

Frequency / Voltage Control

Auto Detect DIMM/PCI CLK

Enabled \ Disabled Auto detect DIMM\PCI CLOCK. Default setting is "Enabled".

Spread Spectrum

This option turns on/off the clock generator's Spread Spectrum feature to reduce Electromagnetic Interference (EMI) generated by high speed clock signals. Default setting is "Disabled".

CPU Host/PCI Clock/PC133

Select the clock generator's Front Side Bus frequency for CPU over-clocking. Default setting is "Default".

CPU Clock Ratio

Select CPU's core/bus frequency ratio. This setting has no effect on processors with frequency ratio locked. Available settings are between 2x and 8x of the CPU BUS Speed. The ratio increases with 0.5 step. Default setting is "3x" (Safe).



PnP/PCI Configurations

Reset configuration Data

Enabled \ Disabled Reset configuration Data. Default setting is "Disabled".

Resources Controlled by

Sets the allocation of PCI resources. Available options are Manual and Auto(ESCD). Default setting is "Auto"(ESCD). BIOS automatically assigns resources.

IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

PCI/VGA Palette Snoop

Enabled / Disabled PCI / VGA Palette Snoop, sets Enabled for having Video card on ISA Bus and VGA card on PCI Base, sets "Disabled" for VGA card only.

PC Health Status

CPU Warning Temperature

Specifies CPU warning temperature value. Available options are 50° C/122°F, 53° C/127°F, 56° C/133°F, 60° C/140°F, 63° C/145°F, 66° C/151°F, 70° C/158°F and Disabled. Default setting is "Disabled".

Current System Temperature

Current CPU Temperature

Detect System and CPU temperature automatically.

System Fan Speed

CPU Fan Speed

Chassis Fan speed

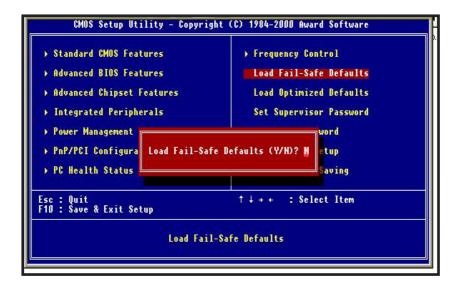
Detect Fan Speed Status automatically.

Vcore/Vft/VCC3-3/+5V/+12V/-12V

Detect System's Voltage status automatically.

Shutdown Temperature

This function will be effective only for the operating systems that support ACPI Function. Specifies Shutdown Temperature Value. Available option are $60^{\circ}\text{C}/140^{\circ}\text{F}$, $658^{\circ}\text{C}/149^{\circ}\text{F}$, $70^{\circ}\text{C}/158^{\circ}\text{F}$, $75^{\circ}\text{C}/167^{\circ}\text{F}$ and Disabled. Default setting is "Default".



Load Fail-safe Defaults

Fail-safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.

```
CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
 > Standard CMOS Features
                                          > Frequency Control
 Advanced BIOS Features
                                            Load Fail-Safe Defaults
 Advanced Chipset Features
                                           Load Optimized Defaults
 > Integrated Peripherals
                                            Set Supervisor Password
 ▶ Power Management
 ▶ PnP/PCI Configura
                      Load Optimized Defaults (Y/N)? N
 ▶ PC Health Status
                                                          aving
Esc : Quit
F10 : Save & Exit Setup
                                                   : Select Item
                          Load Optimized Defaults
```

Load Optimized Defaults

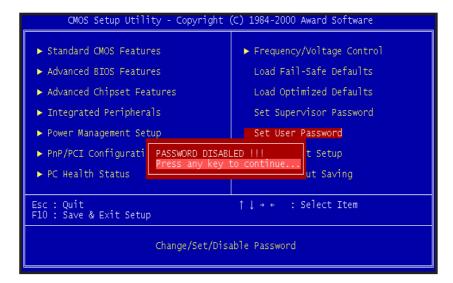
Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.

```
CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
                                          Frequency Control
 Standard CMOS Features
 Advanced BIOS Features
                                           Load Fail-Safe Defaults
 Advanced Chipset Features
                                           Load Optimized Defaults
 ▶ Integrated Peripherals
                                           Set Supervisor Password
 ▶ Power Management Setup
                                            Set User Password
 ▶ PnP/PCI Configurati
                                                      t Setup
                        Enter Password:
 PC Health Status
                                                      ut Saving
Esc : Quit
F10 : Save & Exit Setup
                                                   : Select Item
                        Change/Set/Disable Password
```

