ANOVO IPC User's Manual



User's Manual

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Item Checklist:

| Complete | ely check your package .If you discover damaged or |
|-------------------|------------------------------------------------------|
| missing iter | ns, contact your retailer. |
| $\Box \checkmark$ | ANOV07845 Motherboard |
| $\Box \checkmark$ | User's manual |
| $\Box \checkmark$ | Drivers' CD-ROM |
| $\Box \checkmark$ | IDE ribbon cable:ATA66 |
| $\Box \checkmark$ | 1 Floppy ribbon cable |
| $\Box \checkmark$ | 1 Audio port and 1 COM port ribbon cable with braket |
| $\Box \checkmark$ | 1 COM port ribbon cable with braket |
| $\Box \checkmark$ | 1 USB ribbion cable with braket |
| $\Box \checkmark$ | 1 PS/2 1 to 2 adapter |
| $\Box \checkmark$ | 3-Pin cable |

Ordering Information:

| | CPU | Memory | VGA | Audio | LAN | Rem ark |
|---------------|------------|------------|-----|-------|-----|------------|
| NOVO-7845GVEA | 400/533FSB | DDR266/333 | 1 | 1 | 1 | |
| NOV0-7845GVE | 400/533FSB | DDR266/333 | 1 | NO | 1 | |
| NOVO-7845GVA | 400/533FSB | DDR266/333 | 1 | 1 | NO | |

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Safety Instruction

1. Always read the safety instructions carefully.

2. Keep this User's Manual for future reference.

3. Keep this equipment away from humidity.

4. Lay this equipment on a reliable flat surface before setting it up.

5. The openings on the enclosure are for air convection hence protects the equipment from overheating. DO NOT COVER THE OPENINGS.

6. Make sure the voltage of the power source and adjust properly

110/220V before connecting the equipment to the power inlet.

7. Place the power cord such a way that people can not step on it. Do not place anything over the power cord.

8. Always Unplug the Power Cord before inserting any add-on card or module.

9. All cautions and warnings on the equipment should be noted.10. Never pour any liquid into the opening that could damage or cause electrical shock.

11. If any of the situations arises, get the equipment checked by a service personnel:

12. Do not leave this equipment in an environment unconditioned,

storage temperature above 60_0 C (140₀F),It may damage the equipment.

13. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

NOVO-7845GV Quickly Instruction

Jumper Setting:

Please make sure all jumper was normal setting before you connect power to NOVO-7845GV,The normal setting as below::

| Jumper | Normal Value: Normal Sett: | | |
|----------|-------------------------------|----------------------|--|
| JP2 | COM2:RS232 | Pin3~5, Pin4~6 short | |
| JP3 | COM2:RS232 | Pin3~5, Pin4~6 short | |
| JP4 | COM2:RS232 | Pin 1~2 short | |
| CLR_CMOS | Clear Jumper Setting | Pin 2~3 short | |
| JWD | Watch Dog Burst Mode | Pin 1~2 short | |
| J_Power | Power Supply Mode(Normal:ATX) | Pin 2~3 short | |

Chapter 1 . Instruction 1.1 Novo 7845GV Instruction

Thank you for purchasing the $Novo\ 7845GV$ CPU cards for ANOVO Technology Co.,Ltd.

The Novo7845GV support 400/533Mhz FSB.. The NOVO7-845GV CPU cards utilize Intel 845GV chipset consisting of two components: the Intel 845GV Memory Controller Hub and the 82801DB Controller speed of 200/266/333 MHz, providing a fully compatible ,high performance and cost-effective industry control platform. The new integrated technologies, together integrated onboard 64M VGA controller ,integrated LAN, 4 USB ports, and ATA 100/66/33 ,give customers an advanced solution at an reasonable price . It provides 400/533MHz host bus speed to support Intel Pentium 4 socket 478 processors. It also provides advanced features such as ACPI and BIOS-Protect.

