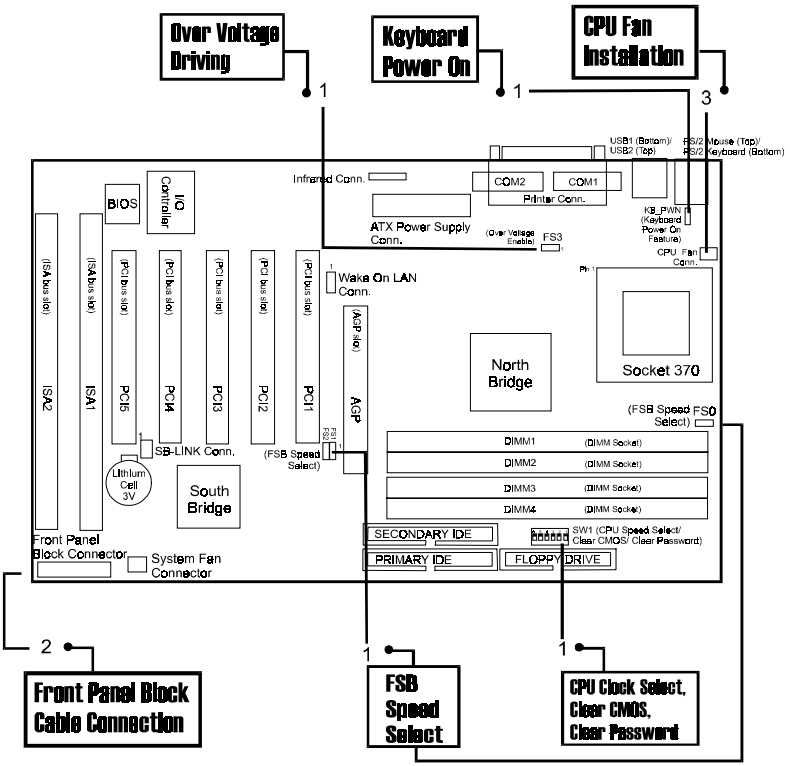
WARNING: Excessive torque may damage the mainboard. When using an electric screwdriver on the mainboard, make sure that the torque is set to the allowable range of 5.0 ~ 8.0kg/cm.

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 some 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 (from Page 2-2 to 2-4)

Mainboard Layout



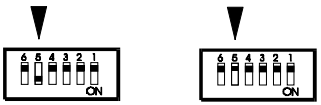
NOTE:
1. The PCI5 slot is shared with the (optional) ISA1 Slot.
2. The PCI5 slot only allows a slave card on it.

1). CPU/BUS Speed Ratio Select, Clear CMOS, Clear Password, FSB Speed Select, Over Voltage Driving, Keyboard Power On

CPU Speed (Hz)			SW1-1	SW1-2	SW1-3	SW1-4
133M	100M	66M				
333M	250M	166M	ON	ON	ON	OFF
400M	300M	200M	ON	OFF	ON	ON
466M	350M	233M	ON	OFF	ON	OFF
533M	400M	266M	ON	ON	OFF	ON
600M	450M	300M	ON	ON	OFF	OFF
667M	500M	333M	ON	OFF	OFF	ON
733M	550M	366M	ON	OFF	OFF	OFF
800M	600M	400M	OFF	ON	ON	ON
866M	650M	433M	OFF	ON	ON	OFF
933M	700M	466M	OFF	OFF	ON	ON
1G	750M	500M	OFF	OFF	ON	OFF
1066M	800M	533M	OFF	ON	OFF	ON

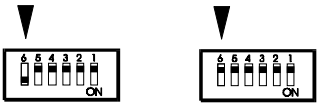
Note: For the ratio that higher than 8.0x, please use a ratio-locked CPU and also select Auto Detect on FSB Selection if you use an Intel CPU.

SW1-5 (Clear CMOS)



Enable (Clear CMOS) *Disable (Default)*

SW1-6 (Clear Password)



Enable (Clear Password) *Disable (Default)*

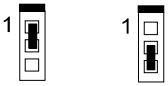
CPU	Front Side Bus	FS0	FS1	FS2
Cyrix	66	1-2	2-3	2-3
	100		2-3	1-2
	133		1-2	1-2
Intel	66	2-3	2-3	2-3
	100		2-3	open
	133		open	open
	Auto Detect		1-2	1-2

FS3 (Over Voltage Driving)

Enable *Disable (Default)*

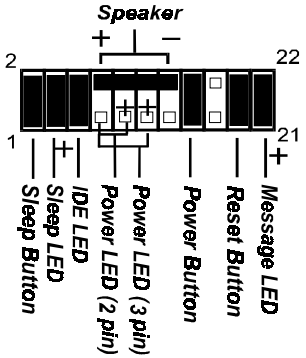
Caution:
Voltage and Frequency above CPU's original specifications are NOT guaranteed to be stable.

KB_PWN (Keyboard Power On)



Enable *Disable (Default)*

2). Front Panel Block Cable Connection



3). CPU Fan Installation

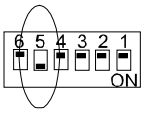
This connector is linked to the CPU fan. When the system is in suspend mode, the CPU fan will turn off; when it reverts back to full on mode, the fan will turn back on. Without sufficient air circulation, the CPU may overheat resulting in damage to both the CPU and the mainboard.

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.

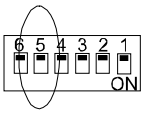
1). Set System Switches/Jumpers

Clear CMOS: SW1-5

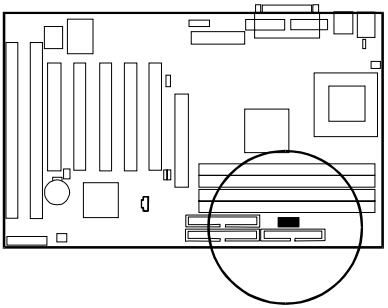
The CMOS RAM is powered by the onboard button cell battery. To clear the RTC data: (1). Turn off your computer, (2). Enable this feature by setting the SW1-5 to On position, (3). Turn on your computer to boot the system, (4). Turn off the computer, (5). Disable the Clear CMOS feature, (6). Turn on the computer. (7). Hold down the Delete key when boots and enter BIOS Setup to re-enter user preferences.



Enable (Clear CMOS)

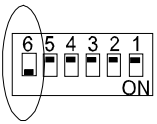


Disable (Default)

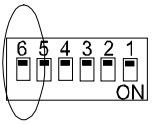


Clear Password: SW1-6

This switch allows you to enable or to disable both the keyboard and system password settings. You may need to adjust it if you forget your password. To clear the password setting: (1). Turn off your computer, (2). Enable this feature by setting the SW1-6 to On position, (3). Turn on your computer to boot screen, (4). Turn off your computer, (5). Disable the Clear Password feature by setting the SW1-6 to Off position, (6). Turn on your computer.



