USER'S MANUAL

notebook

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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:

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

Warning

Use only shielded cables to connect I/O devices to this equipment.
You are cautioned that changes or modifications not expressly approved by the manufacturer for compliance with the above standards could void your authority to operate the equipment.

IMPORTANT SAFETY INSTRUCTIONS

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

CAUTION

Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment.

TO REDUCE THE RISK OF FIRE, USE ONLY No. 26 AWG OR LARGER, TELECOMMUNICATION LINE CORD

IMPORTANTES MESURES DE SÉCURITÉ

Certaines mesures de sécurité doivent être prises pendant l'utilisation de matérial téléphonique afin de réduire les risques d'incendie, de choc électrique et de blessures. En voici quelquesunes:

1. Ne pas utiliser l'appareil près de l'eau,, p.ex., près d'une baignoire, d'un lavabo, d'un évier de cuisine, d'un bac à laver, dans un sous-sol humide ou près d'une piscine.
2. Éviter d'utiliser le téléphone (sauf s'il s'agit d'un appareil sans fil) pendant un orage électrique. Ceci peut présenter un risque de choc électrique causé par la foudre.
3. Ne pas utiliser l'appareil téléphonique pour signaler une fuite de gaz s'il est situé près de la fuite.
4. Utiliser seulement le cordon d'alimentation et le type de piles indiqués dans ce manuel. Ne pas jeter les piles dans le feu: elles peuvent exploser. Se conformer aux règlements pertinents quant à l'émination des piles.

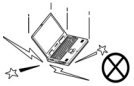
ATTENTION

Débranchez toujours toutes les lignes téléphoniques des prises murales avant de réparer ou de démonter cet équipement.

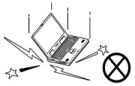
UTILISEZ LE CORDON DE TÉLÉPHONE 26AGW APPROPRIÉ

Instructions for Care and Operation

The notebook computer is quite rugged, but it can be damaged. To ensure that does not happen, follow these suggestions:



1. **Don't drop it.** Make sure it's on a stable surface. If the computer falls, the case and other components could be damaged. Do not expose it to any shock or vibration.



2. **Don't overheat it.** Keep the computer and power supply away from any kind of heating element. Keep the computer out of direct sunlight. Don't store or use the computer in a humid environment. Do not place the computer on any surface which will block the vents.

3. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.

4. **Keep it dry.** This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged. Do not leave it in a place where foreign matter or moisture may affect the system.

5. **Follow the proper working procedures for the computer**. Shut down the computer properly, and close all programs (don't forget to save your work). Do not turn off any peripheral devices when the computer is on. Do not disassemble the computer by yourself. Remember to periodically save your data as data may be lost if the battery is depleted. Perform routine maintenance on your computer.

6. **Take care when using peripheral devices**. Use only approved brands of peripheral devices. Unplug the power cord before attaching any peripheral device.

7. **Do not place anything heavy on the computer**.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

Power Safety

The computer has specific power requirements:

- Only use a power adapter approved for use with this computer.
- Your AC adapter may be designed for international travel but it still requires a steady, uninterrupted power supply. If you are unsure of your local power specifications, consult your service representative or local power company.
- The power adapter may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
- When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
- Before cleaning the computer, make sure it is disconnected from any external power supplies (i.e. AC adapter or car adapter).
- Do not plug in the power cord if you are wet.
- Do not use the power cord if it is broken.
- Do not place heavy objects on the power cord.

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Recharge the batteries using the notebook's system. Incorrect recharging may make the battery explode.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Keep children away from, and promptly dispose of a damaged battery. Always dispose of batteries carefully. Batteries may explode or leak if exposed to fire, or improperly handled or discarded.
- Keep the battery away from metal appliances.
- Affix tape to the battery contacts before disposing of the battery.
- Do not touch the battery contacts with your hands or metal objects.

Caution

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

Battery Disposal

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Cleaning

Do not apply cleaner directly to the computer, use a soft clean cloth. Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

Servicing

Do not attempt to service the computer yourself. Doing so may violate your warranty and expose you and the computer to electric shock. Refer all servicing to authorized service personnel. Unplug the computer from the power supply. Then refer servicing to qualified service personnel under any of the following conditions:

- When the power cord or AC/DC adapter is damaged or frayed.
- If the computer has been exposed to rain or other liquids.
- If the computer does not work normally when you follow the operating instructions.
- If the computer has been dropped or damaged (do not touch the poisonous liquid if the LCD panel breaks).
- If there is an unusual odor, heat or smoke coming from your computer.

Travel Considerations

Packing

As you get ready for your trip, run through this list to make sure the system is ready to go:

1. Check that the battery pack and any spares are fully charged.
2. Power off the computer and peripherals.
3. Close the display panel and make sure it's latched.
4. Disconnect the AC adapter and cables. Stow them in the carrying bag.
5. The AC adapter uses voltages from 100 to 240 volts so you won't need a second voltage adapter. However, check with your travel agent to see if you need any socket adapters.
6. Put the notebook in its carrying bag and secure it with the bag's straps.
7. If you're taking any peripherals (e.g. a printer, mouse or digital camera), pack them and those devices' adapters and/or cables.
8. Anticipate customs - Some jurisdictions may have import restrictions or require proof of ownership for both hardware and software. Make sure your "papers" are handy (it may be useful to have the computer in standby mode before going through customs).

On the Road

In addition to the general safety and maintenance suggestions in this preface, and Chapter 8: Troubleshooting, keep these points in mind:

Hand-carry the notebook.
For security, don't let it out of your sight. In some areas, computer theft is very common. Don't check it with "normal" luggage. Baggage handlers may not be sufficiently careful. Avoid knocking the computer against hard objects.

Beware of Electromagnetic fields.
Metal detectors & X-ray machines
These devices can damage the computer, hard disk, floppy disks, and other media. They may also destroy any stored data - Pass your computer and disks around the devices. Ask security officials to hand-inspect them (you may be asked to turn it on).
Note: Some airports also scan luggage with these devices.

Fly safely.
Most airlines have regulations about the use of computers and other electronic devices in flight. These restrictions are for your safety, follow them. If you stow the notebook in an overhead compartment, make sure it's secure. Contents may shift and/or fall out when the compartment is opened.

Get power where you can.
If an electrical outlet is available, use the AC adapter and keep your battery (batteries) charged.

Keep it dry.
If you move quickly from a cold to a warm location, water vapor can condense inside the computer. Wait a few minutes before turning it on so that any moisture can evaporate.

Developing Good Work Habits

Developing good work habits is important if you need to work in front of the computer for long periods of time. Improper work habits can result in discomfort or serious injury from repetitive strain to your hands, wrists or other joints. The following are some tips to reduce the strain:

- Adjust the height of the chair and/or desk so that the keyboard is at or slightly below the level of your elbow. Keep your forearms, wrists, and hands in a relaxed position.
- Your knees should be slightly higher than your hips. Place your feet flat on the floor or on a footrest if necessary.
- Use a chair with a back and adjust it to support your lower back comfortably.
- Sit straight so that your knees, hips and elbows form approximately 90-degree angles when you are working.
- Take periodic breaks if you are using the computer for long periods of time.

Remember to:

- Alter your posture frequently.
- Stretch and exercise your body several times a day.
- Take periodic breaks when you work at the computer for long periods of time. Frequent and short breaks are better than fewer and longer breaks.

Lighting

Proper lighting and comfortable display viewing angle can reduce eye strain and muscle fatigue in your neck and shoulders.

- Position the display to avoid glare or reflections from overhead lighting or outside sources of light.
- Keep the display screen clean and set the brightness and contrast to levels that allow you to see the screen clearly.
- Position the display directly in front of you at a comfortable viewing distance.
- Adjust the display viewing angle to find the best position.

Contents

Using The Computer 2-1

Chapter 1: Introduction

Overview

What this chapter covers:

- The Manual — how to use it
- Quick Start Guide — the minimum you need to know
- System Map — navigating around your computer

Notes

Check the light colored boxes with the mark above to find detailed information about the computer's features.

The Manual

This manual refers to the hardware and essential software required to run your notebook computer. Depending on how your system is configured, some or all of the features described may already be set up.

Advanced Users

If you are an advanced user you may skip over most of this manual. However you may find it useful to refer to the *"What to Install" on page 4 - 2*, *"BIOS Utilities" on page 5 - 1* and *"Upgrading The Computer" on page 7 - 1*. You may also find the notes marked with a  of interest to you.

Beginners and Not-So-Advanced Users

If you are new to computers, or do not have an advanced knowledge of them, then you should try to look through all the documentation. Do not worry if you do not understand everything the first time. Keep this manual nearby and refer to it to learn as you go. You may find it useful to refer to the notes marked with a  as indicated in the margin.

Warning Boxes

No matter what your level please pay careful attention to the warning and safety information indicated by the symbol. Also please note the safety and handling instructions as indicated in the *Preface*.

Not Included

Operating Systems (e.g. *Windows 2000 Professional, Windows XP etc.*) have their own manuals, as do applications (e.g. word processing, spreadsheet and database programs). If you have questions about the operating systems or programs then please consult the appropriate manuals.

System Software

Your computer may already come with system software pre-installed. Where this is not the case, or where you are re-configuring your computer for a different system, you will find this manual refers to the following operating systems:

- Microsoft Windows 2000
- Microsoft Windows XP

Quick Start Guide

This guide assumes that you are already familiar with computers and can tell at a glance what and where all the key components are. If you are not that comfortable with this type of device, then please refer to the following pages, which give an overview of the system.

It is still best to review these steps, *before* taking any action. If there is anything you are not sure about, then please refer to the appropriate chapter before continuing.

Unless you need to install an operating system, your computer should be ready to work right out of the box. Before you begin please follow the safety instructions in the *Preface*.

1. Remove all packing materials, CDs/DVDs, floppy disks, and any PC Cards.
2. Securely attach any peripherals you want to use with the notebook (e.g. keyboard and mouse) to their ports.
3. Attach the AC adapter to the DC-in jack at the rear of the computer (see ***"AC Adapter Plugged In" on page 1 - 6***), then plug the AC power cord into an outlet, and connect the AC power cord to the AC adapter.
4. Raise the lid/LCD to a comfortable viewing angle.
5. Press the power button to turn "on".

Peripheral Devices

Please note that peripherals (printers, digital cameras, etc.) which attach to your computer by either **USB** or **IEEE1394** ports may be connected after ***Windows*** is up and running. All other peripherals must be connected *before* you turn on the system.

System Map

Your computer has a lot of built-in features. Most of these are enabled by your operating system. Further explanations of the various subsystems are covered in the chapter or pages indicated.

Getting to Know Your Computer

The following graphics will help you to become familiar with the basic functions, and to learn the location of the various ports and components of your computer.

Model Differences

This notebook series includes two different model types according to their specifications. You can identify if your computer is **Model A** or **Model B** by following the instructions in the sidebar. **Only Model B supports USB 2.0**.

Model Differences

You may identify if your computer is **Model A** or **Model B** from the video card. After you have installed the video driver go to ***"Advanced Display Properties" on page 3 - 5*** and check the card type. If the card is a **MOBILITY RADEON 7500**, then the machine is **Model A**. If the video card is a **MOBILITY RADEON 9000** then the machine is **Model B**, and supports **USB 2.0**.

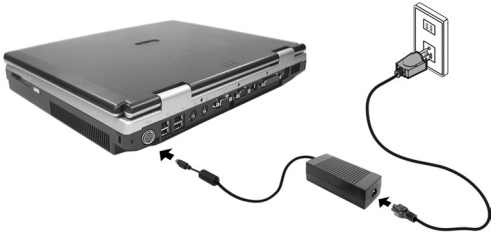


Figure 1 - 1
AC Adapter Plugged In

Top View

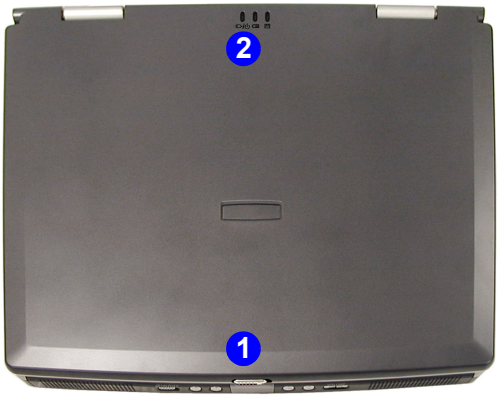


Figure 1 - 2
Top View with LCD Panel Closed

1. LCD Latch
2. LED Power, Battery & E-Mail Status Indicators

To open the LCD display:

1. Place the computer on a stable surface.
2. Move the cover latch 1 to the right to release the top cover.
3. Lift the top cover to reveal the LCD panel and keyboard.
4. Adjust the LCD panel to a comfortable viewing angle.
5. The LED indicators 2 show the power and battery status of the computer, and give notification of e-mail received.

Top View with LCD Panel Open

Figure 1 - 3
Top View with LCD Panel Open

1. LCD
2. LED Power, Battery & E-Mail Status Indicators
3. Built-In Microphone
4. Hot-Key buttons
5. LED Status Indicators
6. Power Button
7. Close Cover Switch
8. Keyboard
9. TouchPad and Buttons

LCD Panel

The computer comes with a 15.0", 15.7" **OR** 16" TFT (Liquid Crystal Display) screen, depending upon the configuration purchased. See *"LCD Options" on page A - 3* for details.

LED Power, Battery & E-Mail Status Indicators

These indicators display the system power status, and battery status of the computer. The third indicator may be configured to give a visual confirmation when e-mail is received in the default e-mail program.

Microphone

Record on your notebook computer with the built-in microphone.

Hot-Key Buttons

The three hot-keys allow you instant access to your default internet browser, default e-mail program, and an application of your choice. To learn how to set the buttons see *"Hot-Keys" on page 2 - 19*.

LED Status Indicators

These display the system's operational status. Refer to *"LED Status Indicators" on page 2 - 8* for more information on what the lights mean.

Power Button

Press this button to turn your computer on or off (see *"Turning on the Computer" on page 2 - 5*). This button may also be used as a suspend/resume key, once configured as such in the power management control panel of your operating system (see *"Configuring the Power Button" on page 3 - 21*).

Shutdown

Please note that you should always shut your computer down by choosing the **Shut Down/Turn Off Computer** command from the **Start** menu in ***Windows.*** This will help prevent hard disk or system problems.

Close Cover Switch

This switch acts as a sensor to tell when the LCD panel is closed. When this LCD cover sensor is activated the default setting of your operating system's power scheme sends the computer into a power saving state (see *Figure 3 - 12 on page 3 - 21*).

Keyboard

The computer has a “Win Key” keyboard including a numeric keypad. It has the same features as a full-sized desktop keyboard and can easily be replaced with a different language keyboard should you desire.

TouchPad & Buttons

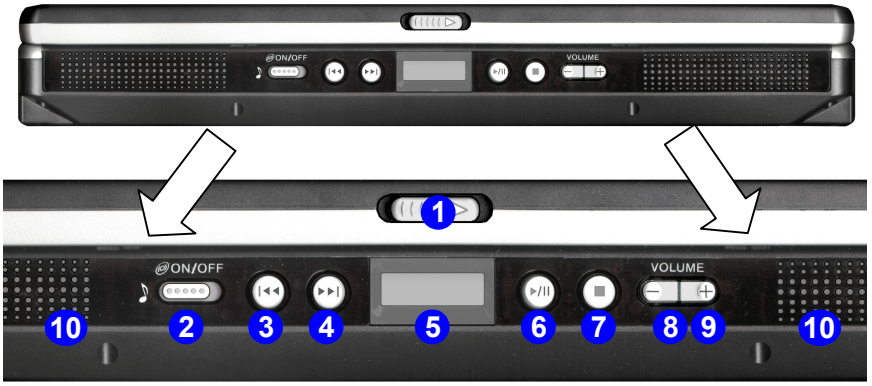
The pointing device features a sensitive glide pad for precise movements. It functions the same way as a two-button mouse. The right TouchPad button is the same as the right mouse button; the left TouchPad button is the same as the left mouse button. The central buttons may be used to scroll up and down, or they may be configured to perform a variety of function (see ***“Configuring the TouchPad and Buttons” on page 2 - 26***).

Forced Off

If the system “hangs”, and the **Ctrl** + **Alt** + **Del** key combination doesn’t work, press the power button for **4 seconds,** or longer**,** to force the system to turn itself off.

Front View

Figure 1 - 4
Front View



1. LCD Latch
2. Audio “DJ” CD Player Control Panel On/Off Switch
3. Previous Track
4. Next Track
5. LCD
6. Play/Pause
7. Stop
8. Volume Down
9. Volume Up
10. Speakers

Audio “DJ” CD Player

The built-in standalone audio CD player gives you direct hardware control for audio CDs when the computer is **shut down**, but has a working power source.

If the computer is running then control for all CDs is handed over to the operating system’s software controller (see ***“Audio “DJ” CD Player Controls (Power On)” on page 3 - 28***), however the CD Player’s volume controls can still be used to set the audio volume.

Note: If you are playing a CD in the audio player you will not be able to use the power button to switch the computer on. Switch the CD audio player **off** first, then press the power button to turn on the computer.

Sound Volume Adjustment

How high the sound volume can be set using the volume control knob depends on the setting of the volume control within ***Windows***. Click the **Speaker** icon on the taskbar to check the setting.

The Volume controls on the Audio DJ player still control the volume settings if the computer's operating system is running.

All peripherals must be connected before you turn on the system.

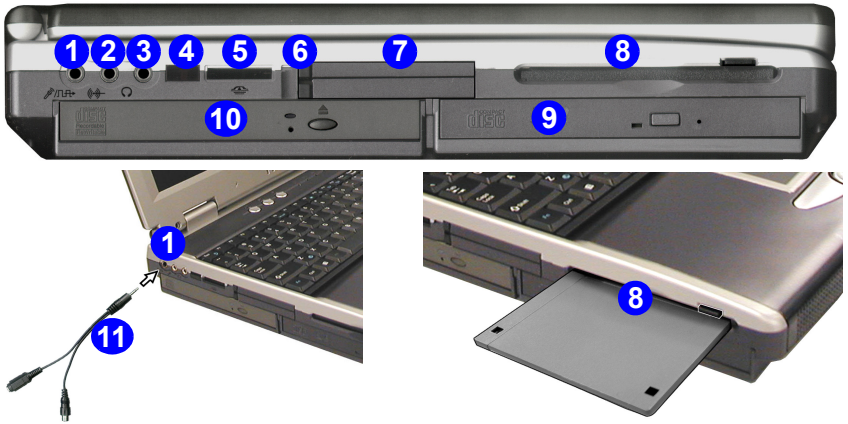
Stereo Speakers

Two built-in speakers provide rich, stereo sound.

Left Side View

Figure 1 - 5
Left Side View

1. S/PDIF Out Port/ Microphone-In Jack
2. Line-In Jack
3. Headphone-Out Jack
4. Infrared Transceiver
5. Sony Memory Stick™ Port
6. PC Card Slot Eject Buttons
7. PC Card Slot
8. Floppy Disk Drive
9. Primary Drive Bay (1)
10. Modular Drive Bay (2)
11. Y-cable for S /PDIF Out /Microphone-In



S/PDIF Out Port/Microphone-In Jack

You can use this port for S/PDIF (Sony/Philips Digital Interface Format) output, and to record on your notebook computer with an external microphone. The S/PDIF Out Port allows you to connect your DVD-capable PC to a Dolby AC-3 compatible receiver for “5.1” or ‘dts’ surround sound. **You must use the Y-cable provided to enable these functions** (S/PDIF connection is to the longer end of the cable).

Line-In Jack

Connect external audio sources to play through your computer's speakers to this jack.

Headphone-Out Jack

Headphones may be connected through this jack.
Note: Set your system's volume to a reduced level before connecting to this jack.

Infrared Transceiver

The infrared transceiver enables communication between the computer and another similarly equipped device, and is 4M bps FIR, IrDA 1.1 compliant. For further information please refer to the manual of the device you wish to connect (see *"Configuring the Infrared Settings for FIR" on page 3 - 32*).

Line-In Function with TV Tuner Installed

With the TV Tuner installed, the line-in jack will only be functional while the TV Studio software is running.

Infrared Communication

The infrared transceiver operates on a "Line of Sight".

Make sure nothing is blocking the "Line of Sight" between your system's transceiver and the destination's transceiver.

Sony Memory Stick Port

This port accepts Sony's Memory Stick™ cards which allow for the exchange of data between various types of AV/IT appliances.

Dual PC Card Slots

There are two Type-II PC Card slots, or the slot may be used for one Type III PC Card (PC Cards were also previously referred to as PCMCIA). Refer to *"The PC Card Slot" on page 2 - 18* for more information.

3.5" FDD (Floppy Disk Drive)

This is a 3.5", 1.44 MB fixed floppy disk drive. For more information please refer to *"The Floppy Disk Drive (FDD)" on page 2 - 13*.

Media Warning

Don't try to remove a floppy disk while the system is accessing it. This may cause the system to "crash".

Device Bays

There are two device bays on the left side of your notebook computer:

The ***primary drive bay*** (Bay One) will have **ONE** of the following interchangeable devices, depending on the configuration purchased:

- DVD-ROM
- CD-ROM
- CD-RW and DVD-ROM Combo drive
- CD-RW
- DVD-R/-RW

The ***modular drive bay*** (Bay Two) will have **ONE** of the following fixed devices, depending on the configuration purchased:

- DVD-ROM
- CD-ROM
- CD-RW and DVD-ROM Combo drive
- CD-RW
- Hard Disk Drive
- IP Sharing Module

Overheating

To prevent your computer from overheating make sure nothing blocks the vent while the computer is in use.

CD Emergency Eject

If you need to manually eject a CD/DVD (e.g. due to an unexpected power interruption) you may push the end of a straightened paper clip into the emergency eject hole.

Do not use a sharpened pencil or similar object that may break and become lodged in the hole.

CD Device

A CD-ROM drive, or DVD-ROM drive, or CD-RW drive, or Combination CD-RW and DVD-ROM drive, or DVD-R/-RW drive (12.7mm height) is standard in the ***primary drive bay*** (Bay One) depending on the model you purchased. There may also be another CD device in the ***modular drive bay*** (Bay Two). For more information on using the drive please refer to *"The CD/DVD Device" on page 2 - 14*.

1. CD-ROM or DVD label to indicate which type
2. Busy Indicator
3. Emergency eject hole
4. Open button

Hard Disk Drive

The internal hard disk drive is used to store your data. You can have up to three hard disks in your computer depending on the configuration options purchased. You may have one main HDD, one optional HDD in the ***modular drive bay (Bay Two)***, and one optional HDD in the ***changeable drive bay (Bay Three)***. See information on pages *7 - 7*, *7 - 11*, & *7 - 13* for information on upgrading/replacing your hard disk drive.

Jumper Settings for Multiple Hard Disk Use

If you are using **more than one hard disk** in your computer, make sure to set the jumpers on **all** your hard disks to the **cable select option** in order for the system to recognize all the disks (see your hard disk manual or the information printed on the hard disk itself for details on the jumper settings).

Drive Warning

Don't try to remove the hard disk (HDD) while the system is on. This could cause data loss or damage.

Unauthorized removal or tampering with the HDD may violate your warranty. If you are in doubt, consult your service representative.

IP Sharing Module

The optional IP sharing module allows you to share your xDSL or cable modem internet connection with up to 4 other computers. You can also share files and printer connections with other machines connected to the ports (see *"IP Sharing Module" on page 6 - 10*).