1.2 Key Feature

1.2.1 Size

* Full-size PICMG: 338.5mm x 122mm

1.2.2 CPU

- * Supports Socket 478 for Intel® Pentium 4/Celeron processors
- * Core Frequency from 1.4 GHz to 2.8 GHz and up* (*not tested yet)
- * Support 400/533 MHz Host Bus speed

1.2.3 Chipset

- Intel® 845GV Chipset: 82845GV (GMCH) and 82801DB (ICH4)
- 1.2.4 System memory)
- * Support two 184-pin DDR200/266/333MHz Memory
- * Up to 2.0 GB of 333MHz DDR SDRAM
- 1.2.5 Onboard VGA
- * Integrate 64M VGA controller.
- 1.2.6 Onboard LAN
- * ICH4 integration LAN controller
- * Intel 82562ET (option)
- Provides one 10/100M LAN interface.
- 1.2.7 On-board IDE

- * An IDE controller integrated in ICH4
- * Support PIO and DMA communication modes
- * Two fast EIDE interfaces supporting up to four IDE devices including IDE hard disks and CDROM drive.
- 1.2.8 On-board I/O
- * Winbond W83627HF-AW super I/O chip..
- * One Floppy Driver connecter port, Support two FDD with 360K, 720K, 1.2M, 1.44M or 2.88MB.
- * Two high speed 16550 UART port, COM1:RS-232, COM2:RS-232/422/485 can select.
- * One parallel port

1.2.9 Advanced features

- * Provides audio output with a AC' 97 connector
- * PCI2.2 Specification compliant
- * Provides on-board PS/2 mouse and keyboard ports
- * Four USB ports supported. USB2.0 Specification compliant.
- * Supports Windows 98/2000/XP software soft-off
- * Supports two fan off when the system enters suspend mode.
- * On-board super I/O chip supports system monitoring (monitors CPU and system temperature, voltages and fan speed.

1.2.10 Watchdog Timer

- * Can be enabled or disabled by software and jumper.
- * Write I/o port OEFH with to disable watchdog.
- * Time-out timing select from 1 to 239 seconds or from 1 to 239 minutes.
- * Watchdog function can be set to Reset/NMI/Disable.

1.2.11 BIOS

- * Supports flash ROM with 2Mbit memory size, plug and play ready.
- * Supports CD-ROM/USB devices/LS-120 ZIP boot UP.

Chapter 2 Installation Instructions

2.1 External Connectors

2.1.1 Keyboard/Mouse Connector(MKB)

This connector is for the usage of PS/2 mouse and keyboard through a One-two Adapter. If using a standard AT keyboard, an adapter should be used to suit this connector.



2.1.2 VGA Connector

The monitor output connector is for output to VGA-compatible device.



2.1.3 LAN Connector



2.1.4 USB Connectors(USB1,2,3,4) You should use a 10-pin cable to connect onboard USB headers and USB devices.



2.1.5 External Keyboard Connector(KB) External Mouse Connector(MS)



2.1.6 Aux_Power

Be sure to connect the **Aux_Power** supply plug to the connector in proper orientation.



2.1.7 ATX_PC 电源接口

The CPU-card provide a 3pin ATX_PC power connector, please connector the 5VSB/PS_ON and GND line to industry motherboard by 3pin cable when you use ATX power supply mode.



2.1.8 CPUFAN

The fan speeds of CPUFAN can be detected and viewed in "PC Health" section of the BIOS.



2.1.9 UART1,2

The serial ports UART1,2 connectors can be connected with serial port devices. You can enable/disable them and choose the IRQ or I/O address in "INTEGRATED PERIPHERALS" from BIOS SETUP.





Power Button (PWRBT)(Pin13,14)

The connector connects to the case's power buttton.

Reset Button ((RSTBT)(Pin17,18)

The connector connects to the case's reset switch. Press the switch once, the system resets.

Power LED Connector (PWR LED)(Pin1,Pin3,Pin5)

The power LED indicates the status of the main power switch.

IDE_LED Connector (IDE_LED)(Pin19,20)

The connector connects to the case's IDE indicator LED indicating the activity status of IDE hard disk $_{\circ}$

Key-Lock Connector (KEY LK)(Pin7,9)

The connector can be connected to the keyboard lock switch on the case for locking the keyboard.

Speaker Connector (Speaker)(Pin2,4,6,8)

The connector connects to the case's buzzer.



