USER'S MANUAL

notebook

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(Federal Communications Commission)

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

Follow basic safety precautions, including those listed below, to reduce the risk of fire, electric shock, and injury to persons when using any electrical equipment:

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 this equipment with a telephone line (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.
5. This product is intended to be supplied by a Listed Power Unit (DC Output 20V, 3.25A minimum).

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

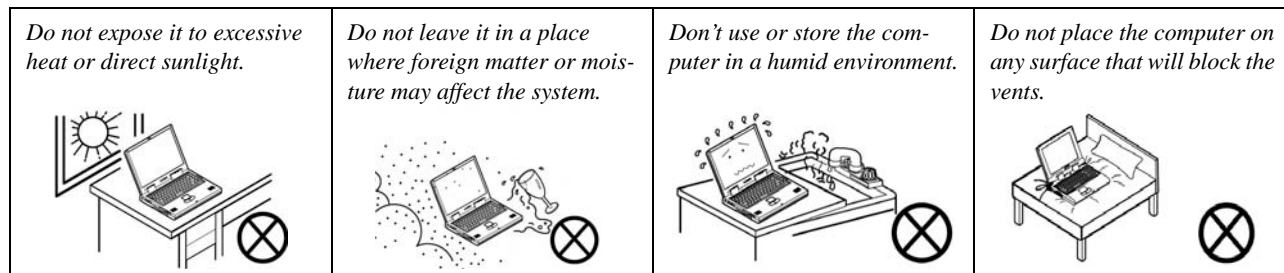**This Computer's Optical Device is a Class I Laser Product**

Instructions for Care and Operation

The notebook computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.

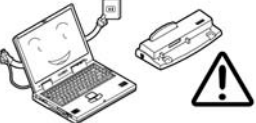| *Do not expose the computer to any shock or vibration.*	*Do not place it on an unstable surface.*	*Do not place anything heavy on the computer.*

2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.

Do not expose it to excessive heat or direct sunlight.	*Do not leave it in a place where foreign matter or moisture may affect the system.*	*Don't use or store the computer in a humid environment.*	*Do not place the computer on any surface that 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. **Follow the proper working procedures for the computer**. Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.

Do not turn off the power until you properly shut down all programs.	*Do not turn off any peripheral devices when the computer is on.*	*Do not disassemble the computer by yourself.*	*Perform routine maintenance on your computer.*

5. **Take care when using peripheral devices**.

Use only approved brands of peripherals.	*Unplug the power cord before attaching peripheral devices.*

Power Safety

The computer has specific power requirements:
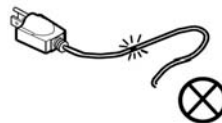
> ☼
>
> **Power Safety Warning**
>
> Before you undertake any upgrade proce-dures, make sure that you have turned off the power, and discon-nected all peripherals and cables (including telephone lines). It is advisable to also re-move your battery in order to prevent acci-dentally turning the machine on.

- 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 specifi-cations, 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 cur-rent 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).
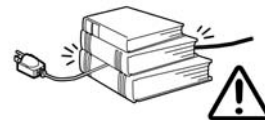
Do not plug in the power cord if you are wet.	*Do not use the power cord if it is broken.*	*Do not place heavy objects on the power cord.*

Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- 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.

> **Battery Disposal & Caution**
>
> 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.
>
> 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.

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.

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Power Off Before Traveling

Make sure that your notebook is completely powered off before putting it into a travel bag (or any such container). Putting a notebook which is powered on in a travel bag may cause the vents/intakes to be blocked. To prevent your computer from overheating make sure nothing blocks the vent/fan intake while the computer is in use.

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 - Devices such as metal detectors & X-ray machines 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(ies) 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.

