CFI Group

CFI-S968L

High Performance

Socket478B Motherboard &
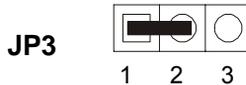Instaiiation instruction

User's Guide

EPA POLLUTION PREVENTER

CAUTION

* Only 1.5V AGP Card is supported. If 3.3V AGP Card added, the motherboard will be damaged.

∗ The AGP & TV card is option that there are support S & V of TV and DVI connectors.

* You should have P4 power and connect its ATX 4-pin power connector with J2.

WARNING

hetem work normally, please ensure JP3 of the mainboard is set as below. Refer to Fig. 2.1 in this manual for the location JP3.

JP3

1   2   3

If JP3 is shorted to 2-3, no CMOS data can be retained.

CONTENTS

CHAPTER 1   INTRODUCTION

Preface

High-performance Intel Pentium 4 motherboard. The system core logic is based on Intel 82845GE Chipsets. It is integrated with Agere FW323-05 1394a controller and Realtek RTL8100B Ethernet controller.

Features

CPU:
- Support Intel Socket 478 Pentium 4 processor
- Support Intel Socket 478 Celeron processor
- 400/533MHz Intel NetBurst micro-architecture bus

Chipset:
- Intel 82845GE + ICH4 chipsets
- Winbond W83627HF LPC controller
- Realtek RTL8100B Ethernet controller
- AgereFW323-05 1394a controller

Main Memory:
- Two 184-pin DIMM sockets, support DDR200/266/333 SDRAM up to 2GB

VGA:
- Integrated Graphics controller in 845GE GMCH
- Support 3D/2D enhancements
- Support AGP8X bandwidth. , Max. Bandwidth 2.1GB/sec
- Support extend AGP4X slot.
- Chrontel CH7010 DVI Transmitter + TV Encoder ADD card
- TV-out supporting up to 1024x768 graphics resolutions

Audio:
- AC-Link with AC'97 2.2 compliant
- Software audio with Realtek ALC650E 6-channel AC'97 codec, S/PDIF output supported

USB 2.0:
- Integrated USB 2.0 controller in ICH4
- Compliant with USB 2.0 specification
- Support Hi-speed, Full-speed and Low-speed data transfer rate. Max. Bandwidth 480Mbits/s

Ethernet:
- Realtek RTL8100B 10/100Base-T Ethernet controller
- Full-Duplex supported
- WFM 2.0 compliant

1394:
- Agere FW323-05 1394a Host controller
- Compliant with IEEE 1394 OHCI Specification rev. 1.1
- Data transfer rate can be 100/200/400Mbps

I/O Interface:
- Winbond W83627HF LPC controller
- Two enhanced PCI IDE channels which support up to 4 IDE devices with ATA-100 transfers up to 100MB/sec
- Build in FDC supports 1.2M/1.44M/2.88M FDD

Back Panel I/O Output:
- SPDIF-OUT optical connector
- 2 Type A USB connectors, 1 RJ-45 LAN port
- S&V and DVI connector on ADD card (Option)
- 2 1394 vertical connectors
- 2 fast serial ports, 1 D-type 15-pin VGA connector,1D-type Com 1 connector
- Line-in, MIC-in, Speaker-out
- 2 PS2 connectors

System BIOS:
- Award BIOS with 2MB/4MB EEPROM
- ACPI/PnP supported

Expansion Slots:
- 1 PCI slot, 1 AGP4X slot

Form Factor:
- Self-defined @ 262 mm (L) × 180 mm (W), 6 Layers

Front Panel I/O Output Board:
- Double desk USB connectors
- PS/2 mouse and keyboard connectors
- SPDIF-IN optical connector
- Center/Bass, Rear-Out, MIC-in
- Board size @ 27 mm (L) x 135 mm (W)