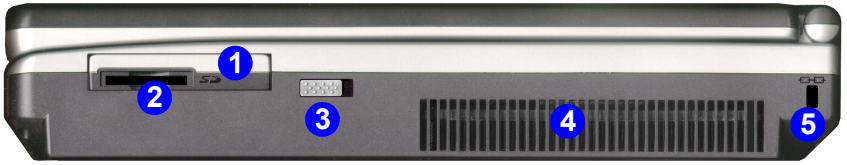
Figure 1 - 6
Right Side View

1. MP3 Player (Optional)
2. MP3 Player SD/ MMC Slot
3. MP3 Player Release Switch
4. Vent
5. Security Lock Slot
6. MP3 Player Slot (no MP3 Player installed)

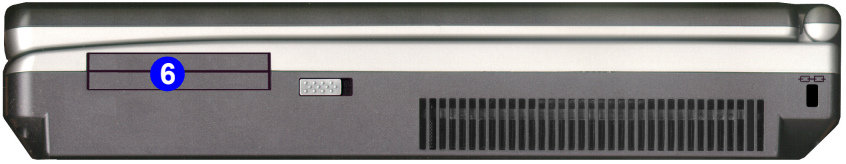
Software Installation Warning

Make sure the MP3 player is **not** in the slot when installing **operating systems**, and any of the **drivers** listed in ***"What to Install" on page 4 - 2***.

Right Side View



Right Side - MP3 Player In



Right Side - MP3 Player Out

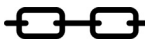
MP3 Player

The **optional**, portable, MP3 player allows you to play MP3 music files, and includes a Secure Digital card (SD)/MultiMedia Card (MMC) slot for data storage (see ***"Secure Digital Cards/MultiMedia Cards" on page 6 - 4***). The portable MP3 player may be used separately from the notebook computer (powered by 2 * AAA batteries) and includes a headphone socket and a mini USB port (see ***"The MP3 Player" on page 6 - 2***).

Vent

This enables airflow to prevent the notebook from overheating.

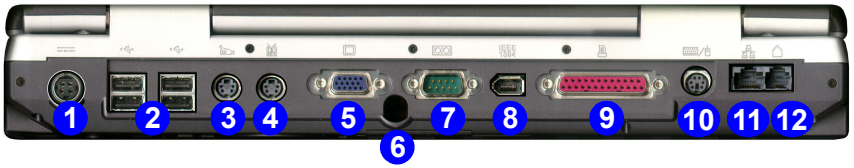
Security Lock Slot



To prevent possible theft, a Kensington-type lock can be attached to this slot. Locks can be purchased at any computer store.

Rear View

Figure 1 - 7
Rear View



1. DC-In Jack
2. 4 * USB Ports
3. S-Video-In Port (Optional)
4. S-Video-Out Port
5. External Monitor (CRT) Port
6. Coaxial TV Antenna Input (Optional)
7. Serial Port
8. IEEE 1394 Port
9. Parallel Port
10. PS/2 Type Port
11. RJ-45 LAN Jack
12. RJ-11 Phone Jack

IEEE 1394

The IEEE 1394 port only supports **SELF POWERED** IEEE 1394 devices.

DC-In Jack

Plug the supplied AC adapter into this jack to power your notebook.

Four USB Ports

Depending on the model you purchase, the USB ports which come with your notebook can be either **USB 1.1** compatible or **USB 2.0** compatible. USB 1.1 is for low-speed peripherals such as keyboards, mice or scanners while USB 2.0 is for high-speed peripherals such as external HDDs, digital video cameras or high-speed scanners and all USB 1.1 compliant devices. Both support device hot-pluggability. (Devices can be plugged into the computer, and unplugged from the computer, without the need to turn the system off.) **Only Model B type computers in this series of notebooks support USB 2.0**. For help on identifying your model of computer see *"Model Differences" on page 1 - 6*. You may need to install a driver for USB 2.0 (see *"What to Install" on page 4 - 2*).

S-Video-In Port (Optional with TV Tuner installed)

If you have the optional TV Tuner installed, you may plug in external video sources to this port. Examples of sources include VCRs, VCD players, TVs, external DVDs, video cameras etc. The cable from the source device should be plugged into the device's S-Video out port. An S-Video cable is available from any electrical store.

S-Video-Out Port

Connect your television to your computer and view DVDs, VCDs or anything else your computer can display. You will need an S-Video cable to make the connection. Enable this port from the video driver controls (see *"Enabling TV Display" on page 3 - 14*).

External Monitor (CRT) Port

Connect an external CRT monitor to this port to allow dual video or simultaneous display on the LCD and external CRT monitor (see *"Attaching a Monitor (CRT)" on page 3 - 8*).

Coaxial TV Antenna Input

If you have purchased the optional TV Tuner module with your notebook computer, the 75 Ohm Coaxial TV Antenna Input will allow you to connect your cable TV/TV antenna to watch television, and capture still images on your PC.

TV Remote

The remote control unit provided with the optional TV tuner will only function when the computer is powered from the AC adapter, and not while the computer is powered by the internal battery.

System Suspend Mode & TV Studio Software

The computer will not enter a system suspend mode (**Hibernate** or **Standby**) while the TV Studio software is running.

Serial Port

Connect a serial type mouse to this port.

IEEE 1394 Port

This allows high speed connection to various peripheral devices, e.g. external disk drives and digital cameras (**see note below**).

IEEE 1394

The IEEE 1394 port only supports **SELF POWERED** IEEE 1394 devices.

Printer/Parallel Port

This port supports ECP (Extended Capabilities Port) and EPP (Enhanced Parallel Port) 1.7/1.9 modes.

PS/2 Type Port

Connect an external PS/2 type mouse or keyboard to this port. You can use a “Y” splitter if you want to attach both.

RJ-45 LAN Jack

This port supports LAN (Network) functions.
Note: Broadband (e.g. ADSL) modems usually connect to the LAN port.

RJ-11 Phone Jack

This port connects to the built-in modem. You may plug the telephone line directly into this RJ-11 telephone connection.
Note: Broadband (e.g. ADSL) modems usually connect to the LAN port.

Bottom View

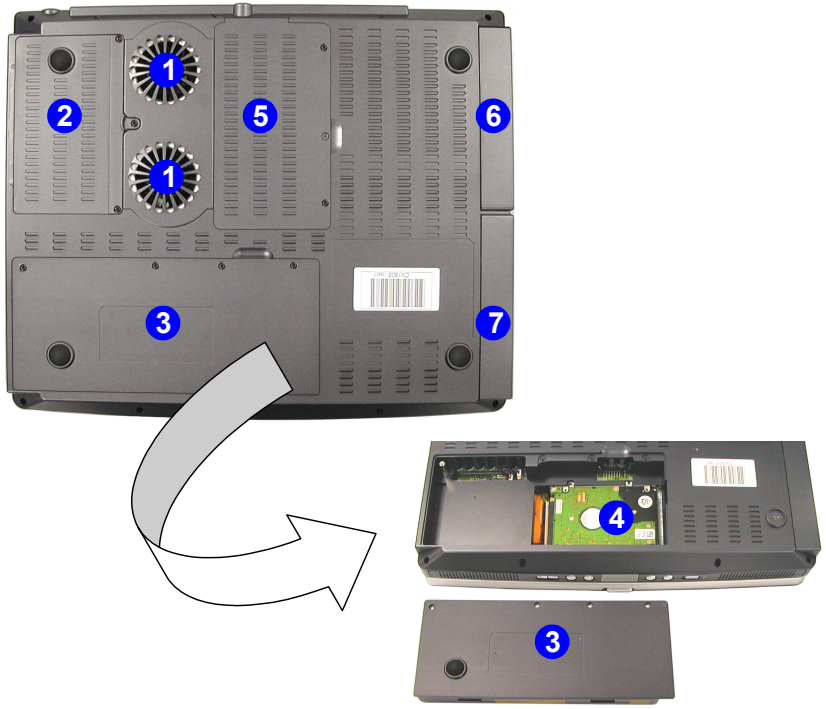


Figure 1 - 8
Bottom View

1. Vent/Fan Outlets
2. CPU Cover
3. Battery (the primary HDD is located under the battery)
4. Primary Hard Disk
5. Changeable Drive Bay 3 (for TV Tuner or HDD)
6. Modular Drive - Bay 2
7. Primary Drive - Bay 1

CPU

The CPU is not a user serviceable part. Opening this compartment, or accessing the CPU in any way, may violate your warranty.

Vent

This enables airflow to prevent the notebook from overheating.

Battery

See *"Battery" on page 2 - 3* for instructions on battery use and care.

Wireless Network Module

Your notebook computer may have an **optional** Mini PCI Wireless Networking module. If included, the antenna and other components are not externally visible (please check with your service representative). If your configuration includes the Wireless Network module, make sure you install the driver (see *"What to Install" on page 4 - 2*).

Chapter 2: Using The Computer

Overview

To learn more about using your computer, please read this chapter.

This chapter includes:

- The Power Sources
- Turning on the Computer
- LED Indicators
- Check Mail Program
- The Hard Disk Drive
- The Floppy Disk Drive
- The CD/DVD Device
- The PC Card Slot
- Hot-Keys
- Function Keys
- Numeric Keypad
- TouchPad & Buttons
- Mouse
- Printer (general guidelines)

Shutdown

Please note that you should always shut your computer down by choosing the **Shut Down/Turn Off Computer** command from the **Start** menu in ***Windows.*** This will help prevent hard disk or system problems.

The Power Sources

The computer can be powered by either an AC adapter or a battery pack.

AC Adapter

Use only the AC adapter that comes with your computer. The wrong type of AC adapter will damage the computer and its components.

1. Attach the AC adapter to the DC-in jack at the rear of the computer.
2. Plug the AC power cord into an outlet, then connect the AC power cord to the AC adapter.
3. Raise the lid/LCD to a comfortable viewing angle.
4. Press the power button to turn “on”.

Figure 2 - 1
AC Adapter In

Battery

The battery allows you to use your notebook computer while you are on the road or an electrical outlet is unavailable. Battery life varies depending on the applications and the configuration you're using. To increase battery life, let the battery discharge completely before re-charging.

We recommend leaving the battery inside the notebook at all times. For more information on the battery, please refer to *"Battery Information" on page 3 - 22*.

Battery Release

Remove screws 1 - 4 in *Figure 2 - 2* (see *"Removing and Replacing the Battery" on page 3 - 25*).

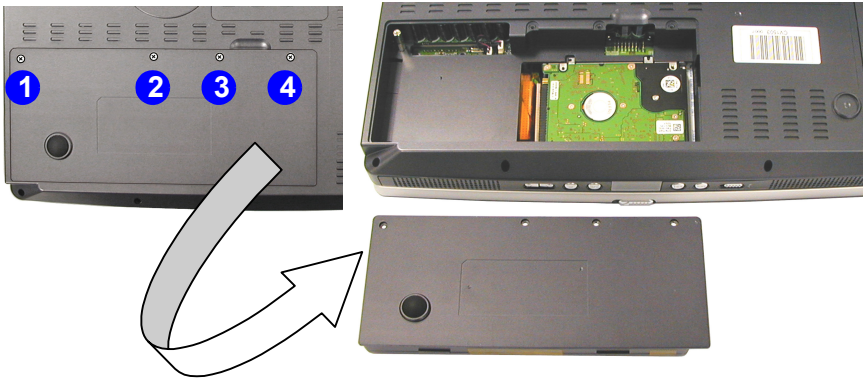


Figure 2 - 2
Battery Removal

Recharging the Battery with the AC Adapter

The battery pack automatically recharges when the AC adapter is attached and plugged into an electrical outlet. If the computer is powered on, and in use, it will take several hours to fully recharge the battery. When the computer is turned off but plugged into an electrical outlet, battery charge time is less (**refer to *"LED Indicators" on page 2 - 6* for information on the battery charge status**).

Proper handling of the Battery Pack

- DO NOT disassemble the battery pack under any circumstances.
- DO NOT expose the battery to fire or high temperatures, it may explode.
- DO NOT connect the metal terminals (+, -) to each other (for more information on how to maintain the battery pack, refer to ***"Battery Information" on page 3 - 22***).

Turning on the Computer

Now you are ready to begin using your computer. To turn it on simply press the power button on the front panel.

When the computer is on, you can use the power button as a hot-key button when it is pressed for less than **4 seconds**. Use **Power Options** in the ***Windows*** Control Panel to configure this feature.

Forced Off

If the system "hangs", and the **Ctrl** + **Alt** + **Del** key combination doesn't work, press the power button for **4 seconds,** or longer**,** to force the system to turn itself off.

Power Button as Standby or Hibernate Button

If you are using a fully ACPI-compliant OS, (such as *Windows 2000 Professional*, or *Windows XP)* you can use the OS's "Power Options" control panel to set the power button to send the system into **Standby** or **Hibernate** mode (see your OS's documentation, **or** ***"Configuring the Power Button" on page 3 - 21*** for details).

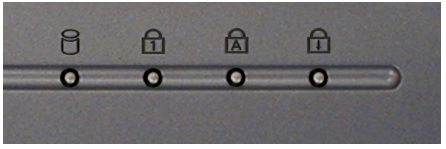
LED Indicators

There are two sets of LED indicators (**LED Power, Battery & E-Mail Status Indicators** and **LED Status Indicators**) on your computer that will display helpful information about the current status of the computer.

Figure 2 - 3
LED Power, Battery & E- Mail Status Indicators

The **LED Power, Battery & E-Mail Status Indicators** are also visible when the top of your computer is closed.

Figure 2 - 4
LED Status Indicators



LED Power, Battery & E-Mail Status Indicators

Icon	Color	Description
	Green	The computer is on
	Blinking Green	The computer is in suspend mode
	Orange	The battery is being charged
	Green	The battery is fully charged
	Blinking Orange	The battery has reached critically low power status
	Blinking Green*	There is a serious problem with the battery*
	Blinking Green	New mail has arrived

***Note**: If the battery has a serious problem turn the system off, remove the battery and unplug the AC adapter. Replace the battery, and plug the AC adapter in again to recharge the battery.

Low Battery Warning

When the battery is critically low, immediately connect the AC adapter to the computer or save your work, otherwise, the unsaved data will be lost when the power is depleted.

Table 2 - 1
LED Power, Battery & E-Mail Status Indicators

Scroll Lock

To enable and disable the Scroll Lock feature, press the **Fn** and **ScrLk** keys simultaneously.

LED Status Indicators

Once your computer is on and in use, the LED status indicators will display the system's operational status.

Table 2 - 2
LED Status Indicators

Icon	Color	Description
	Green	Floppy/Hard disk/CD Device activity
	Green	Number Lock is activated
	Green	Caps Lock is activated
	Green	Scroll Lock is activated

Check Mail Program

After you have installed the driver for the Check Mail program (see *"What to Install" on page 4 - 2*) you may then configure it to give notification when new mail is received. You must be online to receive this notification (note that this program only supports the **POP3** protocol), and your default mail program does not need to be open.

If you have installed the driver using the default settings, the Check-Mail program appears in the **Startup** menu (**Start > Programs > Startup > CheckMail**).

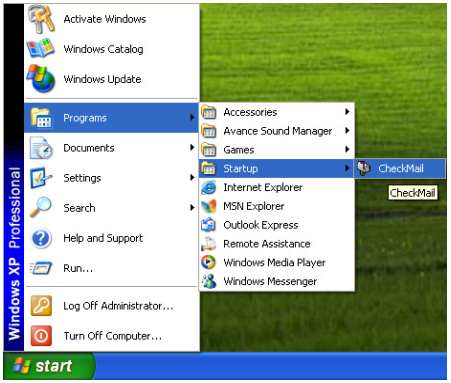


Figure 2 - 5
Check Mail Program (Startup Menu)

Note

Check with your Internet Service Provider, network administrator or Mail Service provider for details on what to put on these pages.

Clicking on **Check Mail** will bring up the following options menu.

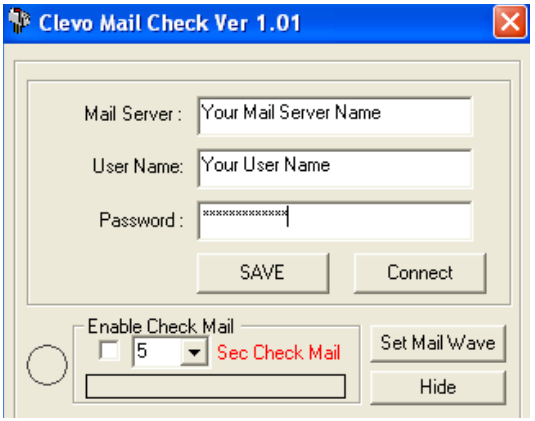


Figure 2 - 6
Check Mail Account Setup and Options

You may then configure the options for your mail server, user name, password. Click **Enable Check Mail** to have the program check the mail server for new mail, and set the interval (in seconds). Click **SAVE** to keep the settings, and **Hide** to minimize the program. After clicking **Hide,** the program will be accessible by double-clicking the icon in the taskbar. If you click the close icon in the **Check Mail** control panel you will need to run the program again from the **Start** menu in ***Windows***, then access it by double-clicking the taskbar icon.

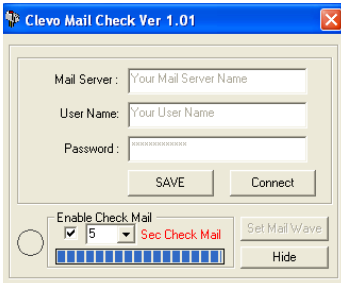


Figure 2 - 7
Check Mail Enabled

You may also enable an audible warning for received mail by clicking on **Set Mail Wave**, and browsing to a .WAV sound file to use for mail notification. Click **Enable play wave for mail arrival**, and **SAVE** to save the settings.

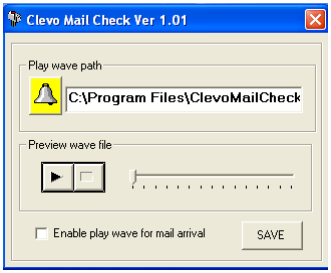


Figure 2 - 8
Set Mail Wave

Power Safety

Before attempting to access any of the internal components of your notebook please ensure that the machine is not connected to the AC power, and that the machine is turned off. Also ensure that all peripheral cables, including phone lines, are disconnected from the computer.

The Hard Disk Drive

The hard disk drive is used to store your data in the notebook computer. The primary hard disk is mounted in a removable case and can be taken out to accommodate other 2.5" IDE hard disk drives with a height of 9.5 mm. You may have a second, and third hard disk depending on the configuration purchased (see *"Jumper Settings for Multiple Hard Disk Use" on page 1 - 19*).

The hard disk 1 is accessible from the bottom of your computer under the battery, as seen below. Further details on removing and inserting the hard disk are available in *"Upgrading the Primary Hard Disk" on page 7 - 7*.

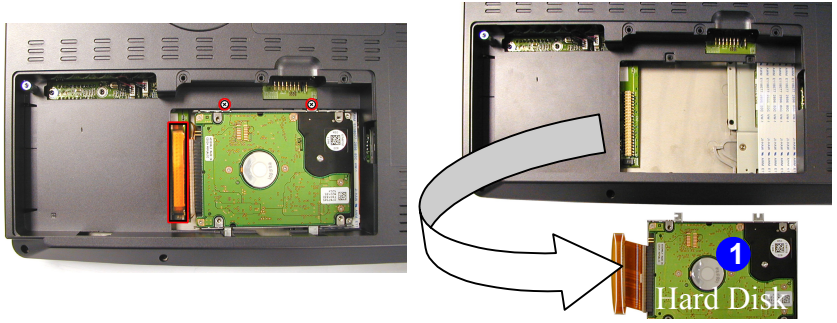


Figure 2 - 9
Primary Hard Disk Location

The Floppy Disk Drive (FDD)

The computer is equipped with a fixed 1.44 MB, 3.5" floppy disk drive module. By default it is drive "**A:**" and can be used as a boot device if properly set in the **BIOS** (refer to *"Boot Device (Startup Menu)" on page 5 - 13*).

Media Warning

Don't try to remove a floppy disk while the system is accessing it. This may cause the system to "crash".

Inserting/Removing Floppy Disks

When using the floppy drive, always insert your floppy diskette with the label-side facing up. To remove the inserted diskette, press the eject button on the top-right corner of the floppy drive.

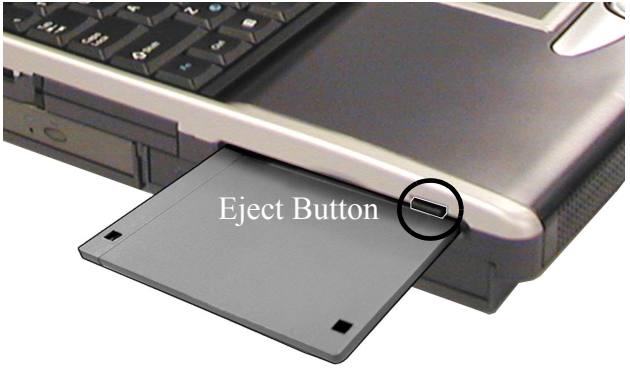


Figure 2 - 10
Floppy Disk Drive

Sound Volume Adjustment

How high the sound volume can be set depends on the setting of the volume control within ***Windows***. Click the **Speaker** icon on the taskbar to check the setting.

The volume controls on the Audio DJ player still control the volume settings if the computer's operating system is running.

All peripherals must be connected before you turn on the system.

The CD/DVD Device

There are two bays for a combination of a CD-ROM, or DVD-ROM, or CD-RW, or Combination CD-RW and DVD-ROM drive, or DVD-R/-RW drive, depending on the model you purchased. You may alternatively have a hard disk or IP sharing module in the modular drive bay (Bay Two). The CD Device is usually labeled drive **"D:"** and may be used as a boot device if properly set in the **BIOS** (*"Boot Device (Startup Menu)" on page 5 - 13*).

Loading Compact Discs

To insert a CD/DVD, press the open button and carefully place a CD/DVD onto the disc tray with label-side facing up (use just enough force for the disc to click onto the tray's spindle). Gently push the CD/DVD tray in until its lock "clicks" and you are ready to start. The Busy Indicator will light up while data is being accessed, or while an audio/video CD, or DVD, is playing. If power is unexpectedly interrupted, insert an object such as a straightened paper clip into the emergency eject hole to open the tray.

Handling CDs or DVDs

Proper handling of your CDs/DVDs will prevent them from being damaged. Please follow the advice below to make sure that the data stored on your CD-ROMs/DVD-ROMs can be accessed.

Remember to:

- Hold the CD or DVD by the edges; do not touch the surface of the disc.
- Use a clean, soft, dry cloth to remove dust or fingerprints.
- Do not write on the surface with a pen.
- Do not attach paper or other materials to the surface of the disc.
- Do not store or place the CD or DVD in high-temperature areas.
- Do not use benzene, thinner, or other cleaners to clean the CD or DVD.
- Do not bend the CD or DVD.
- Do not drop or subject the CD or DVD to shock.

Media Warning

When manually ejecting a CD/DVD, DO NOT use a sharpened pencil or similar object which may break, and become lodged in the hole.

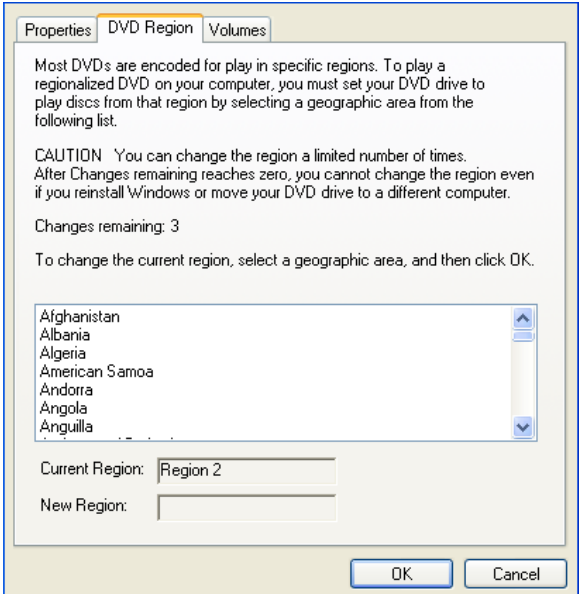
CD Emergency Eject

If you need to manually eject a CD (e.g. due to an unexpected power interruption) you may push the end of a straightened paper clip into the emergency eject hole. However please do not use a sharpened pencil or similar object that may break and become lodged in the hole.