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Using The Computer

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Drivers & Utilities

BIOS Utilities

Upgrading The Computer

Wireless, Bluetooth & PC Camera Modules

Troubleshooting

Appendix A: Specifications

Preface

Chapter 1: Introduction

Overview

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. This chapter covers:

• The Manual   — how to use it
• System Map   — navigating around your computer

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 *"What to Install" on page 4 - 1*, *"BIOS Utilities" on page 5 - 1* and *"Upgrading The Computer" on page 6 - 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.

✐

Notes

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

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 (Home & Professional Editions)*

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.
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 on the right of the computer (see *"Right Side View" on page 1 - 16*), 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 **USB** 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 learn the location of the various ports and components of your computer.

Model Differences

This notebook series includes **two** different model types. **Model A** has a standard screen, **Model B** has a wide screen (see *"LCD" on page A - 3* for details). **Both models** include two different designs (note the touchpad and buttons - see *Figure 1 - 1*) as illustrated on page *1 - 5*.

Model A
Design I

Model A
Design II

Model B
(Wide Screen)
Design I

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Design Differences

There are also **col-
ored gloss style top
cover designs** for
both model types. See
Figure 1 - 2 for an illus-
tration. Note the spe-
cific care instructions
for this type of cover.

Figure 1 - 1
**Model &
Design Differences**

Gloss Style Top Cover Designs

Some designs within this notebook series have colored gloss style top covers. Note the following guidelines for care and attention of this type of top cover.

- Remove the protective cover slowly and carefully. Do not forcibly tear off the protective cover as this may damage the surface of the top cover.
- Do not use pointed objects on the surface of the top cover, and do not place objects on top of it.
- Do not expose the top cover to excessive heat or direct sunlight.
- Only use the soft cloth provided for cleaning the top cover, and do not use abrasive cleaners.
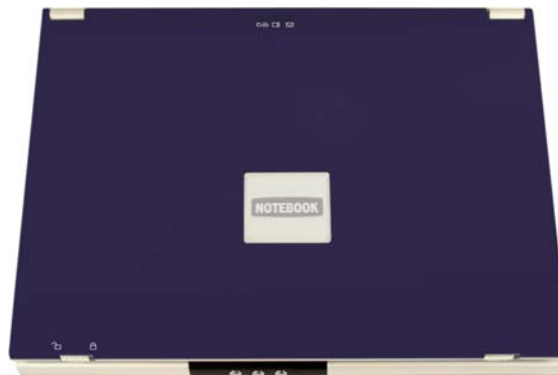
Figure 1 - 2
Gloss Style Top Cover

Top View
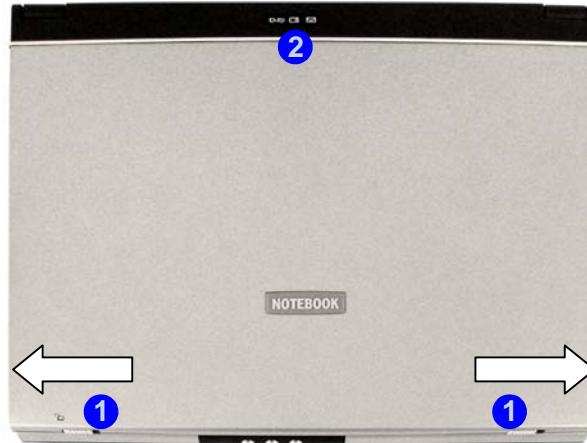
Figure 1 - 3
Top View with LCD Panel Closed

1. LCD Latches
2. LED Power & Communication Indicators

To open the LCD display:

1. Place the computer on a stable surface.
2. Move the LCD latches **1** in the direction of the arrows to release the top cover (the left latch will lock in position and is clearly marked with locked 🔒 and unlocked 🔓 icons).
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 - Model A