Set Supervisor / User password

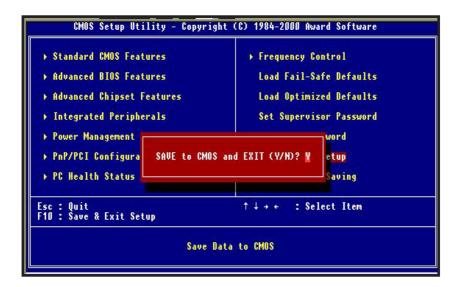
When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

Type the password, up to eight characters and press<Enter>. The new password will clear the previously entered password from CMOS Memory, you will be asked to confirm the Password. Type the password again and press <Enter>, you may also press <ESC> to about the selection and not enter a password.



To disable password, just press <Enter> when you are prompted to enter password. A Message <<PASSWORD DISABLED!!!>> will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter setup freely.

If you select "System" at "Security Option" in BIOS Features Setup Menu, you will be prompted for the password every time. If you select "Setup" at "Security option" in BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.



Save & Exit Setup

Type "Y" will quit the Setup Utility and Save the user setup value to RTC CMOS.

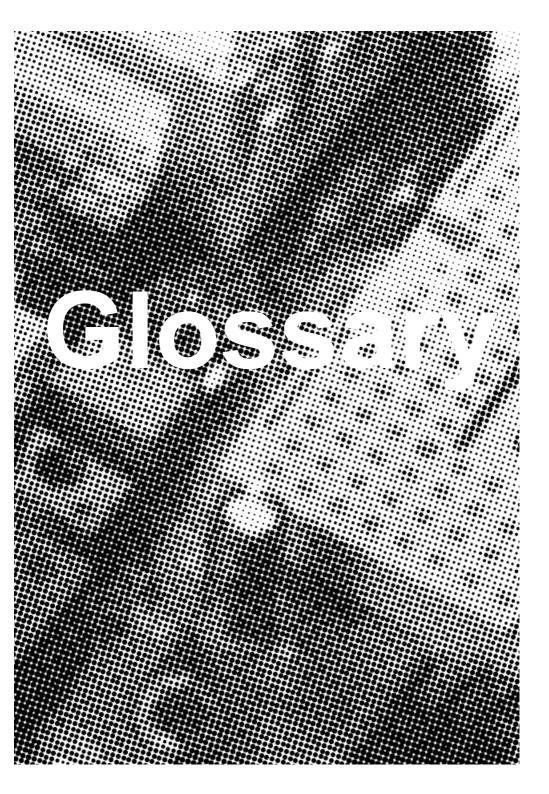
Type "N" will return to Setup Utility.

```
CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
 > Standard CMOS Features
                                          Frequency Control
 Manced BIOS Features
                                           Load Fail-Safe Defaults
 Advanced Chipset Features
                                           Load Optimized Defaults
 Integrated Peripherals
                                           Set Supervisor Password
 > Power Management
                                                         word
 ▶ PnP/PCI Configura
                        Quit Without Saving (Y/N)? N
                                                         etup
 PC Health Status
                                                         Saving
Esc : Quit
F10 : Save & Exit Setup
                                                   : Select Item
                             Abandon all Datas
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Exit Without Saving

Type "Y" will quit the Setup Utility and Without Saving the User setup Value.

Type "N" will return to Setup Utility.





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PS/2 Mouse & Keyboard Connector

The Mainboard provides two on-board PS/2 connectors, one for the keyboard, and one for the mouse. PS/2 devices all have a standard 6-pin round shape connector. If you are already using a PS/2 mouse or keyboard, simply plug them into the corresponding connector. No jumper settings are necessary.



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ATX Power Supply Connector

The Mainboard provides a single 20-pin ATX power supply connector, which incorporates standard +5V and +12V, 3.3V and soft-on/off signals. With a power supply that supports remote power on/off, the mainboard can turn off the system power through software control, such as the shutdown command in the Windows 95 / Windows 98 Start Menu. The BIOS system will turn the system power off when it receives the proper APM command from the OS. APM must be enabled in the BIOS and OS systems in order to set the soft-off feature working properly.

Pin	Signal Name	Pin	Signal Name
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PW_ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PWRGOOD	18	-5V
9	+5VSB	19	+5V
10	+12V	20	+5V

Mainboard User's Manual

About the Soft Touch Power Button

In an ATX based system, the new soft touch power button replaces the main power switch that turns your system on and off. From an OFF state, you can switch the system ON by simply pressing the power button. From an ON state, the system can be turned OFF by pressing and holding the power button for four (4) seconds OR shut down instantly. The functions of the power button can also be altered in the Power Management section of the CMOS setup.