DVD Regional Codes

DVD region detection is device dependent, not OS-dependent. You can select your module's region code **5** times. The fifth selection is permanent. This cannot be altered even if you change your operating system or you use the module in another computer.

Figure 2 - 11
DVD Regional Codes (Windows XP)



Changing DVD Regional Codes

Go to the **Control Panel** in *WindowsXP/Windows 2000* and double-click **System > Hardware** (tab), click **Device Manager**, then click the + next to **DVD/CD-ROM drives**. Double-click on the DVD-ROM device to bring up the **Properties** menu, and select the **DVD Region** (tab) to bring up the control panel as seen in ***"DVD Regional Codes (Windows XP)" on page 2 - 16***.

DVD Regional Coding	
Region	**Geographical Location**
1	USA, Canada
2	Western Europe, Japan, South Africa, Middle East & Egypt
3	South-East Asia, Taiwan, South Korea, The Philippines, Indonesia, Hong Kong
4	South & Central America, Mexico, Australia, New Zealand
5	N Korea, Russia, Eastern Europe, India & Most of Africa
6	China

Table 2 - 3
DVD Regional Coding

The PC Card Slot

The computer is equipped with a PCMCIA 3.3V/5V slot for **two type II** PC Cards, or **one type III** PC Card. Type III PC Cards only fit into the lower socket.

Inserting and Removing PC Cards

- Align the PC Card with the slot and push the PC Card in until it locks into place.
- To remove a PC Card, simply press the eject button "**2**" next to the slot.

Figure 2 - 12
PC Card Slot

Hot-Keys

The computer has two sets of Hot-Keys, three Hot-Key buttons on the computer, and the function key combinations on the keyboard.

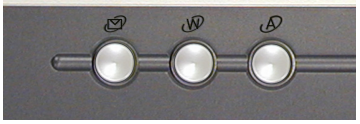


Figure 2 - 13
Hot-Keys

Hot-Key Buttons

These keys access the internet, e-mail or a user-defined application with one quick button press. To use the "user-defined Hot-Key", you must install the hot-key driver. Refer to ***"What to Install" on page 4 - 2*** for driver installation steps.

Programming the Hot-Keys

Non-Default E-Mail and Browser Programs

It is possible to configure both the email and browser hot-keys to open non-default mail and browser programs. Follow the procedure outlined on page *2 - 21* but highlight either the **Browser** or **Email** in **step 2**. Choose **Custom** to browse to the program of your choice as per the remaining instructions. The Hot-Key will now open this program.

Table 2 - 4
Hot-Keys

Hot-Key	Function
	Activate the default e-mail program
	Activate the default Internet browser
	Activate the user specified application e.g. Microsoft Word or Excel

After installing the Hot-Key driver (see *"What to Install" on page 4 - 2*), you may have to configure or change the settings.

To configure and specify an application for **Application 1** (the default **Hot-Key** setting is for the **CD Player** application), you must follow the instructions on the next page.

1. **Right click** the Hot-Key driver icon on the **taskbar** and the following menu will appear.

2. Select **Setup** from the menu and scroll to **Application 1** and press **Enter**.

3. An **Open** dialog box will appear on the screen.
4. **Browse** to the directory where the desired application**.exe** (see the sidebar) program exists.
5. **Double-Click** on the program file or choose **Open**.
6. The Hot-Key is now set to execute that program.

Application.exe

You will need to locate the actual **application executable (.exe) file**, not just the **shortcut**. To find the application right-click its **shortcut** on the desktop and click **Properties**. Click the **shortcut** (tab) and see where the executable file is located by clicking the **Find Target** (button).

Other Keyboards

If your keyboard is damaged or you just want to make a change, you can use any standard PS/2 or USB keyboard. The system will detect and enable it automatically. However special functions/hot keys unique to the system's regular keyboard may not work.

Function Keys

On the bottom-left of the keyboard is the **Fn** key or Function key. The **Fn** key allows you to change operational features instantly. To use the following functions press and hold the **Fn** key, then press the appropriate function key (Esc, F6, F10 etc.) located on your keyboard (see *"TouchPad and Buttons" on page 2 - 25*).

Table 2 - 5
Function Keys

Keys	Description
Fn + Z	Turn audio on/off
Fn + Esc	Toggle between suspend/resume state
Fn + F6	Toggle between CRT/LCD/LCD and CRT
Fn + F9	Decrease LCD brightness
Fn + F10	Increase LCD brightness
Fn + F11	Decrease audio volume
Fn + F12	Increase audio volume
Fn + ScrLk	Enable Scroll Lock

The Numeric Keypad

The keyboard has a numerical keypad for easy numeric data input (see *"Function Keys and Numeric Keypad" on page 2 - 24*).

To use the keypad simply:

Activate the **Number Lock** feature by pressing the **NumLk** key at the top right of the keyboard. You may check if **Number Lock** is enabled or not by looking at the LED status indicators (see *"LED Status Indicators" on page 2 - 8*).

You can configure the BIOS to have **Number Lock** enabled when you start up the computer (see *"Components Menu" on page 5 - 16*).

Special Characters

Some software applications allow the number-keys to be used with **Alt** to produce special characters. These special characters can only be produced by using the numeric keypad. Regular number keys (in the upper row of the keyboard) will not work. Make sure that **NumLk** is on.

Function Keys and Numeric Keypad

Figure 2 - 14
Function Keys & Numeric Keypad

1. Fn Key
2. Audio ON/OFF Toggle
3. Suspend/Resume state Toggle
4. CRT/LCD/LCD and CRT Toggle
5. LCD Brightness Decrease
6. LCD Brightness Increase
7. Audio Volume Decrease
8. Audio Volume Increase
9. NumLk/ScrLk
10. Numeric Keypad

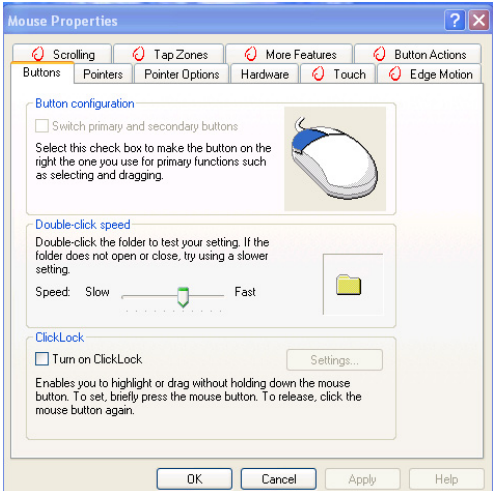
TouchPad and Buttons

The pointing device features a sensitive glide pad for precise movements. It functions the same way as a two-button mouse (the central Rocker Switch may be configured to function as a “third” button if you prefer). The right TouchPad button is the same as the right mouse button; the left TouchPad button is the same as the left mouse button.

Configuring the TouchPad and Buttons

Once you have installed the TouchPad drivers (see *"What to Install" on page 4 - 2*) you can configure the functions from the TouchPad driver icon on the **taskbar**. You may then configure the TouchPad tracking, buttons and Rocker Switch etc. to your preferences. You will find further information on this at www.synaptics.com.

Figure 2 - 15
Mouse Properties



Mouse

You can also add a mouse to your computer. You can use a mouse either through the PS/2 interface or the USB ports (at the rear of the computer).

Mouse Driver

If you are using an external mouse your operating system may be able to auto-configure your mouse during its installation or only enable its basic functions. Be sure to check the device's user documentation for details.

Adding a Printer

The most commonly used peripheral is a printer. The following conventions will help you to add a printer, however it is always best to refer to the printer manual for specific instructions and configuration options.

USB Printer

Most new printers have a USB interface connection. There are four USB ports on your notebook computer and you may use any one of the ports to connect the printer.

Install Instructions:

1. Set up the printer according to its instructions (unpacking, paper tray, toner/ink cartridge etc.).
2. Turn ON the computer.
3. Turn ON the printer.
4. Connect the printer's USB cable to one of the USB ports on the computer.
5. ***Windows*** will identify the printer and either load one of its own drivers or ask you to supply one. Follow the on-screen instructions.

Parallel Printer

This is still the most common type of printer.

Install Instructions:

1. Set up the printer according to its instructions (unpacking, paper tray, toner/ink cartridge etc.).
2. Attach the parallel cable to the printer.
3. Connect the printer's parallel cable to the parallel port at the rear of the computer (see *"Rear View" on page 1 - 22*).
4. Turn ON the printer.
5. Turn ON the computer.
6. ***Windows*** will identify the printer and either load one of its own drivers or ask you to supply one. Follow the on-screen instructions.

Chapter 3: Advanced Controls

Overview

This chapter covers:

- Advanced video controls
- Power and battery management features
- The Audio "DJ" CD player
- Configuring the Infrared settings for FIR

Drivers

You are unable to use most advanced controls until the necessary drivers and utilities are properly installed (your service representative may have already done that for you). If your system hasn't been properly configured, refer to ***"What to Install" on page 4 - 2***, for installation instructions.

3

Protecting the LCD

Do not allow any foreign objects (i.e. paper or plastic) to get between the lid/LCD and the work panel. They could damage or scratch the LCD and/or accidentally activate the close cover switch.

Advanced Video Controls

This section is about making adjustments for the LCD, and switching display devices.

Opening the LCD

As you open the lid, adjust it so you can look at the screen straight on, without any glare. If necessary, adjust the brightness controls (**Fn** + **F9/F10**) as in *Figure 3 - 1*.

Figure 3 - 1
Brightness Controls

Video Driver Controls

The video interface lets you change the screen resolution and color output to whatever is most comfortable/efficient for you. This is a matter of hardware, video memory and the driver for your operating system. The driver interface shows the available options (see *"LCD Options" on page A - 3* for the LCD options).

You can switch display devices from the **Display Properties** control panel in ***Windows*** as long as the video driver is installed (see *"What to Install" on page 4 - 2*).

Screen Resolution/ Area Note

You may set the resolution to a higher setting than the panel supports, however this will require you to pan (scroll) around the screen as the display area will be larger than what you can see on the LCD.

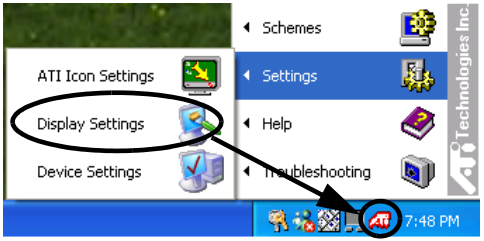
Making Adjustments for the Display

The higher the resolution you set the LCD for, the more information the LCD can display on screen. To change the LCD's resolution and color depth go to the **Display Properties** control panel:

1. Click **Start**, point to **Settings** and click **Control Panel**.
2. Double-click **Display** (icon).
3. In the **Display Properties** dialog box, click **Settings** (tab).
4. In **Screen area/resolution**, move the slider to the preferred setting for **resolution**.
5. In **Colors/Color quality**, click the arrow and scroll to the preferred setting for **color depth.**

You can also access **Display Properties** by right-clicking the **ATI** icon in the taskbar. Point to **Settings** and click **Display Settings**, then click the **Settings** (tab).

Figure 3 - 2
ATI Display Settings



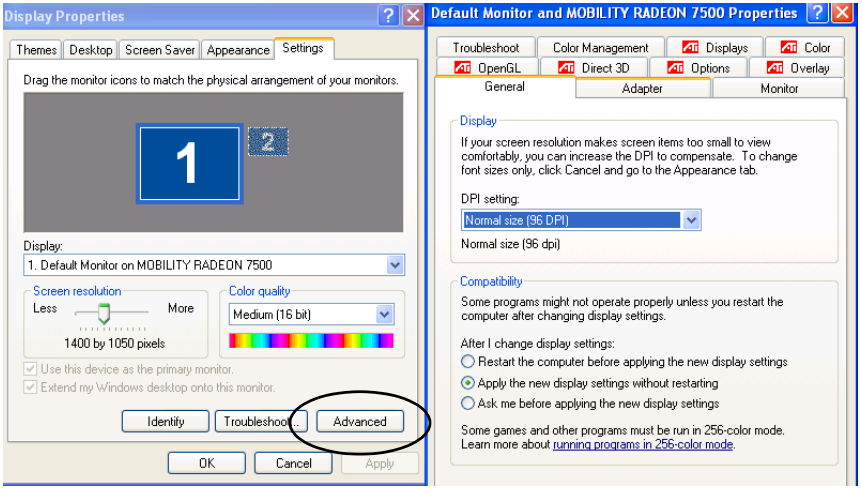
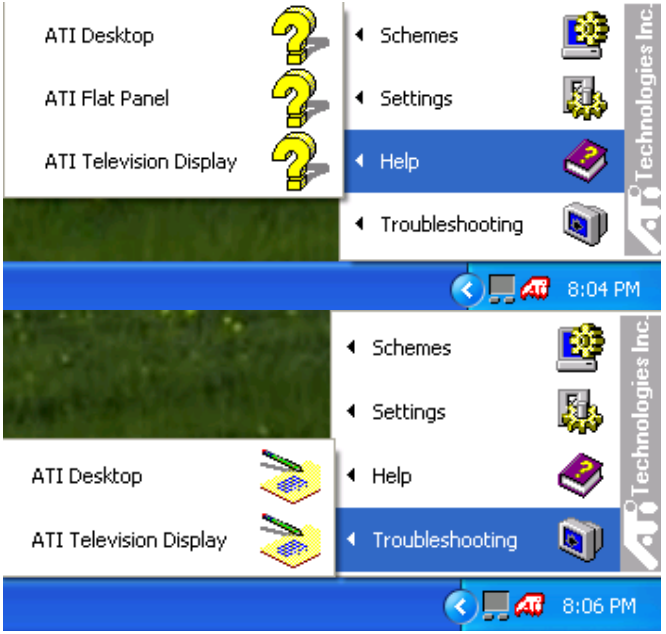


Figure 3 - 3
Advanced Display Properties

When the **Display Properties** control panel is open, click the **Advanced** (button) to bring up the options tabs. Clicking through these tabs allows you to make any video adjustments you require.

Access the menus from ATI taskbar to get further help on display options, TV options etc. Right-click the **ATI** icon in the taskbar and point to **Help** or **Troubleshooting** (*Figure 3 - 4*).

Figure 3 - 4
ATI Help & Troubleshooting



Display Devices

Besides the built-in LCD, you can also use an external CRT connected to the external monitor (CRT) port as your display device. You may also connect a TV. The following are the display options:

1. The built-in LCD
2. A CRT (external monitor) connected to the VGA port
3. A TV connected to the S-Video connector

Monitor (CRT) and TV Tuner

If you are connecting both a monitor (CRT) to the external monitor port, and a cable/aerial to the optional TV Tuner module, **make sure you attach the cable/aerial to the TV Tuner first**, then the monitor (CRT).

Drivers

You are unable to use most advanced controls until the necessary drivers and utilities are properly installed. If your system hasn't been properly configured (your service representative may have already done that for you), refer to ***"What to Install" on page 4 - 2***, for installation instructions.

Vertical Refresh Rate

The vertical refresh rate of your CRT is important. If it is too low and/or you're using fluorescent lighting, the screen will appear to flicker. To reduce flickering on a CRT, use faster refresh rates (we recommend a refresh rate of 72Hz or more). But first check your monitor's documentation to make sure it can support the rates listed by the video driver. The default refresh rate for VGA monitors (without drivers) is 60Hz.

Attaching a Monitor (CRT)

If you prefer to use a monitor (CRT), connect it to the External Monitor (CRT) port on the rear panel (see *"Rear View" on page 1 - 22*).

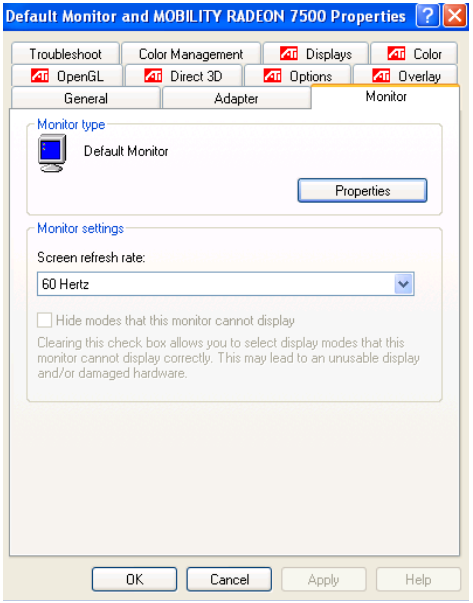


Figure 3 - 5
Monitor Properties

You can use the **Fn + F6** key to toggle through the display options.

Display Options

Display Mode	Windows XP	Windows 2000
Single	✓	✓
Multiple - **Clone** Mode	✓	✓
Multiple - **Extended Desktop** Mode	✓	Not Available
Single - Either the LCD, CRT or TV as a display device. **Multiple (Clone)** - The LCD, CRT or TV outputting the same view (you can apply different display modes with different resolutions and refresh rates). **Multiple (Extended Desktop)** - The LCD, CRT or TV outputting a different view (*Windows XP* only) - see ***"Extended Desktop Mode" on page 3 - 12***.		

Table 3 - 1
Display Options

TV Support

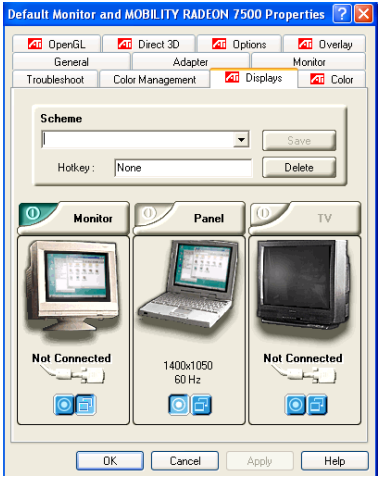
You cannot set your flat panel display and TV to the same display mode.

Firstly the display devices must be **enabled**, then configured to your requirements.

Enabling Other Displays

In the **Advanced** ATI Mobility Radeon Properties (*Figure 3 - 3 on page 3-5*) click on **Display** to get the other display options, including those for TV (different OS's will appear with different options). Click the **enable/disable button** for the display device you wish to use. Select (at least) one display as **Primary**, the remaining may operate in either **Clone Mode**, or **Extended Desktop Mode**.

Figure 3 - 6
Displays Tab



Clone Mode

Clone Mode simply shows an exact copy of the Primary display desktop on the other display(s). This mode will drive multiple displays with the same content. Use this feature to display the screen through a projector for a presentation. Each display device can be configured independently as this allows you to set the options for overhead projectors etc., which require specific resolutions and refresh rates.

Extended Desktop Mode

The system supports **Extended Desktop** (the LCD and a CRT showing different views) in multiple display environments in ***WindowsXP***, but this mode is **NOT** supported in ***Windows2000***. An Extended Desktop creates a desktop spanning multiple displays and acts as a large workspace.

To get this effect:

1. Attach your external monitor to the External Monitor (CRT) port, and turn it on.
2. Go to the Advanced Display Settings (see ***"Advanced Display Properties" on page 3 - 5***).
3. Select the **Displays** tab (see ***"Displays Tab" on page 3 - 10***).
4. Click the **enable/disable button**  for the display device you wish to use (Monitor).
5. Click **Apply** and image will appear on the display device.
6. Click **Yes** to accept the settings and **OK** to save the changes.
7. Use the **Display Properties** window to select the second monitor by clicking on the icon, or select it from the "**Display:**" pop-up menu.
8. Click "**Extend my Windows desktop onto this monitor**."
9. Use the **Display Properties** control panel to drag the monitors to match the physical arrangement you wish to use.

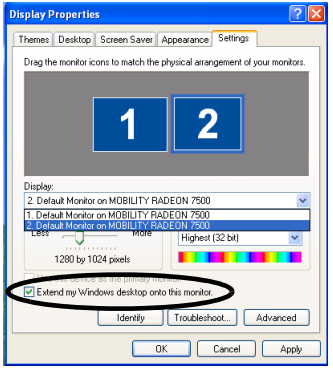


Figure 3 - 7
Extended Desktop Monitor Arrangement

Use the **Display Properties** control panel to drag the monitors to match the physical arrangement you wish to use. In the example shown in ***Figure 3 - 7*** the primary monitor "**1**" is on the left, the other display is on the right.

Select the monitor from the **"Display:"** pop-up menu and click "**Extend my Windows desktop onto this monitor**." With the **Extended Desktop Mode** enabled drag any icons or windows across to the other display desktop. It is therefore possible to have one program visible in one of the displays, and a different program visible in the other display.

Help

Further help is available through the menus accessed from the taskbar (see ***"ATI Help & Troubleshooting" on page 3 - 6***).

TV Format

If you need to change the format for TV Broadcast then go to **Display Properties > Settings > Advanced > Displays** and click **TV** (button).

Click the **Format** (tab) and select a country from the list.

Enabling TV Display

To display desktop images on a TV display, connect the TV to your computer by using an S-Video cable from the TV to the connector at the rear of the computer (see *"Rear View" on page 1 - 22*). You will need to enable the TV display from the control panel in the *"Displays Tab" on page 3 - 10*)

Further help is available to help you **troubleshoot** your TV connection through the menus accessed from the taskbar (see *"ATI Help & Troubleshooting" on page 3 - 6*).

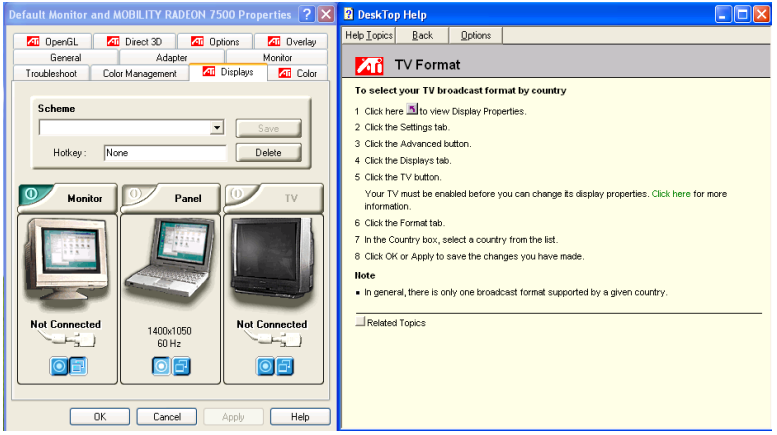


Figure 3 - 8
TV Format

Power Management Features

To conserve power, especially when using the battery, your notebook computer has two types of power management available, ACPI and APM. Power management conserves power by controlling individual components of the computer (the monitor and hard disk drive) or the whole system.

Advanced Configuration and Power Interface (ACPI)

The ACPI interface provides the computer with enhanced power saving techniques and gives the operating system (OS) direct control over the power and thermal states of devices and processors. For example, it enables the OS to set devices into low-power states based on user settings and information from applications. ACPI is available in *Windows 2000* and *Windows XP*. ACPI is the more recent of the two power management types available and the one you use with a newer *Windows* operating system (see sidebar note).

Advanced Power Management (APM 1.2)

APM is an older type of power management.

OS Note

Power management functions will vary slightly depending on your operating system. For more information it is best to refer to the user's manual of your operating system.

(**Note**: All pictures used on the following pages are from the *Windows XP* OS.)

BIOS Settings

You may use the **Power Menu** settings to in the BIOS to manage power. This is especially useful for users who are interested in running *DOS* or other non "Plug-N-Play" OS's (***"Power Menu." on page 5 - 17***).

Enabling Power Options

Power Options are enabled through the Control Panel in your ***Windows*** system (**Power Options**). With other operating systems you may have power management available, so check your documentation.