2.1.11 LPT Connector The board provide a LPT connector, you can connect it to pro

2.2 Jumper setting.

0

Jumpers are located on the CPU card, they represent, clear CMOS jumper JCC etc. Pin 1 for all jumpers are located on the side with a thick white line (Pin1), refer to the CPU card's silkscreen . Jumpers with three pins will be shown as . , to represent pin1 & pin2 connected and . to represent pin2 & pin3 connected.

2.2.1 Clear CMOS(CLR_CMOS1)

If you want to clear CMOS, unplug the AC power supply first, close JCC (pin1 & pin2) once, set JCC back to the normal status with pin2 & pin3 connected, then power on the system.



2.2.2 FSB Frequency setting(JFS1, JFS2)

Jumpers labeled JFS is located on the motherboard providing users with CPU on the correct clock. The host bus speed can be set as 100/133MHz or AUTO select. Refer to the chart below for the location of these jumpers, and the table for information on how to set them.



| FSB | 100 | 133 | 200 | AUTO |
|------|--------|---------|---------|--------|
| JFS2 | 1~2(H) | 1~2(H) | 2~3(L) | 1~2(H) |
| JFS1 | 2~3(L) | OPEN(H) | OPEN(H) | 1~2 |

Note:

Overclocking your processor is not recommended. We do not guarantee the overclocking system to be stable.

2.2.3 Watchdog Timer Action Jumper setting (JWD)

We provide the function of Watchdog Timer, set JWD with pin1&pin2 closed for NMI; otherwise, set JWD with pin2&pin3 closed for Reset, set JWD all open for disabling watchdog action.



2.2.4 BIOS-Protect Jumper (JAV)

The BIOS of the CPU card is contained inside the Flash ROM. If the jumper JAV is set as closed, you will be unable to flash the BIOS to the motherboard. However in this status, the system BIOS is protected from being attacked by serious virus such as CIH virus.



2.2.5 COM2 transfer mode select.(JP2, JP3, JP4)



5~6,7~8

2.2.6 AT/ATX power supply mode select .(J_Power1)

RS485 1~3,2~4 1~3,2~4



Chapter 3 BIOS setting

Instruction

This chapter provides information on the BIOS Setup program and allows you to configure the system for optimum use.

You may need to run the Setup program when:

■ An error message appears on the screen during the system booting up, and requests you to run SETUP.

■ You want to change the default settings for customized features.

Entering BIOS Setup

Power on the computer and the system will start post (Power On Self Test) process. When the "DEL: Setup" message below appears on the screen, press key to enter BIOS setup.

Instruction Control Key

| < † > | Move to the previous item | | | |
|-----------------|------------------------------------------------------------------------------------------------|--|--|--|
| <↓> | Move to the next item | | | |
| <≁> | Move to the item on the left-hand side | | | |
| <→> | Move to the item on the right-hand side | | | |
| <enter></enter> | Select the item | | | |
| <esc></esc> | Jump to the Exit menu or returns to the main menu from a submenu | | | |
| <+/PU> | Increase the numeric value or make changes | | | |
| <-/PU> | Decrease the numeric value or make changes | | | |
| <f1></f1> | General help, only for Status Page Setup Menu and Option Page Setup Menu | | | |
| <f6></f6> | Load the default CMOS value from Fail-Safe default table , only for Option Page Setup Menu. | | | |
| <f7></f7> | Load Optimized defaults | | | |
| <f10></f10> | Save all the CMOS changes and exit | | | |

3.1 MAIN MENU

The screen will appear the Main Menu after you enter Phoenix-AwardBIOS CMOS Setup Utility .The Main Menu displays twelve configurable functions and two exit function choices . Use arrow keys to move among the items and press <Enter> to enter the submenu Phoenix - AwardBIOS CHOS Setup Utility

| Standard CMOS Features Advanced BIOS Features Advanced Chipset Features Integrated Peripherals Power Management Setup PnP/PCI Configurations | ► PC Health Status Load Optimized Defaults Set Supervisor Password Set User Password Save & Exit Setup Exit Without Saving | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--|
| Esc : Quit F9 : Menu in BIOS F10 : Save & Exit Setup | †↓→← : Select Item | |
| Time, Date, Hard Disk Type | | |

Standard CMOS Features

Use this menu for basic system configurations, such as time, date etc. **Advanced BIOS Features** Use this menu to setup the items of BIOS enhanced features. **Advanced Chipset Features** Use this menu to change the values in the chipset registers and optimize your system's performance **Integrated Peripherals** Use this menu to specify your settings for integrated peripherals.. **Power Management Features** Use this menu to specify your settings for power management. **PNP/PCI** Configurations This entry appears if your system supports PnP/PCI. PC Health Status This entry shows your PC health status. **Frequency/Voltage Control** Use this menu to specify your settings for frequency/voltage control. Set Supervisor Password Use this menu to set Supervisor Password. Set User Password Use this menu to set User Password.