Figure 1 - 4
Top View with LCD Panel Open - Model A

1. Optional Built-In PC Camera
2. LCD
3. LED Power & Communication Indicators
4. Speakers
5. Lid Sensor
6. LED Status Indicators
7. Power Button
8. Keyboard
9. Built-In Microphone
10. TouchPad and Buttons
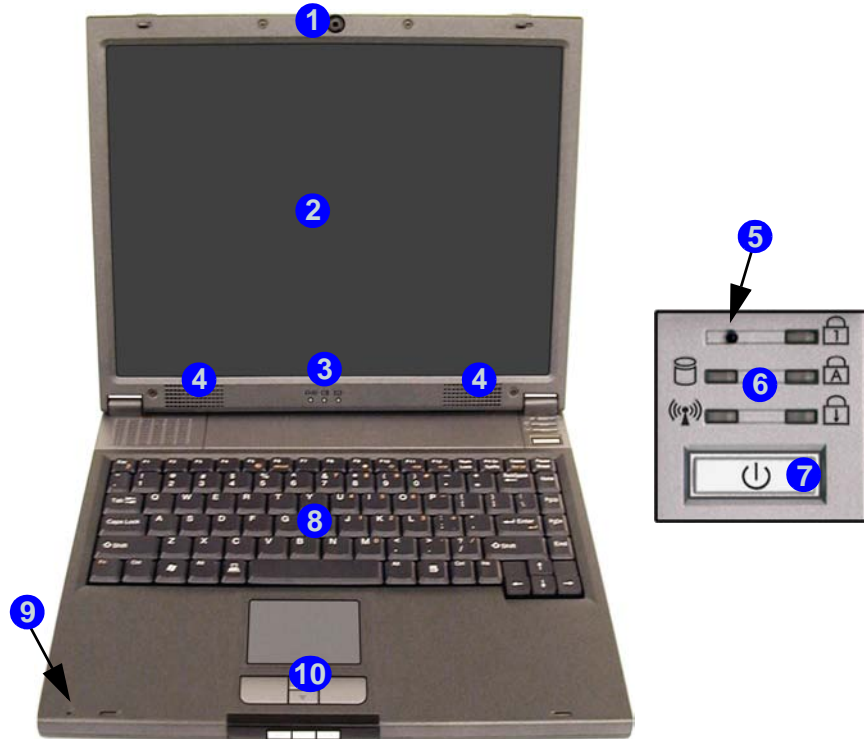
Top View with LCD Panel Open - Model B
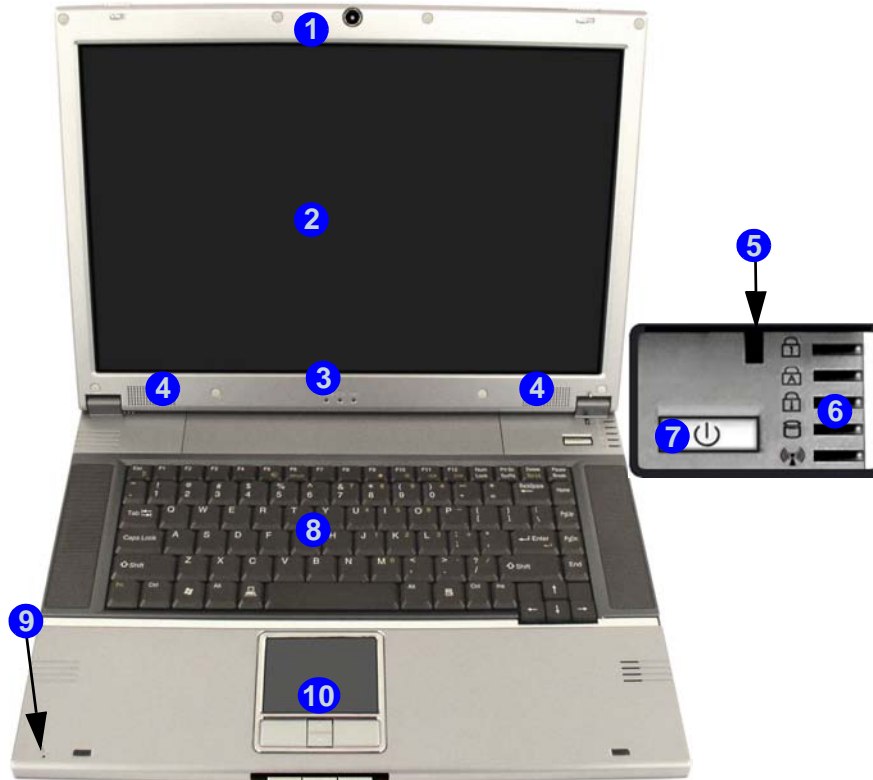
Figure 1 - 5
**Top View with LCD
Panel Open - Model B**