Layout

Motherboard

TV Port

S Port

DVI

CH7010A-T

JP1

SPDIN

CENTER/BASS

REAR-OUT

LINE-OUT

MIC-IN

USB1

USB2

1394
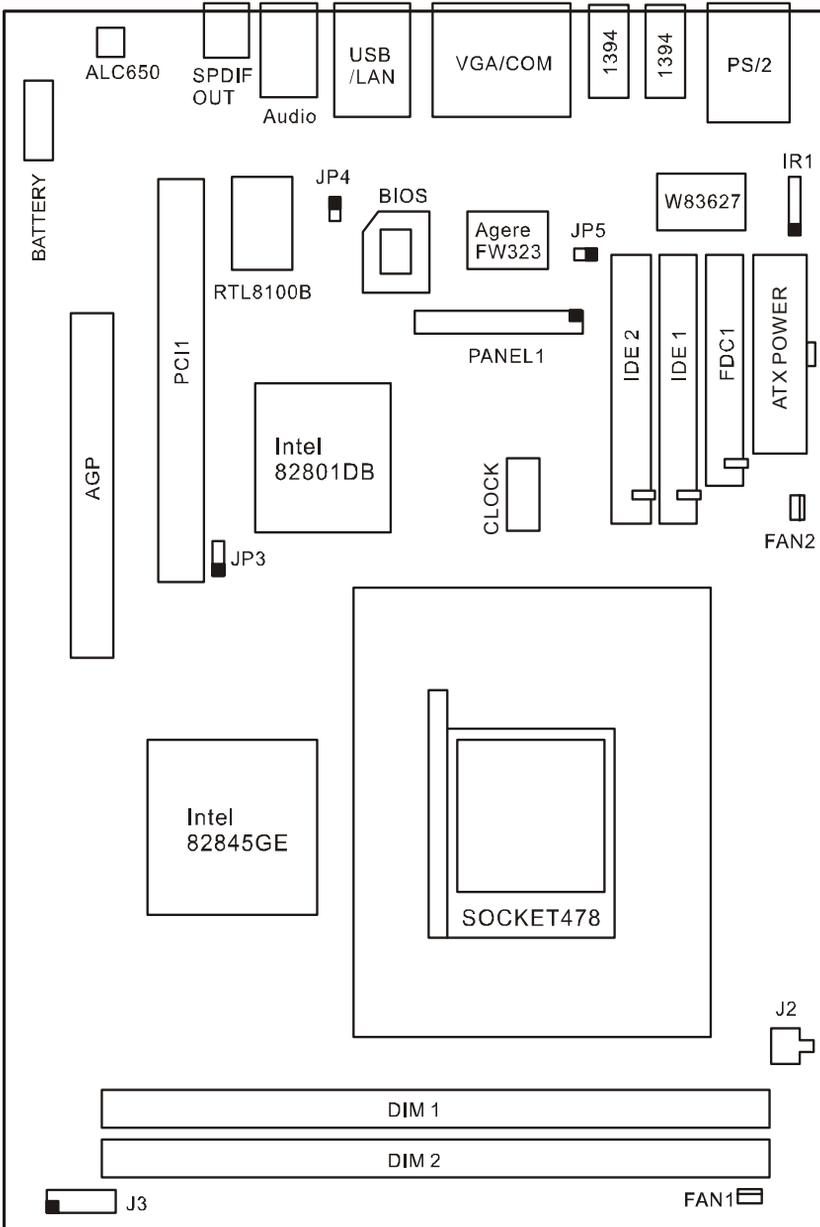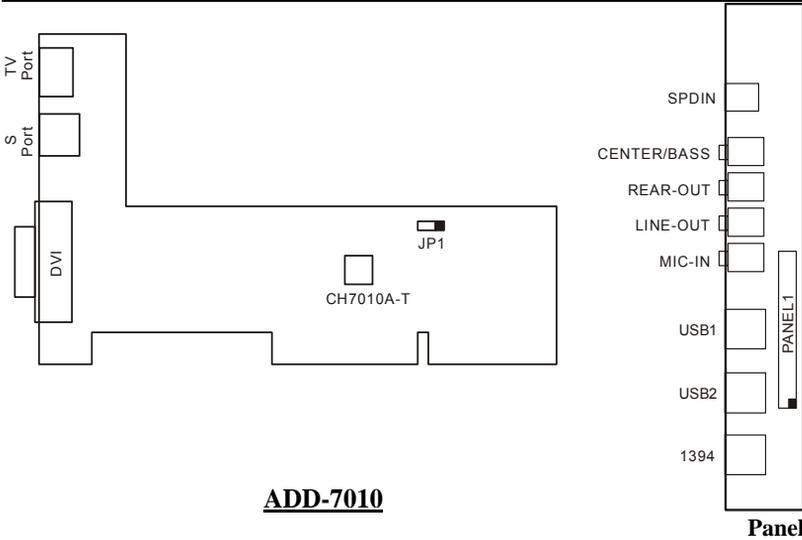
PANEL1

ADD-7010

Panel

■ The square represent Pin 1 of the jumpers/connectors

Rear Panel Connectors

Audio

MOUSE

KEYBOARD

1394 Port

COM

VGA

LAN

Audio

SPDIF OUT

USB

MIC IN/Center&Bass

LINE IN/REAR OUT

SPK OUT

Front Panel Connectors

SPDIN

Center /Bass

REAR OUT

LINE IN

MIC IN

USB1

USB2

1394

TV Port

S Port

DVI
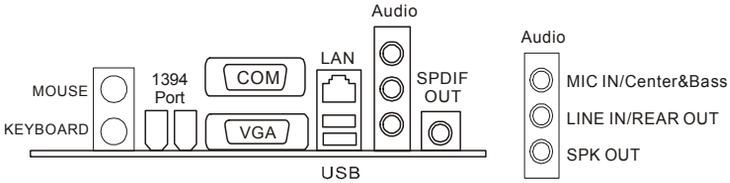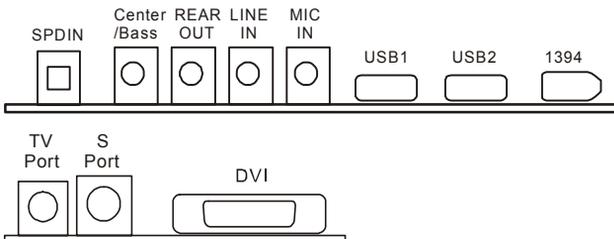
CHAPTER 2   JUMPER SETTINGS

2.1   JUMPER PRESENTATION
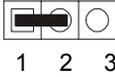
Pins 1 and 2 are shorted with a jumper cap.
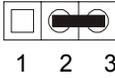
Pins 2 and 3 are shorted with a jumper cap.

