

Notebook Computer

User's Manual

Important

No matter what your level of experience with computers, please make sure you read the safety instructions. This information can help protect you and your computer from possible harm.

FCC Information to User

Federal Communications Commission Statement

This Equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into and outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: The use of a shielded-type power cord is required in order to meet FCC emission limits and to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used. Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

You may find helpful the following booklet, prepare by the Federal Communications Commission: Interference Handbook. The booklet is available from the U.S Government Printing Office, Washington, DC 20402.

Warning: The user must not modify or change this computer without approval. Modification could void authority to this equipment.

Cautions for Notebook Computer with Lithium-Ion Battery

Danger of explosion while battery is under incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Part 68 Certification for Notebook Computer with Built-in Modem

FB M30

This equipment complies with **Part 68 of the FCC Rules**. On the backside is a label that contains, among other information, the FCC registration number and the **ringer equivalence number (REN)** for this equipment. You must, upon request, provide this information to your local telephone company. The information associated with the services the equipment is to be connected is REN: **0.1B**.

The REN is useful to determine the quantity of devices that you may connect to your telephone line and still have those entire devices ring when your number is called. In most, but not all areas, the sum of the REN's of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices that you may connect to your line, you may want to contact your local telephone company to determine the maximum REN for your calling area.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

Should this equipment cause harm to the telephone network, the telephone company may discontinue your service temporarily. If possible they will notify you in advanced notice isn't practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC. The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

For information on obtains service or repairs. The telephone company may ask that you disconnected this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.



Warning

The CPU should only be replaced by a qualified service technician. It is recommended that Do Not remove the CPU yourself. You could damage the CPU.

Safety Instructions

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
4. For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
7. The openings on the enclosure are for air convection hence protects the equipment from overheating. **DO NOT COVER THE OPENINGS.**
8. Make sure the voltage of the power source when connect the equipment to the power outlet.
9. Place the power cord such a way that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not use for long time, disconnect the equipment from mains to avoid being damaged by transient over voltage.
12. Never pour any liquid into opening; this could cause fire or electrical shock.
13. Never open the equipment. For safety reason, the equipment should only be opened by qualify service personnel.
14. If one of the following situations arises, get the equipment checked by a service personnel:
 - A: The power cord or plug is damaged.
 - B: Liquid has penetrated into the equipment.
 - C: The equipment has been exposed to moisture
 - D: The equipment has not work well or you cannot get it work according to user's manual.
 - E: The equipment has dropped and damaged.
 - F: If the equipment has obvious sign of breakage
15. **DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT UNCONDITIONED; STORAGE TEMPERATURE ABOVE 60°C(140 °F), IT MAY DAMAGE THE EQUIPMENT**

Wichtige Sicherheitshinweise

1. Bitte lesen Sie diese Hinweis sorgfaeltig durch.
2. Heben Sie diese Anleitung fuer den spaeteren Gebrauch auf.
3. Vor dem Reinigen ist das Geraet vom Stromnetz trennen. Verwenden Sie keine Fluessig-order Aerosolreiniger. Am besten eignet ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlubsteckdose soll nahe dem Geraet angebraucht sind leicht zugaenglich sein.
5. Das Geraet ist vor Feuchtigkeit zu schuetzen.
6. Bei der Aufstellung des Geraetes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen koennte Beschhaedigungen hervorrufen.
7. Die Belueftungsoeffnungen dienen der Luftzirkulation, die das Geraet vor Ueberhitzung schuetzt. Sorgen Sie dafuer, dass diese Oeffnungen nicht abgedeckt werden.
8. Beachten Sie beim Anschluss an das Stromnetz die Anschlusswerte.
9. Verlegen Sie die Netzanschlussleitung so, dass niemand darueber fallen kann. Es sollte auch nichts auf der leitung abgestellt werden.
10. Alle Hinweise und Warnungen, die sich am Geraet befinden, sind zu beachten.
11. Wird das Geraet ueber einen laengeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer. Ueberspannung eine Beschhaedigung vermieden.
12. Durch die Lueftungsoeffnungen duerfen niemals Gegenstaende oder. Fluessigkeiten in das Geraet gelangen. Dies koennte einen Brand bzw. Elektrischen Schlag ausloesen.
13. Oeffnen Sie niemals das Geraet. Das Geraet darf aus Gruenden der elektrischen Sicherheit nur von autorisiertem Servicepersonal geoeffnet werden.
14. Wenn folgende Situationen auftreten ist das Geraet vom. Stromnetz zu trennen und von einer qualifizierten Servicestelle zur Ueberpruefung:
 - A: Netzkabel oder Netzstecker sind beschhaedigt.
 - B: Fluessigkeit ist in das Geraet eingedrungen.
 - C: Das geraet war Feuchtigkeit ausgesetzt.
 - D: Wenn das Geraet nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
 - E: Das Geraet ist gefallen.oder das Gehaeuse ist beschhaedigt.
 - F: Wenn das Geraet deutliche Anzeichen eines Defektes aufweist.

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Chapter 1 - Welcome

Main Features

Opening the Display Panel

Identifying External Components

Front Right View

Front Left View

Rear View

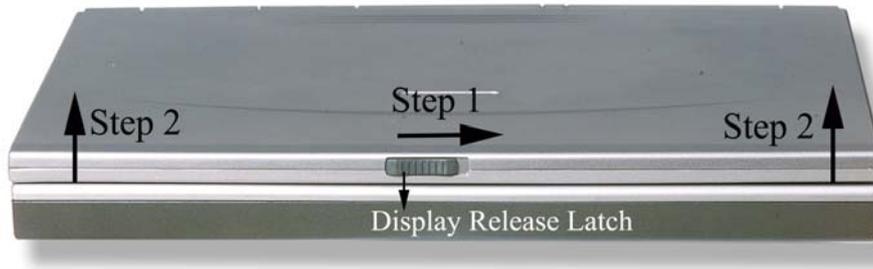
Bottom View

Main Features

- Intel® Celeron™ processors in a 370-pin FC-PGA packaging
- Intel® Pentium® III processors in a 370-pin FC-PGA packaging, 100MHz processor's system bus only.
- Support 3D/AGP 2x Graphics Solution
- Provide two standard 144 pin S.O.DIMM sockets to expand memory to 512MB
- 32 bit Concurrent PCI bus
- Support 14.1/15 inch XGA/SXGA+ TFT LCD up to 1024X768/1400X1050 resolution
- RAGE Mobility-128 supports Tri-View™ in that it can output to LCD, CRT and TV simultaneously.
- Integrated TV-Out supports NTSC or PAL with Macrovision for DVD playback, high quality NTSC and PAL TV-Out with an integrated TV-out encoder.
- Enhanced MPEG-2 hardware decode accelerate, hardware DVD subpicture decoder.
- Fully support DirectX and OpenGL API's.
- Pre-Boot Security, 4 button input providing up to 800K password possibilities with any combination up to 5 buttonstokes.
- Launch application key
- PCI Card-bus, including ZV port (Upper Slot), supports two type II slots or one type III slot
- Removable 24X speed CD-ROM and 4X/6X/8X DVD-ROM (Optional) with enhanced IDE local bus
- Stereo Sound Blaster-Pro compatible 16-bit FM-synthesis and 3D stereo speakers
- Fully supports ACPI and APM power management features.
- Ultra DMA hard drive support
- Built-In Fax/Modem. (Optional)
- Built-In 10/100 Ethernet.

Opening the Display Panel

Please refer to the picture below; you can see the display release latch located on the front panel secure the display. To open the display panel, please push the latch outward as step 1. Gently tilt the display panel forward or backward to the best viewing angle as step 2.



Identifying External Components

Please refer to the picture below to identify all external components and accessories on the front right view of the Notebook computer.

Front Right View

Front Right View of the Notebook –First ID.

Front Right View of the Notebook-Second ID.

1. Microphone

The built-in microphone provides a source for voice annotations recording, or use Internet phone software.

2. Display—14.1"/15" XGA/SXGA+ TFT LCD Screen

The Notebook Computer use a 14.1"/15" TFT XGA LCD panels support resolutions up to 1024 x 768/1400x1050.

3. Keyboard

The low-profile keyboard emulates all the functions of a full-size keyboard including an embedded keypad and a full array of special function keys. The keyboard provide Windows™ function keys to help ease navigation in the Microsoft operating system.

4. Built-in Stereo Speakers

5. Touchpad

The pressure sensitive Touchpad provides all the functions of a two-button mouse and can be used simultaneous with an external PS/2 mouse.

6. Security Function Keys for password and launch key.

5 button pure hardware solution, 800K possible combination passwords. Password and launch key could be altered under Windows 98/NT/2000.

7. Power Button

The power button allows powering ON and OFF the Notebook Computer, ACPI compatible power saving function under Windows 98/ME/2000.

8. CD-ROM/DVD ROM Module

The Notebook Computer comes with an enhanced IDE 5.25-inch CD-ROM/DVD-ROM drive.

9. System Status LEDs

This LED informs you of the computer's current operating statuses. Details are decribed later in Chapter 2.

10. Display Panel Latch

These latches are used to secure the display panel. When the Notebook Computer not in use, please keep the display panel closed, these latches will lock the display panel to prevent dust accumulation.

Front Left View

The following picture describes all external components and accessories on the front left view of the Notebook computer.

Front Left View of the Notebook

1. Kingston Lock port

The Kingston lock port allows to use the Kingston Security Lock to lock your Notebook to a desk or other fixed object to prevent the Notebook Computer to be removed.

2. Built-In RJ-45 Ethernet Jack

The internal Ethernet supports 10Base-T or 100Base-TX standard networks.

3. Built-In RJ-11 Fax/Modem Jack. (Optional)

The internal Fax/Modem is an optional device, it supports up to 56K V.90 transfers.

4. PCMCIA Slots

The PCMCIA sockets accept to connect two PCMCIA Type II cards or one Type III PC card. The Notebook Computer supports 32bit CardBus and Zoomed Video standards.

5. Built-in FDD Module

The Notebook comes with a standard floppy module that accepts 1.44MB or 720KB 3.5-inch floppy diskette.

Rear View

The following picture describes all the components on the rear side of the Notebook.

Rear View of Notebook

1. DC-In Jack

The DC power input jack allows to connect the power adapter to convert AC power to DC power to supplied power to the Notebook Computer and also charge the battery.

2. Fast Infrared Communication Module (FIR)

The FIR Module allows wireless communication between the Notebook and another IrDA compliant computer or device.

3. Serial (COM1) Port

This 9-pin serial port supports serial RS-232 serial devices such as external mouse, fax/modems.

4. Parallel (LPT1) Port

This 25-pin parallel port supports parallel devices such as a printer.

5. VGA Port

This 15-pin VGA port supports standard VGA-compatible devices such as an external CRT monitor or projector.

6. FAN Out

This area will bring the heat out for heat exchange.

7. USB Ports

These Universal Serial Bus ports was designed in full compliance with the Universal Serial Bus specification 1.0.

8. TV Out Port

The integrated TV-Out port supports NTSC or PAL TV format with Macrovision for DVD playback

9. External keyboard or PS/2 mouse Port

This port is for connecting an external PS/2 devices such as a PS/2 mouse or a PS/2 keyboard to the Notebook.

10. Audio Line Out Jack

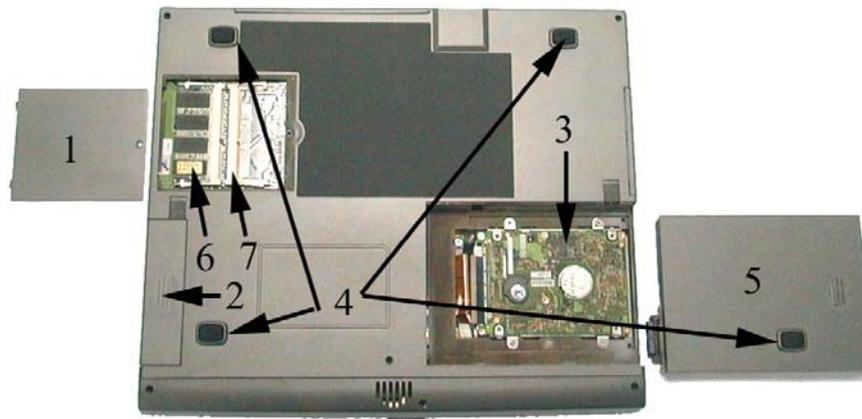
This stereo jack is used to connecting external stereo speakers or headphones.

11. Audio Mic-In Jack

This Mic-in jack is used to connect an external microphone.

Bottom View

The following picture describes all the components on the bottom of the Notebook.



Bottom View of Notebook

1. RAM Cover

2. Removable Battery Module

Your Notebook comes equipped with a factory-installed battery pack module. After the battery shuts down, the module can be removed and replaced with a charged battery.

3. Built-in Hard Drive

The built-in 2.5" (9.5mm max. height) Hard Drive supports Ultra-DMA/33.