Enable (Clear Password)

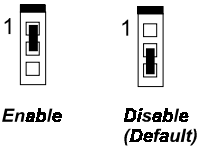


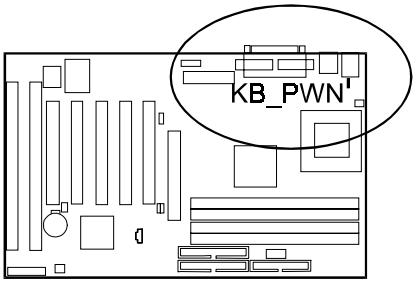
Disable (Default)

NOTE: When SW1-6 set at Enabled, the keyboard password (K/B Wake-up function, BIOS Setup) will be cleared too. Users can power on the system by pushing power button.

Keyboard and Mouse Power-On Feature: KB_PWN

The 3-pin jumper provides you with the capability to power on the system by simply touching your keyboard or mouse. To enable this feature, you have to set this jumper and the related BIOS feature that introduced in **Integrated Peripherals** section.



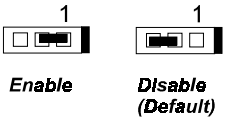


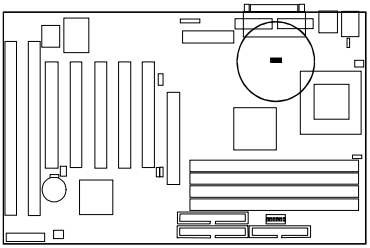
NOTE: To use this function and WOL connector together, your power supply should have a current of above 1A at 5 V Stand-by.

Enabling Over Voltage Driving: JS3 (Magic Tuner)

When you play video game, this 3-pin jumper allows you to start the over voltage driving capability of this mainboard to approach the best performance.

WARNING: Voltage and frequency above CPU's specifications are not guaranteed to be stable.





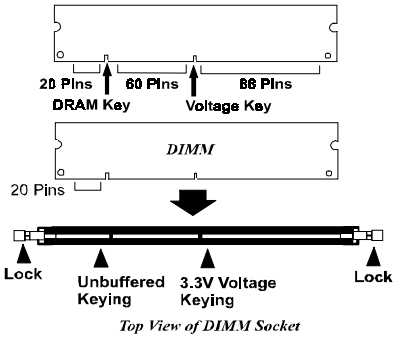
2). Install RAM Modules

RAM Module Configuration

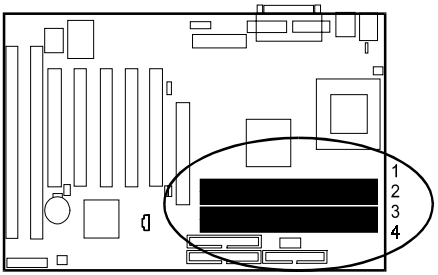
This mainboard provides four onboard DIMM sockets for allowing 3.3V (unbuffered) SDRAM DIMM modules. Either 32, 64, 128, 256MB DIMM can be installed on these four sockets. The maximum total memory supported is up to 1GB.

Install and Remove DIMMs

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



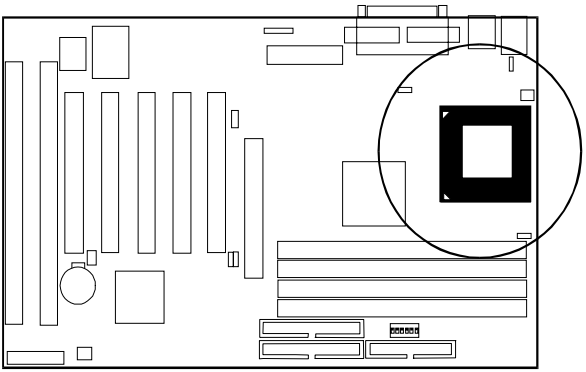
Top View of DIMM Socket



Press the clips with both hands to remove the DIMM.

3). Install the CPU

The CPU module resides in the ZIF PGA370 socket on the motherboard.



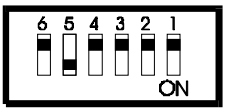
CAUTION:

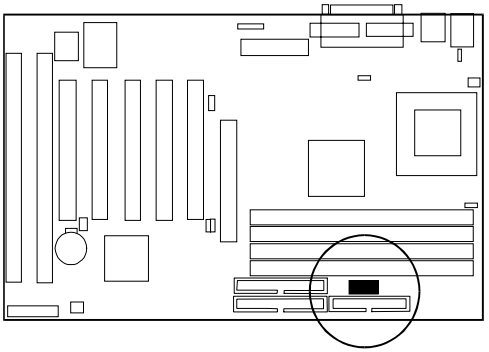
1. Always turn the system power off before installing or removing any device.
2. Always observe static electricity precautions. See “Handling Precautions” at the start of this manual.
3. Inserting the chip incorrectly may damage the chip.

To install the CPU, do the following:

1. Lift the lever on the side of the CPU socket.
2. Handle the chip by its edges and try not to touch any of the pins.
3. Place the CPU in the socket. The chip has two notches to correctly locate the chip. Align two notches of the processor with the two triangular marks on the socket. Do not force the chip. The CPU should slide easily into the socket.
4. Swing the lever to the down position to lock the CPU in place.
5. Place the cooling fan with heatsink on top of the installed CPU.

CPU/FSB Speed Ratio Select

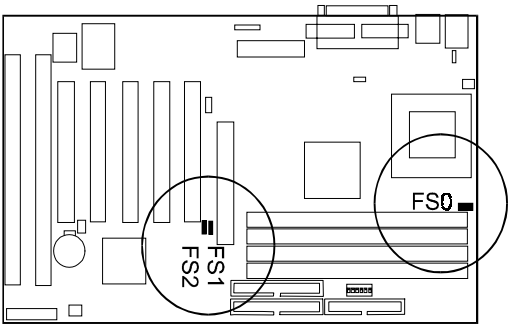




CPU Speed (Hz) 133M	100M	66M	SW1-1	SW1-2	SW1-3	SW1-4
333M	250M	166M	ON	ON	ON	OFF
400M	300M	200M	ON	OFF	ON	ON
466M	350M	233M	ON	OFF	ON	OFF
533M	400M	266M	ON	ON	OFF	ON
600M	450M	300M	ON	ON	OFF	OFF
667M	500M	333M	ON	OFF	OFF	ON
733M	550M	366M	ON	OFF	OFF	OFF
800M	600M	400M	OFF	ON	ON	ON
866M	650M	433M	OFF	ON	ON	OFF
933M	700M	466M	OFF	OFF	ON	ON
1G	750M	500M	OFF	OFF	ON	OFF
1066M	800M	533M	OFF	ON	OFF	ON

Note: For the ratio that higher than 8.0x, please use a ratio-locked CPU and also select Auto Detect on FSB Selection if you use an Intel CPU.

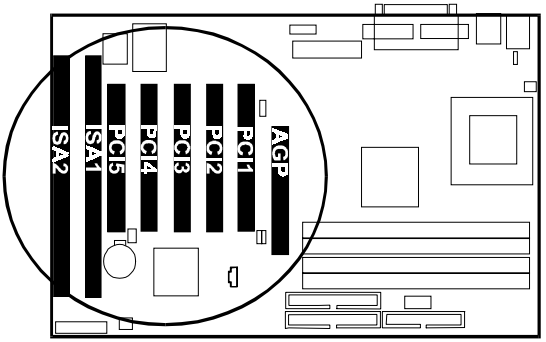
FSB Speed Select



CPU	Front Side Bus	FS0	FS1	FS2
Cyrix	66	1-2	2-3	2-3
	100		2-3	1-2
	133		1-2	1-2
Intel	66	2-3	2-3	2-3
	100		2-3	open
	133		open	open
	Auto Detect		1-2	1-2

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 one 32-bit AGP bus, two optional 16-bit ISA bus, and five 32-bit PCI bus expansion slots.