The jumper is shorted when the jumper cap is placed over the two pins of the jumper.

The jumper is opened when the jumper cap is removed from jumper.

2.2   GRAPHICAL DESCRIPTION OF JUMPER SETTINGS
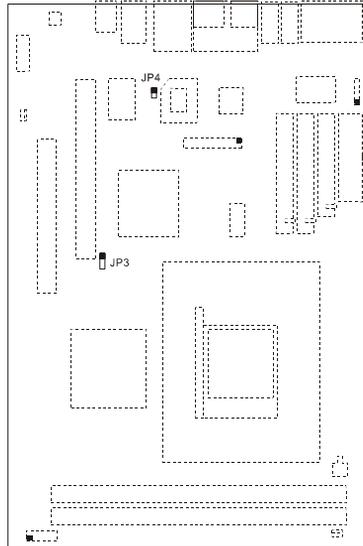
2.3   JP3 – CLEAR CMOS DATA

JP3 is used to clear the CMOS Data in the RTC (build in ICH4 chip).

JP3	Clear CMOS data
▣▬▬▬◯	Normal
☐ ◖▬▬◗	Clear CMOS

2.4   JP4 – BIOS PROTECTION

JP4	BIOS protection
◖▬▬◗	Enabled
◯◯	Disabled

CHAPTER 3   CONNECTOR CONFIGURATION

Once the mainboard has been fastened into system case, the next step is to connect the internal cables. The internal cables are wire leads with plastic female connectors that attach to the connectors. The mainboard connectors have the various numbers of pins and are the contact points between the mainboard and other parts of the computer.

Refer to Fig. 2.1 for the location of the connectors.

Connector Location
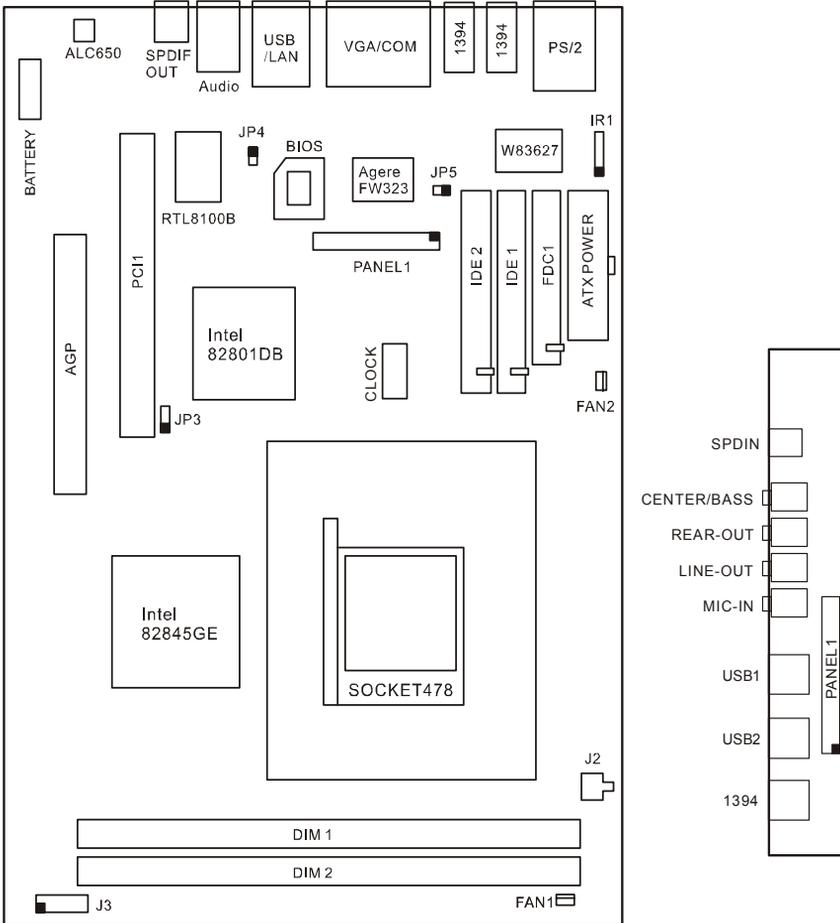
3.1 U1 – SOCKET478

U1 is the Socket478 CPU socket which can support Intel Pentium 4 processor.
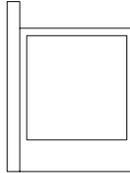
3.2 SYSTEM PANEL CONNECTOR