4. Rubber Stand

This rubber stand was to lift up the machine because heat-dissipation must go through the bottom of notebook.

5. Built-in FDD Module

The Notebook comes with a standard floppy module that accepts 1.44MB or 720KB 3.5-inch floppy diskette.

6. Memory Module

The Notebook Computer supports common 3.3 Voltage 100MHz S)-DIMM SDRAMs memory module up to 512MB. For compatibility reason, please purchase expansion modules from your authorized retailer, the memory module have to be install by a qualify Notebook Computer technician.

7. Moemory Socket

Two standard 144-pin S.O.DIMM sockets are built in on the motherboard for SDRAMs.

Chapter 2 – Getting Started

Installing /Removing Battery Pack
Using the Power Adapter
Charging and Using the Battery
Powering ON your Computer
The Power-On Self Test
Power Management
LED Indicators
Hot Keys Support

Installing/Removing the Battery Pack

The Notebook Computer will come with its battery pack. Please refer the following procedures to install or remove the battery pack.

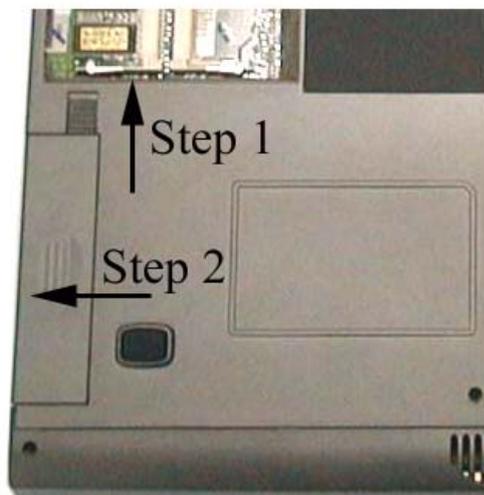
Install the battery pack

1. Insert the battery pack into the battery bay.
2. Ensure the battery slide into the Notebook and lock the battery by the latch.



Remove the battery pack

1. Slide the battery latch as step 1 to unlock the battery pack.
2. Hold on the battery latch and pull the battery pack as step 2 to remove the battery pack.





Warning: Please **Do Not** remove the battery pack while the Notebook Computer is being used without AC adapter.

Using the Power Adapter

The Notebook Computer comes with a universal AC-DC adapter, you can plug the power adapter into any AC outlet between 100 and 240 volts (50~60Hz) and it will automatically adjust without setting switches or using power converters. You can use it in just about any part of the world.

The AC Adapter

The most obvious way to conserve battery power is to avoid using the battery when there is an available AC power source. The AC Adapter is lightweight and compact, so it is very convenient to bring while traveling. By using the AC Adapter as much as possible, you can ensure you will have a charged battery whenever you really need it.



Warning: Use only the power adapter that comes with your Notebook Computer. **Do Not** use the adapter with any other electrical equipment. Always plug the connector the AC outlet first to check whether the green LED light, that means the AC power is within accepted range, then connect the DC power to the DC-in jack of the Notebook Computer.

Charging and using the battery

Use the factory-supplied AC adapter only to charge your battery. When the Notebook Computer is connected to the AC adapter, the Notebook will recharge the battery. When AC adapter connected, the Notebook Computer will use power from AC adaptor and the battery pack begins to charge whenever notebook is being used or not. You do not have to worry about battery power as long as the AC adapter is in use. And you do not have to worry about overcharging either since a thermo sensor is built in the battery pack to prevent it.

To fully charge the battery as soon as possible, you are recommended to turn off the Notebook Computer while charging. The Li-Ion battery pack has no memory effect, but the discharging and recharging cycle is limited. After this time, the efficiency of battery may begin to decrease and you should consider purchasing a replacement from your dealer. Fully draining and charging the battery will last battery longer.

When Battery was charging, the charge LED (orange LED) will start blinking. When battery was fully charged, the orange LED will light and stop blinking.



- A new battery should be fully charged before using.
- Always plug in the AC adapter no matter the Notebook is in use or not to keep your battery power full.

Powering ON your Computer

Press the power switch to turn on and turn off the Notebook Computer. If the operating system locks up and cannot shutdown, press and hold the power switch for 4~5 seconds to force the computer to turn off. If you need to run the BIOS setup to set or modify the configuration, press [Del] upon boot up to enter the BIOS setup. Use [up] and [down] key to make your selection and press [Page Up] and [Page Down] to execute.



Warning: Please **Do Not** turn off or reset your Notebook Computer while the hard drive or floppy is in use, doing this may loss or destruction your data. Always wait for 5 seconds after turning OFF your Notebook before turning it back ON.

The Power-On Self Test

When you power on your Notebook Computer, it will run through a software-controlled diagnostic tests called Power-On Self Test. The Power-On Self Test includes a record of Notebook Computer's hardware configuration. It's used to make a hardware check of the system.

Power Management

This section contains information on the power management features of the Notebook. Your Notebook computer has a number of automatic power conservation features you can use to minimize the computer's power consumption. You can control many of these features through the power menu in the Setup program. Refer to Chapter 5 for a detailed description of the BIOS Setup program.

The Notebook computer is made up of electronic components and all of them consume electricity to operate. Yet, some components consume much more power than others. The power management features are designed to conserve as much electricity as possible by putting these components into a low power consumption mode as often as possible.

The power consumption status of the computer varies according to the events detected by the system. Power events include:

- Keystrokes
- HDD activity
- Mouse movement
- Printing
- Serial port access
- Display activity

- IRQ events

With the exception of display activity, all of these events are treated as *primary activity*. When primary activity events are detected, the system automatically transits to full power mode.

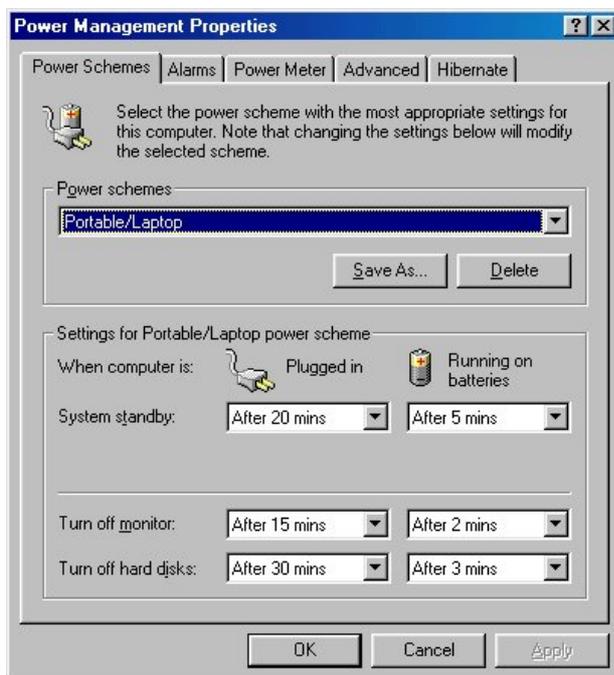
Display activity can also be configured as a primary activity.

Power Management Habits

While operating the Notebook on battery power, it is important to develop good power saving habits to maximize battery life. Although the Notebook provides automatic power saving features that can be enabled, you can still improve on them by keeping power conservation in mind.

Power Management Properties

Actually, nowadays' operating system take over the control of power management function. For example, Microsoft Windows 98/ME/2000 take good care of system's power. In Windows 98, there was an item called "Power Management properties" under control panel. This was the heart of system's power management unit. The following figure will give you more detail's information.



Using power management, you can reduce the power consumption of any number of your computer devices or of your entire system. You can do this by choosing a power scheme, which is a collection of settings that manages the power usage by your computer.

You can also adjust the individual settings in a power scheme. For example, depending on your hardware, you can:

System Standby

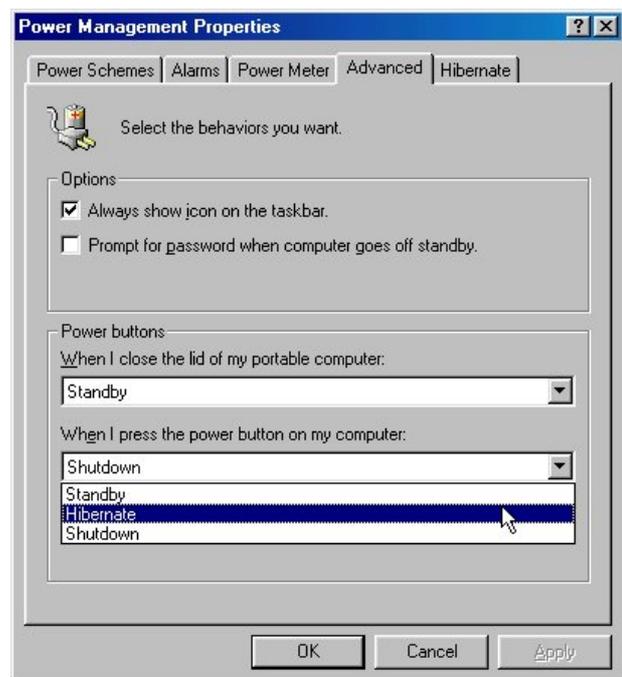
When system is idle for a period of time, Windows will enter standby mode according to the Power Management properties setting. In our system, standby mode was equal to Suspend mode. In this mode, your LCD panel & hard disks turn off, and your computer uses less power. When you want to use the computer again, it comes out of standby quickly, and your computer is restored exactly as you left. Standby is particularly useful for conserving battery power. In followings figure, the system standby setting was after 5 minutes for running on battery and after 20 minutes for plugged in Ac adaptor. It means when you didn't press any key or didn't move your Touch Pad/mouse within 5 minutes, system will enter standby mode when running on battery.

Turn off monitor & Hard disks

When system is idle for a period of time, Windows will turn off LCD panel & turn off hard disks according to your settings.

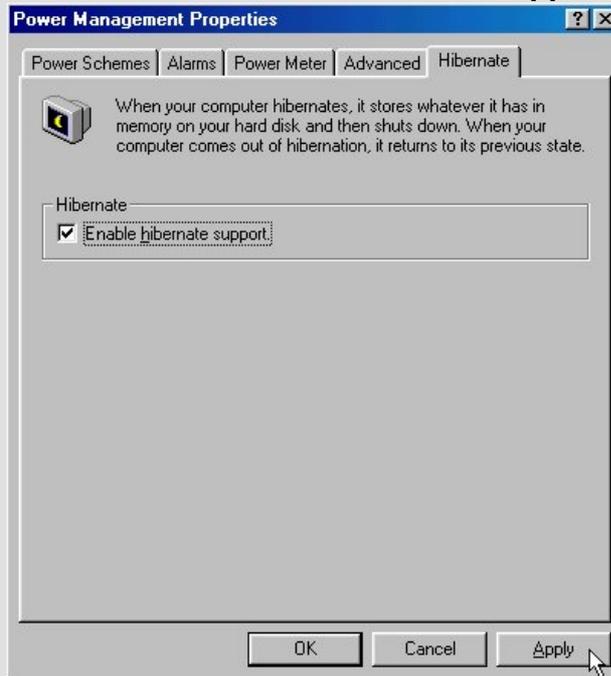
Power Button

The power button could be defined to have power saving function under Windows environment. See the window below to reference. In the power management properties, click **"Advanced"**; you can see the **"power buttons"** item. The default settings for power button should be **"Shutdown"**. You can click to select power saving function for power button such as **"Standby"**, **"Hibernate"** or **"Shutdown"**.



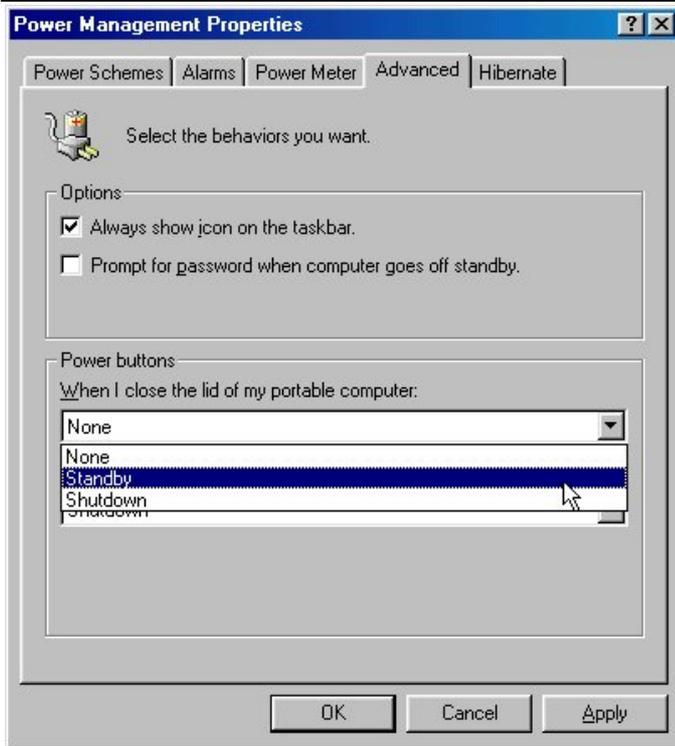


1. If you want to use hibernate function, don't forget to create save-to-disk partition/file for Windows 98 SE. For Windows ME/2000, you don't necessary to create the save-to-disk partition/file.
2. In order to use the hibernate function, you have to click the "**Hibernate**" item then click "**Enable hibernate support**" to enable hibernate function.