NOTE:
1. The PCI5 slot is shared with the (optional) ISA1 Slot.
2. The PCI5 slot only allows a slave card on it.

CAUTION: Make sure to unplug the power supply when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both the mainboard and expansion cards.
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.

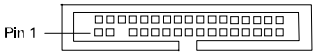
7. Setup the BIOS if necessary.

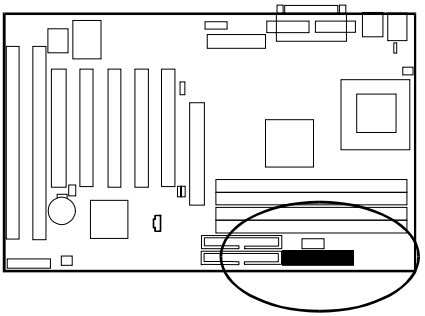
8. Install the necessary software drivers for the expansion card.

5). Connect Devices

Floppy Diskette Drive Connector: FLOPPY

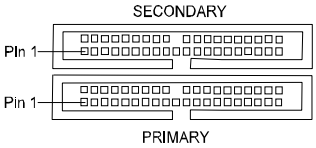
This connector provides the connection with your floppy disk drive. The red stripe of the ribbon cable must be the same side with the Pin 1.

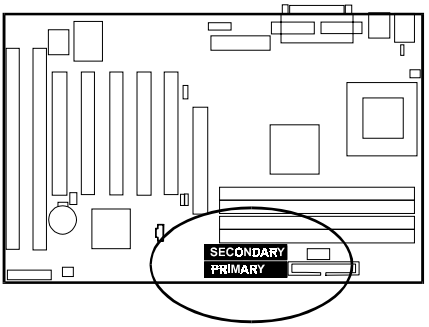




IDE HDD Device Connectors: PRIMARY, SECONDARY

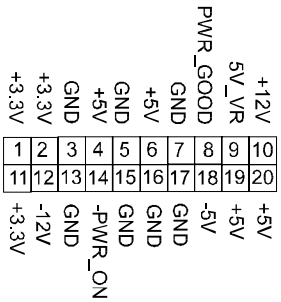
These two connectors are used for your IDE hard disk drives, CD drives, LS-120 drives, or IDE ZIP drives. The red stripe of the ribbon cable must be the same side with the Pin 1.

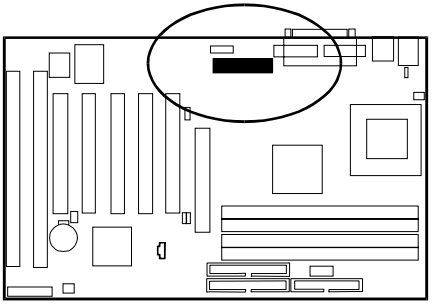




ATX Power Connector: POWER

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.

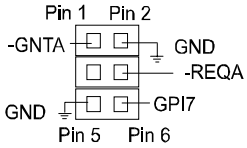


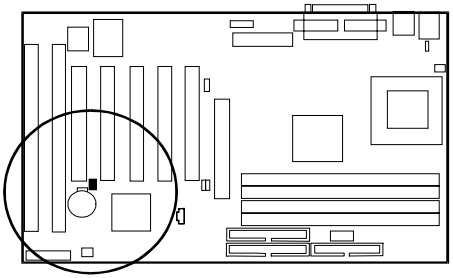


NOTE: The power supply must provide +3.3V voltage.

PCI Audio Card Connector: SB_LINK

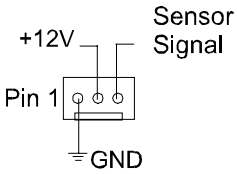
This 5-pin male connector allows you to connect to your Creativeð ' s sound card or compatible.

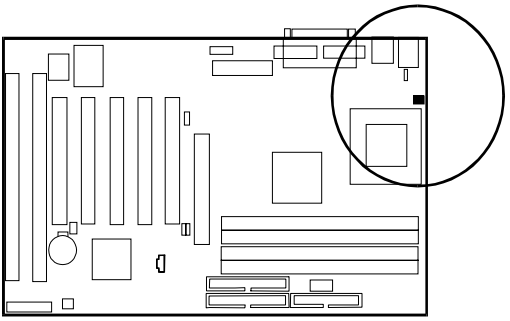




CPU Fan Connector: CPU_FAN

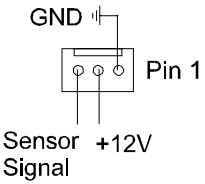
This connector is linked to the CPU fan. When the system is in suspend mode, the CPU fan will turn off; when it reverts back to full–on mode, the fan will turn back on. Please refer to the CPU fan installation manual for more information.

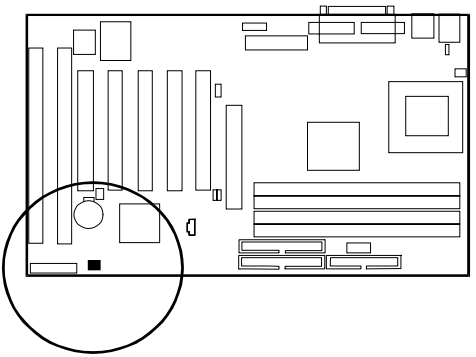




System Case Fan Connector: CHS_FAN

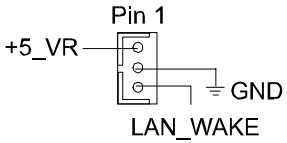
This 3-pin connector links to your cooling fan on the system case to lower the system temperature.

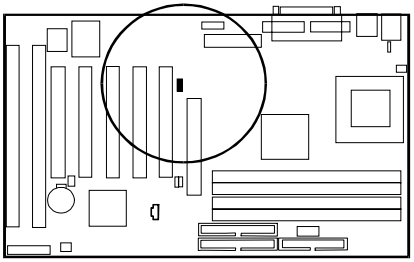




Wake-On-LAN Connector: WOL

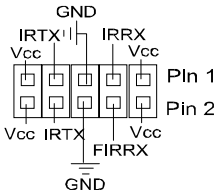
This 3-pin connector allows the remote LAN server to wake up the system with a LAN card installed. Please also refer to the LAN card installation guide for related information.