The Mainboard provides four 4-pin Universal Serial Bus (USB) connectors. USB is a new interface standard for adding external Plug-and-Play (PnP) devices to the computer system. Peripherals that support USB PnP capabilities can operate at up to a 12Mb/sec data transfer rate. Eventually, all external devices connected to your computer will be standardized to USB.

Serial (COM1 & 2) Connector

The Mainboard provides two high-speed 16550 compatible UART serial ports.

Infra-Red (IR) Header

The Mainboard provides a 5-pin header interface, IR for connection to a Hewlett Packard HSDSL-1000 compatible infrared (IrDA) transmitter/receiver. Connect IR to the front panel I/O IrDA connector provided with your system. Once the module is connected to the front panel I/O IrDA connector, Serial port 2 can be re-directed to the IrDA module. When configured for IrDA, the user can transfer files to or from portable devices such as laptops, PDA's and printers using application software such as LapLink. The IrDA specification provides for data transfers at 115 kbps from a distance of 1-meter. Support for Consumer infrared (ASK-IR) is also included. Please refer to your IR equipment for more detailed information.

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The	header pin-out is as follows:
Pin	Signal Name
	VČC, power source
	No Connection
3	IRRX, infra-red receive
4	Ground
5	IRTX, infra-red transmit



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Memory Module Sockets

The Mainboard provides 168 pin standard DIMM sockets for installation of 3.3V unbuffered Single or Double Bank SDRAM modules.



Parallel Port Connector

The ATX Mainboard provides a parallel port connector. Based on the ATX standard, a 25-pin parallel port is now built on the mainboard back panel. This design makes the mainboard installation easier. The parallel port can be BIOS configured into standard (SPP) mode, Enhanced Parallel Port (EPP) mode, and a high speed Extended Capabilities Port (ECP) mode. EPP Mode requires a driver provided by the peripheral manufacturer in order to operate properly.



Accelerated Graphics Port [AGP] Connector

The Mainboard provides an AGP slot compatible with the Accelerated Graphics Port specification. AGP compliant video cards offer a much higher throughput than equivalent PCI bus video cards. PCI currently only supports a 33MHz bandwidth, and can transport at peak rates up to 133MB/s over its 32 bit data bus. AGP operates at a 66MHz bandwidth which enables a peak rate of 266MB/s in what is known as 'X1' mode. Using 'X2' mode, the peak transport rate can go as high as 532MB/s.

I LITHIUM BATTERY

A 3V, CR2032, Lithium battery is installed on the on-board battery socket. This battery is used to supply the CMOS RAM backup power during system powered-off. Danger of explosion if battery is incorrectly replaced. Therefore, if you have any difficulties, please consult the technical personnel.



PCI Add-In Board Connector

The Mainboard provides 5 PCI Connector for the PCI cards.



Modem Connector (Optional)

Connect the "MODEM connector" to the Telephone Jack extension cable for the optional onboard 56Kbps modem.

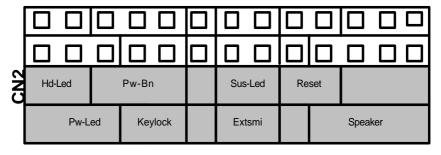
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Front Panel Function Connector

The Mainboard integrates all system front panel functions into a single on-board connector. These include connections for the following features:

Function	Connector Pin-Out Label	
System Reset	RESET	
Power LED / Keylock	PW-LED	
Hard Drive Activity LED	HD_ LED	
Soft-Touch Button Power On/Off	PW-BN	
External Power Saving Control (optional) EXTSMI		
Sleep Button	SLPBTN	
suspend LED	Sus-Led	