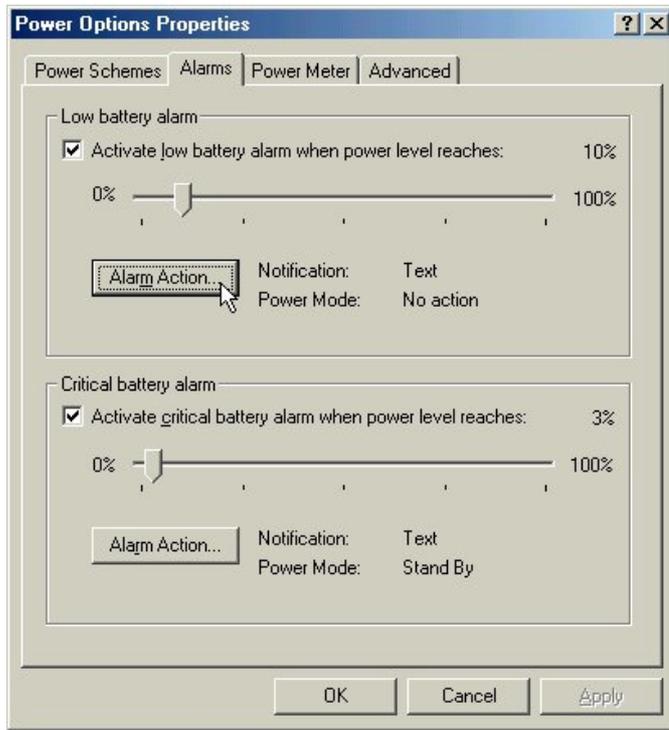
Lid Switch

Our system provides **Lid Switch** that could also save power & protect your panel. When you close the cover, the **Lid Switch** enable power saving function as your settings for lid switch. Please see the window below, the default settings is "None". You can define the power saving function by yourself such as "**Standby**", "**Shutdown**", or "**Hibernate**". When you close LCD panel, lid switch will be enabled then take action as your definition.

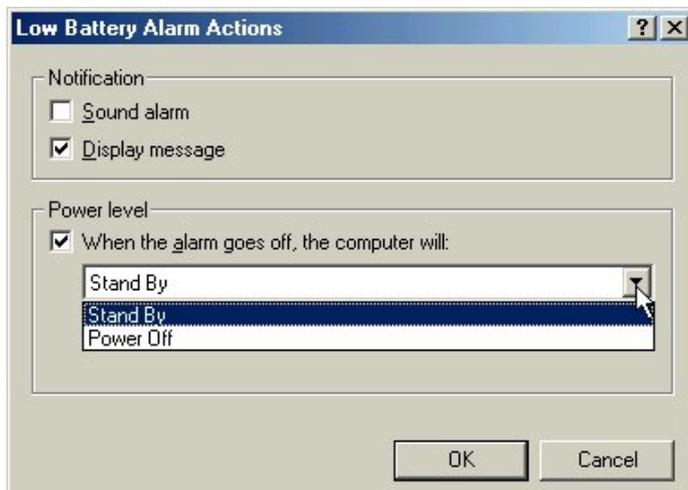


Alarms

- Do not allow the battery power less than 10%. If the battery power less 10%, Windows will have a low battery alarm. If the battery power less than 3%, system will have a critical battery alarm. Please plug-in the AC adaptor and charge battery as soon as possible. If it's not available to plug-in Ac adaptor, please shutdown your system to prevent data lost. If you run out of battery power and do not set any alarm action or charge battery immediately, system will shutdown automatically, you may loss your current data.
- You can see the settings of “**Low battery alarm**” and “**Critical battery alarm**” below. You can define the percentage of them to make alarm activate. If you do not want the alarm disturb you, you can click “**Activate low/critical battery alarm when power level reaches**” item to disable the alarm. You can see the power options properties settings in the power management settings of control panel.



- If you want system take action after low/critical battery alarm activate, please click the “Alarm Action” item, you can see the window below. You can click the “Sound alarm” item, system will play sound warning when low/critical battery alarm activate. You can also change your settings for the “Power level” item. You can make system go into standby or power off system when the alarm goes off.



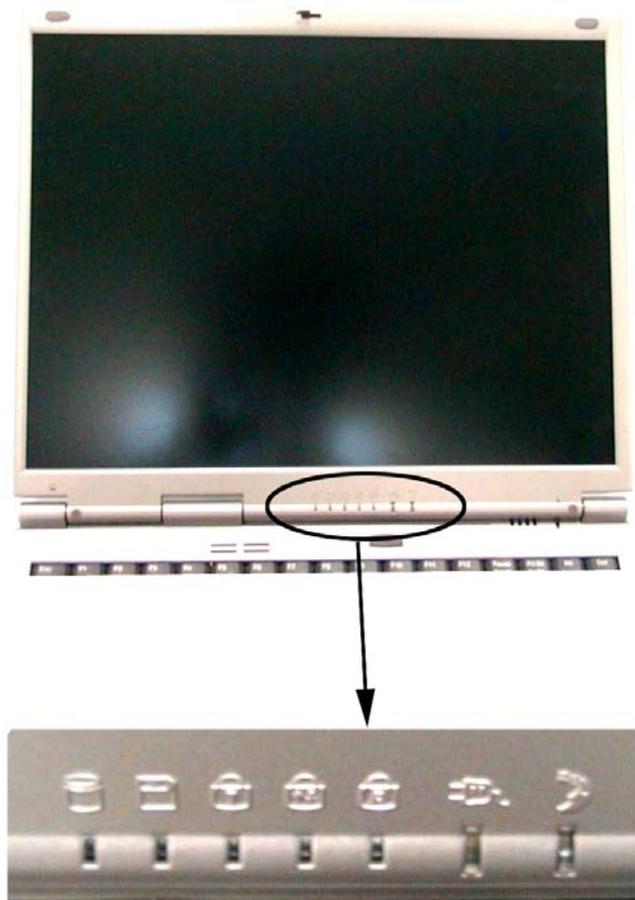
- If you run out of battery power, sometimes you will experience the difficulty to fully charge the battery, or you will find the battery's LED indicate abnormal. This problems can be easily solved: first you should fully discharge the Battery by (1) Removing the HDD from the Notebook and turning-on the Notebook to discharge the battery, or (2) Discharging the Notebook under DOS Mode, till the Battery power completely runs out, then recharge the Battery.

- If the battery removed from battery bay during charging, please hold on more than 1minute then plug-in battery into battery bay and continue the battery charge procedure. Otherwise, maybe it will cause some mistakes and system will stop charging battery.

LED Indicators

There are seven status LED indicators on the Notebook Computer to give information on the Notebook's current operating statuses. Upon activating a certain function, a symbol or icon corresponding to that function will appear in the LED until you deactivate that feature. The symbol will remain in the LED indicating when the feature is engaged.

Please refer the following picture below to find the location and icons of status LED indicators.



The System Status LED

A description for each of the icons and LED status indicators is listed below.

Power and charge Indicator		The green LED lights to indicate that the AC Adaptor is being plugged-in the Notebook Computer is turned ON and using power from AC adaptor . The orange LED lights to indicate that the notebook is using battery power. The green LED ligfht and orange LED blink to indicate that the Notebook Computer is using power from AC adapter and the battery is being charge, while the battery fully charged, the orange LED light and stop blinking.
Standby		The green LED light to indicate that the Notebook Computer in the standby mode. Please refer to power saving settings of power properties. System will go into standby mode by push power button or lid switch or timeout settings under power options properties of control panel.
FDD Activity		The green LED blink to indicate that the floppy active. System is accessing the floppy diskette from the floppy.
HDD Activity		The green LED blink to indicate that the hard disk or CD/DVDROM active. System is accessing the hard drive or CD-ROM/DVD-ROM.
Scroll Lock		Upon pressing the [Scroll Lock] key, the green LED light to indicate that the scroll lock is engaged. Press the [Scroll Lock] key again to deactivate this feature and turn off the icon.
Caps Lock		Upon pressing the [Caps Lock] key, the green LED light to indicate that the caps lock feature is engaged. Press the [Caps Lock] key again to deactivate this feature and turn off the icon.
Num Lock		Upon pressing the [Num Lock] key, the green LED light to indicate that the embedded keypad's numeric feature is activated. Press the [Num Lock] key again to deactivate this feature and turn off the icon.

HOT-KEYS

The Notebook Computer provides the followings Hot-Keys:

FN+F5	Disable/Enable system sound generation
FN+F7	Increase Volume
FN+F8	Decrease Volume
FN+F9	Increase LCD brightness
FN+F10	Decrease LCD brightness

Chapter 3 - Installing Device Drivers

Zero-Volt Data-Suspend Utility

Driver Install

Microsoft DirectX Installation

Windows 98 Installation

Windows ME Installation

Windows NT Installation

Windows 2000 Installation

This chapter covers the installation of device drivers for Windows 98/ME/NT/Windows 2000. This chapter will help you to install and configure device Drivers.

Zero-Volt Data-Suspend Utility

The Zero-Volt Data-Suspend Utility (ZVHDD.EXE) is used to create save-to-disk partition/file. In order to use the Hibernate (suspend to disk) function, you must create a Save-to-Disk partition/file in the hard drive. The save-to-disk partition/file should be create/erase under pure DOS environment no matter the operation system be installed or not. That means you can create/erase the partition/file after Windows be installed. If you like to upgrade memory size, you can erase former save-to-disk partition/file then create new save-to-disk partition/file to fit in with new memory size. The save-to-disk partition/file are not necessary for every operation system, for Windows 98 SE, you have to create this partition/file. You don't need to create this partition/file for Windows 98 ME/Windows 2000.



You can run the utility from the Hard Disk or from a diskette. We recommend you run the utility from a diskette. The ZVHDD utility will include in the Driver CD. Prepare a boot able diskette then copy the ZVHDD utility to the diskette. Boot your system with the bootable diskette. Run ZVHDD from the bootable diskette to create the save-to-disk partition/file.

We understand that maybe you need to install Windows by pre-install. So we recommend you create save-to-disk file, it's convenient to you. You can create the save-to-disk partition/file after pre-install Windows. You can modify the partition/file size when you upgrade memory size.

The save-to-disk partition/file could be created after you installed Windows. If you create the partition before you install Windows, the partition/file couldn't be modify and it may destroy all existing data on the drive if you change the partition/file size.

If you like to modify the save-to-disk partition/file size, you have to delete former partition/file then create new partition/file size. This modification could only be done when you create the partition/file after Windows be installed, otherwise, your files may loss after modify the partition/file size.

A simple procedure is outlined below.

```
ZVHDD 2.22 -- Award NoteBIOS v4.51GP(tm) Zero-Volt Partition Utility
Copyright (c) Award Software Inc. 1996. All rights reserved.

Usage:  ZVHDD [options]

Options :
  /C (/FILE or /PARTITION) [/M:memsize]  -- Create DV file or partition
  /D (/FILE or /PARTITION)                -- Delete DV file or partition
  /R                                       -- Reformat DV partition

Parameters
  /M:memsize  Specifies the memory size (MB) of the notebook system
              Available size is from 1 to 256
```

The Zero-Volt Partition Utility

1. Insert a diskette with the Zero Volt Utility program (ZVHDD.EXE) into drive A.
2. When you use ZVHDD to create save-to-disk partition/file, you can choose to create either a binary file or a hard drive partition to store a suspend to disk session.
3. Type "**ZVHDD**" to see the function explanation for ZVHDD utility.

Zvhdd/C/file|/partition/M:memory_size + VRAM_size + 3MB Buffer

/C	Creates a file or a disk partition for a suspend to disk session data storage.
/file hidden	Specifies a storage file name SAVE2DSK.BIN. This is a hidden file.
/partition	Specifies a disk partition for storage of session data.
/M:memory_size	Specifies a number from 1 to 256 to select the size in megabytes of the file or partition.

Creating a Storage File

Here is an example of creating a storage file. For our example, we specify and 64MB memory size and 8MB VRAM.

1. You can assign the file size by yourself or create the save-to-disk file automatically by zvhdd utility , see following example to reference. We recommend you do not assign the file size by yourself, just assignd the file size by zvhdd utility.