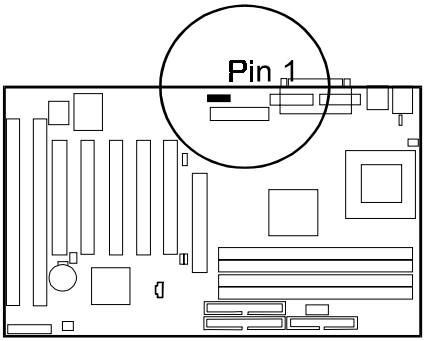




Infrared Connector: IR

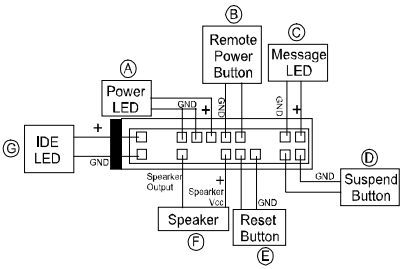
This connector is linked with your IR device via a cable with one 9-pin D-Sub female connector on it.

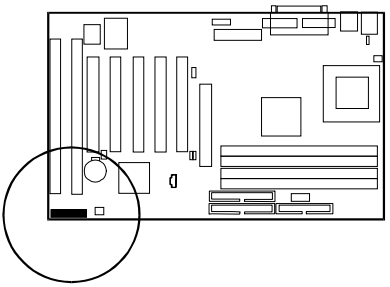




Front Panel Block Connector

This block connector concludes the connectors for linking with IDE LED, power LED, remote power button, message LED, suspend button, reset button 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 this buttons will not affect the function.





Power LED (A) is connected with the system power indicator to indicate whether the system is on/off. When the system enter the suspend mode, it blinks.

Remote Power Button (B) is connected with remote power (soft power) switch. Push this switch will turn off and on the system instead of turning the power switch on the power supply.

Message LED (C) is connected with the message LED. When the system is running normally, the indicator is off. It is controlled by the operating system or application software.

Suspend Button (D) is connected with suspend mode switch.

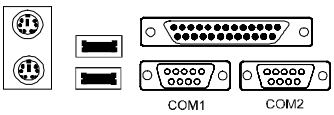
Reset Button (E) is connected to the reset switch. Push this switch to reboot the system instead of turning power switch off and on.

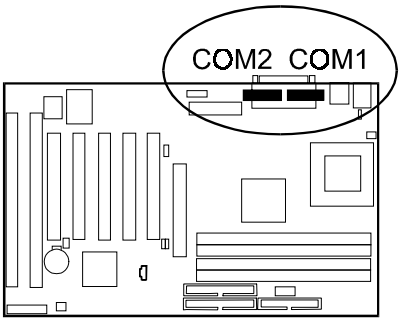
Speaker (F) is connected with the case speaker.

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

Serial Port Connectors: COM1, COM2

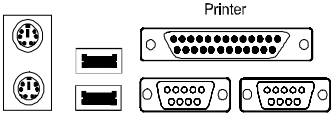
These two 9-pin D-Sub male teal-colored connectors allow you to connect devices that use serial ports, such as a serial mouse or a modem.

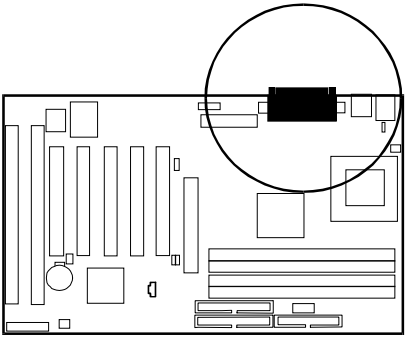




Printer Connector: LPT

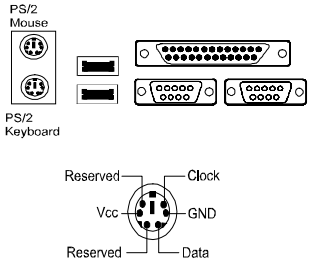
This 25-pin D-Sub female burgundy-colored connector is attached to your printer.

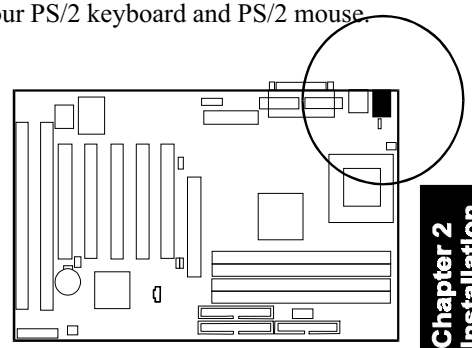




PS/2 Keyboard and Mouse Connector: KB, MS

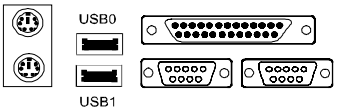
These two 6-pin female (PS/2 keyboard is purple color and PS/2 mouse is green color) connectors are used for your PS/2 keyboard and PS/2 mouse.

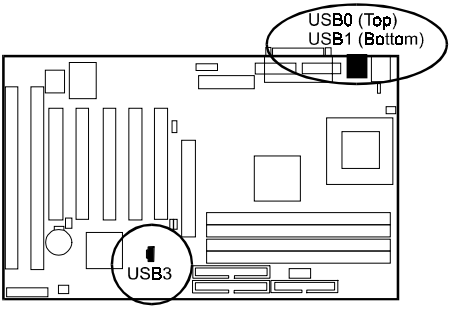




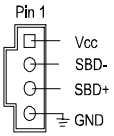
Universal Serial Bus Connectors: USB0, USB1, USB3

These two black connectors that integrated on the edge of the board are used for linking with USB peripheral devices. Also, this board provides an connector USB3 for linking with the USB socket on the front panel of some system cases. If this connector is onboard and when it is used, the USB3 connector is disabled. Your operating system must support USB features, such as MS Windows 98, MS Windows 95 OSR2.5 with USB Supplement.





The figure below is the pin assignments of the USB3 connector.



NOTE: USB3 connector is manufacturing optional.

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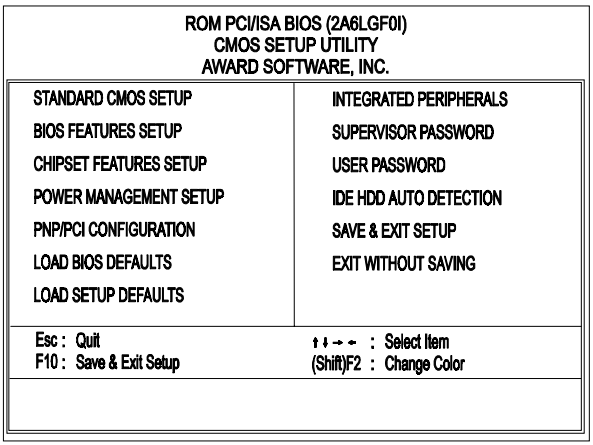
BIOS Setup

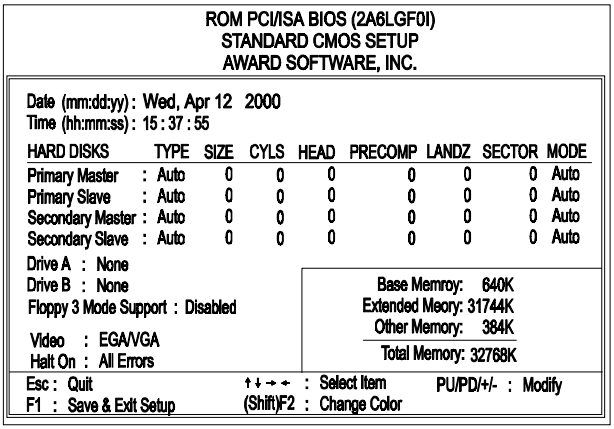
The mainboard comes with the Award BIOS chip that contains the ROM Setup information of your system. This chip serves as an interface between the processor and the rest of the mainboard's components. This chapter explains the information contained in the Setup program and tells you how to modify the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

CMOS Setup Utility



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.