Load Optimized Defaults Use this menu to load factory default settings into the BIOS for stable system performance operations. Save & Exit Setup Save changes to CMOS and exit setup. Exit Without Saving Abandon all changes and exit setup.

3.2 Standard CMOS Features

| Phoenix - AwardBIOS CMOS Setup Utility Standard CMOS Features | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------|--|--|--|
| Date (mm:dd:yy) | Thu, May 13 2004 | Item Help | | | |
| | 17 : 42 : 44 | Menu Level 🕨 | | | |
| ► IDE Primary Master ► IDE Primary Slave ► IDE Secondary Master ► IDE Secondary Slave | | Change the day, month, year and century | | | |
| Drive A Drive B | [1.44M, 3.5 in.] [None] | | | | |
| Video Halt On | [EGA/UGA] [All , But Keyboard] | | | | |
| Base Memory Extended Memory Total Memory | 640K 65472K 1024K | | | | |
| L ↑↓→←:Move Enter:Select F5: Previous Values | +/-/PU/PD:Ualue F10:Save F6: Fail-Safe Defaults | ESC:Exit F1:General Help F7: Optimized Defaults | | | |

Date

This allows you to set the date that you want (usually the current date). The format is < month > <date><year>

Time

This allows you to set the time that you want(usually the current date).

The format is <Hour><Minute><second>.

IDE Primary/Secondary Master/Slave

On IDE HDD Auto-Detection menu you can press <Enter> to auto-detect the HDD's size, head and other .

3.3 Advanced BIOS Features

| Phoenix - AwardBIOS CMOS Setup Utility Advanced BIOS Features | | | | |
|-----------------------------------------------------------------------------------------------|---|----------------------------------------------------|--|--|
| Virus Warning [Disabled] | 4 | Item Help | | |
| Quick Power On Self Test [Enabled] | | Menu Level 🕨 🕨 | | |
| Second Boot Device [HDD-0] | | Allows you to choose | | |
| Boot Other Device [Enabled] | | feature for IDE Hard | | |
| Boot Up Floppy Seek [Enabled] Boot Up NumLock Status | | protection. If this function is enabled | | |
| Gate A20 Option [Fast] Tuyematic Rate Setting [Disabled] | | and someone attempt to | | |
| x Typematic Rate (Chars/Sec) 6 | | area , BIOS will show | | |
| Security Option [Setup] | | screen and alarm beep | | |
| MPS Version Control For OS[1.4] OS Select For DROM > 64MB (Non-OS2) | | | | |
| HDD S.M.A.R.T. Capability [Disabled] | V | | | |
| †↓→←:Move Enter:Select +/-/PU/PD:Ualue F10:Save F5: Previous Ualues F6: Fail-Safe Defaults | | ESC:Exit F1:General Help F7: Optimized Defaults | | |

Virus Warning

Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep. Setting option :Disabled and Enabled.

CPU L1 & L2 Cache

Cache memory is additional memory that is much faster than conventional DRAM (system memory). When the CPU requests data, the system transfers the requested data from the main DRAM into cache memory, for even faster access by the CPU. The setting controls the internal cache (also known as L1 or level 1 cache) and external cache (also known as L2 or level 2 cache). Setting options: Disabled, Enable

Quick Power On Self Test

Allows the system to skip certain tests while booting. This will decrease the time needed to boot the system.

Setting options: Enabled /Disabled

First/Second/Third Boot Device

The items allow you to select your boot device priority. Setting options :

Floppy/LS120/HDD-0/SCSI/CDROM/HDD-1/HDD-2/HDD-3 **Boot Other Device:**

Setting the option to "Enabled" allows the system to try to boot from other devices if the system fails to boot from the 1st/2nd/3rd boot device.