A:\>zvhdd /c /file or A:\>zvhdd /c /file /m:75 (64+8+3) and press [Enter]

2. A screen similar to the following appears:

```
ZVHDD 2.22--Award Elite BIOS v4.51PGM Zero-Volt Partition Utility Copyright (c) Award Software
Inc. 1998. All Rights Reserved.
```

```
The file c:\SAVE2DSK.BIN has been created.
```

```
The system will now be reset to allow the BIOS to recognize the changes. If the system fails to
reboot, please power off the power.
```

```
Press any key to reset the system...
```

3. Press any key to reboot the computer to allow BIOS to recognize the changes.
4. If you would like to delete the save-to-disk file, press A:\>zvhdd /D /file and press [Enter].

Creating a Storage Partition on the Hard Disk

Here is an example of creating a storage partition on the hard disk. We use 64MB of memory, 8MB VRAM in our example.

1. You can define the partition size by yourself or create the save-to-disk partition automatically by zvhdd utility, see the following example to reference. We recommend you do not assign the partition size by yourself, just assignd the partition size by zvhdd utility.

A:\>zvhdd /c /partition or A:\>zvhdd /c /partition /m:75 (64+8+3) and press [Enter]

2. If you have enough space on your hard drive to create a storage partition, a screen similar to the following appears:

ZVHDD 2.22--Award Elite BIOS v4.51PGM Zero-Volt Partition Utility

Copyright (c) Award Software Inc. 1998. All Rights Reserved.

Formatting xxxxxxxxxxxxxx Bytes.

Press any key to reset the system...

3. If you don't have enough free space on your hard drive to create a save to disk storage partition, a screen similar to the following appears:

ZVHDD 2.22--Award Elite BIOS v4.51PGM Zero-Volt Partition Utility

Copyright (c) Award Software Inc. 1998. All Rights Reserved.

Warning: Not enough free disk space exists to create the partition.

If you wish to make space for the partition, that will DESTROY ALL the data on your hard disk!

OK to proceed, Answer Yes / No?

4. Press [Y] to proceed with the disk partitioning. After your hard disk has been partitioned you will have to install an operating system on your main partition.
5. If you would like to delete the save-to-disk partition, press A:\>zvhdd /D /partition and press [Enter].



If you use the Zero-Volt Partition Utility to create a separate partition/file on new systems which has no partition/file inside the HDD, using the Zero-Volt Partition Utility to modify the save-to-disk partition/file on your HDD may cause data loss on the HDD.

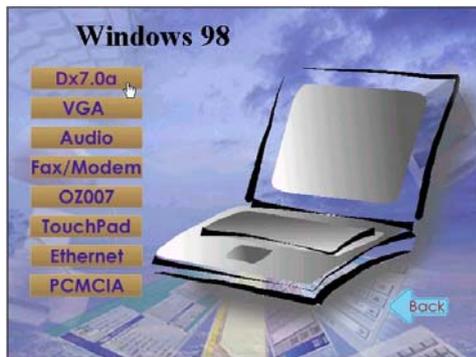
We recommend you create the save-to-disk file and create the file after you install Windows. By the way, if you create the file after install Windows, you can modify the save-to-disk file without problem when you plan to upgrade memory size.

Driver Install

This Notebook Computer comes with a Driver CD that provides software drivers and utilities for all popular operating system to enable hardware features and extend functionality. The Driver CD contains driver for Microsoft Windows 98/98SE/ME/2000/NT/Linux and DOS driver for CD-ROM/DVD-ROM.

Microsoft DirectX Installation

1. DirectX7.0 must be installed before install VGA driver for Windows98/SE.
2. Insert Driver CD, you can see the picture below. Click "**Windows 98**" then click "**Dx7.0a**" to install DirectX 7.0a Driver.



Windows 98 Installation

VGA Driver Installation

1. Insert Driver CD, click "**Windows 98**", then click "**VGA**" to install VGA Driver.
2. After the installation is completed, click the "**Finish**" to restart Windows.

Audio Driver Installation

1. Insert Driver CD into CD/DVD ROM drive, click "**Windows 98**" then click "**Audio**" to install Audio Driver.
2. Select your own language then click "**OK**" to install Applications and Device Driver.
3. Follow the on-screen installation procedure. Audio Applications and Device Driver will be installed automatically after restart Windows.

Fax/Modem Installation

1. Insert Driver CD into CD/DVDROM device, click "**Windows 98**" then click "**Fax/Modem**" to install modem driver.

PCMCIA Driver Installation

1. Insert Driver CD into the CD/DVDROM drive, click "**Windows98**" then click "**PC CARD**".
2. Click "**OK**", then click "**Yes**" to restart system.
3. System will find "**O2Micro OZ6832/6833 CardBus Controller**" after Windows restart, follow the on-screen instructions, locate to the path as "**D:\W98drv\PCMCIA\WIN98SE**", click "**Finish**" to complete the installation.



This model support PCMCIA ZOOM Video (ZV) Port ONLY on Socket A (Upper Socket).

PCI Ethernet Installation

1. Click "Start" → "Settings" → "Control Panel" → "System" → "Device Manager". Double click "PCI Ethernet Controller".
2. Click "**Driver**" → "**Update Driver**". Locate to the path of Driver CD such as "**D:\W98drv\Lan**". Follow the on-screen instruction to complete the driver installation of PCI Ethernet Controller.

Touch Pad Driver Installation

1. Insert the Driver CD into CD/DVD ROM drive, click "**Windows 98**" then click "**TouchPad**" to install touch pad driver.

OZ007 Installation

1. Insert the Driver CD into CD/DVD ROM drive. Click "**Windows 98**" then click "**OZ007**" to install OZ007 applications. Please follow the on-screen installation instruction to finish program installation.

Windows ME Installation

VGA Driver Installation

1. Insert Driver CD; click "**Windows ME**". Click "**VGA**" to install VGA Driver.
2. After the installation is completed, click the "**Finish**" to restart Windows.

Audio Driver Installation

1. Insert Driver CD into CD/DVD ROM drive, click "**Windows ME**" then click "**Audio**" to install Audio Driver.
2. The audio driver provides two driver architectures for selection. You can install VXD or WDM architecture for your system. Follow the on-screen instruction to install audio driver for Windows ME.
3. Select your own language then click "**OK**" to install Applications and Device Driver.



Windows ME need to install WIN32 Driver Model (WDM) to meet power management requirement. The WDM audio driver is recommended to install for Windows ME.

Fax/Modem Driver Installation

1. Insert Driver CD into the CD/DVDROM drive, click "**Windows ME**" then click "**Fax/Modem**".

PCMCIA Driver Installation

1. Insert Driver CD into the CD/DVDROM drive, click "**Windows ME**" then click "**PC CARD**".
2. Click "**OK**", then click "**Yes**" to restart system.
3. System will find "**O2Micro OZ6832/6833 CardBus Controller**" after Windows restart, follow the on-screen instructions, locate to the path as "**D:\Winmedrv\PCMCIA\WinME**", click "**Finish**" to complete the installation.

PCI Ethernet Driver Installation

1. Click "**Start**" → "**Settings**" → "**Control Panel**" → "**System**" → "**Device manager**" → double click "**PCI Ethernet Controller**". Click "**Driver**" → "**Update Driver**".
2. Click "**Specify the location of the driver**", locates to the path of your CD/DVDROM device, such as "**D:\Winmedrv\Lan**". Follow the on-screen instructions to finish the installation. Then click "**Finish**" to complete driver installation of Ethernet Controller.

Touch Pad Driver Installation

1. Insert the Driver CD into CD/DVD ROM drive, click "**Windows ME**" then click "**TouchPad**" to install touch pad driver.

OZ007 User Password & Launch Key Installation

1. Insert the Driver CD into CD/DVD ROM drive. Click "**Windows ME**" then click "**OZ007**" to install OZ007 applications. Please follow the on-screen installation instruction to finish program installation.

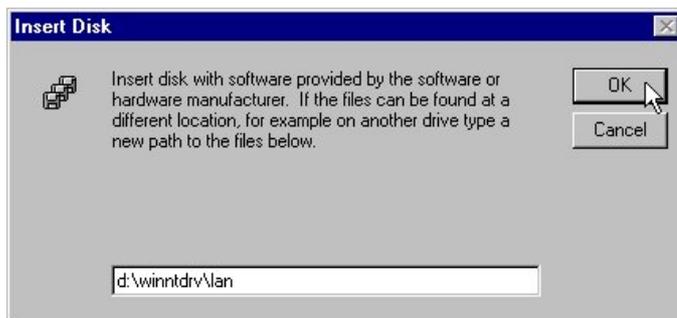
Windows NT Installation

VGA Installation

1. Microsoft NT Service Pack 4 or above have to be installed before install VGA driver for NT.
2. Insert Driver CD into CD/DVDROM drive, click "**Windows NT**" then click "**VGA**" to install driver
3. After the installation is completed, click the "**Finish**" button and restart your system.

PCI Ethernet Driver Installation

1. Click "**Start**" → "**Settings**" → "**Control Panel**" → "**Network**" → select "**Wired to Network**" → "**Next**" → "**Select from list**" → "**Have Disk**".
2. Locate to the path of Driver CD as "**D:\winntdrv\lan**". Follow the installation procedure and complete the driver install. Then setup your network settings after install Ethernet driver.



Audio Driver Installation

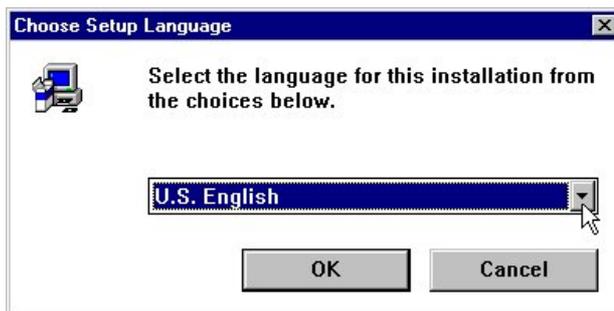
1. Click "**Start**" → "**Setting**" → "**Control Panel**" → double-click "**Multimedia**" icon.
2. Select "**Devices**" page, and click "**Add**" button.
3. Select "**Unlisted or Updated Driver**" item of "**List of Drivers**" and click "**OK**".
4. Click "**Have Disk**" and locate to the path of Driver CD such as "**D:\WinNTdrv\Sound\IDRV**".
5. Select "**C-Media PCI Device**" item and press "**OK**" button.
6. Restart the system when being asked.



Now, you have already installed the PCI Audio Adapter under Microsoft Windows NT 4.0 successfully. If you want to install the Windows applications, continue the following steps:

Audio Application Installation (Windows NT)

1. Explore the Driver CD, select **"Winntdrv"** → **"Sound"** → **"app"**, double click **"Setup"** icon to install.
2. Select your own language.
3. Click **"OK"** to start the installation procedure, and follow the on-screen instructions to finish the installation. Then click **"Finish"** to complete setup procedure.



Fax/Modem Driver Installation

1. Insert the Driver CD into CD/DVD ROM drive, click **"Windows NT"** then click **"Fax/Modem"** to install modem driver.

Touch Pad Driver Installation

1. Insert the Driver CD into CD/DVD ROM drive, click **"Windows NT"** then click **"TouchPad"** to install touch pad driver.
2. The setup program will ask you whether you want to create emergency repair disk. If you want to create this disk, press **"Yes"**. If you don't want, just click **"No"** to continue driver installation. Follow the on-screen installation instruction.
3. The setup program will ask you to locate the location of data file, please click **"OK"**, then locate to the file which setup program request. Please see pictures below to reference.
4. Click **"Finish"** to restart your computer.

OZ007 User Password & Launch Key Installation

1. Insert the Driver CD into CD/DVD ROM drive. Click **"Windows NT"** then click **"OZ007"** to install OZ007 applications. Please follow the on-screen installation instruction to finish program installation.

Windows 2000 Installation

VGA Installation

1. Insert Driver CD into CD/DVD ROM drive; click "**Windows 2000**" then click "**VGA**" to install VGA Driver.

PCI Ethernet Driver Installation

1. Click "**Start**" → "**Settings**" → "**Control Panel**" → "**System**", "**Hardware**" → "**Device manager**" → double click "**Ethernet Controller**". Click "**Driver**" → "**Update Driver**".
2. Click "**Specify a location**", locates to the path of your CD/DVDRROM device, such as "**D:\W2000drv\Lan**". Follow the on-screen instructions to finish the installation. Then click "**Finish**" to complete driver installation of Ethernet Controller.

Fax/Modem Driver Installation

1. Click "**Start**" → "**Settings**" → "**Control Panel**" → "**System**" → "**Hardware**" → "**Device manager**" → double click "**PCI Simple Communications Controller**". Click "**Driver**" and then click "**Update Driver**".
2. Click "**Specify a location**", locates to the path of your CD/DVDRROM device, such as "**E:\W2000drv\modem**". Follow the on-screen instructions to finish the installation. Then click "**Finish**" to complete driver installation of PCI Simple Communication Controller.
3. System will find communication device as "**HSP56 MicroModem**", click "**Yes**" then locates to "**E:\W2000drv\modem**" to install driver.
4. After install driver for HSP56 MicroModem, system will find "**Unimodem Half-Duplex Audio Device**", please follow step 2 to install the Driver.