1. Optional Built-In PC
   Camera
2. LCD
3. LED Power &
   Communication
   Indicators
4. Speakers
5. Lid Sensor
6. LED Status
   Indicators
7. Power Button
8. Keyboard
9. Built-In Microphone
10. TouchPad and
    Buttons

PC Camera

If you have purchased the **optional** PC Camera, make sure you install the software application (see *"PC Camera" on page 7 - 11*). The Module ON/OFF Button will enable/disable the PC Camera (see *"Module ON/OFF Button" on page 1 - 13*).

LCD Panel

The computer comes with a TFT (Thin Film Transistor), Liquid Crystal Display screen (see page *A - 3* for details on both **Model A** and **Model B** computers).

LED Power & Communication 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 (see *"LED Power & Communication Indicators" on page 2 - 6*).

Stereo Speakers

Two built-in speakers provide rich, stereo sound.

Lid Sensor

When this LCD cover sensor is activated by closing the LCD panel, the default setting of your operating system's power scheme sends the computer into a power saving state (see *Figure 3 - 13 on page 3 - 19*).

LED Status Indicators

These display the system's operational status. Refer to *"LED Status Indicators" on page 2 - 5* 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 - 4*). 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 - 19*).

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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.

🖉

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.

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.

Microphone

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

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 button may be used to scroll up and down, or may be configured to perform a variety of functions (see *"TouchPad and Buttons/Mouse" on page 2 - 18*).

Front View

Module ON/OFF Button

Figure 1 - 6
Front View

1. LCD Latches
2. HK Buttons

HK Buttons

The three HK (hot-key) Buttons allow you instant access to your default Internet browser and default e-mail program, and to toggle on/off the Wireless LAN/Bluetooth/PC Camera modules (by using the **Module ON/OFF Button** - see below). To learn how to set the buttons, see *"HK Buttons" on page 2 - 15*.

Module ON/OFF Button

If your computer has a Wireless LAN module and/or **Bluetooth** and/or **PC Camera** modules, you can use this HK Button to turn the modules **ON** or **OFF**. To enable the modules you will need to install the drivers/software for them (see *"Mini-PCI Wireless LAN Module" on page 7 - 2*, *"Bluetooth Module" on page 7 - 6* & *"PC Camera" on page 7 - 11*). **Make sure the wireless modules are OFF when you are using the computer aboard aircraft (see sidebar)**.

Wireless Device Operation Aboard Aircraft

The use of any portable electronic transmission devices aboard aircraft is usually prohibited. Make sure the module(s) are **OFF** if you are using the computer aboard aircraft. When your computer 'Boots Up' the modules will be **OFF**.

Left Side View

Vent

This enables airflow to prevent the notebook from overheating.

Overheating

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

External Monitor Port

Connect an external monitor to this port to allow dual video or simultaneous display on the LCD and external monitor (see *"Display Devices & Options" on page 3 - 7*).

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.

RJ-45 LAN Jack

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

2 * USB 2.0 Ports

These **USB 2.0** compatible ports (USB 2.0 is fully USB 1.1 compliant) are for low-speed peripherals such as keyboards, mice or scanners, and for high-speed peripherals such as external HDDs, digital video cameras or high-speed scanners etc. Devices can be plugged into the computer, and unplugged from the computer, without the need to turn the system off (if the power rating of your USB device is 500mA or above, make sure you use the power supply which comes with the device).