Standard CMOS Setup



Hard Disk Configurations

TYPE: Select User to fill the remaining fields. Select Auto to detect the HDD type automatically (recommended).

SIZE: The hard disk size. The unit is Mega Bytes.

CYLS: The cylinder number of the hard disk.

HEAD: The read/write head number of hard disk.

PRECOMP: The cylinder number at which the disk drive changes the write current.

LANDZ: The cylinder number that the disk drive heads (read/write) are seated when the disk drive is parked.

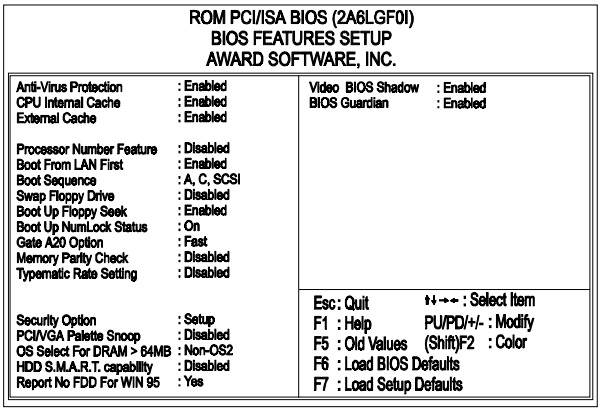
SECTOR: The sector number of each track defined on the hard disk.

MODE: Select Auto to detect the mode type automatically. If your hard disk supports the LBA mode, select LBA or Large. However, if your hard disk cylinder is more than 1024 and does not support the LBA function, set at Large. Select Normal if your hard disk supporting cylinders is below 1024.

Software Turbo Speed

The BIOS supports Software Turbo Speed feature. Instead of pressing the Turbo Speed Button on the front panel, simply press the **Alt, Ctrl, and +** keys at the same time to enable the Turbo Speed feature; and press the **Alt, Ctrl, and -** keys at the same time to disable the feature.

BIOS Features Setup



Anti-Virus Protection

This feature starts the virus scan tool to detect if boot virus in boot sector of the first hard disk drive when booting up.
The options are: Enabled (Default), Disabled.

CPU Internal Cache

When enabled, improves the system performance. Disable this item when testing or trouble-shooting. The options are: Enabled (Default), Disabled.

External Cache

When enabled, supports an optional cache SRAM. This feature allows you to disable the cache function when the system performance is unstable to run some software. The options are: Enabled (Default), Disabled.

Processor Number Feature

If a Pentium III processor is installed on this mainboard, the system BIOS will allow other utilities to access the Intel Pentium III serial number while this feature set at Enabled. The options are: Enabled (Default), Disabled.

Boot From LAN First

This feature makes the system bootable by the remote server via LAN.
The options are: Enabled (Default), Disabled.

Boot Sequence

Allows the system BIOS to first try to boot the operating system from the selected disk drive. The options are: A, C, SCSI (Default); C, A, SCSI; C, CDROM, A; CDROM, C, A; D, A, SCSI; E, A, SCSI; F, A, SCSI; SCSI, A, C; SCSI, C, A; C Only; LS/ZIP, C.

Swap Floppy Drive

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

Boot Up Floppy Seek

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

Boot Up Numlock Status

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

Gate A20 Option

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

Memory Parity Check

This feature enables BIOS to perform automatic memory checking upon detection of ECC or parity DRAM. The options are: Disabled (Default), Enabled.

Typematic Rate Setting

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

Typematic Rate (Chars/Sec)

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

Typematic Delay (Msec)

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

Security Option

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

PCI/VGA Palette Snoop

Set this feature to be enabled if any ISA adapter card installed in the system requires the VGA palette snoop function.
The options are: Disabled (Default), Enabled.

OS Select For DRAM > 64MB

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

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

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

Report No FDD For WIN 95

When the field under the Standard CMOS Setup Menu for Drive A and/or Drive B is set at None, users must set this field is set at Yes for it to function properly. Otherwise, set at No, even if field for Drive A and/or Drive B is set at None, system will still detect and recognize of a floppy drive(s).
The options are: Yes (Default), No.

Video BIOS Shadow

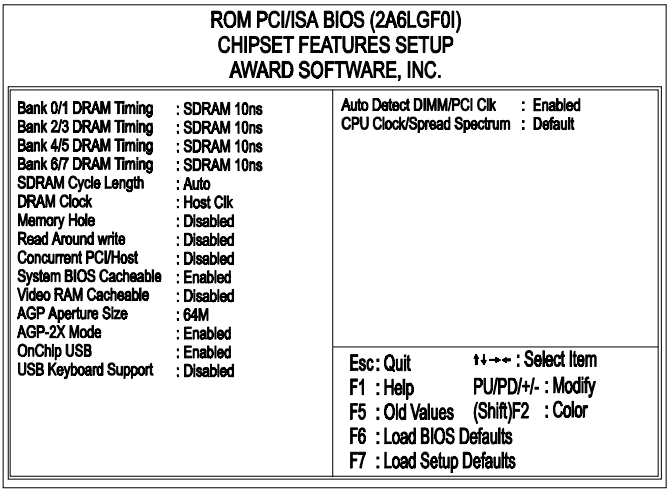
Allows the BIOS to copy the video ROM code of the add-on video card to the system memory for faster access.
The options are: Enabled (Default), Disabled.

BIOS Guardian

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

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

Chipset Features Setup



Bank 0/1 DRAM Timing; Bank 2/3 DRAM Timing; Bank 4/5 DRAM Timing; Bank 6/7 DRAM Timing

This feature allows you to select the DRAM read/write speed. The options are: SDRAM 10ns (Default), SDRAM 8ns, Normal, Medium, Fast, Turbo.

SDRAM Cycle Length

This item will function only when SDRAM DIMM/s are installed on the mainboard (BIOS auto detection). If the CAS latency of your SDRAM DIMM is 2, set it at 2 to enhance your system performance. If the CAS latency of your SDRAM DIMM is 3, stay with the default setting, 3. The options are: Auto (Default), 3, 2.

DRAM Clock

The feature allows users to select the DRAM clock.
The options are: Auto, HCLK-33M, HCLK+33M, Host Clock (Default).

Memory Hole

When you install a Legacy ISA card, this feature allows you to select the memory hole's address range of the ISA cycle when the processor accesses the selected address area. Please read your card manual for detail information. When disabled, the memory hole at the 14MB (or 15MB) address will be treated as a DRAM cycle when the processor accesses the 14~16MB (or 15~16MB) address area.
The options are: 15M - 16M, Disabled (Default).

Read Around write

This feature speeds up data read performance when it stays Enabled.
The options are: Enabled, Disabled (Default).