Audio Driver Installation

1. Click "**Start**" → "**Settings**" → "**Control Panel**" → "**System**" → "**Hardware**" → "**Device manager**" → double click "**Multimedia Audio Controller**".
2. Click "**Device**" → "**Driver**" → "**Update Driver**" → select "**Specify a location**", locates to the path of your CD/DVDRROM device, such as "**D:\W2000drv\sound\drv**".
3. Follow the update procedure to complete audio driver update.

Audio Application Installation (Windows 2000)

1. Explore the Driver CD, select **“W2000drv”** → **“Sound”** → **“app”**, double click **“Setup”** icon to install.
2. Select your own language. Follow the on-screen instructions to finish the installation.

Touch Pad Driver Installation

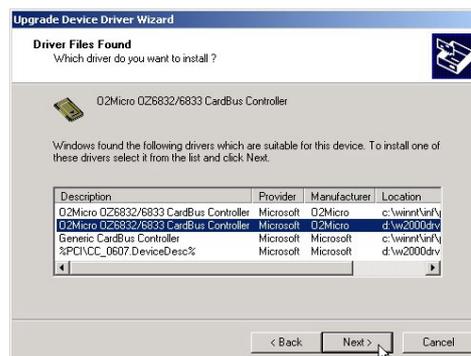
1. Insert the Driver CD into CD/DVD ROM drive, click **“Windows 2000”** then click **“TouchPad”** to install touch pad driver.
2. System will find new device such as **“Synaptics PS/2 Port TouchPad”**, please click **“Yes”** to continue the installation.
3. Please follow the on-screen installation instruction to finish the driver installation. Click **“Finish”** to restart your computer.

OZ007 User Password & Launch Key Installation

1. Insert the Driver CD into CD/DVD ROM drive. Click **“Windows 2000”** then click **“OZ007”** to install OZ007 applications. Please follow the on-screen installation instruction to finish program installation.

PCMCIA Driver Installation

1. Click **“Start”** → **“Settings”** → **“Control Panel”** → **“System”** → **“Hardware”** → **“Device manager”** → double click **“PCMCIA adapters”** → **“O2Micro OZ6832/6833 CardBus Controller”**. Click **“Driver”** and then click **“Update Driver”**.
2. Click **“Specify a location”**, locates to the path of your CD/DVDROM device, such as **“D:\W2000drv\pcmcia”**. Follow the on-screen instructions to finish the installation.
3. Please click the **“Install one of the other drivers”** icon, follow instruction as below picture. The manufacturer of driver should be **“O2Micro”**, not Microsoft and the location should be **“D:\W2000drv\pcmcia”**.



Chapter 4 – Security Function & Launch Key

Security Function

Hardware operation instruction

Software operation instruction

Key combination

Launch Key

Operation instruction of Launch Key



Security Function

The OZ007 is a unique, self-contained digital signature ciphering security/tracking device. A simple and intuitive 4-button keypad interface allows for over 800K password possibilities with any combination up to 5 buttonstrokes. The OZ007 requires no software intervention, rendering the locking mechanism relatively hacker-proof. The Pre-Boot security function is designed for secure your data, preventing unauthorized access to the system.

We provide purely hardware operation and software operation. That means you can set your password by press these five buttons during POST or setting your password under Windows. When the security password being created, you can't "Power On" your notebook without password.

Hardware operation instruction

Create password:

1. Power on system
2. Hold down button 1 and enter button together for more than 5 seconds, LED will start blinking until enter button is pressed.
3. Press button #1~4 to enter your password, then press "**Enter**" key to create password.
4. Power off system

Erase password:

1. Power on system and enter your password.
2. Hold down button 3 and the enter button together for more than 5 seconds, LED will start blinking until enter button is pressed.
3. Press button #1~4 to enter your password, then press "**Enter**" key to erase password.
4. Power off system.

Change password:

In order to change password, you have to erase old password then create new password.

1. Power on system and enter your password.
2. Hold down button 3 and enter button together for more than 5 seconds, LED will start blinking until enter button is pressed.
3. Press old password and then press “**Enter**” key to erase old password.
4. Hold down button 1 and enter button together for more than 5 seconds, LED will start blinking until enter button is pressed.
5. Press button #1~4 to enter new password then press “**Enter**” key to change password.
6. Power off system.



1. **If you do not set security password, you can power on system by press power button and boot up your system directly.**
2. **After password is created, when the system is on, the LED will blink with Green color, system will enter security mode as long as a valid password is found, you have to enter the correct password and Enter button to boot up your system.**
3. **If you fail to enter the correct password 3 times continually, the LED will blink with orange color and system is remaining locked. When the Orange LED blink, password enter is still possible, if you press the correct password, system will boot up and LED will be turned off.**
4. **If you press the power button and do not press password for 30 seconds, the LED will turn off. You have to press power button again and press correct password to boot up your system.**
5. **Please write down the password number and don't forget the password.**
6. **Please don't forget to press the Enter key when you create/erase/change your password, if you do not press Enter key, system will not take any affect.**

Software operation instruction

The Driver CD will include OZ007 user password and Launch key application for user to set password under Windows 98/NT/2000. In order to install the program, please refer to Chapter 3, the installation instruction of “OZ007 user password & launch key”.

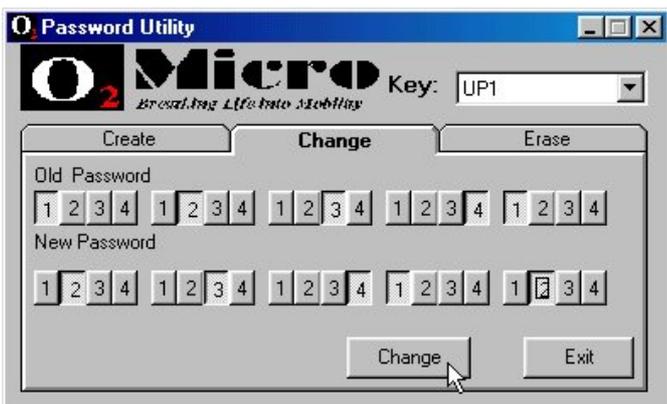
Operation instruction of OZ007 User Password

Please press “**Start**” → “**Programs**” → “**OZ007 User Password**” → “**UsrPwd**”. You can see the password utility as below.

Create password:

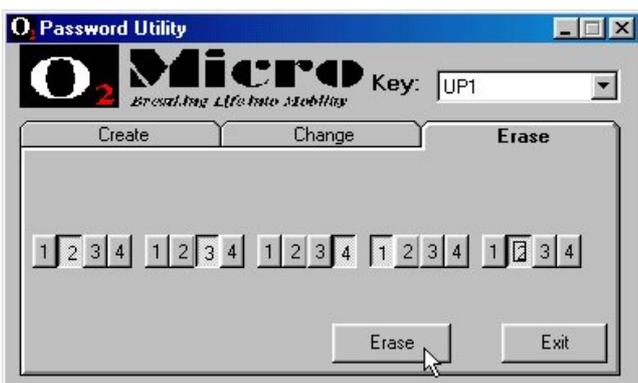
Click password what you like to have, then click **“Create”** icon.

For example, if you want to set your password as 1,2,3,4,1, please click **“1” “2” “3” “4” “1”** then click **“Create”**

Change password:

If you like to change password, please click **“Old Password”** and **“New Password”** then click **“Change”** icon to change your password.

For example, if the original password is 1,2,3,4,1, and you like to change as 2,3,4,1,2, click the **“Old Password”** and **“New Password”** then click **“Change”** to change password.

Erase password:

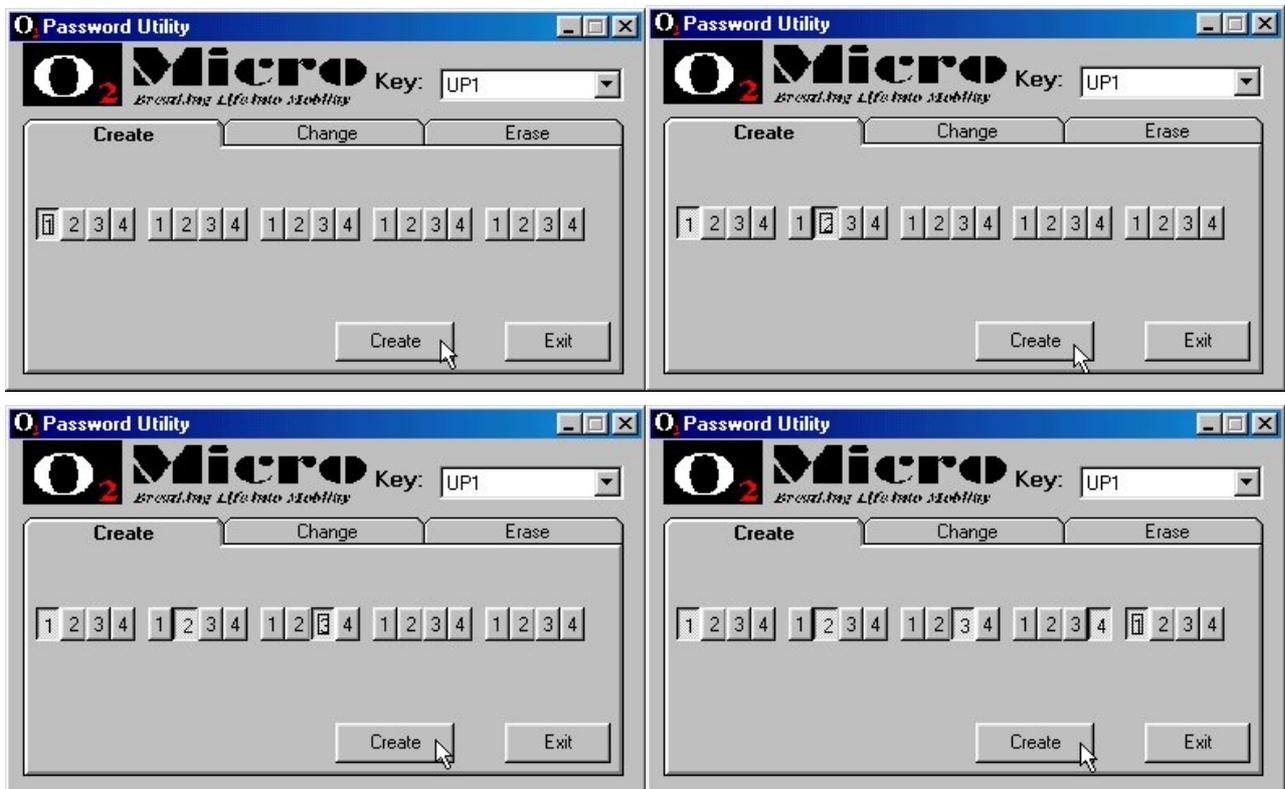
If you like to erase password, please click your password and click “**Erase**” icon to erase password. For example, your password is 2,3,4,1,2, please click the number and click “**Erase**” icon to erase password.

Key combination

This security function allows you to protect your personal notebook's information than ever. We provide this function with multiple degrees to setup password. At most, there are five degrees. That means you can set single key or combination keys for every degree. You can see some examples to reference below.

Single Key

For this example, you can just click key#1 then click “**Create**”, or click “**1**,”**2**” then click “**Create**”, or “**1**”**2**”**3**” then click “**Create**” or “**1**”**2**”**3**”**4**”**1**” then click “**Create**” to create password.

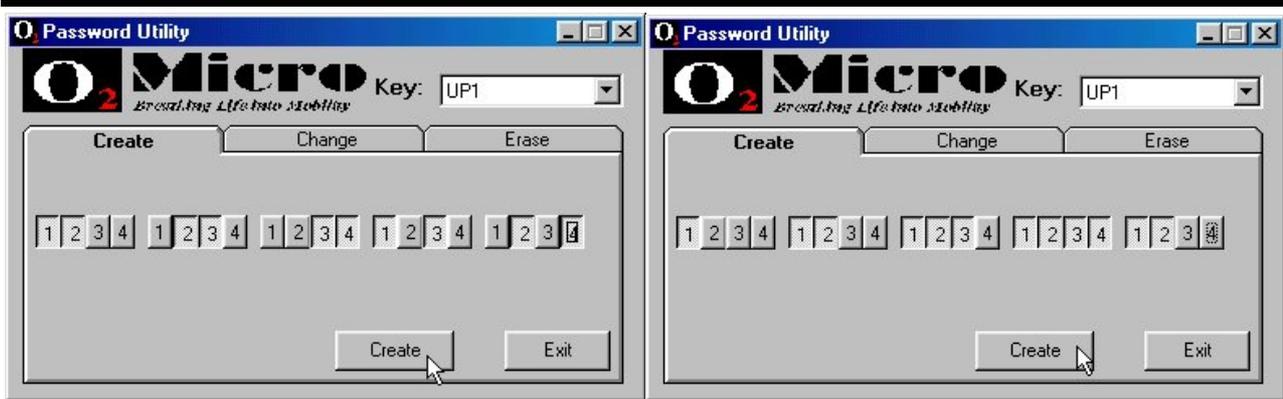


Combination Key

You can set your password with combination key for every degree.