J3 is a front panel multi-function jumper. The pin definition is as following figure.

```
              1  7
             ┌──────┐
HDD LED      │□  ○ │ +  ┐
             │○  ○ │ +  ├ POWER LED
             │○  ○ │ -  ┘
POWER SWITCH │○  ○ │ +  ┐
             │○  ○ │ NC ├ SPK
RESET        │○  ○ │ -  ┘
             └──────┘
              6  12
```
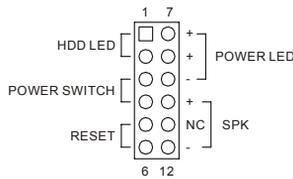
3.3 PANEL1 – MULTI-FUNCTION CONNECTOR

```
              1   16
TPB2N       □  ○   +12V
TPB2P       ○  ○   +12V
GND         ○  ○   +12V
TPA2N       ○  ○   SPDIF1A
TPA2P       ○  ○   TPBIAS2
GND         ○  ○   GND
GND         ○  ○   USBDT1+
MIC2_IN     ○  ○   USBDT1-
MIC1_IN     ○  ○   GND
LINEOUT_L   ○  ○   USBDT0+
LINEOUT_R   ○  ○   USBDT0-
XREARL      ○  ○   GND
XREARR      ○  ○   USBPOWER
XADOUTC     ○  ○   USBPOWER
XADOUTB     ○  ○   USBPOWER
              15  30
```
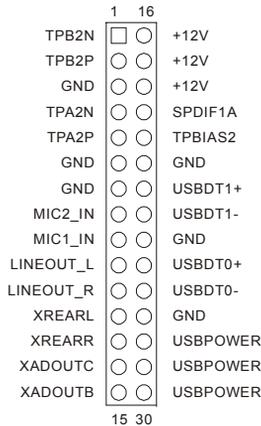
3.4 FAN CONNECTOR

FAN1 and FAN2 is the fan connector of system and CPU.

3.5 IR1 – IrDA CONNECTOR

VCC
NC
IRRX
GND
IRTX

3.6 ATX POWER SUPPLY CONNECTOR

	1	11	
+3.3VDC	○	○	+3.3VDC
+3.3VDC	○	○	-12VDC
GND	○	○	GND
+5VDC	○	○	Power Switch
GND	○	○	GND
+5VDC	○	○	GND
GND	○	○	GND
Power Good	○	○	-5VDC
+5V Standby	○	○	+5VDC
+12VDC	○	○	+5VDC
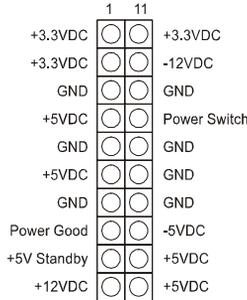
3.7 ATX 12V Connector

J2 must be connected with the ATX 4-pin connector of P4 Power.

+12V ○ ○ +12V
GND □ ○ GND
1 2

3.8 REAR PANEL CONNECTORS

Audio

MOUSE
KEYBOARD
1394 Port
COM
VGA
LAN
USB
Audio
SPDIF OUT

Audio
MIC IN/Center&Bass
LINE IN/REAR OUT
SPK OUT

3.9 FRONT PANEL CONNECTORS

SPDIN   Center/Bass   REAR OUT   LINE IN   MIC IN   USB1   USB2   1394
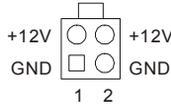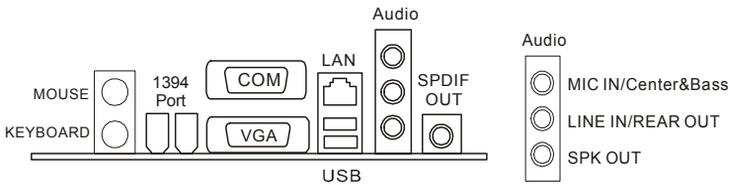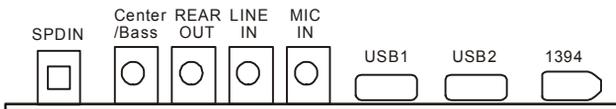
CHAPTER 4 AWARD BIOS UTILITY

4.1 ENTERING SETUP

Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press the <Ctrl> + <Alt> + <Esc> keys, to enter the AWARD BIOS CMOS Setup Utility.
Press <Del> to enter SETUP
Once you have entered, the Main Menu appears on the screen. The main menu allows you to select from eleven setup functions and two exit choices. Use the arrow keys to select the item and press the <Enter> key to accept or enter the sub-menu.

Phoenix – AwardBIOS CMOS Setup Utility	
►Standard CMOS Features	►Frequency/Voltage Control
►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 Configurations	Save & Exit Setup
►PC Health Status	Exit Without Saving
Esc: Quit F9: Menu in BIOS ↑↓→←: Select Item F10: Save & Exit Setup	
Load Optimized Defaults	

Load Fail – Safe Defaults
The safest default settings. You can use this function to detect the errors.

Load Optimized Defaults
The Optimized Defaults are common and efficient. It is recommended to load the optimized defaults at first, and then modify the needed configuration settings.