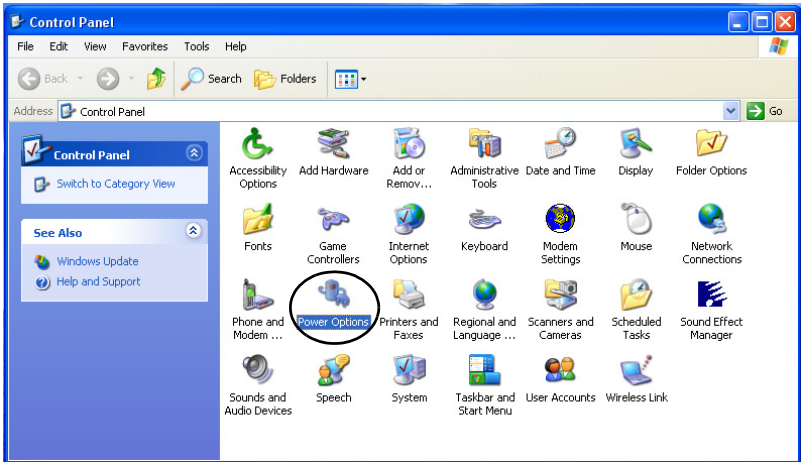


Figure 3 - 9
Power Options Control Panel

You may conserve power through individual components or throughout the whole system.

Conserving Power Through Individual Components

Monitor Standby

To conserve power, you can set the monitor to turn off after a specified time.

Hard Disk Standby

The computer's hard disk motor will be turned off if the hard disk drive has not been accessed for a specified period of time. If the system reads or writes data, the hard disk motor will be turned back on.

Resuming Operation

The system can resume from Monitor or Hard Disk Standby by pressing a key on the keyboard.

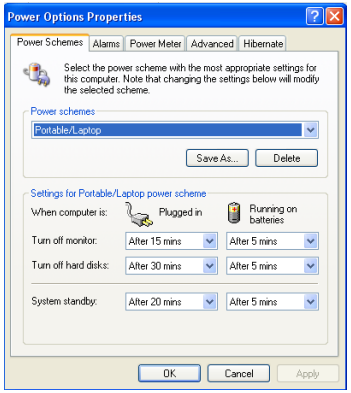


Figure 3 - 10
Power Schemes

System Suspend Mode & TV Studio Software

The computer will not enter a system suspend mode (**Hibernate** or **Standby**) while the TV Studio software is running.

Conserving Power Throughout the System

With this function you can stop the notebook's operation and restart where you left off. This system features **Standby** and **Hibernate** suspend mode levels (Hibernate mode will need to be enabled by clicking the option in the **Hibernate** tab in the **Power Options** control panel - *Figure 3 - 11 on page 3-20*).

Hibernate Mode vs. Shutdown

Hibernate mode and Shutdown are the same in that the system is off and you need to press the power button to turn it on. Their main difference is:

When you come back from hibernation, you can return to where you last left off (what was on your desktop) without reopening the application(s) and file(s) you last used.

You can use either method depending on your needs.

Standby Mode vs. Hibernate Mode

If you want to stay away from your work for just a while, you can put the system on standby instead of in hibernation. It takes a longer time to wake up the system from Hibernate mode than from Standby mode.

Standby

Standby saves the least amount of power, but takes the shortest time to return to full operation. During Standby the hard disk is turned off, and the CPU is made to idle at its slowest speed. All open applications are retained in memory. When you are not using your computer for a certain length of time, which you specify in the operating system, it will enter Standby mode to save power.

The system can resume from Standby mode by:

- Pressing the sleep key combination **Fn + Esc**
- Pressing the Power Button (see *"Configuring the Power Button" on page 3 - 21*)
- An alarm resume that is enabled and expires

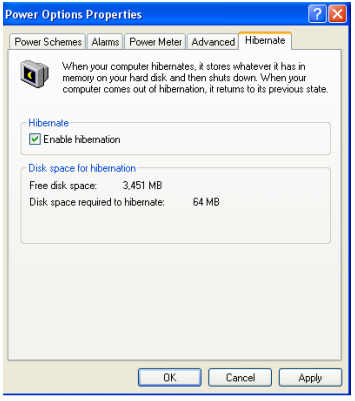
Hibernate

Hibernate uses no power and saves all of your information on a part of the HDD before it turns the system off. Although it saves the most power it takes the longest time to return to full operation. You can set your notebook to automatically enter Hibernate mode when the battery power is almost depleted.

The system will resume from Hibernate mode by:

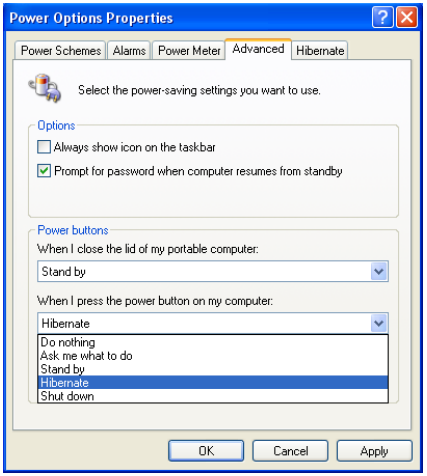
- Pressing the sleep key combination **Fn + Esc**
- Pressing the power button

Figure 3 - 11
Enable Hibernation

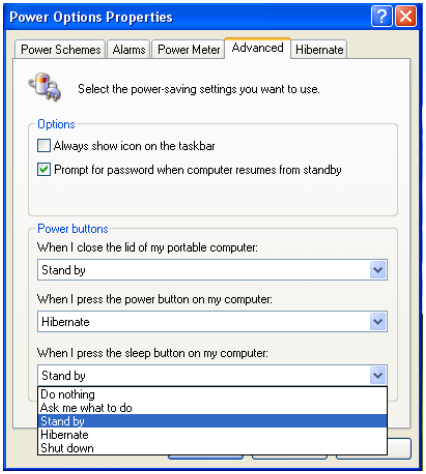


Configuring the Power Button

The power button may be set to send the computer in to either **Standby** or **Hibernate** modes (*Figure 3 - 12*). If you are running on battery power, in **Standby** mode the LED ⇨/⏻ will flash green, in **Hibernate** mode the LED will be off. If you are in a power saving mode set to save power through individual components (e.g. hard disk, monitor), the LED will remain green.



Power Button



Suspend/Resume(Sleep)Button

Suspend/Resume Button

You may also configure the **Suspend/Resume** key (**Fn + Esc**) from the menu illustrated in *Figure 3 - 12*. In ***Windows*** this key is referred to as the **Sleep** button.

Figure 3 - 12
Power Options (Advanced - Power Buttons)

Caution

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

Battery Information

Please follow these simple guidelines to get the best use out of your battery.

New Battery

Always completely discharge, then fully charge, a new battery before using it (see *"Battery FAQ" on page 3 - 23* for instructions on how to do this).

Battery Life

Your notebook computer's battery life is dependent upon many factors, including the programs you are running, and peripheral devices attached. Power Options settings in the OS will help prolong the battery life if configured appropriately.

Battery life may be shortened through improper maintenance. To optimize the life and improve its performance, fully discharge and recharge the battery at least once every 30 days.

Battery FAQ

How do I completely discharge the battery?

Use the computer with battery power until it shuts down due to a low battery. Don't turn off the computer by yourself even when you see a message that indicates the battery is critically low, just let the computer use up all of the battery power and shut down on its own (it is best to disable the **Power Options** functions in the **Control Panel**). As the battery nears the end of its life close any critical files.

How do I fully charge the battery?

When charging the battery, don't stop until the LED charging indicator light stops flashing.

How do I maintain the battery?

Completely discharge and charge the battery at least once every 30 days or after about 20 partial discharges.

Conserving Battery Power

Display Brightness

The LCD display consumes a lot of power, so lowering the brightness level will save power.

Applications and External Devices

Different applications and external devices consume battery power even when they are not being used.

To conserve battery power we recommend:

- Closing modem or communication applications when they are not being used
- Removing any unused PC Cards from the computer (PC Cards quickly use up battery power even if the system enters Suspend mode)
- Disconnecting any unnecessary external devices from the computer

Removing and Replacing the Battery

For the most part you will not need to remove your battery. If you follow the tips given to manage and extend your battery life on the preceding pages your battery should last a long time. However there may be times when you are required to remove, swap or replace the battery. In these cases please follow these instructions:

1. Shut the computer down and turn it over.
2. Remove screws 1 - 4 in ***Figure 3 - 13***.
3. Apply gentle pressure at point 5 to push the battery up and out of the computer.

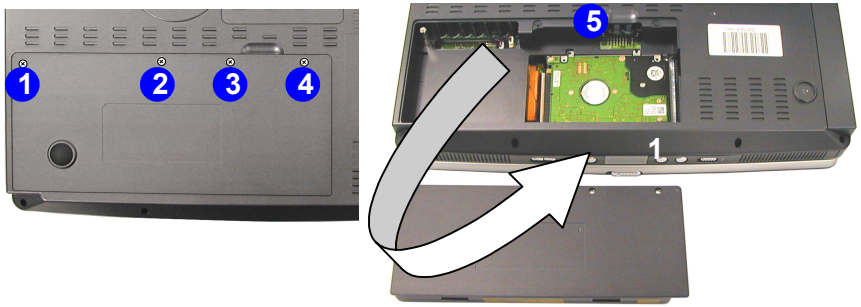


Figure 3 - 13
Battery Release

4. Slide the new battery in and carefully push it down, then replace screws 1 - 4 to secure the battery in place.

Audio “DJ” CD Player

The built-in standalone audio CD player gives you direct hardware control for audio CDs when the computer is **shut down**, but has a working power source.

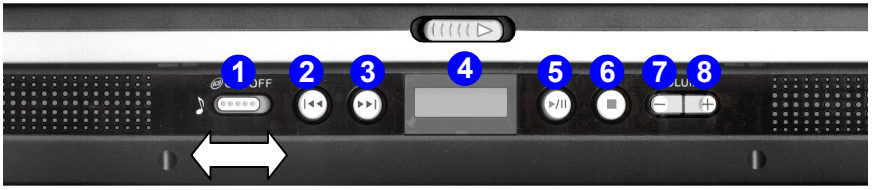
1. Make sure that the computer is shut down (i.e. the operating system is not running) but you have a working power source (either running from the battery or AC Power).
2. Toggle the ON/OFF (1 in *Figure 3 - 14*) switch by moving it to the right and then releasing it.
3. The switch will automatically move back to the left and the LCD will become active.
4. Press the open button on your CD device and carefully place an audio CD onto the disc tray with label-side facing up (DVD drives will also play audio CDs).
5. Gently push the CD/DVD tray in until its lock “clicks” and you are ready to start.
6. The Busy Indicator will light up while data is being accessed (or while a disc is playing).
7. The LCD will display a “1” for the first CD track.
8. Click the play/pause button to start the CD.

Turning the Computer On

Note: If you are playing a CD in the audio player you will not be able to use the power button to switch the computer on. Switch the CD audio player off first, then press the power button to turn on the computer.

When the computer is turned **on** the control for all CDs passes to the operating system’s CD player (*see page 3-28*), and you will not be able to turn on the audio “DJ” until the computer is turned off again.

9. You can control the CD tracking and audio volume from the control panel.
10. The player can be turned off by toggling the ON/OFF switch again.



1. CD Player Control Panel On/Off Switch ⏻ON/OFF
2. Previous Track ⏮
3. Next Track ⏭
4. LCD
5. Play Pause ⏯
6. Stop ⏹
7. Volume Down −
8. Volume Up +

Sound Volume Adjustment

How high the sound volume can be set using the volume control knob depends on the setting of the volume control within ***Windows***. Click the Speaker icon on the taskbar to check the setting.

The volume controls on the Audio DJ player still control the volume settings if the computer's operating system is running.

Figure 3 - 14
Audio "DJ" Controls

Audio “DJ” CD Player Controls (Power On)

When the computer is powered-on the Audio “DJ” Player controls will allow you to control over various media players in ***Windows***. The actual functions available will depend on the application used.

Table 3 - 2
Audio “DJ” Function Keys (Win2K)

Function Key	Win 2000 Built-In CD Player
+	CD Player Volume Up
–	CD Player Volume Down
▶/II	Play/Pause
■	Stop
▶▶I	Next Track
I◀◀	Previous Track

Function Key	WinXP Built-In Media Player
+	Windows System Volume Up
–	Windows System Volume Down
▶/II	Play/Pause
■	Stop
▶▶I	Next Track
I◀◀	Previous Track

Table 3 - 3
Audio "DJ" Function Keys (WinXP)

Table 3 - 4
Audio "DJ" Function Keys (InterVideo WinDVD)

Function Key	InterVideo WinDVD
+	Windows System Volume Up
–	Windows System Volume Down
▶/II	Play/Pause
■	Stop
▶▶I	Next Track
I◀◀	Previous Track

Function Key	Power DVD Player
+	Windows System Volume Up
–	Windows System Volume Down
▶/II	Play/Pause
■	Stop
▶▶I	Next Track
I◀◀	Previous Track

Table 3 - 5
Audio "DJ" Function Keys (Power DVD)

Infrared Communication

The infrared transceiver operates on a "Line of Sight".

Make sure nothing is blocking the "Line of Sight" between your system's transceiver and the destination's transceiver.

Configuring the Infrared Settings for FIR

You will need to change the settings for the infrared device in the **BIOS** (see *"Components Menu" on page 5 - 16*) to enable the FIR setting support.

To configure your computer for Fast Infrared (FIR) communication follow these steps:

1. Click **Start**, point to **Settings** and click **Control Panel**.
2. Double-click **Wireless Link** icon.
3. Click **Hardware** (tab), and click the properties button, then click the **Advanced** (tab).
4. Select **"Infrared Transceiver A"** and change the **Value** to **"HP HSDL-2300/3600"**.
5. Click **OK > OK**.
6. Restart the computer if prompted to do so.

For further information, please refer to the manual of the device you wish to connect.

Chapter 4: Drivers & Utilities

Overview

This chapter deals with installing the drivers and utilities essential to the operation or improvement of some of the notebook PC's subsystems. The system takes advantage of some newer hardware components for which the latest versions of most available operating systems haven't built in drivers and utilities. Thus, some of the system components won't be auto-configured with an appropriate driver or utility during operating system installation. Instead, you need to manually install some system-required drivers and utilities. In this chapter, we group driver and utility installation instructions by operating system. The following operating systems are covered.

- *Windows 2000 Professional*
- *Windows XP*

Assumption

We assume that you will install all drivers and utilities from the built-in CD device and it is assigned to "**Drive D:**". In addition, all file extensions can be seen [see ***"Navigate (Browse..) to D:" on page 4 - 2***].

What to Install

The ***Device Drivers & Utilities + User's Manual CD-ROM*** contains the drivers and utilities necessary for the proper operation of the notebook PC. *Table 4 - 1 on page 4-4* lists what you need to install manually according to your choice of the operating system.

Install the drivers in the following order:

1. Chipset
2. DirectX 8.1
3. Intel Application Accelerator
4. USB 2.0 (Windows 2000 Only)
5. Audio
6. Video
7. Lan
8. Modem

All other drivers may follow in any order you wish, however **it is very important that these drivers are installed in the order indicated above**.

Navigate (Browse..) to D:

You will notice that many of the instructions for driver installation require you to **Navigate (Browse) to D:.**

In this case D: is the drive specified for your CD device. Not all computers are setup the same way, and some computers have the CD listed under a different drive letter - e.g. if you have two hard drives (or hard disk partitions) one may be designated as drive C: and the other as D: In this case the CD device may be designated as drive E: - Please make sure you are actually navigating to the correct drive letter for the CD device.

When you click the **Browse** (button) after clicking **Run** in the **Start** menu you will see the "**Look in:**" dialog box at the top of the **Browse** window. Click the scroll button to navigate to **My Computer** to display the devices and drive letters.

Authorized Driver Message

If you receive a message telling you that the driver you are installing is not authorized (**Digital Signature Not Found)**, just click **Yes** or **Continue Anyway** to ignore the message and continue the installation procedure.

You will receive this message in cases where the driver has been released after the version of ***Windows*** you are currently using. All the drivers provided will have already received certification for ***Windows***.

Windows XP Service Pack 1 & Windows 2000 Service Pack 3

Make sure you install **Windows XP Service Pack 1** (or a Windows XP version which includes Service Pack 1) **before installing any drivers**. Service Pack 1 includes support for **USB 2.0**.
Make sure you install **Windows 2000 Service Pack 3 before installing any drivers**.

Version Conflict Message

During driver installation if you encounter any "file version conflict" message, please click **Yes** to choose to keep the existing (newer) version.

Software Installation Warning

Make sure the MP3 player is **not** in the slot when installing **operating systems**, and any of the **drivers** listed in this chapter.

Hyper-Threading

If you **have enabled the Hyper-Threading option in the BIOS (see "Enable Hyper Threading (Power Menu)" on page 5-17), DO NOT** install the Intel Application Accelerator driver.

DO NOT enable the Hyper-Threading option if you are using ***Windows 2000***.

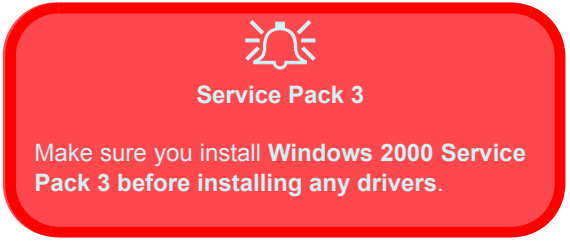
Table 4 - 1
Installation Procedure

Feature	Win 2000	Win XP
Chipset	*page 4 - 5*	*page 4 - 11*
Microsoft DirectX 8.1	*page 4 - 5*	*page 4 - 11*
Intel Application Accelerator	*page 4 - 5*	*page 4 - 12**
USB 2.0	*page 4 - 6*	N/A
Audio	*page 4 - 6*	*page 4 - 13*
Video	*page 4 - 6*	*page 4 - 13*
LAN	*page 4 - 7*	*page 4 - 13*
Modem	*page 4 - 7*	*page 4 - 14*
Hot-Key	*page 4 - 8*	*page 4 - 15*
TouchPad	*page 4 - 8*	*page 4 - 15*
PCMCIA	*page 4 - 8*	N/A
Memory Stick	*page 4 - 9*	*page 4 - 16*
Wireless LAN	*page 4 - 9*	*page 4 - 17*
IP Sharing Module	*page 4 - 10*	*page 4 - 17*
Check Mail	*page 4 - 10*	*page 4 - 18*

* Do not install the Intel Application Accelerator driver if you have enabled the Hyper-Threading option (see *"Enable Hyper Threading (Power Menu)" on page 5 - 17*).

Windows 2000 Professional

This section covers driver and utility installation instructions for *Windows 2000 Professional*.



Chipset (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse.**) to **D:\Drivers\inf_update\infinst_autol.exe** and click **OK**.
3. To continue click **Next > Yes > Next**.
4. Click **Finish** to restart your computer.

DirectX 8.1 (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\VGA\DX81\dxsetup.exe** and click **OK**.
3. To continue click **Yes > Install**.
4. Click **OK** to restart.

Intel Application Accelerator (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\IntelIAA\iata_cd.exe** and click **OK**.
3. Click **Next > Yes > Next > Next**.
4. Click **Finish** to restart your computer.

USB 2.0 (Win2000)

The USB 2.0 driver is only required for **Model B** (see *"Model Differences" on page 1 - 6*).

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\USB2.0-VIA\Setup.exe** and click **OK**.
3. Click **Yes > Next > Next > Yes > OK**.
4. Select "**Print to File**" **> OK**.
5. Click **Finish** to complete the setup.

Audio (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\Audio\Setup.exe** and click **OK**.
3. Click **Next**.
4. Click **Finish** to restart your computer.
5. Go to the **Sounds & Multimedia Control Panel** (**Start** Menu and point to **Settings** and click **Control Panel** then double-click the **Sounds & Multimedia** icon).
6. Click the **Audio** tab.
7. Click **Advanced** in the **Sound Playback** Menu.
8. Under **Speaker Setup** select **5.1 Surround Speakers** from the pull-down menu and click **OK > OK** to close.
9. You will see the **Sound Effect Manager** appear in the **Task Bar** alongside the date, and the **AV Rack** control panel should be visible on the desktop.

Video (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\VGA\Setup.exe** and click **OK**.
3. To continue click **Next > Yes > Express** (click **Yes** if asked if you want to continue at any time).
4. Click **Finish** to restart your computer.

LAN (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\LAN\Setup.exe** and click **OK**.
3. To continue click **Next**.
4. Click **Finish**.

Modem (Win2000)

1. Click **Start** (menu), point to **Settings** and click **Control Panel**. Double-click **System** (icon) and then click **Hardware** (tab) > **Device Manager** (button).
2. Click "+" next to **Other devices** (if its sub-items are not shown).
3. Double-click **PCI Device** and click **Reinstall Driver** (button) and click **Next**.
4. When the *Upgrade Device Driver Wizard* appears, select "**Search for a suitable driver for my device (recommended)**" and click **Next**.
5. Select ONLY (make sure the other boxes do not have a tick inside them) "**Specify a location"**, and click **Next**.
6. Navigate (**Browse...**) to **D:\Drivers\MODEM\WIN2K**.
7. Click **Open > OK > Next**.
8. Click **Finish** and close the open windows.
9. The modem is ready for dial-up configuration.

Modem Country Selection

Be sure to check if the modem country selection is appropriate for you (**Control Panel** > **Phone and Modem Options** and select a **Country**).

Hot-Key (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\APKEY\CNK001.EXE** and click **OK**.
3. Choose the language you prefer.
4. Click **Next**.
5. Click **Finish** to restart your computer.
6. You may then configure your Hot-Key buttons as outlined in *"Hot-Keys" on page 2 - 19*.

TouchPad (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\Touchpad\WIN2K_XP\Setup.exe** and click **OK**.
3. Choose the language you prefer.
4. To continue click **Next > Next** > **Next**.
5. Click **Finish** to restart your computer.
6. You may then configure your TouchPad as outlined in *"Configuring the TouchPad and Buttons" on page 2 - 26*.

PC Card/PCMCIA (Win2000)

1. Click **Start** (menu), point to **Settings** and click **Control Panel**. Double-click **System** (icon) and then click **Device Manager** (tab).
2. Click "+" next to **PCMCIA** (if its sub-items are not shown).
3. Double-click either of the two **Generic CardBus Controller** items, and click the **Driver** (tab).
4. Click **Update Driver** (button) > **Next**.
5. When the *Update Device Driver Wizard* appears, click **Next** (make sure that you have selected **"Search for a suitable driver for my device (recommended)"**.
6. When *Locate Driver Files* appears, select ONLY "**Specify a location"** and click **Next**.
7. Navigate (Browse...) to **D:\DRIVERS\PCMCIA\WIN2000**.
8. Click **Open > OK > Next**.
9. Click **Finish**, then repeat the procedure for the other item.

Memory Stick (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\MS\setup.exe** and click **OK**.
3. Click **Next > Next**.
4. Click **Finish > Reboot** to restart your computer.

Wireless LAN (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\Wireless Lan\GemtekMiniPCI.exe** and click **OK**.
3. Click **Next > Next > Yes**.

IP Sharing Module (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\IP-Share\AUTORUN.EXE** and click **OK**.
3. Click the **Install Wizard** and follow the on-screen instructions.
4. If you need help you can click **View Quick Install Guide** for instructions.

Note: The **Quick Install Guide** and **Manual** are in Adobe .pdf format. If you do not have **Adobe Acrobat Reader** installed, you may install it by following these instructions:

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Manual\Acrobat\rp500enu.exe** and click **OK**.
3. Click **Next > Next > OK**.

Check Mail (Win2000)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\E-mail LED\setup.exe** and click **OK**.
3. To continue click **OK**, then click the **Setup button**.
4. Click **Continue** > **OK**.
5. Click **Yes** to restart your computer.
6. The program will run upon startup.
7. For further details see ***"Check Mail Program" on page 2 - 9***.

Windows XP

This section covers driver and utility installation instructions for ***Windows XP***.

Windows XP Service Pack 1

Make sure you install **Windows XP Service Pack 1** (or are installing a Windows XP version which includes Service Pack 1) **before installing any drivers.** Service Pack 1 includes support for **USB 2.0**.

Hyper-Threading

If you **have enabled the Hyper-Threading option in the BIOS (see "Enable Hyper Threading (Power Menu)" on page 5-17), DO NOT** install the Intel Application Accelerator driver.