For example, you can click “**1+2**,”**2+3**,”**3+4**,”**1+3**,”**2+4**” then click “**Create**” or click “**1**”**1+2**”**1+2+3**”**1+2+3+4**”**1+2**” or click any password you like to create.

You can also create password such as “**1+2**” or “**1+2+3**” or “**1+2+3+4**” then click “**Create**” to create your own password.



1. Please remember to write down your password and keep in your mind, don't forget the password.
2. Please set your password very carefully, we recommend you try to press these buttons before you set the password under Windows. If you set your password as combination key, you have to press these keys simultaneous for every degree. Please consider whether your fingers can fit in with the space for the buttons and whether you can press your combination key simultaneous. Otherwise, maybe you can set your own password but you can't press them simultaneous when you shutdown system and try to power on your system.
3. If you set your password by hardware operation, you can modify your password by software operation under Windows. That means you can create/change/erase password by hardware operation and modify password by software operation. You can create/change/erase password by software operation and modify by hardware operation. For example, if you already set password by hardware operation, when you execute the "OZ007 User Password" program, you can see the "Erase" screen in password utility. You can erase password or change/create your password by software operation.

Launch Key

Operation instruction of Launch Key

Four versatile user definable instant launch application keys are available upon passing security check. Upon proper password input, system enters instant application launch key mode. The system integrator is enabled to use up to 4 security keypads as instant applications keys. The OZ007 launch key allows you to launch your applications directly. You can define four buttons (button # 1~4) to access your program by pushing these buttons under Windows 98/NT/2000. You can see the O2 launch key icon on the right bottom side of tool bar as below. Please click the O2 icon to see your launch key settings.



When you click the O2 icon, you can see the picture below, there are four icons in the window. The sequence for launch key is button# 1~4 from left to right. That means if you push button 1, you will see the Windows Update screen, if push button 2, you will see notepad program activate, if push button 3, you will see the Internet Explore program activate.

If you want to change the function for launch key, please click the icon in the setup launch window, then choice another application you want to access directly. For example, if you want to change the icon from **Windows Update** to **Outlook Express**, please click the **Windows Update** icon then click **Outlook Express** icon then click **Open**. You can see the icon will becomes **Outlook Express**. The launch key allows you to define "EXE"(.exe) file only.



Chapter 5 - The BIOS Setup Program

Navigating through the BIOS Setup Program

Getting Help

In Case of Problems

Award BIOS Setup

The Main Menu

Standard CMOS Setup

BIOS Features Setup

Power Management Setup

Load Setup Defaults

Integrated Peripherals

IDE HDD Auto Detection

Save & Exit Setup

Exit Without Saving

A built-in Setup program allows you to customize the Notebook to suit your personal work habits. This program gives you control over the Notebook power management and security system, allowing you to configure the Notebook for different working environments such as the home, the office, or on the road. The Setup program, or more specifically the Award BIOS (Basic Input and Output System) Setup program, employs a menu driven graphical user interface. This intuitive program can be controlled by keyboard.

With easy-to-use menus, you can configure such items as:

- Hard drives and peripherals
- Drive boot Sequence
- Password protection
- Power Management Features

A more technical way of describing the function of the Setup program is that it enables you to make changes to the system configuration and tailor your system to reflect installed hardware or alter system performance. It is a ROM-based configuration utility that displays the system configuration status and provides you with a tool to set system parameters. These parameters, which include system configuration, are stored in non-volatile battery backed-up CMOS RAM which retains this information even when the power is turned off. When the Notebook is turned back on, the system is configured with the values stored in CMOS.

The settings made in the BIOS Setup program intimately affect how the Notebook performs. Incorrect settings can cause the Notebook to malfunction. When set properly, the Notebook will perform at optimal efficiency for your individual work habits and environment. It is important, therefore, to first try to understand all the Setup options, and second, to make settings appropriate for the way you use the Notebook.

You should run the Setup program under the following conditions:

- You have set up the computer for the first time and you get a message prompting you to run the BIOS Setup program
- You want to change the boot sequence device
- You want to reset the system clock
- You want to redefine the communication ports to prevent any conflicts
- You want to make changes to the Power Management configuration
- You want to create or change the password

This chapter will guide you through the Setup program by providing clear explanations for all Setup options. A standard configuration has already been set in the Setup Program, so you

will very likely have little to worry about for now. However, we recommend you read this chapter just in case you need to make any changes in the future.

The next section discusses how to move around in the BIOS Setup program, as well as how to specify and save your new settings. A brief discussion of the optional settings among the different submenus follows.

Navigating through the BIOS Setup Program

The Setup program has been designed to make it as easy to use as possible. It is a menu driven program, which means you can scroll through the various sub-menus and make your selections among the various predetermined choices. If you accidentally make a setting and don't know which one to switch back to, the Setup program has a hot key that allows you to return to the previous value. The hot keys are discussed in more detail later in this chapter. When turning on the Notebook for the first time you may get a message prompting you to run the BIOS Setup program. A warning message may appear on the screen if the hardware configuration is changed or the POST fails. This message will inform you of any errors or invalid settings and prompt you to run the Setup program to correct the problem.

Even if you are not prompted by a message instructing you to use the Setup program, at some time in the future you may want to change the configuration of your computer. For example, you may want to enable the Security Password Feature or make changes to the Power Management settings. It will then be necessary to reconfigure your system using the Setup program so that the computer can recognize these changes.

The Award BIOS has been customized by adding important, non-standard, features such as virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

Getting Help

After you have highlighted a field, pressing [F1] will pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. In order to exit the Help Window, please press [Esc] or the [F1] key again.

In Case of Problems

If you make and save system changes to the CMOS and find that your computer is no longer able to boot up, you can use the use the function key [F5] to load the previous values of CMOS. Alternatively, you can use the function keys [F6] or [F7] to load BIOS default settings.



Only alter change settings that you thoroughly understand. We strongly recommend that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and the Notebook manufacturer to provide the absolute maximum performance and reliability.

Award BIOS Setup

Enter the Award Setup program Main Menu as follows:

1. Turn on or reboot the system. After a series of diagnostic checks, a copyright screen appears.
2. Press the [DEL] key to enter the Award BIOS setup program and the following screen appears:

Award Modular BIOS v4.51PGM, An Energy Star Ally

Copyright (C) 1984-99, Award Software, Inc.

790S/900S xxxxxxxxx

PENTIUM III CPU at xxxMHz

Memory Test: 65536K OK

Press DEL to enter SETUP

xx/xx/xx-xxxxxxxxxxxxxxxxxxxxxxxxxxxx

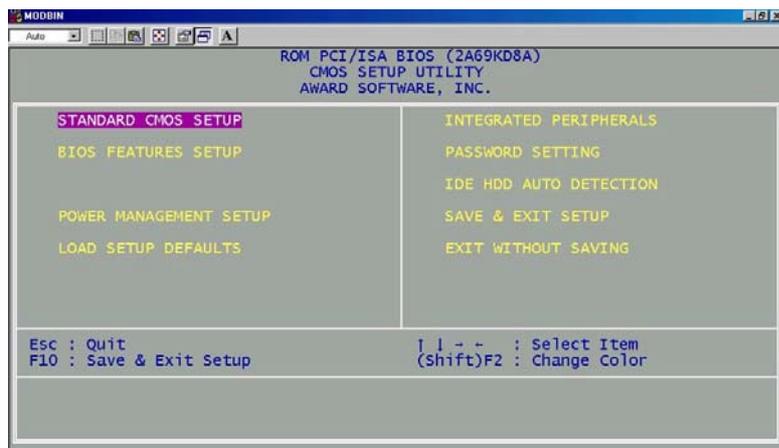
Use the cursor (arrow) keys to highlight items. Press [Enter] to select a field item. Use the Page Up and Page Down keys to change entries in a field. You can press [F1] any time for context sensitive help. Press [Esc] at any time to quit without saving any changes.

The following table provides more detail about how to navigate in the Setup program using the keyboard.

Function Key	Function Key Explanation
Up arrow [↑]	Move to previous item
Down arrow [↓]	Move to next item
Left arrow [←]	Move the cursor to the left item
Right arrow [→]	Move the cursor to the right item
[Esc] key	Main Menu -- Quit without saving any changes to CMOS Other Menus -- Exit current page and return to Main Menu
[PgDn] key	Increase the numeric value or make changes
[PgUp] key	Decrease the numeric value or make changes
[+] Key	Increase the numeric value or make changes
[-] Key	Decrease the numeric value or make changes
[F1] key	General help, only for Status Page Setup Menu and Option Page

	Setup Menus
[Shift] + [F2] key	Change the Setup program screen colors. You can choose from a total of 16 colors. Press [F2] to scroll forwards through the available colors. Press [Shift] + [F2] to scroll backwards through the available colors.
[F5] key	Pressing [F5] restores the previous CMOS values from CMOS (only available in Option Page submenus).
[F7] key	Pressing [F7] loads the default setup values.
[F10] key	Save all the CMOS changes, only for Main Menu

The Main Menu



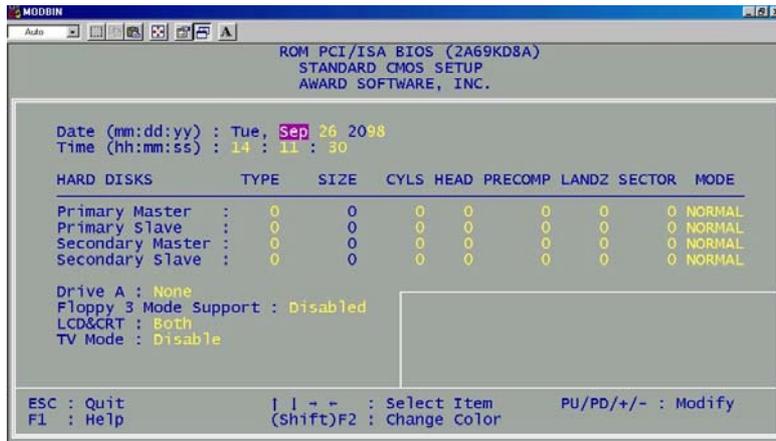
The Main Menu options of the BIOS are briefly described below.

Option	Description
Standard CMOS Setup	This setup page allows you to change such items as the date and time and HDD designation.
BIOS Features Setup	This setup page allows you to set the Award BIOS special enhanced features.
Power Management Setup	This page allows you to make changes to the Power Management of the Notebook.
Load Setup Defaults	The Setup defaults are settings which provide maximum system performance.
Integrated Peripherals	This page allows you to make changes to I/O device settings.
Password Setting	You can change, set, or disable the Supervisor Password with this field.
IDE HDD Auto Detection	This field allows you to automatically detect and configure hard disk parameters. Award BIOS includes this feature just in case you are uncertain of your hard disk parameters.
Save & Exit Setup	Saves CMOS value changes to CMOS and exits setup.
Exit Without Save	Discards all CMOS value changes and exits setup.

Standard CMOS Setup

To enter this page, select "Standard CMOS Setup" from the Main menu and press [Enter].

The following menu appears:



There are 8 fields to be set in the Standard CMOS Setup Menu. Use the arrow keys to highlight the item and then use the [PgUp] or [PgDn] keys to select the value you want in each item.

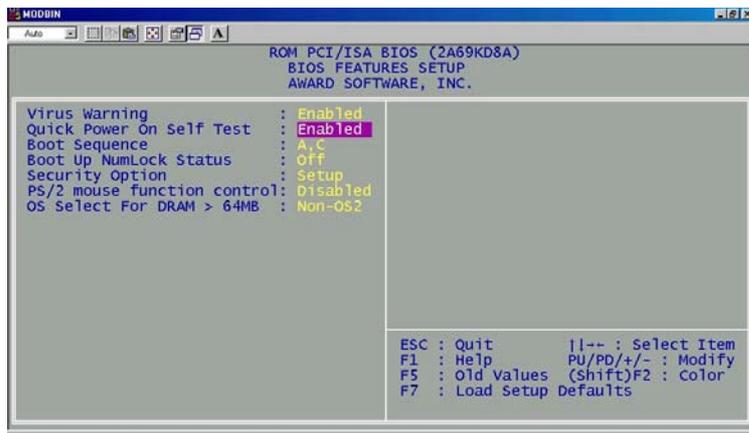
- **Date**
- **Time**
- **Primary Master/Slave, Secondary Master/Slave**
- **Drive A Type**
- **Floppy 3 Mode Support**
- **LCD&CRT**
- **TV Mode**

In these items, you must pay more attentions on two items:

- **Primary Master/Slave, Secondary Master/Slave: Set type and mode of Hard Disk "Auto" is recommended.** This is just in case of Hard Disk replacement. If the values of HDD type and mode set "User", system will need to spend few seconds to recognize the type and mode of Hard Disk.
- **LCD&CRT:** If you want to connect a CRT to system, you must be sure to change the value to "Both" or "CRT".
- **TV Mode:** If you want to connect a TV to system, you must be sure to enable this item.