Swap Floppy Drive:

Setting to Enabled will swap floppy drives A: and B:.

Boot Up Floppy Seek:

This setting causes the BIOS to search for floppy disk drives at boot time. When enabled, the BIOS will activate the floppy disk drives during the boot process: the drive activity light will come on and the head will move back and forth once. First A: will be done and then B: if it exists. Setting options: *Disabled, Enabled.*

Boot Up NumLock Status:

This item is to set the Num Lock status when the system is powered on. Setting to On will turn on the Num Lock key when the system is powered on. Setting to Off will allow end users to use the arrow keys on the numeric keypad. Setting options: On, Off.

Gate A20 Option:

Fast – lets chipset control GateA20 and Normal – a pin in the keyboard controller controls GateA20.Default is Fast.

Typematic Rate Setting:

Keystrokes repeat at a rate determined by the keyboard controller-when enabled, the typematic rate and typematic delay can be selected.

Security Option:

Select whether the password is required every time the system boots or only when you enter setup .

APIC Mode/Mps Version Control For OS:

This field allows you to select which MPS (Multi-Processor Specification) version to be used for the operating system. You need to select the MPS version supported by your operating system. To find out which version to use, consult the vendor of your operating system. Settings: *1.4*, *1.1*.

OS Select For DRAM> 64MB

This allows you to run the OS/2[®] operating system with DRAM larger than 64MB. When you choose *Non-OS2*, you cannot run the OS/2[®] operating system with DRAM larger than 64MB. But it is possible if you choose OS2.

HDD S.M.A.R.T. Capablility:

This allows you to activate the S.M.A.R.T. (Self-Monitoring Analysis & Reporting Technology) capability for the hard disks. S.M.A.R.T is a utility that monitors your disk status to predict hard disk failure. This gives you an opportunity to move data from a hard disk that is going to fail to a safe place before the hard disk becomes offline. Settings: *Enabled*, *Disabled*.

| DRAM Timing Selectable | [By SPD] | Item Help |
|-----------------------------------------------|--------------|--------------|
| GHS Latency lime Active to Prechange Delay | [1.5] [7] | Manu Laual h |
| DRAM ROSH to COSH Delay | [3] | Hend Bever |
| DRAM RAS# Precharge | [3] | |
| Turbo Mode | [Disabled] | |
| Memory Frequency For | [Auto] | |
| System BIOS Cacheable | [Enabled] | |
| Video BIOS Cacheable | [Disabled] | |
| Memory Hole At 15M-16M | [Disabled] | |
| Delayed Transaction | [Enabled] | |
| Delay Prior to Thermal | [16 Min] | |
| AGP Aperture Size (MB) | [64] | |
| ** On-Chip UGA Setting ** | | |
| On-Chip UGA | [Enabled] | |
| On-Chip Frame Buffer Size | E8MB1 | |
| Boot Display | [Auto] | |

3.4 Advanced Chipset Features

DRAM Timing Selectable:

Selects whether DRAM timing is controlled by the SPD (Serial Presence Detect) EEPROM on the DRAM module. Setting to *By SPD* enables the following fields automatically to be determined by BIOS based on the configurations on the SPD. Selecting *Manual* allows users to configure these fields manually.

CAS Latency Time

This controls the timing delay (in clock cycles) before SDRAM starts a read command after receiving it. Settings: 2, 2.5 (clocks). 2 (clocks) increases the system performance the most while 2.5 (clocks) provides the most stable performance.

Active to Precharge Delay:

This setting controls the precharge delay, which determines the timing delay for DRAM precharge. Settings: 5 *clocks*, 6 *clocks*, 7 *clocks*.

DRAM RAS# to CAS# Delay:

When DRAM is refreshed, both rows and columns are addressed separately. This setup item allows you to determine the timing of the

transition from RAS (row address strobe) to CAS (column address strobe). The less the clock cycles, the faster the DRAM performance. Setting options: *3 clocks*, *2 clocks*.

DRAM RAS# Precharge

This item controls the number of cycles for Row Address Strobe (RAS) to be allowed to precharge. If insufficient time is allowed for the RAS to accumulate its charge before DRAM refresh, refresh may be incomplete and DRAM may fail to retain data. This item applies only when synchronous DRAM is installed in the system. Available settings: 2 *clocks*, 3 *clocks*.