Chipset (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\inf_update\infinst_autol.exe** and click **OK**.
3. When the *Setup* screen appears click **Next > Yes > Next**.
4. Click **Finish**.
5. The driver is now installed.

DirectX 8.1 (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\VGA\DX81\dxsetup.exe** and click **OK**.
3. To continue click **Yes > Install** > **OK**.

Intel Application Accelerator (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\Intel-IAA\iata_cd.exe** and click **OK**.
3. Click **Next > Yes > Next > Next**.
4. Click **Finish** to restart your computer.

Hyper-Threading

If you **have enabled the Hyper-Threading option in the BIOS (see "Enable Hyper Threading (Power Menu)" on page 5-17), DO NOT** install the Intel Application Accelerator driver.

USB 2.0 (WinXP)

The USB 2.0 driver is only required for **Model B** computers (see *"Model Differences" on page 1 - 6*).

Windows XP Service Pack 1

Make sure you install **Windows XP Service Pack 1** (or are installing a Windows XP version which includes Service Pack 1) **before installing any drivers**. Service Pack 1 includes support for **USB 2.0**.

Audio (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\Audio\Setup.exe** and click **OK** > **Next**.
3. Click **Finish** to restart your computer.
4. Go to the **Sounds & Audio Devices** control panel (**Start** Menu and point to **Settings** and click **Control Panel** then double-click the **Sounds & Audio Devices** icon).

Note: If you are in the **Category View** choose **Sounds, Speech, and Audio Devices > Sounds and Audio Devices**.

5. Click the **Audio** tab.
6. Click **Advanced** in the **Sound Playback** Menu.
7. Under **Speaker Setup** select **5.1 Surround Speakers** from the pull-down menu and click **OK > OK** to close.
8. You will see the **Sound Effect Manager** appear in the **Task Bar** alongside the date, and the **AV Rack** control panel should be visible on the desktop.

Video (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\VGA\Setup.exe** and click **OK**.
3. To continue click **Next > Yes > Express**.
4. Click **Finish** to restart your computer.

LAN (Win XP)

Under *Windows XP* you have the option to use the built-in network driver, or install the driver as per the following procedure.

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\LAN\Setup.exe** and click **OK**.
3. To continue click **Next**.
4. Click **Finish**.

Modem (Win XP)

1. If you can see the **My Computer** icon on your desktop (if you cannot see the **My Computer** icon go to **step 2**) click on it once to select it, then right-click it to make the sub-menu appear and scroll down to **Properties** and click on it (go to **step 3**).
2. If you cannot see the **My Computer** icon click **Start** (menu), then point to (but don't click just highlight it) **My Computer.** Right-click it to make the sub-menu appear and scroll down to **Properties** and click on it (go to **step 3**).
3. Click the **Hardware** (tab), then click **Device Manager** (button).
4. Click "+" next to **Other Devices** (if its sub-items are not shown).
5. Double-click **PCI Modem** and click **Reinstall Driver** (button).
6. When the *Hardware Update Wizard* appears, click **"Install from a list or specific location (Advanced)"** then click **Next**.
7. Select **"Search for the best driver in these locations."** and select ONLY **"Include this location in the search:"**.
8. Navigate (Browse...) to **D:\Drivers\MODEM\XP** and click **OK** > **Next**.
9. Click **Finish** and close the open windows.
10. The modem is now ready for dial-up configuration.

Modem Country Selection

You can change the modem country selection in the control panel (**Control Panel** > **Phone and Modem Options** (icon) and select a **Country**).

Hot-Key (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\APKEY\CNK001.EXE** and click **OK**.
3. Choose the language you prefer.
4. Click **Next**.
5. Click **Finish** to restart your computer.
6. You may then configure your Hot-key Buttons as outlined in *"Hot-Keys" on page 2 - 19*.

TouchPad (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\Touchpad\WIN2K_XP\Setup.exe** and click **OK**.
3. Choose the language you prefer.
4. To continue click **Next > Next** > **Next**.
5. Click **Finish** to restart your computer.
6. You may then configure your **TouchPad** as outlined in *"Configuring the TouchPad and Buttons" on page 2 - 26*.

Memory Stick (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (Browse..) to **D:\Drivers\MS\setup.exe** and click **OK**.
3. Click **Next > Next**.
4. Click **Finish > Reboot** to restart your computer.

Wireless LAN (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\Wireless Lan\GemtekMiniPCI.exe** and click **OK**.
3. Click **Next > Next > Yes**.

IP Sharing Module (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\IP-Share\AUTORUN.EXE** and click **OK**.
3. Click the **Install Wizard** and follow the on-screen instructions.
4. If you need help you can click **View Quick Install Guide** for instructions.

Note: The **Quick Install Guide** and **Manual** are in Adobe .pdf format. If you do not have **Adobe Acrobat Reader** installed, you may install it by following these instructions:

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Manual\Acrobat\rp500enu.exe** and click **OK**.
3. Click **Next > Next > OK**.

Check Mail (WinXP)

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse..**) to **D:\Drivers\E-mail LED\setup.exe** and click **OK**.
3. To continue click **OK**, then click the **Setup button**.
4. Click **Continue** > **OK**.
5. Click **Yes** to restart your computer.
6. The program will run upon startup.
7. For further details see ***"Check Mail Program" on page 2 - 9***.

Chapter 5: BIOS Utilities

Overview

This chapter is about the computer's built-in software.

Your computer comes with built-in **BIOS** (**Basic Input Output System**) which is an essential set of software routines stored on a chip n tour computer. These routines serve to describe your computer's hardware to your chosen operating system, and provides an interface between the two.

The **BIOS** includes the **POST** (**Power On Self Test**) and the **SCU** (**System Configuration Utility**). The **POST** performs diagnostic procedures at startup, the **SCU** allows you to configure your computer.

There is one general rule: ***Don't make any changes unless you are sure of what you are doing***. Many of the settings are required by the system, and changing them could cause it to become unstable or worse. If you have any doubts, consult your service representative.

If your computer has never been set up, or you are making important changes to the system, then you should review this chapter first and note the original settings found in the **SCU**. Even if you are a beginner, keep a record of the settings you find and any changes you make. This information could be useful if your system ever needs servicing.

WARNING: Incorrect settings can cause your system to malfunction. To correct mistakes return to the **SCU**, go to the **Exit** menu and select the **Default Settings** and click **OK**.

The Power-On Self Test (POST)

Each time you turn on the computer, the system takes a few seconds to conduct a **POST**, including a quick test of the on-board RAM.

As the **POST** proceeds, the computer will tell you if there is anything wrong. If there is a problem which prevents the system from booting, it will display a system summary and prompt you to run *Setup*.

If there are no problems, the **SCU** (**System Configuration Utility**) prompt will disappear and the system will load the operating system. Once that starts, you can't get into the **SCU** without rebooting the computer.

POST Screen

Startup Screen: The POST (*Figure 5 - 1*)

If you choose the **Fast Boot** option in the **SCU** utility, you will only see an abbreviated version of this screen.

1. **BIOS** information
2. CPU type
3. Memory status
4. HDD identification notice
5. Enter **SCU** prompt appears only during **POST**

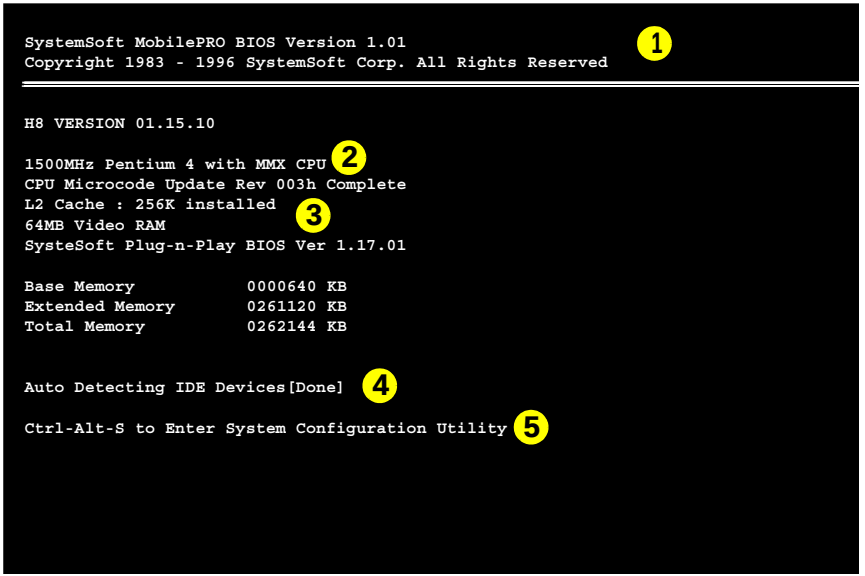


Figure 5 - 1
POST Screen

Note: The **POST** screen as pictured above is for guideline purposes only. The **POST** screen on your computer may appear slightly different.

Failing the POST

Errors can be detected during the **POST**. There are two categories, “fatal” and “non-fatal”.

Fatal Errors

These stop the boot process and usually indicate there is something seriously wrong with your system. Take the computer to your service representative or authorized service center as soon as possible.

Non-Fatal Errors

This kind of error still allows you to boot. You will get a message identifying the problem (make a note of this message!) followed by the prompt:

- Press <F1> to resume,
- <Ctrl-Alt-S> to enter **SCU**.

Press **F1** to see if the boot process can continue. It may work, without the correct configuration.

Press **Ctrl-Alt-S** simultaneously to run the **SCU** program and try to correct the problem. If you still get an error message after you change the setting, or if the “cure” seems even worse, call for help.

BIOS Settings V's OS Settings

Though many options such as power management and display settings may be set in the BIOS, these are usually best set in your OS (e.g. ***Windows***).

Older OS's such as *DOS* etc. may still rely entirely on the setup information from the BIOS. "Plug-n-Play" OS's, such as the various ***Windows*** systems, may override these settings with the settings from the system's **Control Panel**.

The System Configuration Utility

The **SCU** program tells the system how to configure itself and manage basic features and subsystems (e.g. port configuration and power management). The settings are stored in a nonvolatile battery and written to the CMOS RAM. This means that the settings are saved even when the notebook is turned off.

Entering Setup

To enter the **SCU**, turn on the computer and press **Ctrl-Alt-S** simultaneously during the POST. The prompt seen in *Figure 5 - 1* is usually present for a few seconds after you turn on the system. If you get a "Keyboard Error" (usually because you pressed **Ctrl-Alt-S** too quickly) just press **Ctrl-Alt-S** again.

If the computer is already on, reboot and then hold down **Ctrl-Alt-S** when prompted. The **SCU's** main menu will appear.

SCU Menu

The initial menu screen will appear as below:

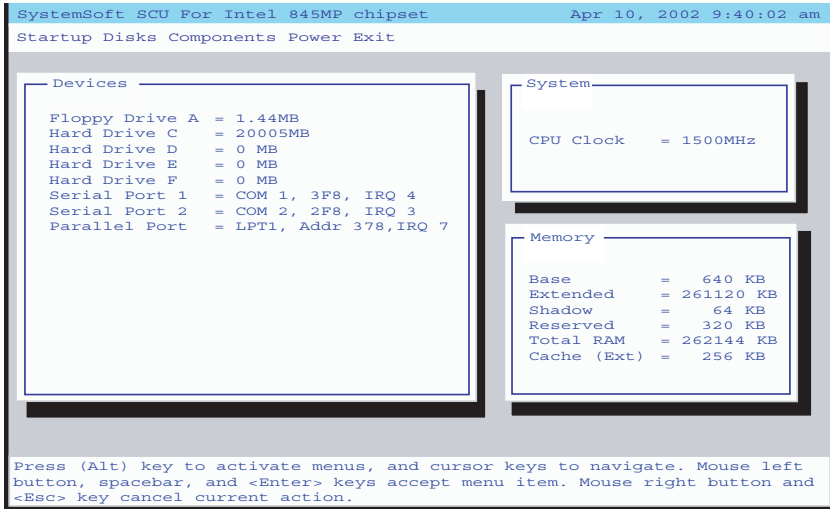


Figure 5 - 2
SCU Menu

SCU Screens

The screens which appear on the following pages are intended as a guideline.

It should be noted that the screen on your particular computer may appear a little differently.

The **SCU** allows you to make changes to the system settings for power management, display configuration, hard disk settings, OS settings etc. However please see the note ***" BIOS Settings V's OS Settings" on page 5 - 6*** regarding adjusting settings in your operating system (e.g. ***Windows***).

Working with the Menu Bar

You can use the mouse to navigate around the various menus and submenus of the **SCU**, or alternatively, you can use the following key combinations:

Table 5 - 1
SCU Menu Navigation Keys

Keys	Action
Alt	Activates the menu bar
Left arrow/Right arrow → ← Type the highlighted letters	Selects an option in the menu bar
Left mouse button Down arrow ↓ Spacebar Enter	Opens the pull-down menu bar options
Right mouse button Esc	Cancels the action

Working with the Pull-Down Menu

Once your desired menu bar item is highlighted, press **Enter** or **left-click with the mouse** to see the pull-down menu items. The following keys allow you to move about the pull-down menu:

Table 5 - 2
Pull-Down Menu Keys

Keys	Action
Down/Up arrows (↓↑)	Changes the value
Enter	Allows you to choose: <OK> to save changes <Cancel to ignore any changes>

Working with Sub-Menus

Some pull-down menu options have an arrow to the right of the entry which indicates a sub-menu is available. Choose these sub-menus by pressing **Enter** and the screen will be displayed. Navigate through these screens by using the keys in the table below.

Table 5 - 3
Sub Menus (Right Arrow Enabled)

Keys	Action
Tab	Moves from one field to another
Down/Up arrows (↓↑)	Selects an item within the field
Spacebar	Enables the specified function (a dot indicates the function is enabled)
OK/Enter	Accepts the entries and closes the sub-menu and saves the changes
Cancel/Esc	Rejects the entries and closes the sub-menu

The following pages will show some of the menu screens available and will outline some of the main functions which may be set in the **SCU**. However please remember that most of your settings may be overridden by those of your operating system (see ***" BIOS Settings V's OS Settings" on page 5 - 6***).

Once again - There is one general rule: ***Don't make any changes unless you are sure of what you are doing***. Many of the settings are required by the system, and changing them could cause it to become unstable or worse. If you have any doubts, consult your service representative.

Startup Menu

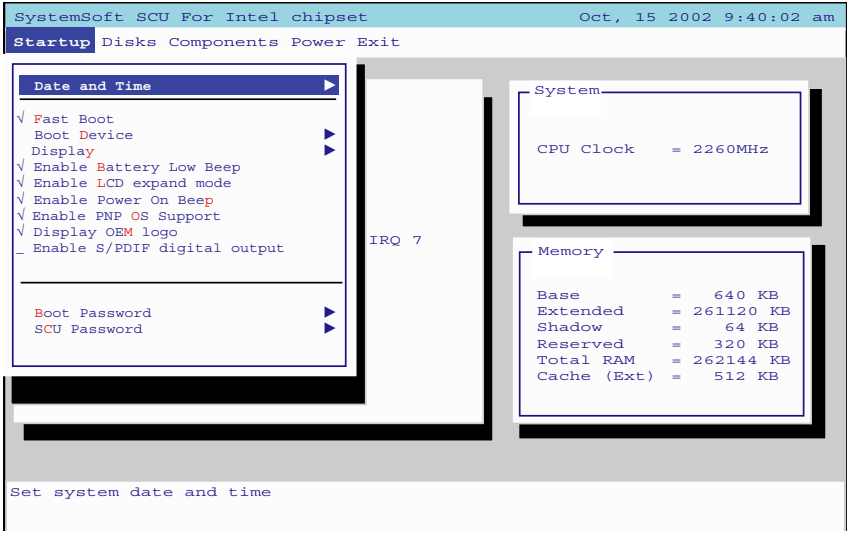


Figure 5 - 3
Startup Menu

Here you may set the date and time, enable the fast boot process to eliminate the memory test, and set various power, OS, and display settings. You may also set a password for booting the computer, and for access to the SCU, from this menu.

Fast Boot (Startup Menu)

Enable this option to eliminate the memory test and other delays at power-up.

Boot Device (Startup Menu)

Specify which device your computer should look on for an operating system by priority. The most common setting is to look for the diskette "**A:**" first, then the **CD-ROM Drive** (CD device), and lastly the **Hard Disk** "**C:**". In most cases your computer "boots" (starts-up from) the hard disk. There are cases where you may want to "Boot" from a floppy disk in drive "**A:**", or from the CD device.

Display (Startup Menu)

Enables your choice of CRT (external monitor), LCD (the notebook's display screen), or both. These settings are best changed in your OS, and may also be quickly adjusted by means of the **Fn** and **F6** keys (see ***" Function Keys" on page 2 - 22***).

Password Warning

If you choose to set a boot password, **NEVER** forget your password.

The consequences of this could be serious. If you cannot remember your boot password you must contact your vendor and you may lose all of the information on your hard disk.

Enable PNP OS Support (Startup Menu)

If you run a ***Windows*** OS **other than *Windows NT 4.0*** (e.g. *Windows 2000* or *XP*) this should be enabled. The setting will be "**Enabled**" by default.

Boot and SCU Passwords (Startup Menu)

You can set the passwords for when the computer starts-up (Boot Password), and for access to the **SCU** to make changes (**SCU** password). See the sidebar for a warning on setting the password.

Other settings (Startup Menu)

The other settings in this menu allow the enabling/disabling of system beeps at startup, and if the power is getting low.

Disks Menu

Here you may enable or disable the different settings and functions for your floppy disk drive, hard disk drive, and CD-ROM/DVD ROM.

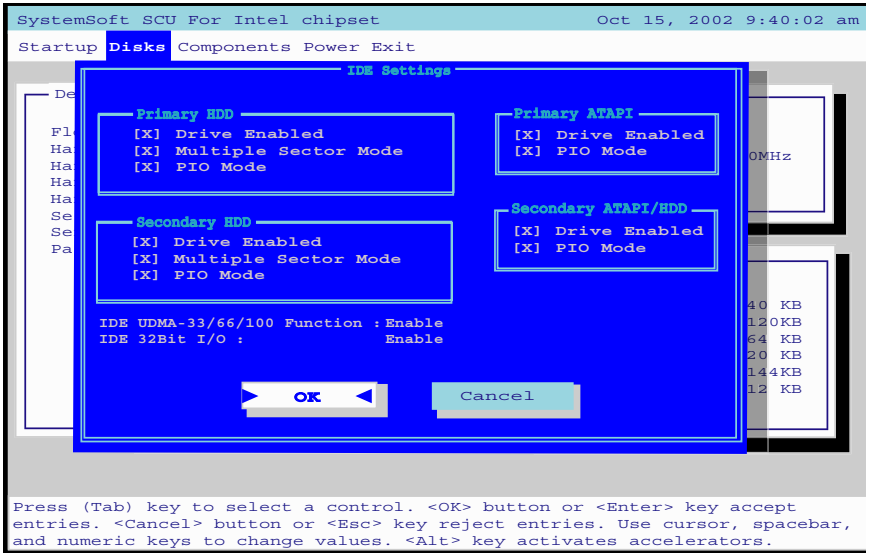
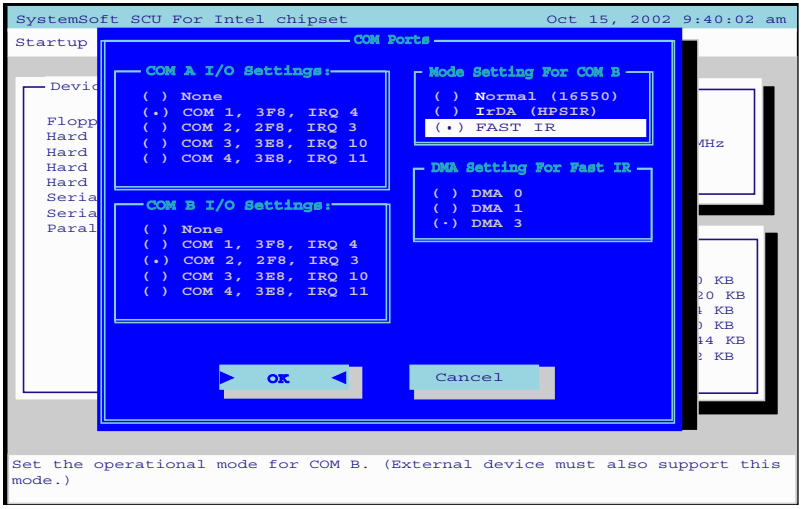


Figure 5 - 4
Disks Menu (IDE Settings)

Components Menu

Here you may setup your COM ports, enable/disable support for a PS/2 Mouse, startup the computer with Number Lock enabled.

Figure 5 - 5
Components Menu (COM Ports)



You may want to change the setup of the **COM B** setting to enable **FAST IR** support, if you have Infrared devices which use this mode (see *"Configuring the Infrared Settings for FIR" on page 3 - 32*).

Power Menu.

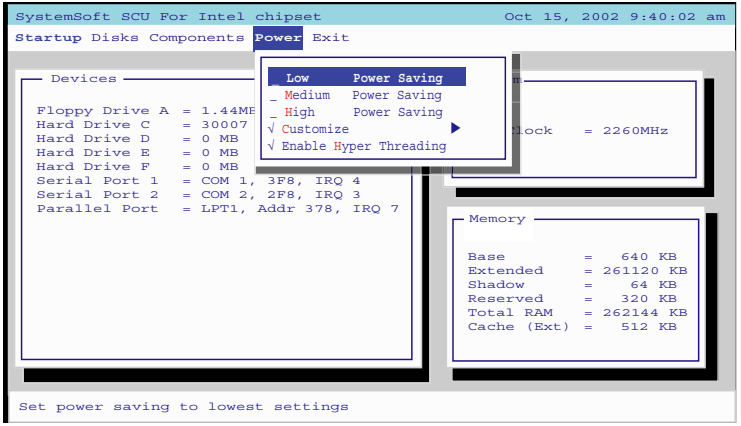


Figure 5 - 6
Power Menu

Enable Hyper Threading (Power Menu)

You can enable (the default setting is disabled) Hyper-Threading if your computer has an Intel Pentium® 4 Processor with Hyper-Threading Technology, running the Windows XP OS. Hyper-Threading will increase performance of your computer depending on the hardware and software you use. **If you do not have a Processor with Hyper-Threading Technology, this menu option will not appear**. **DO NOT enable this option in *Windows 2000*. Once you have enabled Hyper-Threading, DO NOT disable the option.**

Hyper-Threading

To use Hyper-Threading you must have a computer with a **Pentium 4 Processor with Hyper-Threading Technology,** running the **Windows XP OS**. The menu option will not appear if your CPU does not support Hyper-Threading.

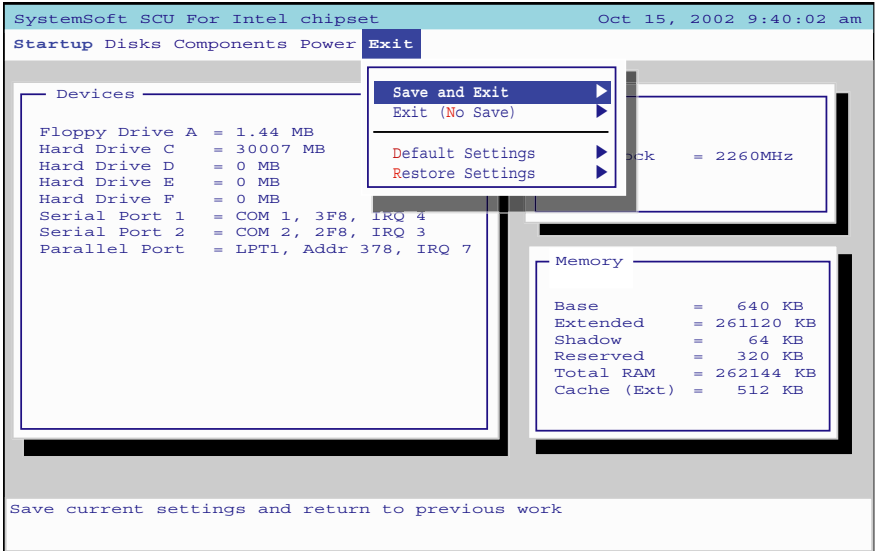
If you are **updating** your BIOS from a previous version which did not have the Hyper-Threading option, you must **reinstall Windows XP after you have updated your BIOS**. After installing Windows XP you must install the **latest versions of the modem & video drivers** (check with your service center).