BIOS Features Setup

This section allows you to configure your system for basic operation. To enter this page, select "BIOS Features Setup" from the Main menu and press [Enter]. The following menu appears:



A short description of the screen items follows:

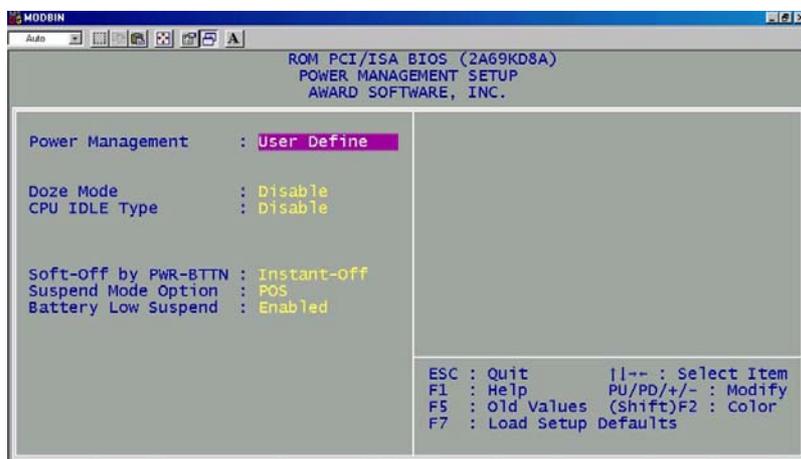
- *Virus Warning*
- *Quick Power On Self Test*
- *Boot Sequence*
- *PS/2 Mouse Function Control*

In these items, you must pay more attentions especially on two items:

- **Virus Warning:** Many disk diagnostic programs attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you first disable Virus Protection beforehand.
- **Quick Power On Self Test:** Switch to adjust the speed of POST. You can make the speed of POST faster when enable this item.
- **Boot Sequence:** You can boot from floppy, hard disk or CD-ROM.
- **PS/2 Mouse Function Control:** This switch control Touchpad & PS/2 port. **If you want to connect a COM1 mouse, you must first disable this item.**

Power Management Setup

The Power Savings menu of the Setup program allows you to enable and adjust the Notebook sophisticated power-saving features. Enabling these features will extend the life of the battery pack between charges. To make changes to power management settings, select "Power Management Setup" from the Main menu and press [Enter]. The following menu appears:



Power Management

This category allows you to select the type (or degree) of power saving. There are three selections for Power Management.

- **Maximum Performance:** System will get the best performance when you choose this selection. If you want to run some Benchmark programs, please remember to choose “Maximum Performance” to get better performance & higher score.
- **Maximum Battery Life:** System will get longer battery life when you choose this selection. If you want to run some Battery Mark programs, please remember to choose “Maximum Battery Life” for getting longer battery life.
- **User Define:** Allows you to set each mode individually.

CPU Idle Type

There are two selections for CPU Idle Type.

- **Stop GRT:** When you choose “Maximum Battery Life” in the Power Management item, this category will be defined as “Stop GRT” automatically. This setting will make your system to save more power.
- **Disabled:** When you choose “Maximum Performance” in the Power Management item, this category will be defined as “Disabled” automatically. This setting will make your system to run as full-speed.

Soft-Off by PWR-BTTN

There are two selections for this item.

- **Instant Off:** After powering on, if presses this button again, system will turn off instantly.
- **Delay 4 sec:** After power on, if you want to turn off system, you have to press this button and hold down 4 seconds to shutdown system.

Suspend Mode Option

There are two selections for this item.

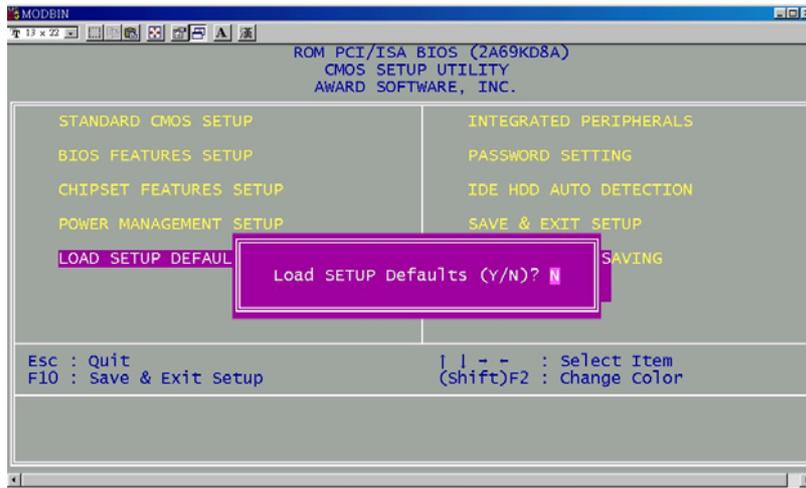
- **POS: Power On Suspend.**
- **STD: Suspend To Disk.**

Battery Low Suspend

- **Enable:** System will suspend when battery low occur.
- **Disable:** System will not suspend when battery low occur.

Load Setup Defaults

Select “Load Setup Defaults” from the Main menu and press [Enter]. The following screen appears.

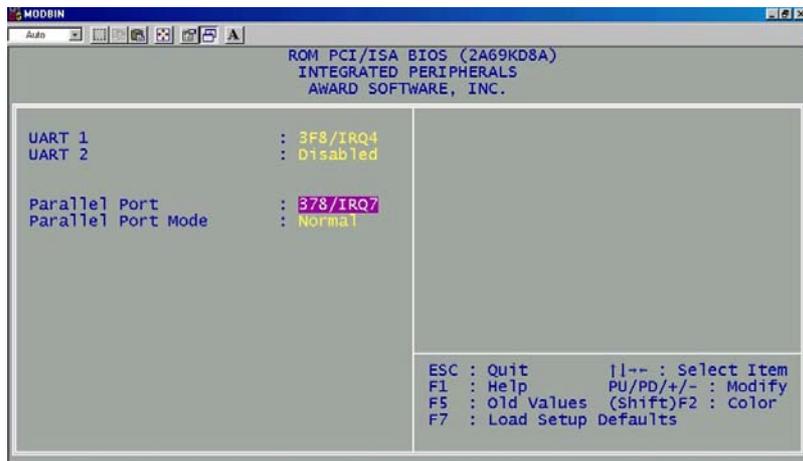


Selecting this field loads the factory defaults for BIOS and Chipset features which the system automatically detects. This field allows the optimum system configuration for your system. If the CMOS is corrupted the defaults are loaded automatically.

To use the Setup defaults, change the prompt to “Load SETUP Defaults” and press [ENTER]

Integrated Peripherals

This section covers the Integrated Peripherals page. On this page you can set the Interrupt Requests (IRQs) for serial and parallel ports, set the parallel port mode. Select “Integrated Peripherals” from the Main menu and press [Enter]. The following screen appears.



Among these items, you may pay more attentions on the following items:

UART 1

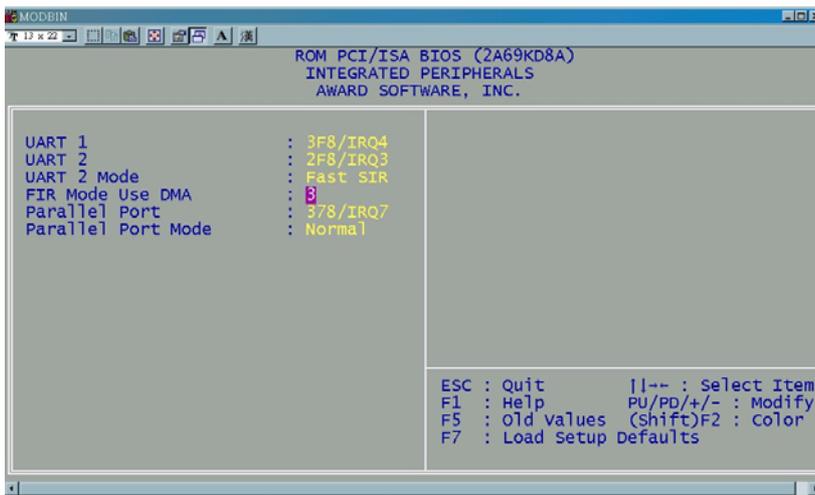
This item allows you determine the IRQ and I/O address of Serial Port 1. Options are 3F8/IRQ4, 3E8/IRQ4, Disabled. The default setting is 3F8/IRQ4.

UART 2

This item was a switch for Enable/Disable **Infrared Port**. If you want to use **IR port (Infrared)**, please remember to **ENABLE** this item. (The default value was disabled.) If you enabled UART 2, you'll get the following screen:

Options are 2F8/IRQ3, 2E8/IRQ3, Disabled. If you want to use IR port, we recommend that you choose **2F8/IRQ3**. After you did so, there was an item happened “**UART 2 Mode**”. In this item, options are **HPSIR**, **Fast SIR**. We recommend that you choose **Fast SIR**. After you did

so, there was another item happened "FIR Mode Use DMA". This item will assign DMA 3 for FIR to use.



Parallel Port

This item allows you to set the I/O address and IRQ of the parallel port. Options are 378/IRQ7, 3BC/IRQ7, and Disabled. The default value is 378/IRQ7.

Parallel Port Mode

This item allows you to set the I/O address and IRQ depending on Device you use. Options are ECP, EPP, and Normal. The default value is Normal. When you set to EPP, there is option for EPP type: EPP1.7.

IDE HDD Auto Detection

You can use this utility to automatically detect the characteristics of most hard drives. Select "IDE HDD Auto Detection" from the Main menu and press [Enter]. You will see a screen prompting you to select a Primary Master. Press [Y] to accept the BIOS detected Primary Master hard disk drive. Press [N] to skip detection. After detecting your Primary Master HDD, BIOS will attempt to detect your Secondary Master, Primary Slave, and Secondary Slave drives.

Password Setting

This Main Menu item lets you configure the system so that a password is required each time the system boots or an attempt is made to enter the setup program. The Password Setting allows the user to boot up and also allows access to the BIOS Setup program.

Follow these instructions to enable a Password Setting.

1. From the Main menu, select "Password Setting" and press [Enter]. You will see the following message:

ENTER PASSWORD:

2. Type the password, up to eight characters in length, and press [Enter].

3. You will be prompted to confirm the password. Type the password again and press [Enter]. You may also press [Esc] to abort the process.
4. To disable a password, just press [Enter] when you are prompted to enter the password. A message will confirm that the password is disabled.

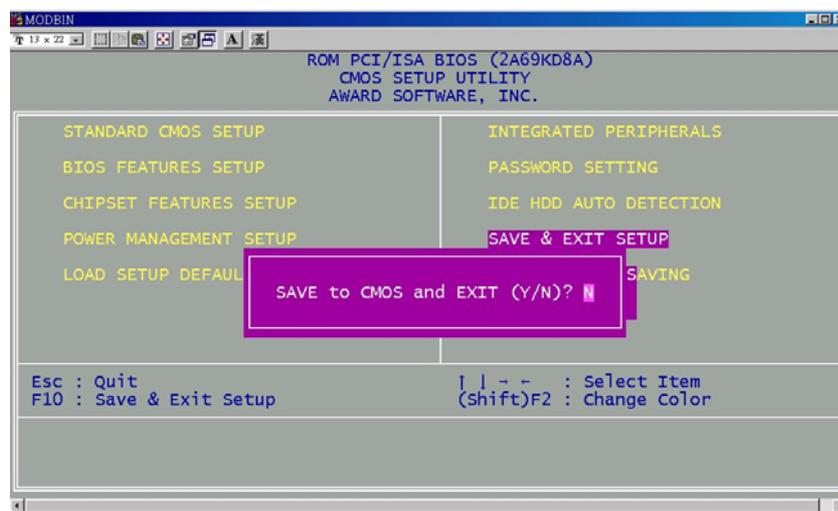
PASSWORD DISABLED !!!
Press any key to continue...

5. Once the password is disabled, the system will boot and you can enter Setup freely.

When a password has been enabled, you will be prompted to enter it every time you try to enter CMOS Setup. This prevents an unauthorized person from changing any part of your system configuration. Additionally, when a password is enabled, you can also require the BIOS to request a password every time the system reboots. This would prevent unauthorized use of your computer.