4.2 STANDARD CMOS FEATURES SETUP

The basic CMOS settings included in "Standard CMOS Features" are Date, Time, Hard Disk Drive Types, Floppy Disk Drive Types, and VGA etc. Use the arrow keys to highlight the item, and then use the <PgUp> or <PgDn> keys to select the value desired in each item.

```
┌─────────────────────────────────────────────────────────────────────────┐
│              Phoenix – AwardBIOS CMOS Setup Utility                        │
│                    Standard CMOS Features                                  │
├───────────────────────────────────────────────────┬───────────────────────┤
│   Date (mm:dd:yy)        Tue. Jan 01 2002          │      Item Help        │
│   Time (hh:mm:ss)        11:23:33                   │                       │
│                                                     │                       │
│  ► IDE Primary Master                               │  Menu Level    ►      │
│  ► IDE Primary Slave                                │                       │
│  ► IDE Secondary Master                             │  Change the day,      │
│  ► IDE Secondary Slave                              │  month, year and      │
│                                                     │  century              │
│   Drive A                [1.44M, 3.5 in.]           │                       │
│   Drive B                [None]                     │                       │
│                                                     │                       │
│   Video                  [EGA/VGA]                  │                       │
│   Hal On                 [All, But Keyboard]        │                       │
│                                                     │                       │
│   Base Memory            640K                       │                       │
│   Extended Memory        63488K                     │                       │
│   Total Memory           64512K                     │                       │
├───────────────────────────────────────────────────┴───────────────────────┤
│ ↑↓→←:Move  Enter:Select  +/-/PU/PD:Value  F10:Save  ESC:Exit  F1:General   │
│ Help                                                                        │
│    F5: Previous Values     F6: Fail - Save Defaults    F7: Optimized Defaults│
└─────────────────────────────────────────────────────────────────────────┘
```

Date/Time
Set the system date and time.

IDE Primary/Secondary Master/Slave
The BIOS will automatically detect the IDE drives type.

Drive A/B
Set the type of floppy drives installed.
Options: 720K/1.44/2.88M, 3.5 in.; None; 360K/1.2M, 5.25 in.

Video [EGA/VGA]
Select the type of video display card installed in your system.
EGA/ VGA: For EGA, VGA, SEGA, SVGA, or PGA monitors adapters.
CGA 40: Color Graphic Adapter, powering up in 40-column mode.
CGA 80: Color Graphic Adapter, powering up in 80-column mode.
MONO: Monochrome adapter, including high-resolution monochrome adapters.

Halt On [All, But Keyboard]
This category determines whether the system will stop if an error is detected during powering up.
All errors: Stop and prompt whenever the BIOS detect a non-fatal error.
No errors: The system boot will not stop for any error that may be detected.
All, But Keyboard: Stop and prompt for all other errors but a keyboard error.
All, But Diskette: Stop and prompt for all other errors but a diskette error.
All, But Disk/Key: Stop and prompt for all other errors but a keyboard or disk error.

Memory
This is a Display-Only Category, determined by POST of the BIOS.
Base Memory: The amount of base (or conventional) memory installed in the system.
Extended Memory: How much extended memory is presented during the POST.
Total Memory: The sum of the above memory.

4.3   ADVANCED BIOS FEATURES

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility Advanced BIOS Features		
Virus Warning	[Disabled]	Item Help
CPU L1 & L2 Cache	[Enabled]	
Quick Power On Self Test	[Enabled]	Menu Level ►
First Boot Device	[Floppy]	
Second Boot Device	[HDD – 0]	Allows you to choose
Third Boot Device	[LS120]	the VIRUS warning
Boot Other Device	[Enabled]	feature for IDE Hard
Swap Floppy Drive	[Disabled]	Disk boot sector
Boot Up Floppy Seek	[Enabled]	protection. If this
Boot Up Numlock Status	[On]	function is enabled
Gate A20 Option	[Fast]	and someone attempt
Typematic Rate Setting	[Disabled]	to write data into this
* Typematic Rate (Chars/Sec)	6	area, BIOS will show a
* Typematic Delay (Msec)	250	warning message on
Security Option	[Setup]	screen and alarm
OS Select For DRAM > 64MB	[Non – OS2]	beep
Report No FDD For WIN 95	[No]	
Small Logo(EPA) Show	[Disabled]	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5: Previous Values F6: Fail - Save Defaults F7: Optimized Defaults		

Virus warning
When enabled, guards against boot virus threats early in the On Guard boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system.

CPU L1 & L2 Cache
Turn on or off the CPU's L1 and L2 built-in cache.

Quick Power On Self Test
Enabled allows skip some tests during POST. Disabled is Normal POST.

First/Second/Third Boot Device
Select Your Boot Device Priority. It could be Floppy, LS120, HDD-0, SCSI, CDROM, HDD-1~3, ZIP100, USB-FDD/ZIP/CDROM/HDD and LAN, or Disabled.

Boot Other Device
Enables other boot device.