If you are changing your processor from a cpu which supports Hyper-Threading, to one which does not, you will need to reinstall your OS.

Exit Menu

From here you may exit the **SCU**, and you have the option to save the changes you made, or not to do so. You may also choose to restore the original default settings, or to the last set of custom settings (these are useful options in case of errors made due to incorrect setting changes).

Figure 5 - 7
Exit Menu



Chapter 6: Options

Overview

This chapter contains the information on the various optional items which may come with your computer, depending on the configuration purchased. If you are unsure please contact your service representative.

The chapter includes information on the following:

- The MP3 music player
- The TV Tuner
- The IP sharing module

Warranty Warning

Please check with your service representative before undertaking any upgrade procedures to find out if this will VOID your warranty.

Figure 6 - 1
Right Side - MP3 Player In & Out

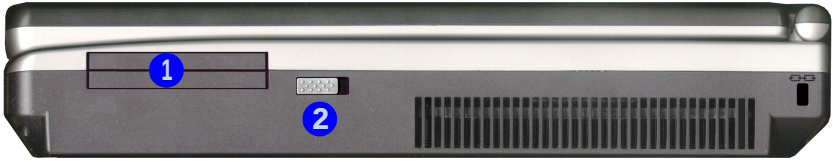
1. MP3 Player Slot
2. MP3 Player Release Switch
3. MP3 Player Inserted
4. MP3 PlayerSD/ MMC Slot

Software Installation Warning

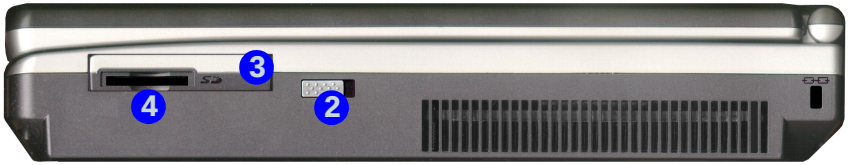
Make sure the MP3 player is **not** in the slot when installing **operating systems**, and any of the **drivers** listed in ***"What to Install" on page 4 - 2***.

The MP3 Player

The optional MP3 Mobile SD/MMC music player allows you to play and store MP3 music files, and store other data file types. The MP3 player (powered by **two AAA batteries**) has a built-in port for **SD (Secure Digital)/MultiMedia Card (MMC)** flash memory cards, a **mini USB** port (USB cable not supplied) and headphone-out jack (headphones not included).



Right Side - MP3 Player Out



Right Side - MP3 Player In

Inserting the MP3 Player

Push the MP3 player into the slot on the right side of the computer. The player should be inserted with the control panels facing upwards as indicated in ***Figure 6 - 2***. ***Windows*** will recognize the drive as a removable disk and assign it a letter according to the number of other drives you have in your computer.

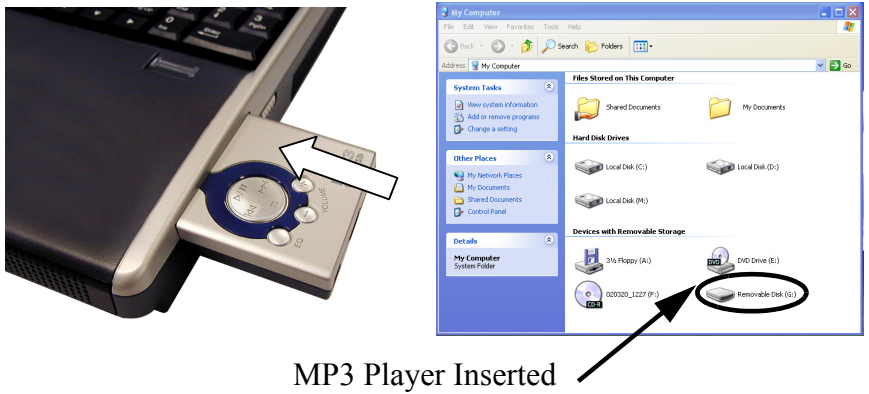


Figure 6 - 2
Inserting the MP3 Player

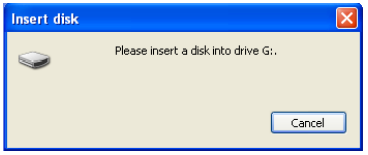
Other USB Supported Devices

In addition to storing your MP3 music files you can also use the SD card/MMC in the MP3 player to transfer data to/from any device which has a USB port by means of a USB to USB cable (USB to USB cables may be purchased at any computer store - check with the documentation on the device you want to connect to for the type of cable required).

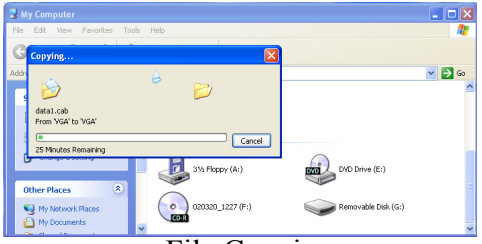
Secure Digital Cards/MultiMedia Cards

SD cards and MMC's are small, convenient, and durable stamp-sized flash memory cards. SD cards and MMCs are designed to interface with an array of digital devices including PDAs, cellular phones, digital video recorders and digital cameras. They are similar to floppy disks in that they allow you to save, store and transfer files to another device by inserting the card into the slot

The SD card/MMC should be inserted until it clicks into place. It may be removed by pressing your finger against the card to eject it. Be careful not to do this while information is being written to, or read from the card or you could lose data. When the SD card/MMC is inserted you may drag and drop files to and from it much as you would a floppy disk. If there is no SD card/MMC inserted you will receive a message asking you to insert a disk.



Insert Disk Message



File Copying

Figure 6 - 3
File Copying

MP3 Player Controls

When you have downloaded and copied your MP3 files to the SD card/MMC you may eject the player and use it as a standalone player running on battery power (the player does not need to be powered on when inserted into the slot in the notebook).

Figure 6 - 4
MP3 Player

Table 6 - 1
MP3 Player Controls

Icon	Description
	Headphone-Out Jack
	Mini USB Port
	Secure Digital/MMC Slot
	Power On/Off
VOLUME+−	Audio Volume Up/Down
	Play/Pause
	Stop
	Previous Track
	Next Track
EQ	Equalizer Toggle

TV Tuner

The optional TV Tuner allows you to watch TV, play music CDs, video conference and capture still images and video on your PC.

The TV tuner comes with a remote control unit and accompanying quick start and software guide. Please consult the guides for full instructions on how to use the TV Tuner and TV Studio software. Make sure you install the software before connecting the coaxial cable to the TV antenna input.

TV Tuner Remote

The remote control unit provided with the optional TV tuner will only function when the computer is powered from the AC adapter, and not while the computer is powered by the internal battery.

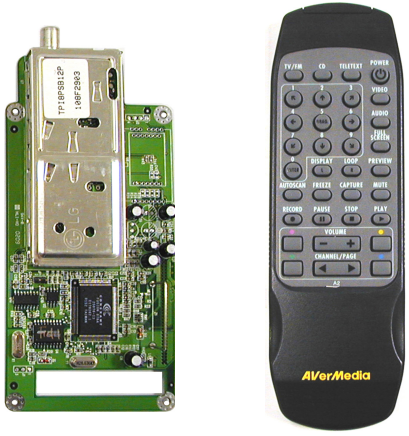


Figure 6 - 5
TV Tuner Module and Remote

Line-In Function with TV Tuner

With the TV Tuner installed, the line-in jack will only be functional while the TV Studio software is running.

System Suspend Mode & TV Studio Software

The computer will not enter a system suspend mode (**Hibernate** or **Standby**) while the TV Studio software is running.

Installing the TV Tuner

The TV Tuner is installed in the bay indicated below.

1. Turn the computer **OFF**.
2. Place the computer on a clean, stable surface and turn it over.
3. Remove screws 1 - 3 (*Figure 6 - 6*).

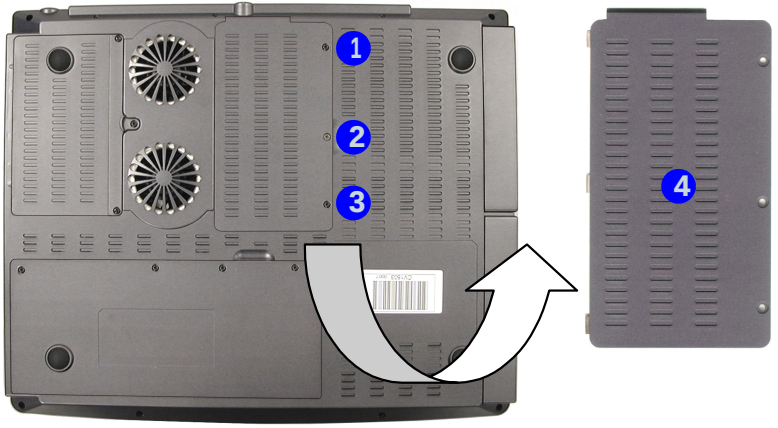
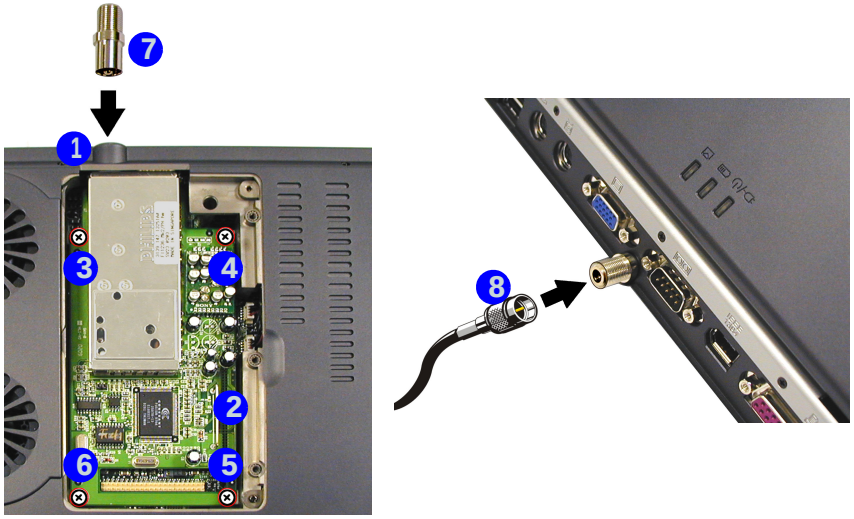


Figure 6 - 6
Changeable Drive Bay Removal

4. Lift the cover 4 off the changeable drive bay and set it aside.

5. Carefully insert the TV tuner module into the computer, aligning the rear of the TV tuner with the hole at point 1 (see sidebar).
6. The TV Tuner module should align with the connecting pins at point 2 (push firmly down to make sure the module is secure).
7. Secure the model by inserting screws 3 - 6.
8. Insert the cable connector 7 into the module.
9. Replace the changeable drive bay cover and **three** screws.
10. Insert the cable/aerial 8 into the connector.



Cover

If the hole in the computer case has a cover which prevents you from pushing the rear of the TV tuner card through, you can remove it. This can be done by carefully pushing the cover out with a screwdriver.

Figure 6 - 7
TV Tuner Module Insertion

IP Sharing Module

The optional IP sharing module allows you to share your xDSL or cable modem internet connection with up to **4** other computers. You can also share files and printer connections with other machines connected to the ports.

The IP sharing module is a BroadBand IP Gateway and Fast Ether-Switch integrating an Internet IP sharing device with a built-in 4-port 10/100Mbps N-Way Fast Ethernet switch. This allows you to connect a small group of computers to your high-speed internet connection. DHCP client and DHCP server allow you to complete the network configuration automatically.

The following pages give a quick guide to cabling and setup. For full information on the IP sharing module setup, refer to the accompanying manual and quick start guides on the ***Device Drivers & Utilities + User's Manual CD-ROM***. Make sure you install the software (see *"What to Install" on page 4 - 2*).

Installing the IP Sharing Module

The IP sharing module is installed in the modular bay (Bay Two) on the **left/rear** (as you look at the left side of the computer). If you need to install the device, or change the device which is already installed then refer to *"Upgrading the Modular Drive Bay (Bay Two) Device" on page 7 - 6*.

Cable Connections

Your existing cable modem or xDSL connection will connect to the RJ45 LAN jack at rear of your computer. Any other devices will connect to one of the four ports on the IP sharing module. When a device is connected the LED indicators will flash.

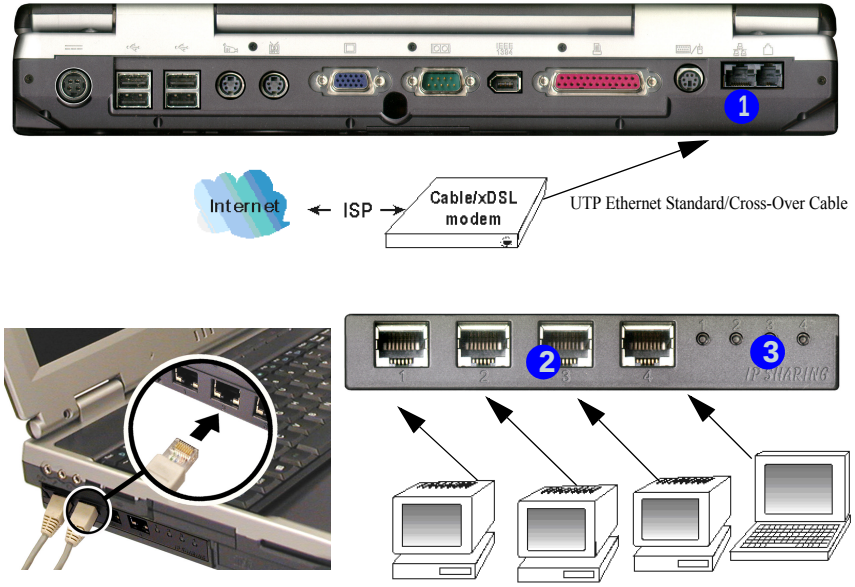


Figure 6 - 8
Ports & LEDs

1. RJ-45 LAN Jack
2. Four RJ45 dual-speed (10/100Mbps) ports
3. LED Indicators (flash green for 100Mbps connection/ orange for 10Mbps connection)

Computer Setup

In the following quick setup guide, instructions are grouped by operating system. For full setup and configuration instructions refer to the accompanying manual and quick start guides on the ***Device Drivers & Utilities + User's Manual CD-ROM***. The following operating systems are covered.

- *Windows 2000 Professional*
- *Windows XP*

Windows 2000 Setup

1. Go to My Computer > Control Panel > Network and **Dial-up Connections**.
2. Double-click **Local Area Connection**.

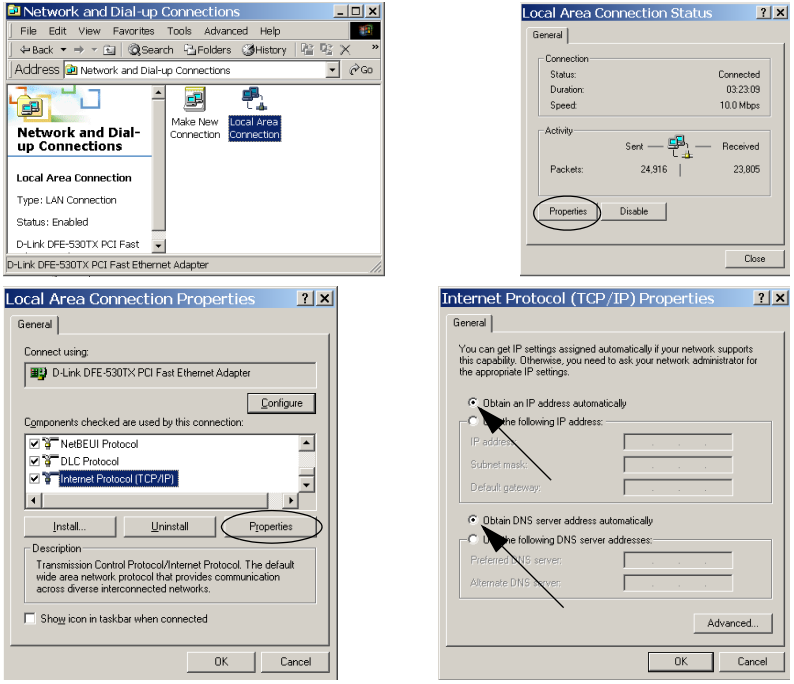
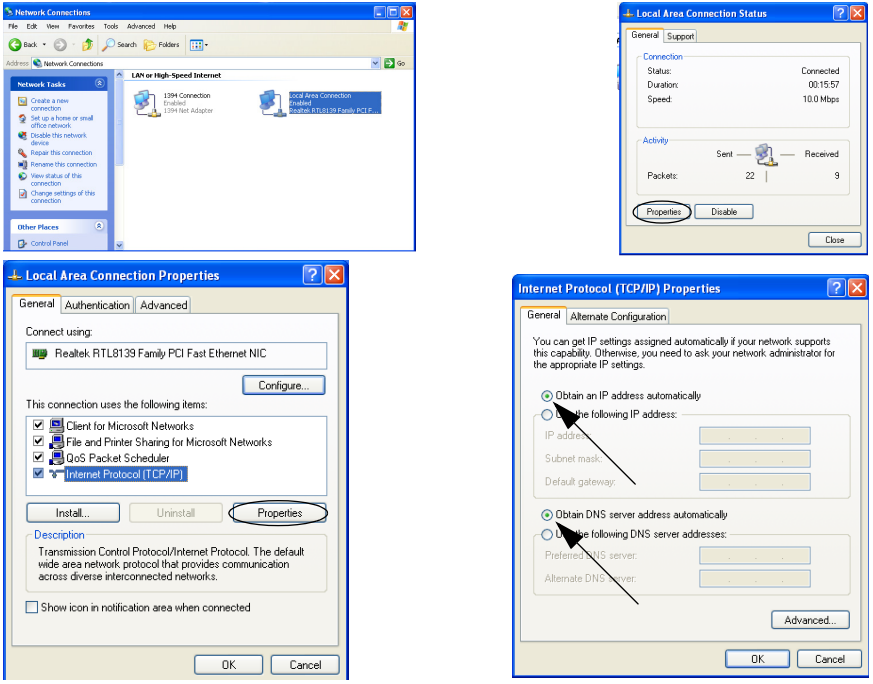


Figure 6 - 9
Win 2000 Setup

Windows XP Setup

1. Go to My Computer > Control Panel > Network and Internet Connections > **Network Connections**.
2. Double-Click **Local Area Connection**.

Figure 6 - 10
Win XP Setup



Checking the Internet Connection

Note: To configure this device, you must have Internet Explorer 4.01 or above installed.

To see if the IP Sharing device is visible on the local network, go to **Start** > **Run "PING 192.168.1.254"**

To check if this IP Sharing device is connected to the Internet, run "**PING 168.95.192.1 – w 3000**".

Run a web browser to surf the Internet.

Chapter 7: Upgrading The Computer

Overview

This chapter contains the information on upgrading the computer. Follow the steps outlined to make the desired upgrades. If you have any trouble or problems you can contact your service representative for further help. Before you begin you will need:

- A small crosshead or Phillips screwdriver
- A small regular screwdriver
- An antistatic wrist strap

Before working with or repairing the internal components you will need to wear an antistatic wrist strap to ground yourself because static electricity may damage the components. The chapter includes:

- Upgrading the Primary Drive Bay (Bay One) CD Device
- Upgrading the Modular Drive Bay (Bay Two) Device
- Upgrading the Primary Hard Disk Drive
- Upgrading the Hard Disk Drive in the Modular Drive Bay (Bay Two)
- Upgrading the Hard Disk Drive in the Changeable Drive Bay (Bay Three)
- Upgrading the System Memory

Warranty Warning

Please check with your service representative before undertaking any upgrade procedures to find out if this will VOID your warranty.

Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

When Not to Upgrade

These procedures involve opening the system's case, adding and sometimes replacing parts.

You should **not** perform any of these upgrades if:

- your system is still under warranty or a service contract
- you don't have all the necessary equipment
- you're not in the correct environment
- you doubt your abilities

Under any of these conditions, contact your service representative to purchase or replace the component(s).

Please make sure that you review each procedure before you perform it.

Upgrading the Primary Drive Bay (Bay One) CD Device

The interchangeable CD device installed in the **primary drive bay (Bay One)** on the **right/front** (as you look at the left side of the computer) will depend on what configuration you purchased. If you wish to change or upgrade this device follow this procedure.

1. Turn the computer **OFF**.
2. Place the computer on a clean, stable surface and turn it over.
3. Remove screws 1 - 3.
4. Lift the cover off the changeable drive bay and set it aside.

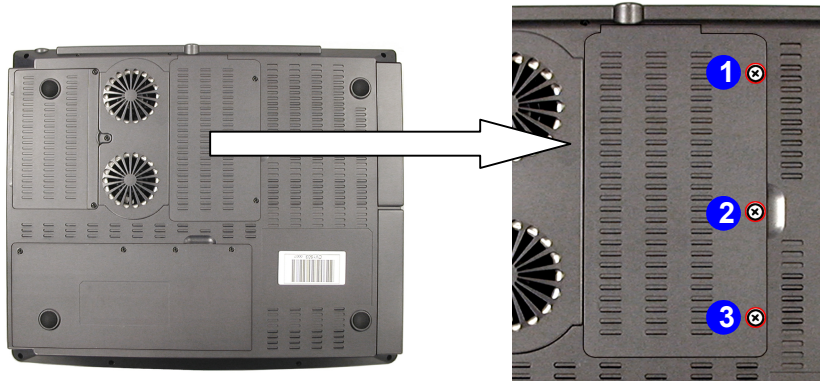
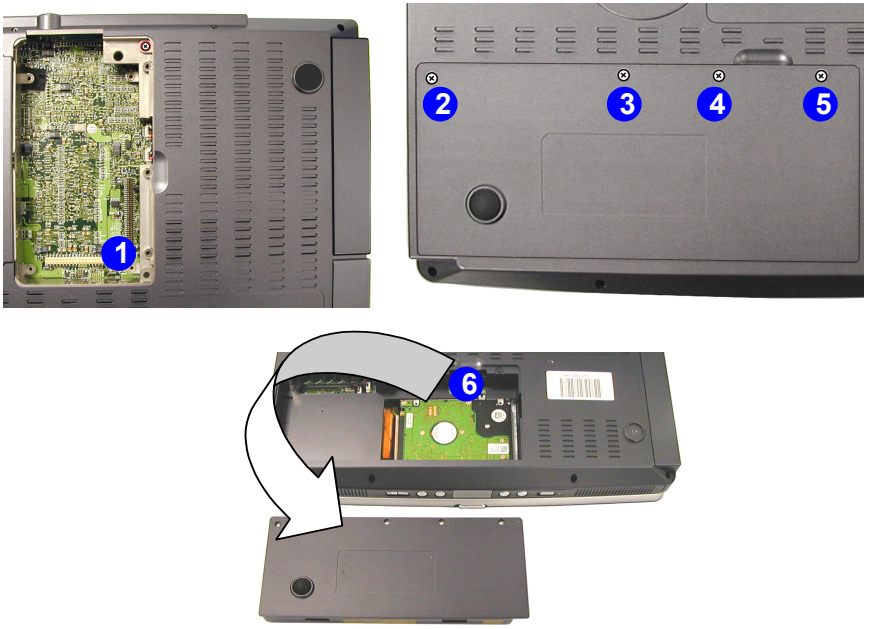


Figure 7 - 1
Screw Location

5. Remove screw 1.
6. Remove screws 2 - 5.
7. Apply gentle pressure at point 6 to push the battery up and out of the computer.