PC Card Slot

The 3.3V/5V slot may be used for a Type-II PC card (PC cards were also previously referred to as PCMCIA) and fully supports Cardbus. Refer to *"PC Card Slot" on page 2 - 14* for more information.

Figure 1 - 8
Right Side View

1. Microphone-In Jack
2. Headphone-Out Jack
3. S/PDIF-Out Jack
4. CD Device Bay
5. DC-In Jack

Right Side View

Microphone-In Jack

Record on your notebook computer with an external microphone.

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.

S/PDIF-Out Jack

This S/PDIF-Out (Sony/Philips Digital Interface Format) jack allows you to connect your DVD-capable PC to a Dolby AC-3 compatible receiver for "5.1" or 'dts' surround sound.

Optical Device Bay

The optical device bay will contain a 5.25" CD/DVD type optical device, and the device type is dependent on your purchase option (see *"Optional" on page A - 6*). For more information on using the drive please refer to *"Optical (CD/DVD) Device" on page 2 - 10*.

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.

DC-In Jack

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

Figure 1 - 9
Rear View

1. Security Lock Slot
2. Vent

Rear View
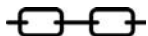
Security Lock Slot

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

Vent

This enables airflow to prevent the notebook from overheating.

Overheating

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

Bottom View

Model A

Model B

🔔
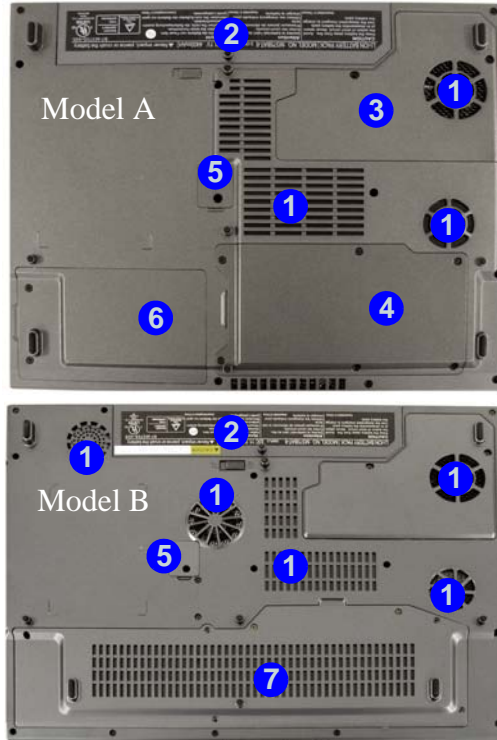
CPU

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

🔔

Overheating

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

Figure 1 - 10
Bottom View

1. Vent/Fan Intake
2. Battery
3. CPU Cover
4. RAM & WLAN Module Cover (**Model A**)
5. Optical Device Screw Cover
6. Hard Disk Module Cover (**Model A**)
7. Hard DIsk, RAM & WLAN Module Cover (**Model B**)

Wireless LAN & Bluetooth Modules

The Wireless LAN and Bluetooth modules (and the optional PC Camera module) may be enabled and disabled by pressing the button at the front of the computer (see *"Module ON/OFF Button" on page 1 - 13*).

Vent/Fan Intake

This enables airflow to prevent the notebook from overheating.

Battery

See *"Battery Information" on page 3 - 20* for instructions on battery use and care.

Hard Disk Drive

The internal hard disk drive is used to store your data. See page *6 - 4* for information on upgrading/replacing your hard disk drive.

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.

Wireless LAN (Network) & Bluetooth Modules

If your configuration includes the module(s), make sure to install the driver (see *"Wireless, Bluetooth & PC Camera Modules" on page 7 - 1* and sidebar note).