External speaker	Speaker	





Flash BIOS

The Mainboard flash BIOS provides users with more flexibility in upgrading their mainboards. The flash BIOS can be easily reprogrammed via software.



Floppy Drive Header

The Mainboard provides a 34-pin connector that supports the included floppy drive ribbon cable. After connecting the single end to the on-board "FLOPPY" connector, connect the remaining plugs on the other end of the cable to the corresponding floppy drives.

NOTE: Pin 5 is removed to prevent inserting the connector in the wrong orientation.







IDE Device Header

The Mainboard provides (2) independent bus-mastering PCI IDE interfaces capable of supporting up to Mode 4 and Ultra DMA-33/66/100 devices. The system BIOS supports automatic detection of the IDE device data transfer rate and translation between different kinds of device modes such as Logical Block Addressing (LBA), Extended Cylinder Sector Head (ECSH) translation modes and ATAPI (e.g., CD-ROM) devices on both IDE interfaces.

The two on-board IDE headers support the provided 80-pin IDE hard disk ribbon cables. If you install two hard disks and/or CD-Rom drives, you must configure the two drives by setting their IDE master/slave jumpers according to the documentation for those devices.

Also, you may connect the two hard disk drives so that both become Masters, using one ribbon cable on the primary IDE header and one on the secondary IDE header.



WAKEUP-LINK Header

The Mainboard provides on WAKEUP-LINK header (WOL) used to connect an add-in Network Interface Card which has Wakeup capability.



Universal Serial Bus Header

Connect this header to the optional USB extension cable for two USB ports.



"CNR" Add-in Board Connector

Communication & Networking Riser(CNR) is a new interface standard for Networking or modem add-in card.





CPU Socket

The Mainboard provides a 370-pin CPU Socket for Intel Celeron, PIII or Cyrix III processor. The CPU should have a fan attached to it to prevent overheat. If a fan is not present, a fan should be installed prior to turning the system on.



CPU / System & Auxiliary Fan Connector

The recommended heatsink for the processor are those with 12 Volt three-conductor fan that can be connected to the fan connector on the mainboard. It provides +12 Volts DC to the CPU cooling fan as follows:

PIN	SIGNAL NAME
1	Ground
2	+12V
3	FAN Speed Detect



CAUTION! Be sure that sufficient air circulation is available across the processor's heatsink by regularly checking that your CPU fan is working. Without sufficient circulation, the processor could overheat and damage both the processor and the mainboard. You may install an auxiliary fan if necessary.

The SYSTEM and AUXILIARY fan connectors are provided for optional cooling fans.



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Audio & Joystick Connectors

The Mainboard provides Audio headers.

Audio & Joystick Connectors



Line Output



Line Input



Microphone Input



Game Port

V VGA Connector (Optional)

Connect this connector to the VGA extension cable for integrated VGA interface (815E only).

W Temperature Sensor Header

The mainboard provides one header for an optional thermal sensor to monitor system temperature.

X CD Audio Connector

CD Audio input (Right, Ground, Ground, Left)

Y Auxiliary Audio Connector

Auxiliary input (Right, Ground, Ground, Left)

z Case Detect

If case is opened, this switch should be closed.

CD Driver & Software Installation Guide

Steps:

- 1. Boot up the Operating System (Windows 95/98/NT/2000)
- 2. Put the CD Disc into the CD-ROM Drive and wait for Autorun
- 3. Select A815E / A815EP and click your Operating System Type
- 4. Follow the instructions and install suitable drivers