Figure 7 - 2
Battery Removal and CD Device Screw Location



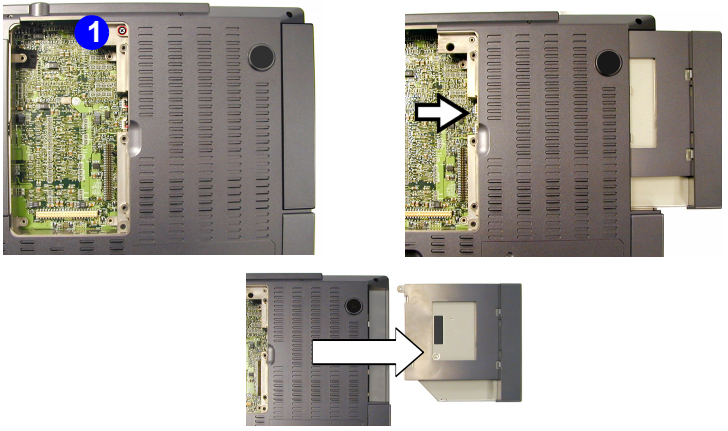
8. Gently push the device out of the bay (you may need to use a screwdriver to do this).
9. Slide the new device into the bay, then secure it with screw 1 (*Figure 7 - 2*).
10. Replace the changeable drive bay cover, and secure with the screws 1 - 3 (*Figure 7 - 1*).
11. Replace the battery and the screws 2 - 5 (*Figure 7 - 2*).

Figure 7 - 3
Remove Device

Upgrading the Modular Drive Bay (Bay Two) Device

What is installed in the modular bay (Bay Two) on the **left/rear** (as you look at the left side of the computer) will depend on what configuration you purchased. If you wish to change or upgrade this device follow the same procedure as *"Upgrading the Primary Drive Bay (Bay One) CD Device" on page 7 - 3*. In this case remove the screw at position 1, and push the device out from the area indicated by the arrow (there is no need to remove the battery in this case).

Figure 7 - 4
Modular (Bay Two) Device Removal



Upgrading the Primary Hard Disk

The hard disk drive is used to store your data internally in the computer. The primary hard disk is mounted in a removable case under battery bay, and can be taken out to accommodate other 2.5" IDE hard disk drives with a height of 9.5 mm.

Jumper Settings for Multiple Hard Disk Use

If you are using **more than one hard disk** in your computer, make sure to set the jumpers on **all** your hard disks to the **cable select option** in order for the system to recognize all the disks (see your hard disk manual or the information printed on the hard disk itself for details on the jumper settings).

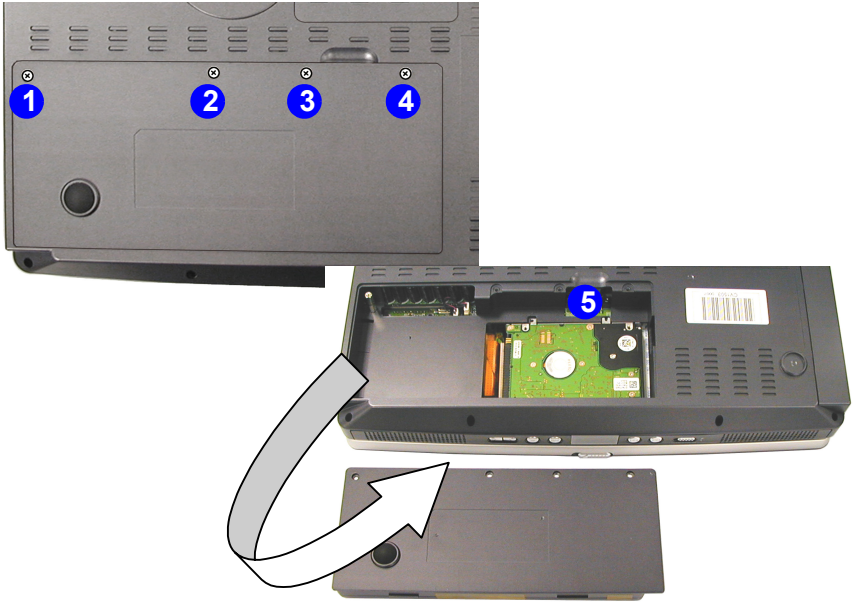
To upgrade the primary hard disk in your notebook please perform the following steps:

- Remove the battery
- Remove the HDD assembly
- Separate the HDD from the case and cable
- Insert the new HDD into the case and replace the cable
- Insert the assembly into the notebook
- Replace the battery

Removing the Battery

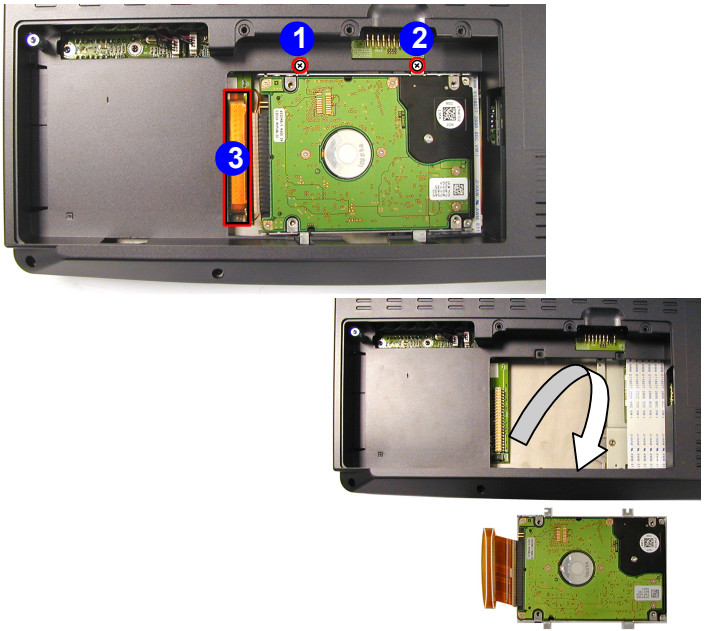
1. Shut the computer down and turn it over.
2. Remove screws 1 - 4.
3. Apply gentle pressure at point 5 to push the battery up and out of the computer.

Figure 7 - 5
Removing the Battery



Removing the Hard Disk Assembly

1. Remove screws 1 - 2 from the HDD assembly.
2. Release the HDD connector cable 3.
3. Remove the HDD assembly from the bay.



HDD Cables

The illustrated HDD cable may differ from the one in your model depending on the configuration purchased.

Be careful not to bend the pins on the hard disk when removing the cable.

Figure 7 - 6
Removing the HDD Assembly

HDD Orientation

Note the orientation of the disk in the case. The rear pins of the hard disk should point towards the tail of the HDD case as indicated by the arrow 6.

The HDD controller board should be visible at the top, and the screws will align with the holes in the case in only one way.

4. Remove screws 1 - 4, and the HDD connector cable 5.
5. Take the HDD out of the case, and pay careful attention to the orientation of the disk in the case.
6. Insert the new HDD into the case and replace screws 1 - 4, then reconnect the HDD connector cable.
7. Just reverse the removal procedure to install the new HDD assembly (make sure you reconnect the cable before replacing the screws 1 - 2 in ***Figure 7 - 6***).

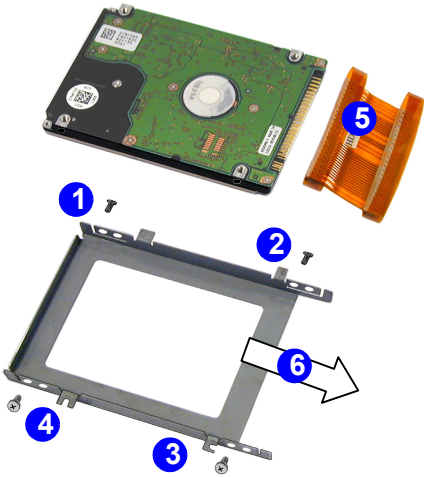


Figure 7 - 7
HDD Case Screws & Connector Cable

Upgrading the Hard Disk in Bay Two

If you wish to upgrade or replace the hard disk installed in the modular bay (Bay Two) on the **left/rear** (as you look at the left side of the computer) follow the same procedure as *"Upgrading the Primary Drive Bay (Bay One) CD Device" on page 7 - 3*. In this case remove the screw at position 1, and push the assembly out from the area indicated by the arrow (there is no need to remove the battery in this case).

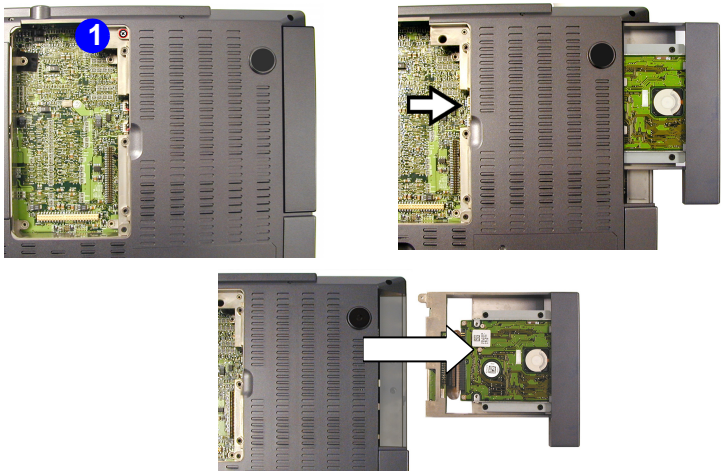
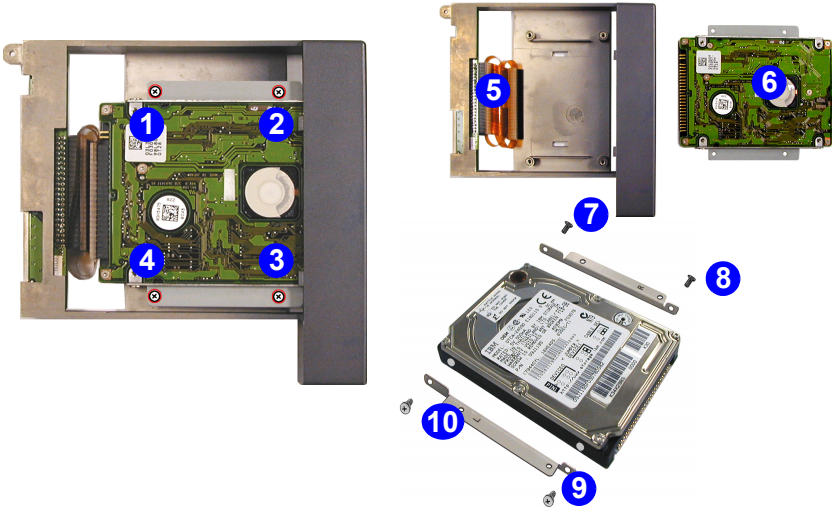


Figure 7 - 8
Modular Bay Device Removal

Once you have removed the existing assembly you may then install the new hard disk in its place.

1. Remove screws 1 - 4, and disconnect cable 5.
2. Take the HDD assembly 6 out of the case.
3. Remove screws 7 - 10, from the HDD assembly (note the orientation of the disk within the assembly brackets).
4. Install the new disk by replacing screws 7 - 10, then reversing the remainder of the removal process.

Figure 7 - 9
HDD Removal



Upgrading the Hard Disk in Bay Three

The changeable drive bay under the computer can be used to house either the optional TV tuner, or an optional hard disk drive.

To upgrade the hard disk in the changeable drive bay please perform the following steps:

1. Turn the computer **OFF**.
2. Place the computer on a clean, stable surface and turn it over.
3. Remove screws 1 - 3.

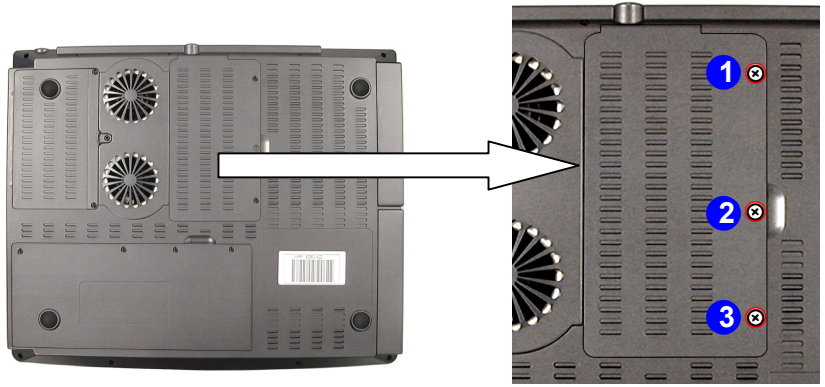
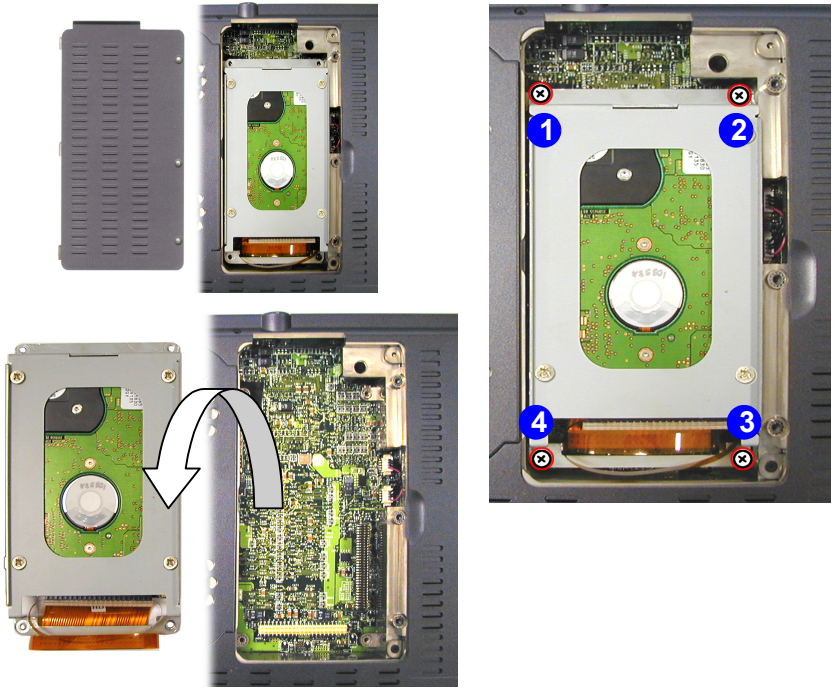


Figure 7 - 10
Screw Location

4. Lift the cover off the changeable drive bay and set it aside.
5. Remove screws 1 - 4.
6. Lift the HDD assembly out of the bay.

Figure 7 - 11
HDD Assembly Removal



7. Remove screws 1 - 4 and the connector 5, to release the HDD from the case.
8. Insert the new hard disk and reverse the procedures to install it.

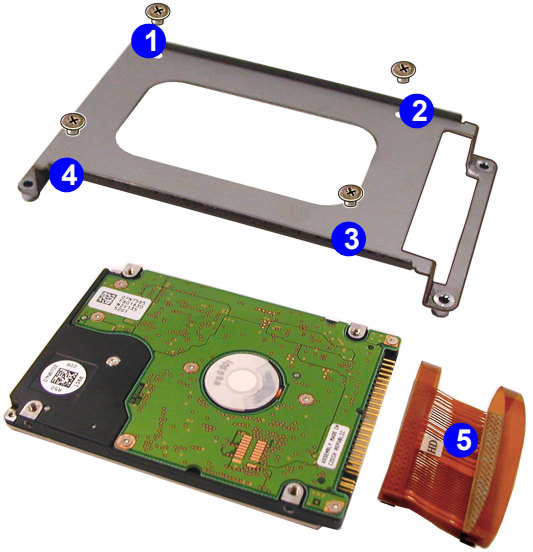


Figure 7 - 12
HDD Case Screws & Connector Cable

HDD System Warning

New HDDs are blank. Before you begin make sure:
You have backed up any data you want to keep from your old HDD.
You have all the CD-ROMs and FDDs required to install your operating system and programs.
If you have access to the internet, download the latest application and hardware driver updates for the operating system you plan to install. Copy these to a removable medium.

Some Things to Watch Out For

Software

Allow the system to auto-detect the new HDD, or if necessary, run the *SCU Utility* in the *BIOS* to customize the system (see ***"Disks Menu" on page 5 - 15***).

Setting Up a New HDD

Follow your operating system's installation instructions and install all necessary drivers and utilities as outlined in ***"What to Install" on page 4 - 2***.

Upgrading the System Memory

The computer has two memory sockets for 200-pin PC-266MHz or PC-200MHz DDR Small Outline Dual In-line Memory Modules (SO-DIMM). The main memory can be expanded up to 1024MB, and accepts 128/256/512MB modules.

The total memory size is automatically detected by the POST routine once you turn on your computer.

To upgrade the memory in your notebook please perform the following steps:

- Remove the keyboard
- Remove a memory module (if present) where necessary
- Insert a new memory module
- Replace the keyboard

Removing the System Memory

1. Turn **off** the computer.
2. Press the **two** keyboard latches at the top of the keyboard to elevate the keyboard from its normal position as in ***Figure 7 - 13*** (you may need to use a small screwdriver to do this).

Figure 7 - 13
Removing the Keyboard

3. Lift the keyboard up and out, being careful not to twist the keyboard ribbon cable 3.

4. Carefully loosen the locking collar on the keyboard cable by using a small flat-head screwdriver to gently pry the locking collar away from its base (when replacing the connection, make sure the connector is oriented in the same way).
5. Lift the keyboard away and carefully set it aside.
6. Remove the small screws at positions 1 - 3 from the shielding plate, and lift the plate up off the computer.

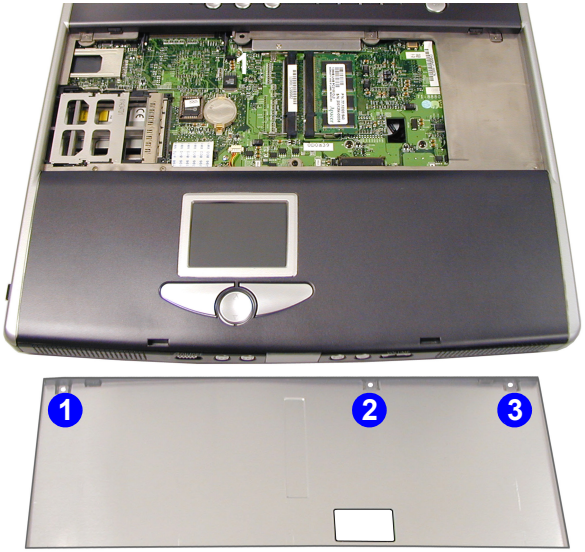


Figure 7 - 14
Removing the Shielding Plate

Contact Warning

Be careful not to touch the metal pins on the module's connecting edge Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

7. Locate the Memory sockets 1 and 2.

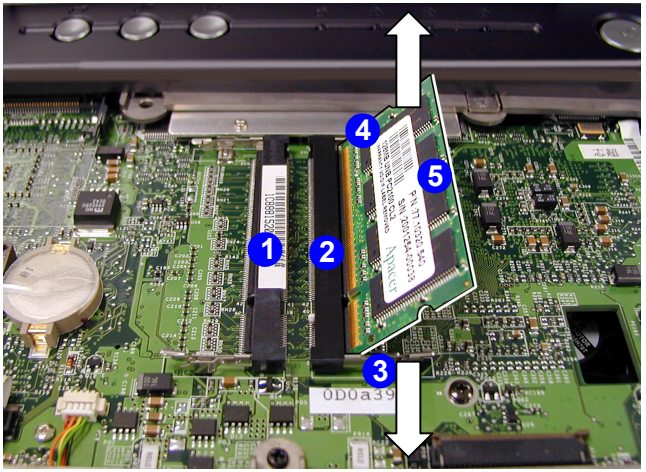


Figure 7 - 15
Memory Release

8. If there is a module currently installed which needs to be upgraded/replaced then remove it.
9. Gently pull the latches 3 and 4 on the memory socket toward the front and rear of the computer, as indicated in ***Figure 7 - 15***.
10. The module 5 will pop-up, and you can remove it.

11. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.

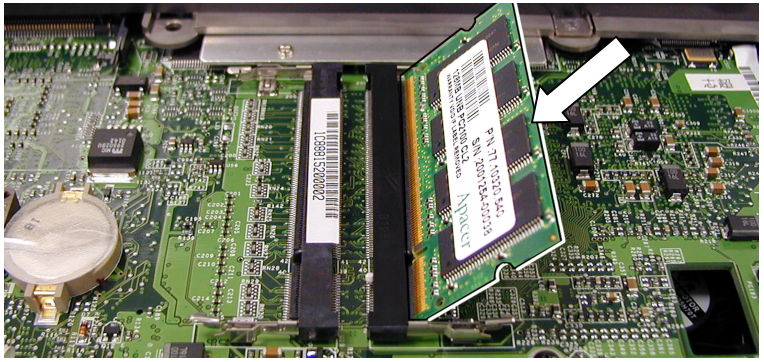
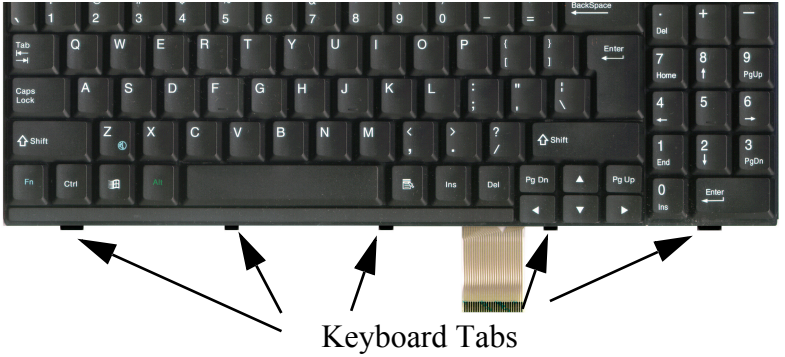


Figure 7 - 16
Memory Insertion

12. The module will only fit one way as defined by its pin alignment. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE IT; it should fit without much pressure.
13. Press the module down towards the mainboard until the slot levers click into place to secure the module.
14. Replace the shielding plate and the **3** screws (***Figure 7 - 14*** **on page** ***7 - 19***).

15. Reconnect the keyboard ribbon cable and carefully tighten the locking collar, insuring that the cable will not come free.
16. Replace the keyboard by insuring the **five** tabs at the base of the keyboard fit into place (you will find these under the Fn, Spacebar (2), arrow and Enter keys - see ***Figure 7 - 17***).

Figure 7 - 17
Keyboard Tabs



17. Carefully press the front of the keyboard down so that the two latches at the front of the keyboard lock down again.
18. Restart the computer.
19. During the startup process, the BIOS will register the new memory configuration.

Upgrading the Processor

If you want to upgrade your computer by replacing the existing processor with a faster/new one you will need to contact your customer service representative. We recommend that you do not do this yourself, since if it is done incorrectly you may damage the processor or mainboard.

Warranty

The CPU is not a user serviceable part. Opening this compartment may violate your warranty.

Unauthorized tampering with the HDD may also violate your warranty.

Chapter 8: Troubleshooting

Overview

Should you have any problems with your computer, before consulting the service center, you may want to try to solve the problem yourself. This chapter lists some common problems and their possible solutions. This can't anticipate every problem, but you should check here before you panic. If you don't find the answer in these pages, make sure you have followed the instructions carefully and observed the safety precautions in the preface. If all else fails, talk to your service center. You should also make a record of what happened and what remedies you tried.

Of course, if something goes wrong, it will happen at the most inconvenient time possible, so you should preview this section just in case. If, after you've tried everything, and the system still won't cooperate, try turning it off for a few minutes and then rebooting. You will lose any unsaved data, but it may start working again. Then call your service representative.

Basic Hints and Tips

Many of the following may seem obvious but they are often the solution to a problem when your computer appears not to be working.