Swap Floppy Drive
If the system has two floppy drives, choose enabled to assign physical drive B to logical drive A and vice-versa.

Boot Up Floppy Seek
Tests the tracks of floppy drive to determine whether they have 40 or 80 tracks.

Boot Up NumLock Status
Set the power on state for NumLock. On, Off.

Gate A20 Option
Fast: Lets chipset control GateA20, or Normal - a pin in the keyboard controller controls GateA20. Default is Fast.

Typematic Rate Setting
When enabled, you can configure the following two items: typematic rate and typematic delay.

Typematic Rate (chars/sec)
Set the rate that the keys are repeats per sec. 6-30

Typematic Delay (Msec)
Set the delay time before keystrokes begin to repeat. 250-1000

Security Option
Determine whether the password is required every time the system boots or only when you enter setup. Setup, System

OS Select For DRAM>64MB
Selects OS2 only if you are running OS/2 operating system with more than 64MB of

RAM.

Report NO FDD for WIN 95
Choose Yes to report NO Floppy Disk Drive for WIN 95 to release IRQ6.

Small Logo(EPA) Show：Enabled or disabled the EPA logo.
Disabled is Normal POST.

4.4 ADVANCED CHIPSET FEATURES SETUP

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility Advanced Chipset Features		
DRAM Timing Selectable	[By SPD]	Item Help
CAS Latency Time	2.5	
Active to Precharge Delay	7	
DRAM RAS# to CAS# Delay	3	Menu Level ►
DRAM RAS# Precharge	3	
Turbo Mode	[Disabled]	
Memory Frequency For	[Auto]	
System BIOS Cacheable	[Enabled]	
Video BIOS Cacheable	[Enabled]	
Memory Hole At 15M-16M	[Disabled]	
Delay Transaction	[Enabled]	
Delay Prior to Thermal	[16 Min]	
AGP Aperture Size (MB)	[64]	
** On-Chip VGA Setting **		
On-Chip VGA	[Enabled]	
On-Chip Frame Buffer Size	[8MB]	
Boot Display	[Auto]	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5: Previous Values F6: Fail – Save Defaults F7: Optimized Defaults		

DRAM Timing Selectable
By SPD is the default setting. Manual

CAS Latency Time
Contains the information for SDRAM initialization procedure. 1.5/2/2/5/3

Active to Precharge Delay
5/6/7

DRAM RAS# to CAS# Delay
Set the latency between the DDR SDRAM active command and the read/write

command. 2/3

DRAM RAS# Precharge
Set the idle clocks after issuing a precharge command to the DDR SDRAM. 2/3

Turbo Mode
Enabled or disabled Turbo mode.

Memory Frequency For
This item's options will auto change to 'Auto/DDR200/DDR266' if CPU FSB is 400MHz, and to 'Auto/DDR266/DDR333' if CPU FSB is 533MHz.

System BIOS Cacheable
Besides conventional memory, the system BIOS area is also cacheable. Enabled, Disabled.

Video BIOS Cacheable
Besides conventional memory, video RAM area is also cacheable. Enabled, Disabled.

Memory Hole At 15M-16M
Enabled Memory hole at 15-16M is reserved for expanded ISA card.

Delayed Transaction
Enabled/ Disabled: Default setting is recommended.

Delay Prior to Thermal
Default setting is recommended. 4/8/16/32 Min.

AGP Aperture Size (MB)
Sets the effective size of the Graphics Aperture to be used in the particular GART Configuration. 4MB~ 256MB:

On-Chip VGA: Enabled/Disabled

On-Chip Frame Buffer Size: 8MB/1MB

Boot Display: Auto, CRT, TV, EPP

4.5   INTEGRATED PERIPHERALS

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility Integrated Peripherals		
On-Chip Primary PCI IDE	[Enabled]	Item Help
IDE Primary Master PIO	[Auto]	
IDE Primary Slave PIO	[Auto]	
IDE Primary Master UDMAO	[Auto]	Menu Level ►
IDE Primary Slave UDMA	[Auto]	
On-Chip Secondary PCI IDE	[Enabled]	
IDE Secondary Master PIO	[Auto]	
IDE Secondary Slave PIO	[Auto]	
IDE Secondary Master UDMA	[Auto]	
IDE Secondary Slave UDMA	[Auto]	
USB Controller	[Enabled]	
USB2.0 Controller	[Enabled]	
USB Keyboard Support	[Disabled]	
USB Mouse Support	[Disabled]	
AC97 Audio	[Auto]	
Init Display First	[Onboard/AGP]	
IDE HDD Block Mode	[Enabled]	
Onboard Lan Boot ROM	[Enabled]	
POWER ON Function	[BUTTON ONLY]	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5: Previous Values F6: Fail - Save Defaults F7: Optimized Defaults		

On-Chip Primary Secondary PCI IDE
Enables or disables On-Chip Primary/Secondary PCI IDE.