Concurrent PCI/Host

If eache bus master cycle does not take the same path, it allows for multiple bus master cycles to be activated at the same time.
The options are: Disabled, Enabled (Default).

Video RAM Cacheable

Selecting Enabled allows caching of the video BIOS ROM at C0000h to C7FFFh, resulting in better video performance. However, if any program writes to this memory area, a system error may result.
The options are: Disabled (Default), Enabled.

System BIOS Cacheable

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

Video RAM Cacheable

When enabled, allows the system to use the video RAM from cache RAM, instead of the slower DRAMs or ROMs.
The options are: Enabled, Disabled (Default).

AGP Aperture Size

It allows you to select the main memory frame size fo AGP use. The options are 4, 8, 16, 32, 64 (Default), 128, 256MB.

AGP-2X Mode

This feature allows user to select the AGP mode be to 1x or 2x when an AGP add-in card installed. However, when set at Enabled and the AGP card only support 1x mode, the system will fall back 1x mode automatically. The options are: Enabled (Default), Disabled.

OnChip USB

When enabled, this feature allows you to use the onboard USB feature. The options are: Enabled (Default), Disabled.

USB Keyboard Support

This feature will appear only if the above item Onchip USB is set at Enabled. Set this feature to Enabled to use a USB keyboard with your system. The options are: Disabled (Default), Enabled.

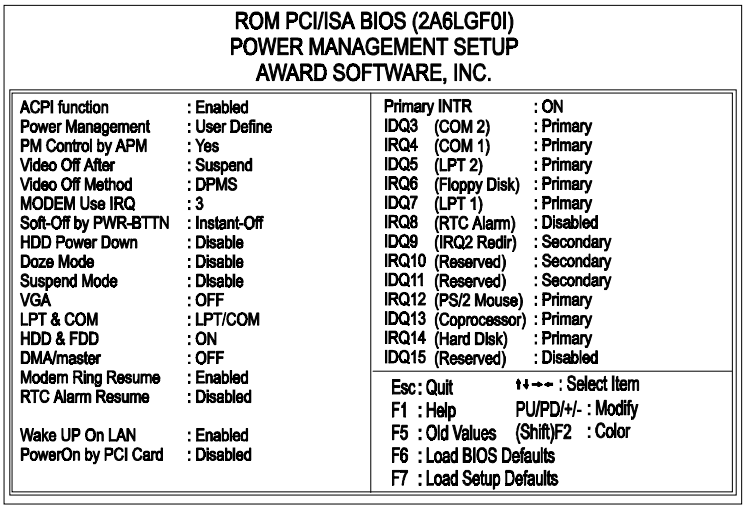
Auto Detect DIMM/PCI Clk

Set this field at Enabled to allow auto detection of DIMM and PCI. If none detected, it will stop the clock of each DIMM and PCI.
The options are: Enabled (Default), Disabled.

CPU Clock/Spread Spectrum

This feature is used to set the CPU clock with the Spread Spectrum which is either On (for less EMI issue) or Off. The options are: Default (Default), 66 MHz/Off, 66 MHz/On, 75 MHz/On, 83 MHz/On, 117 MHz/Off, 124 MHz/On, 133 MHz/On, 133 MHz/Off, 138 MHz/Off, 140 MHz/On, 150 MHz/On.

Power Management Setup



ROM PCI/ISA BIOS (2A6LGF0I)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI function	: Enabled	Primary INTR	: ON
Power Management	: User Define	IDQ3 (COM 2)	: Primary
PM Control by APM	: Yes	IRQ4 (COM 1)	: Primary
Video Off After	: Suspend	IDQ5 (LPT 2)	: Primary
Video Off Method	: DPMS	IRQ6 (Floppy Disk)	: Primary
MODEM Use IRQ	: 3	IDQ7 (LPT 1)	: Primary
Soft-Off by PWR-BTTN	: Instant-Off	IRQ8 (RTC Alarm)	: Disabled
HDD Power Down	: Disable	IDQ9 (IRQ2 Redir)	: Secondary
Doze Mode	: Disable	IRQ10 (Reserved)	: Secondary
Suspend Mode	: Disable	IDQ11 (Reserved)	: Secondary
VGA	: OFF	IRQ12 (PS/2 Mouse)	: Primary
LPT & COM	: LPT/COM	IDQ13 (Coprocessor)	: Primary
HDD & FDD	: ON	IRQ14 (Hard Disk)	: Primary
DMA/master	: OFF	IDQ15 (Reserved)	: Disabled
Modem Ring Resume	: Enabled		
RTC Alarm Resume	: Disabled	Esc : Quit	↑↓→← : Select Item
		F1 : Help	PU/PD/+/- : Modify
Wake UP On LAN	: Enabled	F5 : Old Values	(Shift)F2 : Color
PowerOn by PCI Card	: Disabled	F6 : Load BIOS Defaults	
		F7 : Load Setup Defaults	

ACPI function

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

Power Management

This item allows you to adjust the power management features.

Select User Define for configuring your own power management features. Min Saving initiates all predefined timers in their minimum values. Max Saving, on the other hand, initiates maximum values. The options are: User Define (Default), Min Saving, Max Saving.

PM Control by APM

The option No allows the APM (Advanced Power Management) specification be ignored. Selecting Yes will allow the BIOS wait for APM's prompt before it enters Doze mode, Standby mode, or Suspend mode. If the APM is installed, it will prompt the BIOS to set the system into power saving mode when all tasks are done. The options are: No, Yes (Default).

Video Off After

This feature allows you to select under which mode to power off your monitor. The options are: Doze, NA, Suspend (Default).

Video Off Method

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

MODEM Use IRQ

This feature allows you to select the IRQ# to meet your modem's IRQ#.
The options are: 3 (Default), 4, 5, 7, 9, 10, 11.

Soft-Off by PWR-BTTN

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

HDD Power Down

The option lets the BIOS turn the HDD motor off when system is in Suspend mode. Selecting 1 Min..15 Min allows you define the HDD idle time before the HDD enters the Power Saving Mode.
The options 1 Min..15 Min will not work concurrently. When HDD is in the Power Saving Mode, any access to the HDD will wake the HDD up.
The options are: Disable (Default), 1 Min..15 Min.

Doze Mode

When disabled, the system will not enter Doze mode. The specified time option defines the idle time the system takes before it enters Doze mode.
The options are: Disable (Default), 10, 20, 30, 40 Sec, 1, 2, 4, 6, 8, 10, 20, 30, 40 Min, 1 Hour.

Suspend Mode

When disabled, the system will not enter Suspend mode. The specified time option defines the idle time the system takes before it enters Suspend mode. The options are: Disable (Default), 10, 20, 30, 40 Sec, 1, 2, 4, 6, 8, 10, 20, 30, 40 Min, 1 Hour.

VGA

ON enables the power management timers when a no activity events is detected in the VGA. *OFF* disables the PM timer even if a no activity event is detected. The options are: OFF (Default), ON.Wake Up On LAN
When set at Enabled, an input signal comes from the other client/server on the LAN awakes the system from a soft off state if connected over LAN.
The options are Disabled or Enabled (Default).