Memory Frequency For :

This setup item allows you to determine the Frequency of the Memory . Option Select:Auto/PC100/PC133.

System BIOS Cacheable:

Selecting *Enabled* allows caching of the system BIOS ROM at F0000h- FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result. Setting options: *Enabled*, *Disabled*

Video BIOS Cacheable:

This item allows you select the Video BIOS Cache statue. Setting options: *Enabled, Disabled*

Delayed Transaction:

When set to *Enabled*, this feature frees the PCI bus when the CUP is accessing 8-bit ISA cards. This process normally consumes about 50-60 PCI clocks without PCI delayed transaction .Set this field to *Disabled* when using ISA cards that are not PCI 2.1 compliant .Configuration Option: *Enabled/Disabled*.

AGP Aperture Size<MB>:

This setting controls just how much system RAM can be allocated to AGP for video purposes. The aperture is a portion of the PCI memory address range dedicated to graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. The option allows the selection of an aperture size of *4MB*, *8MB*, *16MB*, *32MB*, *64MB*, *128MB*, *and 256 MB*.

On-Chip VGA Setting:

The item allows you setting the on-board VGA statues.

Phoenix - AwardBIOS CHOS Setup Utility Integrated Peripherals On-Chip Primary PCI IDE [Enabled] IDE Primary Master PIO [Auto] IDE Primary Master PIO [Auto] IDE Primary Master UDMA [Auto] IDE Primary Slave PIO [Auto] IDE Primary Slave PIO [Auto] IDE Primary Slave UDMA [Auto] IDE Secondary PCI IDE [Enabled] [Auto] IDE Secondary Master UDMA [Auto] IDE Secondary Slave PIO [Auto] IDE Secondary Master UDMA [Auto] IDE Secondary Master UDMA [Auto] IDE Secondary Slave UDMA [Auto] IDE Secondary Slave UDMA [Auto] USB Controller [Enabled] USB Controller [Enabled] USB Keyboard Support [Disabled] AC97 Audia [Auto] Onboard/CMR LAN selection [Auto] IDE HDD Block Mode [Enabled] Onboard/FDC Controller [Enabled] Thetw:Move Enter:Select */~/PU/PD:Ualue F10:Save ESC:Exit F1:General Help F5: Previous Ualues F6: F6:1-S6 pe Eaults

3.5 Integrated Peripherals

On-Chip Primary/Secondary PCI IDE

This setting controls the on-chip IDE controller. Setting options: *Disabled*, *Auto/Mode0/Mode1/Mode 2/Mode 3/Mode 4*

USB Controller:

The item allows you setting Enable/Disable the onboard USB Controllers. Setting Option: Enabled ,Disable.

USB 2.0 Controller:

This entry is for disable/enable EHCI controller only. The BIOS itself may/ may not have speed USB support. If the BIOS has high speed USB support built in, the support will be automatically turn on when high speed device were attached.

USB Keyboard Support:

The item allows you setting Enable/Disable the USB Keyboard Support . Setting Option: Enabled ,Disable.

AC97 Audio

Auto allows the motherboard to detect whether an audio device is used. If an audio device is detected, the onboard AC'97 (Audio Codec'97) controller will be enabled; if not, it is disabled. Disable the controller if you want to use other

controller cards to connect an audio device. Settings: Auto, Disabled.

AC97 Modem

Auto allows the motherboard to detect whether a modem is used. If a modem is detected, the onboard AC'97 modem controller will be enabled; if not, it is disabled. Disable the controller if you want to use other controller cards to connect a modem. Settings: *Auto, Disabled.*

Onboard/CNR LAN selection

The field determines whether the onboard LAN controller is activated. Setting options: *Enabled*, *Disabled*.

Init Display First

This item can define the first Display device. Option selected: *Onboard/AGP* Or *PCI Slot*

IDE HDD Block Mode

If your IDE hard drive supports block mode select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support.