IDE Primary/Secondary Master/Slave PIO
Defines the IDE primary/secondary master/slave mode. Mode 0 – 4/ Auto:

IDE Primary/Secondary Master/Slave UDMA
Auto/ Disabled: Ultra DMA mode will be enabled if an Ultra DMA device is detected.

USB/2.0 Controller
Enables or disables onchip USB/USB2.0 controller.

USB Keyboard/Mouse Support
Enabled will support USB Keyboard/Mouse under DOS status.

AC97 Audio
Auto/ Disabled: Enables or disables the AC97 Audio onboard.

Init Display First
PCI Slot: Initializes the PCI VGA first.
Onborad/AGP: Initializes the onboard AGP VGA first.

IDE HDD Block Mode
Allows IDE HDD to read/write several sectors at each time. IDE HDD only reads/writes one sector at each time.

Onboard Lan Boot ROM: Enabled, Disabled

POWER ON Function
BUTTON ONLY / Keyboard 98 / Password / Hot Key / Mouse Left / Mouse Right / Any Key

KB Power ON Password
Press Enter to set the keyboard password to power up the system.

Hot Key Power ON
Options: Ctrl+F1~F12

Onboard FDC Controller
Enables or disables onboard FDC.

Onboard Serial Port 1/2
3F8/IRQ4,2F8/IRQ3.3E8/IRQ4,2E8/IRQ3, Defines the onboard serial port address and required interrupt number.
Auto: Onboard serial port address and IRQ are automatically assigned.
Disabled: Onboard serial port is disabled.

UART Mode Select
Set the UART Mode: Normal, IrDA, ASKIR

RxD, TxD Active
Hi, Lo/ Lo, Hi/ Lo, Lo/ Hi, Hi

IR Transmission Delay
Enabled/ Disabled

UR2 Duplex Mode
Half/ Full

Use IR Pins
IR-Rx2Tx2/ RxD2, TxD2

Onboard Parallel Port
378/IRQ7, 278/IRQ5, 3BC/IRQ7, Defines onboard parallel port address and IRQ channel. Disabled Onboard parallel port is disabled.

Parallel Port Mode
P Defines the parallel port mode: SPP, EPP, ECP, ECP+EP, Normal

EPP Mode Select
EPP1.7, EPP1.9

ECP Mode Use DMA
3, 1

Pwron After PWR-Fail
Off, on, former sts

Midi port address/IRQ:
Select midi port address/IRQ or disabled it.

4.6 POWER MANAGEMENT SETUP

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility Power Management Setup		
ACPI Function	[Enabled]	Item Help
ACPI Suspend Type	[S1<POS>]	
x Run VGABIOS if S3 Resume	Auto	
Power Management Option	[User Define]	Menu Level ►
Video Off Method	[DPMS]	
Video Off In Suspend	[Yes]	
Suspend Type	[Stop Grant]	
MODEM Use IRQ	[3]	
Suspend Mode	[Disabled]	
HDD Power Down	[Disabled]	
Soft – Off by PWRBTN	[Instant – Off]	
CPU THRM-Throttling	[50.0%]	
Wake-Up by PCI card	[Enabled]	
Power On by Ring	[Enabled]	
x USB KB Wake-Up From S3	Disabled	
Resume by Alarm	[Disabled]	
x Date<of Month> Alarm	0	
x Time<hh:mm:ss> Alarm	0 : 0 :0	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5: Previous Values F6: Fail - Save Defaults F7: Optimized Defaults		

ACPI function Enabled, Disabled.

ACPI Suspend Type: Set the ACPI suspend type. S1(POS)

Power Management
User Define: Users can configure their own Power Management Timer.
Min Saving - defined timer values are used. All timers are in their MAX values.
Max Saving - defined timer values are used. All timers are in their MIN values.

Video Off Method
V/H SYNC+Blank: In addition to Blank Screen, BIOS will also turn off the V-SYNC & H –SYNC signals from VGA card to monitor.
DPMS Support: This function is enabled only for VGA cards supporting DPMS.
Blank Screen: The system BIOS will only blank off the screen when disabling video.
   Note: When the green monitor does not detect the V/H-SYNC signals, the electron gun will be turned off.

Video Off in Suspend: Yes, No

MODEM Use IRQ 3, 4, 5, 7, 9, 10, 11 NA. Special wake-up event for Modem.

Suspend Mode
Disabled: The system never enters Suspend mode by timer.
1 Min ~ 1Hr: Defines the continuous idle time before the system enters Suspend mode. If any items defined in "PM Events" are on and activated, the system will be woken up.

HDD Power Down Disabled: HDD's motor will not be off by timer.
1 - 15 Min: Defines the continuous HDD idle time before the HDD enters power saving mode (motor off).

Soft-Off by PWRBTN Instant-Off The system will immediately power off once the power button is pressed. Delay 4 sec The system will power off when power button is pressed for 4 seconds.

CPU THRM-Throtting
12.5%, ~ 87.5% Selects the duty cycle of the STPCLK# signal, and slowing down the CPU speed when the system enters green mode.

Wake-Up by PCI card
Enabled Allows the system to be waken up by PCI card.