- ***Power:*** Is the computer actually plugged into a working electrical outlet? If plugged into a **power strip**, make sure it is actually working.
- ***Connections:*** Check all the **cables** to make sure that there are no **loose connections** anywhere.
- ***Power Savings:*** Make sure that the system is not in **Hibernate** or **Standby** mode by pressing the power button for less than 4 seconds (the Power LED will blink green while in **Standby** mode, in **Hibernate** mode it will be off).
- ***Brightness:*** Check the brightness of the screen by pressing the **Fn** + **F9** or **F10** keys to adjust the brightness (see *"Opening the LCD" on page 3 - 2*).

•***Display Choice:*** Press **Fn** + **F6** to make sure the system is not set to "external only" display (see ***"Attaching a Monitor (CRT)" on page 3 - 8***).

•***Boot Drive:*** Make sure there are no **floppy disks** in the drive when you start up your machine (this is a common cause of the message "***Invalid system disk - Replace the disk, and then press any key***").

Backup and General Maintenance

- Always **backup** your important data, and keep copies of your *OS* and programs safe, but close to hand. Don't forget to note the ***serial numbers*** if you are storing them out of their original cases e.g. in a CD wallet.

- Run **maintenance programs** on your hard disk and *OS* as often as you can. You may schedule these programs to run at times when you are not using your computer. You can use those which are provided free with your *OS,* or buy the more powerful dedicated programs to do so.

- Write down your passwords and keep them safe (away from your computer). This is especially important if you choose to use a **Startup** password for the *BIOS* (see ***"Boot and SCU Passwords (Startup Menu)" on page 5 - 14***).

- Keep copies of vital **settings files** such as network, dialup settings, mail settings etc. (even if just brief notes).

Viruses

- Install an **Anti-Virus** program and keep the **definitions file** (the file which tells your program which viruses to look for) up to date. New computer viruses are discovered daily, and some of them may seriously harm your computer and cause you to lose data. **Anti-Virus** programs are commercially available and the **definitions file updates** are usually downloadable directly from the internet.

- Be careful when opening e-mail from sources you don't know. **Viruses** are often triggered from within **e-mail attachments** so take care when opening any attached file. You can configure most **Anti-Virus** programs to check all **e-mail attachments**. **Note**: You should also beware of files from people you know as the virus may have infected an **address book** and been automatically forwarded without the person's knowledge.

- Keep a "**Boot Floppy Disk**" (this disk provides basic information which allows you to startup your computer) handy. You may refer to your OS's documentation for instructions on how to make one, and many **Anti-Virus** programs will also provide such a disk (or at least instructions on how to make one).

Warranty

The CPU is not a user serviceable part. Opening this compartment may violate your warranty.

Unauthorized tampering with the HDD may also violate your warranty.

Upgrading and Adding New Hardware/ Software

- Do not be tempted to make changes to your ***Windows Registry*** unless you are very sure of what you are doing, otherwise you will risk severely damaging your system.
- Don't open your computer or undertake any repair or upgrade work if you are not comfortable with what you are doing.
- Read the **documentation**. We can assume, since you are reading this, that you are looking at the computer's manual, but what about any new peripheral devices you have just purchased? Many problems are caused by the installation of new hardware and/or software. Always refer to the documentation of any new hardware and/or software, and pay particular attention to files entitled "**READ ME**" or "**READ ME FIRST**".
- When installing a new device always make sure the device is powered on, and in many cases you will need to restart the computer. Always check that all the cables are correctly connected.

- Make sure you have installed the **drivers** for any new hardware you have installed (latest **driver files** are usually available to download from vendor's websites).

- Thoroughly check any **recent changes** you made to your system as these changes may affect one or more system components, or software programs. If possible, go back and undo the change you just made and see if the problem still occurs.

- Don't over complicate things. The less you have to deal with then the easier the source of the problem may be found; ***Example*** - if your computer has many devices plugged into its ports, and a number of programs running, then it will be difficult to determine the cause of a problem. Try disconnecting all of the devices and restarting the computer with all the peripheral devices unplugged. A process of elimination (adding and removing devices and restarting where necessary) will often find the source of a problem, although this may be time consuming.

Power

Problem	Possible Cause	Possible Solution
You turned on the power but it doesn't work. (The battery status LED, doesn't light up.)	The battery is missing or incorrectly installed.	Check the battery bay, make sure the battery is present and seated properly (the design of the battery only allows it to go in one way). Make sure there's nothing interfering with the battery contacts.
The battery status LED, is blinking orange.	Low battery	Plug in the AC power source. If the computer doesn't start up immediately, turn it off then on again.
The battery status LED, is blinking green.	There is a serious problem with the battery.	Turn the system off, remove the battery and unplug the AC adapter. Replace the battery, and plug the AC adapter in again to recharge the battery.

Problem	Possible Cause	Possible Solution
You are losing battery power too quickly.	The battery does not fully charge because of prolonged inactivity.	**Battery Charging** Make sure the battery is totally used up before recharging, and make sure you recharge the battery to full capacity each time you recharge (see *"Battery Information" on page 3 - 22*).
	The battery is too hot.	Allow the battery to cool. If this problem persists, make sure the vents aren't blocked and the computer isn't sitting on a thermal surface. Make sure you're using the correct adapter.
	The system is using too much power.	If your *OS* has a *Power Options* scheme (see *"Enabling Power Options" on page 3 - 16*) check its settings. You may also be using a PC card device which is drawing a lot of power.

Overheating

To prevent your computer from overheating make sure nothing blocks the vent while the computer is in use.

Problem	Possible Cause	Possible Solution
The notebook feels too hot.	The system is using too much power or is not properly ventilated.	Reduce the computer's power consumption. Make sure the notebook is properly ventilated and the fan port is not blocked. If this doesn't cool it down, put the system into Suspend mode or turn it off for an hour.
The battery pack will not charge.	The battery pack is exposed to an excessively hot or cold environment. 	Place the battery in a suitable environment and after it returns to normal temperature try again. The battery may be bad and may need to be replaced, contact your service center for more details.
The battery pack will not charge and the charge indicator light is off.	The battery is already fully charged and the indicator light is broken.	The battery may be bad and may need to be replaced, contact your service center for more details.

Problem	Possible Cause	Possible Solution
A beeping sound is heard and the low-battery indicator is on.	The battery power is nearly used up.	Connect the AC adapter to your computer.
A beep isn't heard when the low-battery indicator turns on, or the gauge indicates power is less than 10%.		The battery power is nearly used up and the volume control may be turned down. Adjust the volume control and connect the computer with the AC adapter.
Actual battery operating time is shorter than expected.	The battery has not been fully discharged before being recharged.	Make sure the battery is fully discharged and recharge it completely before reusing.
	Power Options have been disabled.	Go to the **Control Panel** in ***Windows*** and re-enable the options.
	A peripheral device or PC card is consuming a lot of power.	Turn off the unused device to save power.
	Previously the battery was given only a partial charge.	Always fully charge the battery after it has been totally used up.

Display

Problem	Possible Cause	Possible Solution
Nothing appears on screen.	The screen saver is activated.	Press any key or touch the **TouchPad** to return to your display.
	The LED power indicator, , is blinking green.	The system is in a power saving mode.Toggle the suspend key combination **Fn + Esc** (see *"Function Keys" on page 2 - 22*).
	The screen controls need to be adjusted.	Toggle the screen control key combinations **Fn + F9** and **F10** (see *"Opening the LCD" on page 3 - 2*). If you're connected to an external monitor, make sure it's plugged in and turned on. You should also check the monitor's own brightness and contrast controls.
	The computer is set for a different display.	Toggle the screen display key combination, **Fn + F6** (see *"Attaching a Monitor (CRT)" on page 3 - 8*). If an external monitor is connected, turn it on.
The screen is flickering.	The vertical refresh rate is insufficient on your external monitor.	Avoid using the Simultaneous display mode. Use LCD only or CRT only.
		Switch to a lower resolution and/or fewer colors.
		Adjust the refresh frequency in the display controls (see *"Vertical Refresh Rate" on page 3 - 8*).

Problem	Possible Cause	Possible Solution
The screen images aren't clear.	The screen controls need to be adjusted.	Toggle the screen control key combinations **Fn + F9** and **F10** (see *"Opening the LCD" on page 3 - 2*).
	The viewing angle of the LCD is bad.	Adjust the position of the LCD. LCDs are designed to be viewed "straight on". If the angle is wrong, you may see glare from the screen's backlight.
	The screen is dirty (the screen images are blurry).	Clean the screen using a soft, clean **dry** cloth. Many cleaning solutions can damage the LCD surface so you should follow the precautions outlined in the *Preface*. Try to avoid touching the screen itself. Even the cleanest hands can leave oils which attract contaminants.
	The screen is suffering from burn-in (the screen has ghost images, even when it's off).	This problem is usually associated with external CRT monitors. Use power saving options (see *"Monitor Standby" on page 3 - 17*) to turn off the LCD. You can also use a **screen-saver** which can help protect an attached monitor.

Hard Disk Drive (HDD)

Problem	Possible Cause	Possible Solution
The computer takes longer during Startup.	Data saved on the hard disk drive may be lost or damaged. The computer is waking up from **Hibernate** mode.	Operate the scan disk or disk defragmenter to check for any lost or damaged data.

Jumper Settings for Multiple Hard Disk Use

If you are using **more than one hard disk** in your computer, make sure to set the jumpers on **all** your hard disks to the **cable select option** in order for the system to recognize all the disks (see your hard disk manual or the information printed on the hard disk itself for details on the jumper settings).

Boot Password

Problem	Possible Cause	Possible Solution
You forget the boot password.		If you choose to set a boot password, **NEVER** forget your password. The consequences of this could be serious. If you cannot remember your boot password you must contact your vendor and you may lose all of the information on your hard disk.

Floppy Disk Drive (FDD)

Problem	Possible Cause	Possible Solution
The floppy disk drive will not write data to disk.	The floppy disk is not formatted.	Format the disk (you may do this by right-clicking the disk icon in *My Computer* in ***Windows*** and choosing **Format** from the menu). Bear in mind that this will **erase all data** contained on the floppy disk. Floppy disks were never intended for long-term data storage, and have a finite lifespan. **Do not** store important files you wish to keep for a long time on floppy disks. As a general rule it is worth reformatting floppy disks regularly.
	The floppy disk is write-protected.	Undo the protection by moving the write-protect tab on the disk down until it clicks.
	There is not enough unused space available on the disk.	Use a new disk or delete unneeded data.
The message **"Invalid system disk - Replace the disk, and then press any key"** appears.	The computer is trying to boot from an incorrect floppy disk.	Remove the floppy and insert a correct one, or boot from your hard disk or CD. You will need to restart the computer.

Media Warning

Don't try to remove a floppy disk while the system is accessing it. This may cause the system to "crash".

Audio

Problem	Possible Cause	Possible Solution
The Audio “DJ” CD Player will not turn on (nothing appears on the LCD of the player).	The computer is turned **ON** (see *“Audio “DJ” CD Player” on page 3 - 26*).	Check your computer is not turned on (or running in a power saving mode), and if it is then shut it down, then toggle the ON/OFF switch on the CD Player.
The sound cannot be heard or the volume is very low.	The volume might be set too low. (How high the sound volume can be set using the volume control knob depends on the setting of the volume control within ***Windows***. Click the ***Speaker*** icon on the taskbar to check the setting.)	Check the volume control in the ***Sound Control Panel*** in the ***Windows*** Toolbar. The headphone is plugged into the wrong jack. It should be plugged into the Line-In Jack (see *“Line-In Jack” on page 1 - 15*). Check the volume control settings on the Audio “DJ” player. The Volume controls on the Audio DJ player still control the volume settings if the computer’s operating system is running.
The line-in cannot be used.	The TV Tuner is installed, and the TV Studio software is not running.	Make sure you run the TV Studio software when you want to use the line-in and have the optional TV Tuner installed (see *“Line-In Function with TV Tuner” on page 6 - 8*).

CD Device

Problem	Possible Cause	Possible Solution
The compact disc cannot be read.	The compact disc is dirty.	Clean it with a CD-ROM cleaner kit. 
The compact disc tray will not open when there is a disc in the tray.	The compact disc is not correctly placed in the tray.	Gently try to remove the disc using the eject hole (see *"Loading Compact Discs" on page 2 - 14*).
The regional codes can no longer be changed using the DVD utility.	The regional codes have already changed the maximum **5** times.	See *"DVD Regional Codes" on page 2 - 16*.

Problem	Possible Cause	Possible Solution
A music compact disc can be read while a data disc can not.	There may be a problem with the disc hardware or software.	Refer to your operating system manual for more information on the software and make sure you have the correct software installed for running video compact discs/DVDs. If the proper software is properly installed and a problem still exists, contact your service representative about a possible hardware problem.
All compact discs cannot be read.	The ***Windows*** system does not recognize the CD-ROM drive, or the CD-ROM drive is not compatible with other devices.	Make sure you have the CD-ROM drive properly installed and configured.
	The CD-ROM drive is dirty.	Clean it with a CD-ROM cleaner kit.
	There may be a problem with the disc hardware or software.	Refer to your operating system manual for more information on the software, and make sure you have the proper software installed for using compact discs. If the correct software is properly installed, contact your service center about a hardware problem.

PC Card

Problem	Possible Cause	Possible Solution
The system cannot recognize the PC Card.	The PC Card is not inserted into the socket or inserted incorrectly.	Remove the card and reinsert it aligning the PC Card with the slot. Push the card in until it locks into place.
	The PC Card driver is not installed.	Please read the documentation which comes with any new external device, and make sure you **install the driver** for it as this will allow you to access any extra functions which come with your device.
	The PC Card or card driver is not compatible with the computer's OS.	See ***Appendix A:"PC Card" on page A-3*** to check the compatibility of your card.

Keyboard and Mouse

Problem	Possible Cause	Possible Solution
Unwelcome numbers appear when typing.	The **NumLk** is turned **ON** (the LED is lit).	Press and release the **Fn & NumLk** keys.
I have installed a new external keyboard or mouse but cannot use all of the listed functions.	You have not installed the driver to enable any extra functions.	Make sure you read the documentation which comes with any new external device, and make sure you install the driver for it as this will allow you to access any extra functions which come with your device. **Other Keyboards** If your keyboard is damaged or you just want to make a change, you can use any standard PS/2 or USB keyboard. The system will detect and enable it automatically. However special functions/hot keys unique to the system's regular keyboard may not work.

Printer

Problem	Possible Cause	Possible Solution
The printer cannot be added to the system or will not work.	The printer power is off or the printer is not correctly connected to the computer.	Check all connections and cables and then try to reinstall the driver.
	The printer is not turned on, or has an internal problem.	Make sure the printer is on. You may refer to the printer's manual for instructions on printing a "self-test" page (a "self-test" page will print regardless of computer connections and is a means of insuring that the printer is actually working).
	There is no paper in the printer, or the paper is incorrect for the settings designated in your software.	Put more paper in the printer (also fan the paper to make sure it doesn't stick together and cause a paper jam) and check the paper size matches your software's "print" settings.
	The printer **driver** is not installed or is configured incorrectly.	Check that the printer is properly installed and configured (correct port etc.). Also check that you have installed the latest driver compatible with your *OS* (updated drivers are usually available for download from the printer manufacturer's website).

Problem	Possible Cause	Possible Solution
	The printer is a network printer and it is not properly connected to the network. The **operation mode** for the **parallel por**t set in the *BIOS* doesn't correspond with the mode your printer can work with.	All networks are configured differently so please check with your **network administrator** to get the correct setup. The default operation mode for the parallel port (**ECP**) is backward compatible with other operation modes used by older printers and will usually not need to be changed. However some very old printers may require specific settings. Please check your printer manual to find out which mode your printer uses. Check that the settings in the BIOS (see ***"Components Menu" on page 5 - 16***) correspond with those indicated in your printer manual.

Operation

Problem	Possible Cause	Possible Solution
The system won't start up when the power button is pressed.	The Audio "DJ" CD Player is **ON** (see *"Audio "DJ" CD Player" on page 3 - 26*).	Toggle the ON/OFF switch off the CD Player.
The system freezes.	The system's power saving features have timed-out (the screen goes dark). A software conflict made the system "crash".	Use the AC adapter, press the **Fn + Esc (Suspend)** key combination, or press the Power Button if no LEDs are lit. Consult your *OS* manual. As a last resort, since you will lose any unsaved data, try to reboot the system or if that doesn't work, turn the computer off and on again.
The system "crashes" when installing OS or drivers.	The MP3 player is installed.	Make sure the MP3 player is not in the slot when installing operating systems, and any of the drivers listed in *"What to Install" on page 4 - 2*.
The system never goes into hibernate mode.	*Power Options* features are not enabled.	Go to the ***Windows*** *Power Options* menu and enable the features you prefer (see *"Enabling Power Options" on page 3 - 16*). Make sure you have enabled the Hibernate mode from the control panel.

Problem	Possible Cause	Possible Solution
The system does not go into suspend or save to disk when the battery is low.	No power saving options are enabled.	Use one of the *Power Options* presets.
The infrared device doesn't work.	The drivers (if supplied with the device) are not loaded.	Please read the documentation which comes with any new external device, and make sure you **install the driver (if one is required)** for it as this will allow you to access any extra functions which come with your device.
	The **FIR** settings are not configured correctly.	See ***"Configuring the Infrared Settings for FIR" on page 3 - 32***. You may need to change the settings for the infrared device in the **BIOS** (see ***"Components Menu" on page 5 - 16***) to enable the FIR setting support.
	The infrared transceiver is blocked.	Make sure nothing is between your system's infrared transceiver and the destination's transceiver. The infrared transceivers operate on a "Line of Sight".

Appendix A. Specifications

Model differences: **Model A** and **Model B** are identical except for the specification differences listed in this Appendix.

Processor Options

- Intel Pentium 4 Processor

(µ0.13) 0.13 Micron Process Technology, 512K L2 Cache & 400MHz FSB - 2.0/2.2/2.4 GHz - FC-PGA2 package (478-pin)

(µ0.13) 0.13 Micron Process Technology, 512K L2 Cache & 533MHz FSB* - 2.26/2.4/2.53/2.6/2.8/3.06** GHz - FC-PGA2 package (478-pin)

* Some **Model A** notebooks do not support processors with the 533MHz front side bus (FSB). Please check with your vendor for CPU upgrade options.

** Only **Model B** notebooks with processors of 3.06GHz support Hyper-Threading (see ***"Enable Hyper Threading (Power Menu)" on page 5 - 17***).

Model Differences

You may identify if your computer is **Model A** or **Model B** from the video card. After you have installed the video driver go to ***"Advanced Display Properties" on page 3 - 5*** and check the card type. If the card is a **MOBILITY RADEON 7500**, then the machine is **Model A**. If the video card is a **MOBILITY RADEON 9000** then the machine is **Model B**, and supports **USB 2.0**.

Core Logic

- Intel® 845/845E + ICH3

Structure

- Fully PC99 Compliant
- ACPI 1.0B Compliant
- PC2001 Compliant

Security

- Security (Kensington® Type) Lock Slot
- BIOS Password

Memory

- 64 bit data bus system memory
- Two 200-pin DDR SODIMM sockets, supporting DDR SDRAM SODIMM (2.5V) - DDR200 or DDR266 compliant
- Expandable memory up to 1GB (128/256/512MB SODIMM Modules)

BIOS

- One 256KB Flash ROM
- Insyde BIOS with smart battery
- Plug and Play (1.0a), ACPI 1.0B

LCD Options

- 15.0" 1600 x 1200 UXGA TFT **(Model A)**
- 15.7" 1280 x 1024 SXGA TFT **(Models A & B)**
- 16.0" 1600 x 1200 UXGA TFT **(Model B)**
- 16.0" 1280 x 1024 SXGA TFT **(Model B)**

Display

- ATI Mobility M7 **(Model A)**
- ATI Mobility M9 **(Model B)**
  4 * UltraAGP™
- 64MB DDR graphic memory on board **(Model A)**
  OR
- 64MB or 128MB DDR graphic memory on board **(Model B)**
  128-bit 2D/3D graphics engine
  Motion compensation and IDCT for DVD content playback accelerator
  Fully DirectX 6 compliant graphics engine **(Model A)**
  Fully DirectX 8.1 compliant graphics engine **(Model B)**
  CRT resolution up to 1920*1200 * 16M

PC Card

- Two type II PCMCIA 3.3V/5V sockets, OR one type III PCMCIA 3.3V/5V socket (no Zoomed Video support)

Storage

- One fixed FDD
- One changeable 2.5" 9.5mm primary HDD
- Changeable primary drive (Bay One) for one of the following:
  DVD-ROM (12.7mmH)
  24 * CD-ROM
  24 * CD-RW
  Combo Drive (DVD-ROM + CD-RW)
  DVD-R/-RW
- Built-in modular drive (Bay Two) for one of the following:
  DVD-ROM (12.7mmH)
  24 * CD-ROM
  24 * CD-RW
  Combo Drive (DVD-ROM + CD-RW
  3rd HDD
  IP sharing module
- Changeable drive (Bay Three) for one of the following:
  2nd HDD (optional)
  TV-Tuner (optional)
- One portable MP3 player with storage disk (optional)

Audio

- AC'97 2.2 compliant interface
- Compatible with Sound-Blaster PRO™/ 16
- S/PDIF Digital output (5.1 CH) for DVD content and Stereo Audio
- Built-in microphone
- Audio DJ
- Advanced Wavetable Synthesizer
- 2 built-in speakers
- Virtual AC3
- Full Duplex
- Direct Sound™ 3D Accelerator

Keyboard

- “Win Key” keyboard including a numeric keypad
- Built-in 3 instant keys, www, email, and player

Communication

- Wireless infrared transfer IrDA 1.1, 1cm~1M operating distance, 4Mbps FIR
- 10/100Mb Ethernet LAN built-in
- 802.11b Wireless LAN, Mini-PCI interface (optional)
- 56K MDC modem V.90 compliant (V.92 software driver upgradeable)
- IP sharing module for ADSL or Cable Modem (optional)

Interface

- Built-in TouchPad (PS/2)
- Four USB 1.1 ports **(Model A)**
- Four USB 2.0 ports **(Model B)**
- One IEEE 1394 port
- One S-Video-Out jack for TV output
- One S-Video-In jack (**option** included with TV Tuner only)
- One parallel port (LPT1), supporting ECP / EPP 1.7 and 1.9
- One COM port
- Infrared transceiver supporting FIR & IrDA 1.1 file transfer
- One external CRT monitor
- One external keyboard/mouse (through Y-cable) PS/2 port
- One line-in jack
- One headphone-out/speaker-out jack
- One S/PDIF out port/microphone-in jack (through Y-cable)
- One Sony Memory Stick™ socket
- One RJ-11 jack for 56k MDC modem
- One RJ-45 jack for 100M/10M LAN
- DC-in jack

Power Management

- Supports ACPI v1.0B
- Supports APM v1.2
- Soft Off by system power button
- Supports suspend to disk
- Battery low suspend
- Resume from alarm
- Close-cover switch

Power

- Full Range 120 watts AC adapter - AC in 100~240V, 47~63Hz
- Supports Smart Lithium-Ion battery 12 cells

Indicators

- LED indicator (HDD, power status, Num Lock, Caps Lock, Scroll Lock, AC-In, battery charging, e-mail)
- Audio DJ control display (power, MP3, Audio, Play/Pause, FWD, RWD, Stop, Volume+, Volume-, EQ)

Environmental Spec

- Temperature
- Operating: 5°C~ 35°C
- Non-Operating: -20°C ~ 60°C

Relative Humidity
Operating: 20% ~ 80%
Non-Operating: 10% ~ 90%

Physical Dimensions

- 360 (w) x 299 (d) x 54.5 (h) mm

Weight

- 4.82 kg with 12-cell Lithium-Ion battery (minimum)

Optional

- DVD-ROM Drive (12.7mmH)
- CD-RW Drive (12.7mmH)
- Combo Drive (DVD-ROM and CD-RW, 12.7mmH)
- Portable MP3 player
- Mini PCI Wireless LAN module
- Software DVD player
- IP sharing module
- TV-Tuner module
- DVD-R/-RW Drive (12.7mmH)