LPT & COM

LPT/COM enables the power management timers when a no activity event is detected in the LPT and COM ports. *LPT (COM)* enables the power management timers when a no activity event is detected in the LPT (COM) ports. *NONE* to disable the PM timer even if a no activity event is detected.
The options are: LPT/COM (Default), LPT, COM, NONE.

HDD & FDD

ON will enable the power management timers when no activity event is detected in the hard drive and floppy drive. *OFF* disables the PM timer even if no activity event is detected. The options are: OFF, ON (Default).

DMA/master

To set this feature at ON activates that Power Management feautre (PM) wake-up event for the DMA or bus master (of the LAN card or/and SCSI card). The options are: OFF (Default), ON.

Modem Ring Resume

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

RTC Alarm Resume

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

Date (of Month)

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

Timer (hh:mm:ss)

If an ATX power supply is installed and when RTC Alarm Resume is Enabled, this feature allows you to set the time of the alarm starts when the RTC Alarm Resume From Soft Off is set to be Enabled.
The options are: 7: 0: 0 (Default). hh (*hour*) - 0, 1, 2,.., 23; mm (*minute*) - 0, 1, 2,..,59; ss (*second*) - 0, 1, 2,..,59.

Wake Up On LAN

When set at Enabled, an input signal comes from the other client/server on the LAN awakes the system from a soft off state if connected over LAN. The options are Disabled or Enabled (Default).

Power On on by PCI card

An input signal from outside contact with an installed PCI add-on card that supports PCI Power Management Specification, then the card send a signal to awake the system from a soft off state via South Bridge. The options are Disabled (Default) or Enabled.

Primary INTR

Whe the Primary interrupt (the Primary option in the featuer of IRQ# Activity) generates will make the Power Management feautre (PM) wake-up event on. If set at OFF, all the primary interrupt will not wake-up the systetm. The options are: OFF, ON (Default).

IRQs Activity Monitoring

After the time period which you set, the system advances from doze mode to suspend mode in which the CPU clock stops and the screen display is off. At this moment, if the IRQ activity occurs, the system goes back to full-on mode directly.

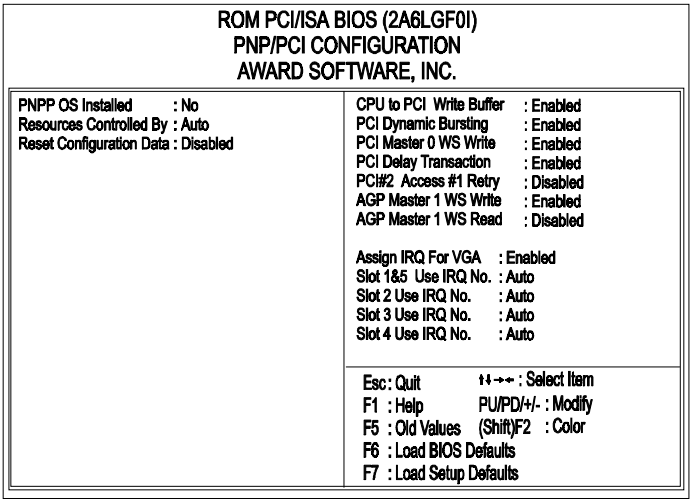
If the IRQ activity which is defined as Non Primary takes place, the system remains off until the corresponding IRQ handler finishes.

The options of IRQ 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 are: Enabled, Disabled.

The defaults is Disabled for the IRQ8, 9, 10, 11, 15.

The defaults of rest are Enabled.

PNP/PCI Configuration



PNP OS Installed

If your operating system is a Plug-and-Play one, such as Windows 95, select Yes. The options are: No (Default), Yes.

Resources Controlled By

If set at Auto, the BIOS arranges all system resources. If there exists conflict, select Manual. The options are: Auto (default), Manual. The manual options of **IRQ- / DMA- assigned to** are: Legacy ISA, PCI/ISA PnP.

Reset Configuration Data

When enabled, allows the system to clear the last BIOS configuration data and reset with the default data.

The options are: Enabled, Disabled (default).

CPU to PCI Write Buffer

When enabled, allows data and address access to the internal buffer of the system controller; so the processor can be released from the waiting state. The options are: Enabled (Default), Disabled.

PCI Dynamic Bursting

When enabled, the PCI controller allows Bursting PCI transfer if the consecutive PCI cycles come with the address falling in same 1KB space. This improves the PCI bus throughput.
The options are: Enabled (Default), Disabled.

PCI Master 0 WS Write

When enabled, allows a zero-wait-state-cycle delay when the PCI master drive writes data to DRAM.
The options are: Enabled (Default), Disabled.

PCI Delay Transaction

The chipset has an embedded 32-bit posted write buffer to support delay transaction cycles. Select Enabled to support compliance with PCI specification version 2.1.
The options are: Enabled (default); Disabled.

PCI#2 Access #1 Retry

When enabled, the AGP (PCI#2) access to PCI (PCI#1) will be retried until the maximum count. The options are: Disabled (default); Enabled.

AGP Master 1 WS Write

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

AGP Master 1 WS Read

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

PCI IRQ Actived By

Leave the IRQ trigger set at *Level* unless the PCI device assigned to the interrupt specifies Edge-triggered interrupts.
The options are: Level (default); Edge.

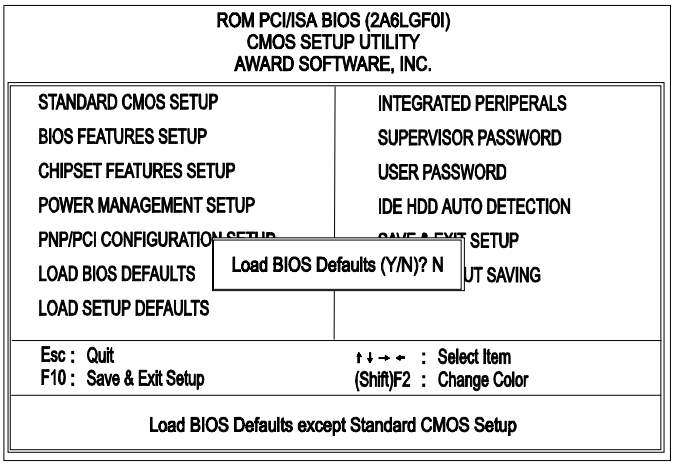
Assign IRQ For VGA

If your PCI VGA card does not need an IRQ, select Disabled; therefore, an IRQ can be released for the system use.
The options are: Enabled (Default), Disabled.

Slot 1&5/2/3/4 Use IRQ No.

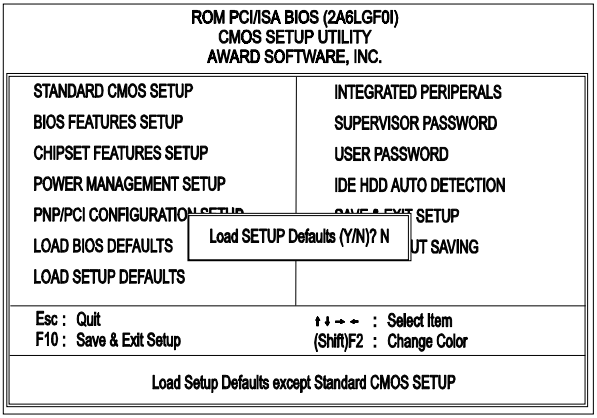
Some PCI devices would need to use an IRQ on the PCI bus. Selecting Auto allows the PCI controller to automatically allocate an IRQ.
The options are: Auto (default); 3 to 5; 7; 9 to 12; 14; 15.