Save & Exit Setup

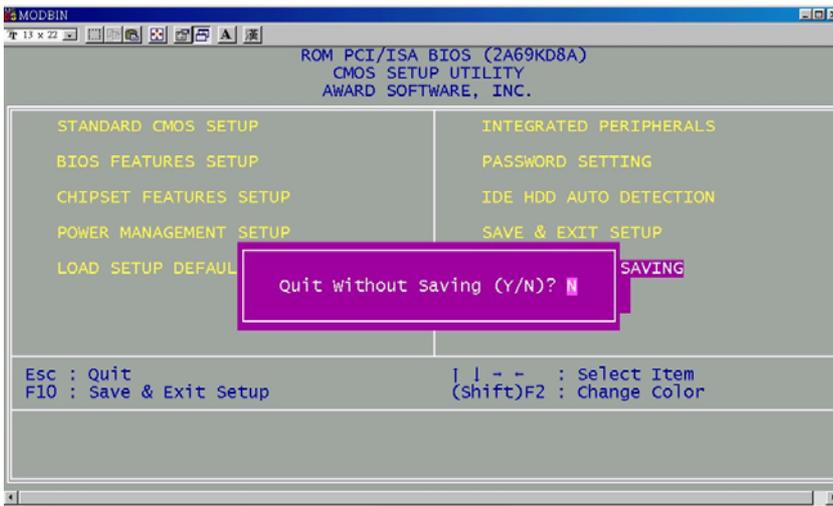
From the Main menu, move your cursor to “Save & Exit Setup” and press [Enter]. The following screen will appear.



After you have made changes under Setup, press [Esc] to return to the Main menu. Move the 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 the cursor to “Exit Without Saving” and press [Y] to retain the old Setup settings.

Exit Without Saving

From the Main menu, move your cursor to “Exit Without Saving” and press [Enter]. The following screen will appear.



After you have made changes under Setup, press [Esc] to return to the Main menu. Move the cursor to “Exit Without Saving” and then press [Y] to exit the CMOS Setup without making any changes.

Chapter 6 – TV-out and Dual View

Operation instruction of TV-out

Operation instruction of Dual View

Operation instruction of display status switch

Operation instruction of TV-out

TV-out settings before you boot up system:

Please plug-in the video out cable to the TV-out jack directly, then boot up the system.

You can see the display on both LCD and TV simultaneous.

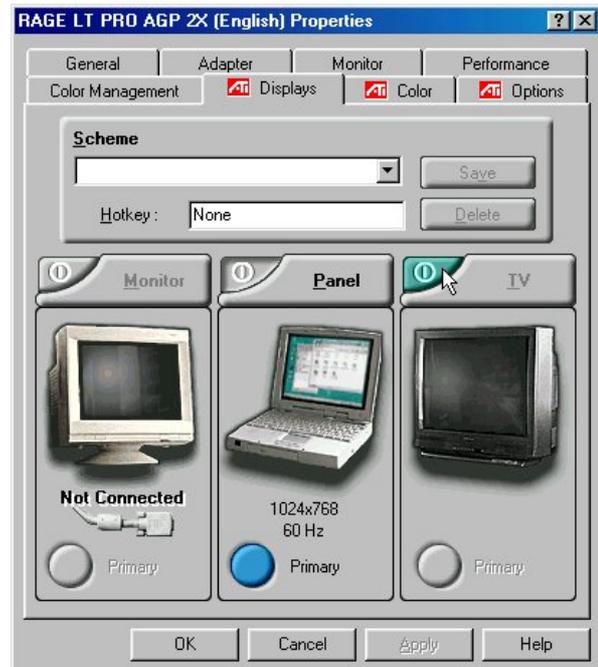
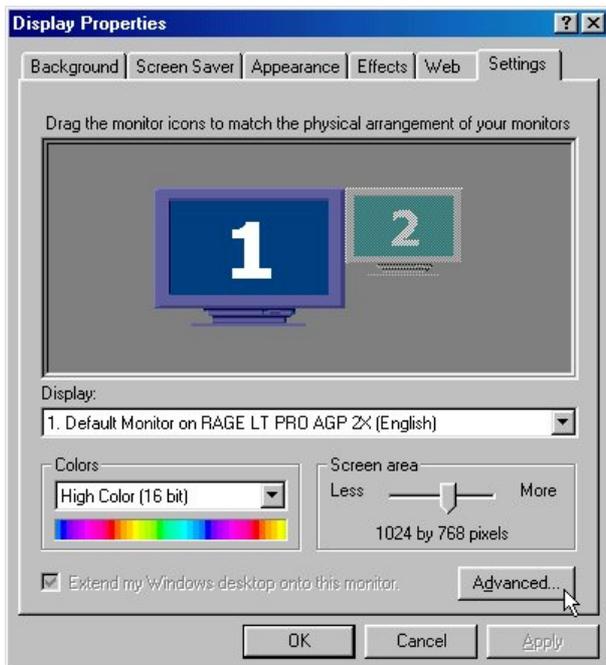
That means you can see the Windows screen display on TV and LCD.

TV-out settings under Windows:

Please plug-in the TV-out cable and follow the procedure below.

Click **"Start"** → **"Settings"** → **"Control Panel"** → Select **"Display"** icon → Click **"settings"** of display properties → Click **"Advanced"** → Click **"Displays"**

You can see the I/O button for the TV item, click it to enable the TV device and click **"Apply"** then click **"OK"**. Then you can see the display on both TV and LCD.



Operation instruction of Dual View

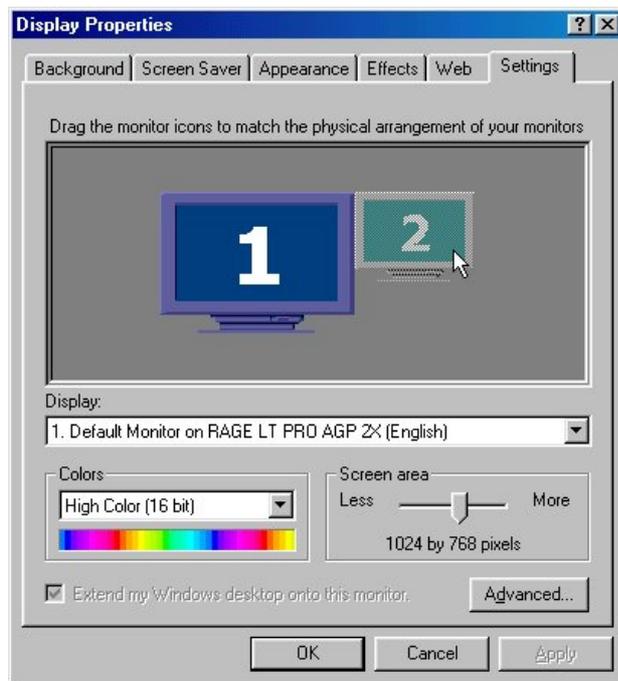
The dual view function allows you to extend your display.

Enable Dual View function

You can extend your monitor to TV or CRT monitor by using this function.

Click **"Start"** → **"Settings"** → **"Control Panel"** → Select **"Display"** icon → Click **"settings"** of display properties.

Double click **monitor #2** then click **"Apply"** and **"OK"** to enable dual view function.

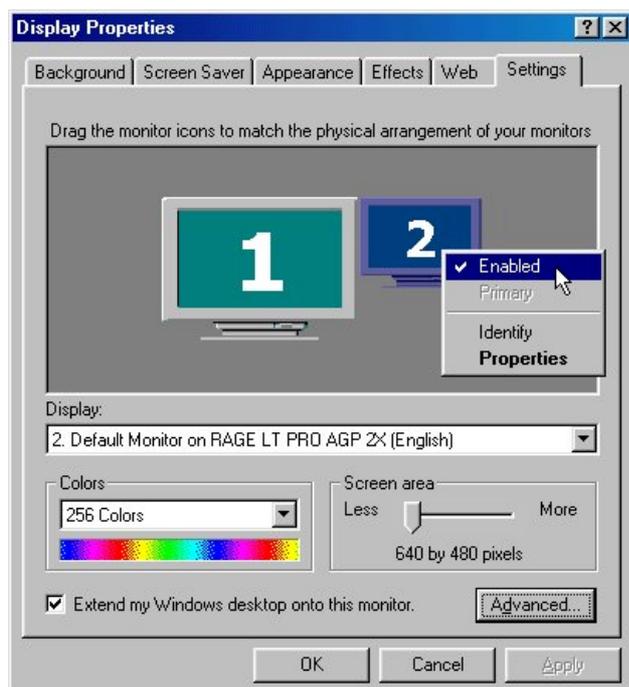


You can see the expansion monitor display on your TV such as monitor#2.

Disable Dual View function

If you like to disable the dual view function, you have to click the right button of Touch Pad on monitor #2.

Click the "Enable" icon then click "Apply" and "OK", the monitor #2 would be **turned off**. If you like to use the Dual View function again, you have to click the I/O button for TV/CRT where in display properties to enable TV/CRT again. That means if you disable Dual View function, the monitor #2 would be turn off, you have to enable TV/CRT again then you can enable and use Dual View again.

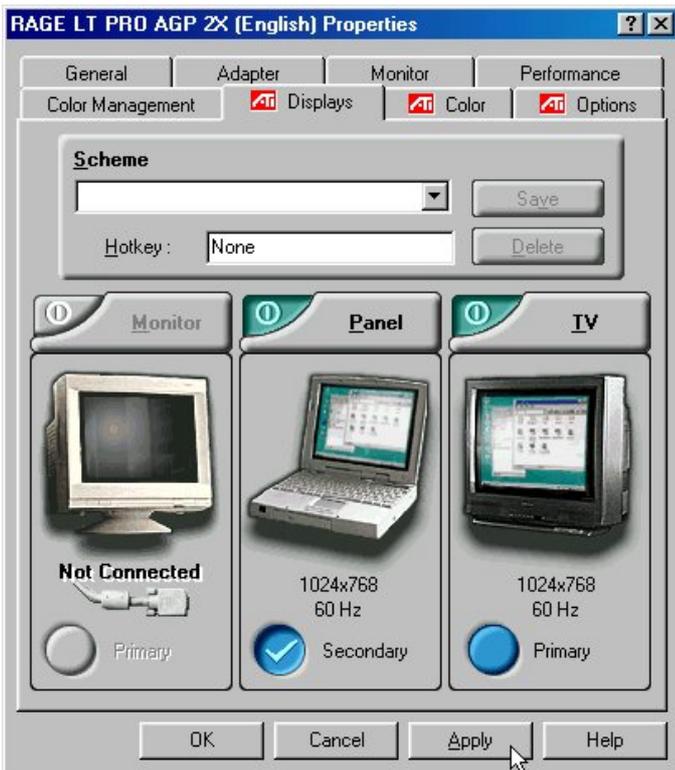


Operation instruction of display status switch

This operation instruction will explain how to switch the display status.

When you enable TV or CRT device, you can see the display information for every display device.

For example, you can see the panel and TV are enabled and being use as below picture. You can see the display information for every device such as **resolution**, **refresh rate** and display status such as **“Primary”** and **“Secondary”**.



If you're using Dual View function, the extension monitor should be display on the “Secondary” device. For example, if you set TV/CRT as secondary and LCD as primary, when you enable dual view function, the extension screen will display on TV/CRT.

If you like to switch the display status, please click the “Primary” or “Secondary” button to switch the status. For example, if you like to set “primary” for TV/CRT and “Secondary” for LCD, just click the “Primary” button for LCD, the status for LCD would be switched to “Secondary” and TV/CRT would be switched to “Primary”. Then you have to click “Apply” and click “OK” to switch the display status.



Warning: The DVD movies and any further movie files like VCD or MPEG files could only be displayed on “Primary” device.

Chapter 7 – Japan System Support

Keyboard
3-Mode Floppy

Keyboard

In order to using Japan keyboard. You have to update the keyboard driver under Win98. Because the default keyboard which Win98 installed is "Standard 101/102-key or Microsoft Natural keyboard". Follow the instruction to update keyboard.

1. Click "**Start**", "**Settings**", "**Control Panel**", "**System**", "**Device Manager**", double click "**Keyboard**", double click "**Standard 101/102-key or Microsoft Natural keyboard**".
2. Click "**Driver**", "**Update Driver**", "**Next**", "**Display a list of all driver...**" "**Show all hardware**", Select "**Model**" to fit in with your system need. (Japan keyboard type, for example: **106 日本語 (A01) keyboard**)

3-Mode Floppy

In order to using 3-mode floppy, you have to update the floppy disk controller driver under Win98. Because the default floppy disk controller which Win98 installed is "**Standard Floppy Disk Controller**". Follow the instruction to update keyboard.

1. Click "**Start**", "**Settings**", "**Control Panel**", "**System**", "**Device Manager**", double click "**Floppy disk controller**", double click "**Standard Floppy Disk Controller**".
2. Click "**Driver**", "**Update Driver**", "**Next**", "**Display a list of all driver...**" "**Show all hardware**", Select "**Model**" to fit in with your system needs. (3-mode floppy, for example: AT&T 3-mode Floppy (Globalyst 200S) driver)
3. There are "**Floppy 3 Mode Support**" item in the BIOS setup. This item have to set "Drive A" to enable the 3-Mode floppy support.