Onboard FDC Controller

The item allows you setting Enable/Disable the onboard FDC Controllers. Setting Option: Enabled , Disable

3.6 Power Management Setup

| Phoenix - AwardBIOS CMOS Setup Utility Power Management Setup | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------|--|
| ACPI Function | [Enabled] | 4 | Item Help | |
| Power Management Uideo Off Method Uideo Off In Suspend Suspend Type MODEM Use IRQ Suspend Mode HDD Power Down Soft-Off by PWR-BITN CPU LHRM-Throttling Wake-Up by PCI card Power On by Ring Resume by Alarm × Date(of Month) Alarm × Time(hhimmiss) Alarm | User Define] [DPMS] [Yes] [Stop Grant] [J] [Disabled] [Instant-Off] [50.0%] [Enabled] [Enabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disabled] [Disable | ~ | Menu Level ► | |
| Primary IDE Ø Primary IDE 1 | [Disabled] [Disabled] | | | |
| †↓→+:Move Enter:Select F5: Previous Values | +/-/PU/PD:Value F10:Save F6: Fail-Safe Defaults | ES F | SC:Exit F1:General Help 7: Optimized Defaults | |

ACPI Function

This setting is used to enable/disable the ACPI Function. Setting options: *Enabled, Disabled.*

Power Management

This field allows you to activate or deactivate the automatic power saving features . The [User Defined] option allows you to set the period of inactivity before the system enters suspend mode. Refer to **Suspend Mode** later in this section .

When set to [Max Saving], system power is conserved to its greatest amount. This setting automatically puts the system into suspend mode after a brief period of system inactivity. [Min Saving' allows the least power saving as the system enters suspend mode onle after a long period of inactivity. Configuration option :[User Defined][Min Saving][Max Saving]_o

Video Off Method

The item defines the video off features. The Display Power Management System[DPMS] feature allows the BIOS to control the video display card if it supports the DPMS feature.[Bland Screen] only blanks the screen. Use this for monitors without power management or "green" features. [V/H SYNC +Bland] blanks the screen and turns off vertical and horizontal scanning. Configuration options: [Blank Screen] [V/H SYNC +Bland] [DPMS]

Video Off In Suspend

This item determines when to activate the video off feature for monitor power management. Setting Option: *YES/NO*

Suspend Type

This item allows you selected the Suspend Type by [*PwrOn Suspend*] / [*Stop Grand*]

MODEM Use IRO

The item is used to select the IRQ line for Modem use. Setting Option:*NA/3/4/5/7/9/10/11*

Suspend Mode

Sets the time period before the system goes into suspend mode. Setting Option: *Disable*, *1Min*, *2Min*, *4 Min*, *8 Min*, *12Min*, *20Min*, *30 Min*, *40 Min*, *1Hour*.

HDD Power Down

Shuts down any IDE hard disk drives in the system after a period of inactivity as set in thi suser-configurable field. This feature does not affect SCSI hard drives.

Configuration options: *Disabled/1min/2min/3min/.../15min*. **Soft-Off by PWR-BTTN**

When set to [instant-off], the ATX switch can be used as a normal system

power –off button when pressed for less than 4 seconds.[Delay 4sec]allows the button to have a dual functio where pressing less than 4 seconds puts the system in sleep mode.Regardless of the setting ,holding the ATX switch for more than 4 seconds powers off the system.. Configuration options:[Instant-off][Delay 4sec]

Wake-Up by PCI card

When set to Enable, the system can Wake up by PCI card.

Power On by Ring

When set to *Enabled*, the feature allows your system to be awakened from the power saving modes through an incoming call from the modem. Settings: *Enabled*, *Disabled*.

Resume by Alarm

This is used to enable or disable the feature of booting up the system on a scheduled time/date from the soft off (S5) state. Settings: *Enabled*, *Disabled*.