Load BIOS Defaults



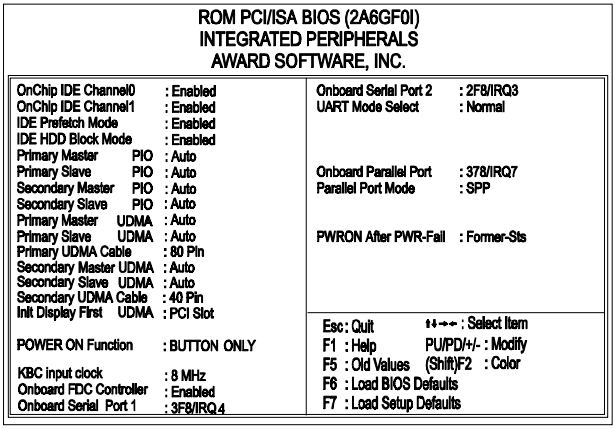
BIOS defaults contain the most appropriate values of the system parameters that allow minimum system performance. The OEM manufacturer may change the defaults through MODBIN before the binary image burns into the ROM.

Load Setup Defaults



Selecting *this* field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.

Integrated Peripherals



OnChip IDE Channel0

When enabled, allows you to use the onboard primary PCI IDE. If a hard disk controller card is used, set at Disabled.
The options are: Enabled (Default), Disabled.

OnChip IDE Channel1

When enabled, allows you to use the onboard secondary PCI IDE. If a hard disk controller card is used, set at Disabled.
The options are: Enabled (Default), Disabled.

IDE Prefetch Mode

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

IDE HDD Block Mode

When enabled, the system executes read/write requests to hard disk in block mode. The options are: Disabled, Enabled (Default).

Primary Master PIO

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

Primary Slave PIO

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

Secondary Master PIO

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

Secondary Slave PIO

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

Primary Master/Slave UDMA

Allows you to select the first PCI IDE channel of the first master/slave hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA).
The options are: Disable, Auto (Default).

Secondary Master/Slave UDMA

Allows you to select the second PCI IDE channel of the secondary master/slave hard disk mode or to detect it by the BIOS if the hard disk supports UDMA (Ultra DMA, faster than DMA). The options are: Disable, Auto (Default).

NOTE: two features **Primary UDMA Cable** and **Secondary UDMA Cable** were added. Please stay with the default value *40 Pin* when you use a 40- pin cable for your 33MHz hard drive/CD-ROM.
Please select the option *80 Pin* when you use a 80-pin cable for your 33MHz (or 66MHz) hard drive/CD-ROM.

Init Display First

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

KB Power On Password

When set the POWER ON Function at Password, this feature will appears on the monitor. It allows you to set a password to power the system. Press the Enter key when you are prompted to set the power-on password. Type it up to five characters and press the Enter key; then confirm it by typing the password again and pressing the Enter key to complete the setting procedures. To disable the power-on password, press the Enter key when it is disabled. When the power-on password is set, the system can not be powered on by the power button, mouse, or hot key. Once the power-on password is set, you can power on the system simply by entering the password. This feature offers the security on your computer system.

Hot Key Power ON

When set POWER ON Function at Hot Key, this feature will appears on the monitor. It allows you to select a hot key to power on your computer. The options are: Ctrl-F1 (Default), Ctrl-F2, Ctrl-F3, Ctrl-F4, Ctrl-F5, Ctrl-F6, Ctrl-F7, Ctrl-F8, Ctrl-F9, Ctrl-F10, Ctrl-F2, Ctrl-F11, Ctrl-F12.

KBC input clock

This feature allows you to select different KBC input clocks which your keyboard actually supported. Please read your keyboard manual also for more information. The options are: 6, 8 (Default), 12, 16 MHz.

Onboard FDC Controller

When enabled, the floppy diskette drive (FDD) controller is activated. The options are: Enabled (Default), Disabled.

Onboard Serial Port 1

If the serial port 1 uses the onboard I/O controller, you can modify your serial port parameters. If an I/O card needs to be installed, COM3 and COM4 may be needed. The options are: 3F8/IRQ4 (Default), 3E8/IRQ4, 2F8/IRQ3, 2E8/IRQ3, Disabled.

Onboard Serial Port 2

If the serial port 2 uses the onboard I/O controller, you can modify your serial port parameters. If an I/O card needs to be installed, COM3 and COM4 may be needed. The options are: 2F8/IRQ3 (Default), 3E8/IRQ4, 2E8/IRQ3, 3F8/IRQ4, Disabled.

UART Mode Select

Allows you to select the IR modes if the serial port 2 is used as an IR port. Set at Normal, if you use COM2 as the serial port as the serial port, instead as an IR port. The options are: Normal (Default), IrDA, ASKIR.

UART2 Duplex Mode

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

RxD , TxD Active

This feature is available only if the item, UART 2 Mode, is set at ASKIR or HPSIR. The feature allows you to select the active signals of the reception end and the transmission end. This is for technician use only.
The options are: Hi, Lo (Default); Hi, Hi; Lo, Hi; Lo, Lo.

IR Transmission Delay

When Enabled, the transmission delays 4 characters-time (40 bit-time) if SIR is changed from RX mode to TX mode. When Disabled, no transmission delay if SIR is changed from RX mode to TX mode.
The options are: Enabled (Default), Disabled.

Onboard Parallel Port

Allows you to select from a given set of parameters if the parallel port uses the onboard I/O controller.
The options are: 378/IRQ7 (Default), 278/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode

Allows you to connect with an advanced printer.
The options are: Normal (Default), EPP, ECP, ECP/ ECP.

ECP Mode Use DMA

If your select ECP or ECP+EPP in Parallel Port Mode, this feature allows you to select Direct Memory Access (DMA) channel.
The options are: 3 (Default), 1.

EPP Mode Select

If your select EPP or ECP+EPP in Parallel Port Mode, this feature allows you to select the EPP type version.
The options are: EPP1.9 (Default), EPP1.7.

PWRON After PWR-Fail

When the system is shut down owing to the power failure, the system will not be back to power on by itself. This feature allows you to set the system back to which power status of the system when the system power is resumed. The options are Former-Sts (Default), On, or Off.

Supervisor/User Password

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

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

IDE HDD Auto Detection

The IDE Hard Disk Drive Auto Detection feature automatically configures your new hard disk. Use it for a quick configuration of new hard drives. This feature allows you to set the parameters of up to four IDE HDDs. The option with **(Y)** are recommended by the system BIOS. You may also keys in your own parameters instead of setting by the system BIOS. After all settings, press Esc key to return the main menu. For confirmation, enter the Standard CMOS Setup feature.

Save and Exit Setup

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

Exit without Saving

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

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