Power On by Ring
Enabled Allows the system to be powered on when a indicator signal comes up to UART1 or UART2 from external modem (to LAN Wake-up Header from LAN adapter or to modem Ring on Header from internal modem card).

Resume by Alarm
Enabled RTC alarm can be used to generate a wake-up event to power up the system.
Disabled RTC has no alarm function.

Date/Time (of Month/hh:mm:ss) Alarm
Set the alarm date and time.
Reload Global Timer Events
Enabled reload global timer when following event occur.
  Primary/Secondary IDE 0/1
  FDD, COM. LPT Port
  PCI PIRQ [A-D] #

4.7   PNP/PCI CONFIGURATION SETUP

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility PnP/PCI Configuration		
Reset Configuration Data	[Disabled]	Item Help
Reset Controlled By	[Auto (ESCD)]	Menu Level ►
* IRQ Resource	Press Enter	
PCI/VGA Palette Snoop	[Disabled]	
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help		
F5: Previous Values F6: Fail - Save Defaults F7: Optimized Defaults		

Reset Configuration Data
Default setting is Disabled. Select Enabled to reset ESCD when you exit Setup, if you have installed a new add-on and the system reconfiguration has caused serious conflicts preventing the OS from booting.

Resources Controlled By
BIOS can automatically configure all boot and PnP compatible devices. If you choose Auto, you cannot select IRQ DMA and memory base address fields, because BIOS automatically assigns them.
If you choose Manual, go to the next item and press Enter to configure the IRQ Resources.

PCI/VGA Palette Snoop
Disabled is default setting. Enabled Non-standard VGA cards such as graphics accelerators or MPEG video cars may not show colors properly. Enabling this item can solve this problem.

4.8 PC HEALTH STATUS

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility PC Health Status	
CPU Warning Temperature [Disabled] Current System Temp. Current CPU1 Temperature Current CPUFAN1 Speed Current CPUFAN2 Speed IN0 (V) IN1 (V) IN2 (V) +5 V (V) +12 V (V) -12 V (V) -5 V (V) VBAT (V) 5VSB (V) Shutdown Temperature [Disabled]	Item Help Menu Level ►
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail - Save Defaults F7: Optimized Defaults	

CPU Warning Temperature
An alarm will beep when the CPU temperature is over this value. *Disabled* No alarm beep.

Shutdown Temperature
Set the shutdown temperature.

4.9 FREQUENCY/VOLTAGE CONTROL

The following indicates the options for each item and describes their meaning.

Phoenix – AwardBIOS CMOS Setup Utility Frequency/Voltage Control	
Auto Detect PCI/DIMM Clk [Enabled] Spread Spectrum [Disabled] CPU Host/PCI Clock Default	Item Help Menu Level ►
↑↓→←:Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5: Previous Values F6: Fail - Save Defaults F7: Optimized Defaults	

Auto Detect PCI Clk
Enabled Close empty DIMM or PCI clock to reduce EMI. Disabled Does not close empty DIMM or PCI clock.
  Warning: Be sure your selection is right. CPU over speed will be dangerous!

Spread spectrum
Disabled, Enabled

CPU Host/AGP/PCI Clock
Default

4.10   PASSWORD SETTING

When you select "Set User Password" or "Set Supervisor Password" and press **Enter**, the following message will appear at the center of the screen:

ENTER PASSWORD

Type the password, up to eight characters, and press **Enter**. The password typed now will clear any 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 abort the selection.

To disable password, just press **Enter** when you are prompted to enter password. A message as below will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

PASSWORD DISABLED

If you have selected **"Syste**m" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup.
If you have selected **"Setu**p" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

4.11   EXIT SETUP

Save & Exit Setup
After finish modifying the values, choose this item to save the changes to the CMOS RAM. A confirmation message will appear, type "Y" and press **Enter** to save and exit Setup.

Exit Without Saving
If you do not want to save the changes, choose this item to exit Setup without saving changes. A confirmation message will appear, type "Y" and press **Enter** to save and exit Setup.

APPENDIX A   QUICK GUIDE

The table below summaries the functions and settings of each jumper of the motherboard.

1.   **JUMPER SETTINGS**

Function		Jumper Settings
Clear CMOS	Normal	JP3: 1-2 Short
	Clear CMOS	JP3: 2-3 Short
BIOS Protection	Enabled	JP4: Short
	Disabled	JP4: Open

2.   **CONNECTORS**

Connector	Description
U1	Socket 478 of Intel Pentium 4 CPU
FAN1	Fan connector of CPU
FAN2	Fan connector of System
IR1	IR connector
J3	2x6-pin front panel switch connector
PANEL1	2x12-pin multi-functions connector
J4	ATX Power Supply connector
J2	ATX 12V connector It must be connected with the ATX 4-pin connector of P4 power, otherwise the system cannot boot up.
DIM1/2	DIMM slot
FDC1	Floppy Disk connector
IDE1/2	IDE slot
PCI1	PCI slot
AGP	AGP slot