Alarm Date/Hour/Minute/Second

If *Resume By Alarm* is set to *Enabled*, the system will automatically resume (boot up) on a specific date/hour/minute/second specified in these

fields. Available settings for each item are: Alarm Date $01 \sim 31$, Every Day Alarm Hour $00 \sim 23$ Alarm Minute $00 \sim 59$ Alarm Second $00 \sim 59$

<u>3.7 PnP/PCI Configurations</u>

| Phoenix - AwardBlOS CMOS Setup Utility PnP/PCI Configurations | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Reset Configuration Data [Disabled] | Item Help | |
| Resources Into(ESCD)1 × IRQ Resources Press Enter × DMA Resources Press Enter PCI/UGA Palette Snoop [Enabled] | Menu Level Default is Disabled. Select Enabled to reset Extended System Configuration Data ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot | |
| ↑↓→+:Move Enter:Select +/-/PU/PD:Ualue F10:Save F5: Previous Values F6: Fail-Safe Defaults | ESC:Exit F1:General Help F7: Optimized Defaults | |

Reset Configuration Data

Default is Disabled . Select Enabled to reset Extended System Configuration Data ESCD) when you exit Setup if you have installed a nes add-on and the system reconfiguraton has caused such a serious conflict that the OS cannot boot.

Resources Controlled By:

BIOS can auto matically configure all the boot and Plug and Play compatible devices. If you choose Auto, you cannot select IRQ DMA and memory base address fields, since BIOS automatically assigns them. Setting Option : *Manual/AUTO(ESCD)*

PCI/VGA Palette Snoop:

Some non-standard VGA cards, like graphics accelerators or MPEG video cards, may not show colors properly. Setting this field to Enabled corrects this problem. If you are using standard VGA cards, leave this field to the default setting *Disabled*. Configuration options: *Disabled/Enabled*

3.8 PC Health Status

This section shows the status of your CPU, fan, overall system

status, etc. Monitor function is available only if there is hardware monitoring mechanism <code>Onboard</code> $_{\circ}$

| Phoenix - AwardBIOS CMOS Setup Utility PC Health Status | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------|
| CPU Warning Temperature | [Disabled] | Item Help |
| Current System Temp. Current CPUFAN1 Speed Current CPUFAN2 Speed Current CPUFAN3 Speed IN8(U) IN8(U) + 5 U + 12 U -12 U UBA1(U) SUSE(U) Shutdown Temperature | [Disabled] | Menu Level ► |
| 1↓→←:Move Enter:Select +/-/ F5: Previous Values F6: | 'PU/PD:Value F10:Save Fail-Safe Defaults | ESC:Exit F1:General Help F7: Optimized Defaults |

3.9 Frequency/Voltage Control

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

Auto Detect PCI CLK

This item allows you Enable/Disable AUTO-Detect PCI Clk.

Spread Spectrum:

When the motherboard clock generator pulses, the extreme values (spikes) of the pulses creates EMI (Electromagnetic Interference). The Spread

Spectrum function reduces the EMI generated by modulating the pulses so that the spikes of the pulses are reduced to flatter curves. If you do not have any EMI problem.

leave the setting at *Disabled* for optimal system stability and performance. But if you are plagued by EMI, select *Enabled* for EMI reduction. Remember to disable Spread Spectrum if you are overclocking because even a slight jitter can introduce a temporary boost in clockspeed which may just cause your overclocked processor to lock up. Available settings: *Enabled, Disabled.*

CPU Host/PCI Clock:

This item allows you to select the CPU Front Side Bus clock frequency. The field also allows you to overclock the processor by adjusting the FSB clock to a higher frequency.

3.10 Load Optimized Defaults

This option allows you to load the default values for each of the parameters on the Setup menus. When you select this option, a confirmation window appears. Select {Yes} to load default values, Select Exit Saving Change or make other changes before saving the values to the non –volatile RAM.

3.12 Set Supervisor/ User Password

When you select this function, a message as below will appear on the screen:

Enter Password:

Type the password, up to six characters in length, and press <Enter>. The password typed now will replace any previously set password from CMOS memory. You will be prompted to confirm the password. Retype the password and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To clear a set password, just press <Enter> when you are prompted to enter the password. A message will show up confirming the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup without entering any password.

When a password has been set, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration. Additionally, when a password is enabled, you can also have AMIBIOS to request a password each time the system is booted. This would prevent unauthorized

use of your computer. The setting to determine when the password prompt is required is the PASSWORD CHECK option of the ADVANCED BIOS FEATURES menu. If the PASSWORD CHECK option is set to *Always*, the password is required both at boot and at entry to Setup. If set to *Setup*, password prompt only occurs when you try to enter Setup. **Notes:**

Supervisor password: Can enter and change the settings of the setup menu. User password: Can only enter but do not have the right to change the settings of the setup menu.