Chapter 2: Using The Computer

2

Overview

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

This chapter includes:

- The Power Sources
- Turning on the Computer
- The LED Indicators
- The Auto Mail Checker
- The Hard Disk Drive
- The Optical (CD/DVD) Device
- The PC Card Slot
- The HK Buttons
- The Function Keys & Numeric Keypad
- The TouchPad & Buttons/Mouse
- Adding a Printer (general guidelines)

2

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 on the right of the computer.
2. Plug the AC power cord into an outlet, and 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".

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 recharging.

We recommend that you do not remove the battery. For more information on the battery, please refer to *"Battery Information" on page 3 - 20*.

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 - 5* for information on the battery charge status, and to *"Battery Information" on page 3 - 20* for more information on how to maintain and properly recharge the battery pack.)

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

逆

Damaged Battery Warning

Should you notice any physical defects (e.g. the battery is bent out of shape after being dropped), or any unusual smells emanating from the notebook battery, shut your computer down immediately and contact your service center. If the battery has been dropped we do not recommend using it any further, as even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire. It is recommended that you replace your computer battery every two years.

逆

Battery Removal

We recommend that you do not remove the battery yourself. Please consult your service representative should you need to remove the battery for any reason.

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.

2

🖉

Shutdown

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.

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 Standby/Hibernate/Shutdown hot-key button when it is pressed for less than **4 seconds** (pressing and holding the power button for longer than this will shut the computer down). 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.

2

LED Indicators

There are two sets of LED indicators (**LED Power & Communication Indicators** and **LED Status Indicators**) on your computer that will display helpful information about the current status of the computer. The **LED Power & Communication Indicators** are also visible when the top of your computer is closed.

Power & Communication Indicators

LED Status Indicators

Figure 2 - 1
LED Indicators

LED Status Indicators

Table 2 - 1
LED Status Indicators

Icon	Color	Description
🗄	Green	Hard Disk/CD Device activity
((ᵖ))	Green	The Module(s) (WLAN, PC Camera, Bluetooth) is/are On
🔒1	Green	Number Lock is activated
🔒A	Green	Caps Lock is activated
🔒↓	Green	Scroll Lock is activated (to activate press Fn & ScrLk)

🖉

Scroll Lock

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

LED Power & Communication Indicators

Table 2 - 2
LED Power & Communication Indicators

Icon	Color	Description
⊅/⏻	Orange	DC power is plugged in
	Green	The computer is on
	Blinking Green	The computer is in standby 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	New mail has arrived

2

Auto Mail Checker

After you have installed the driver for the Auto Mail Checker program(see *"What to Install" on page 4 - 1*) you may then configure it to give you notification when you receive new mail. 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.

The Auto Mail Checker appears as an icon ✕ in the **taskbar** (if you do not see the icon in the taskbar go to **Start > Programs/All Programs > Auto Mail Checker > Auto Mail Checker**). Right clicking on the icon will bring up the following options menu. If you have not input your mail account data, then you will be prompted to do so.

Figure 2 - 2
**Auto Mail Checker
(Startup Menu)**

Open
Check Mail
Reset / Turn Off
Start

Exit
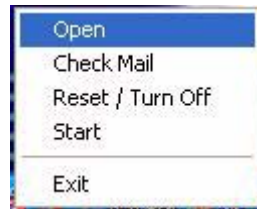
Select **Open** to bring up the control panel for the program.

2

Figure 2 - 3
Auto Mail Checker Account Setup and Options

You may then configure the options for your mailserver, name, password, program and method(s) of notification.

Hard Disk Drive

The hard disk drive is used to store your data in the notebook computer. The hard disk can be taken out to accommodate other 2.5" IDE hard disk drives with a height of 9.5 mm.

The hard disk **1** is accessible from the bottom of your computer as seen below. Further details on removing and inserting the hard disk are available in *"Upgrading the Hard Disk Drive" on page 6 - 4*.
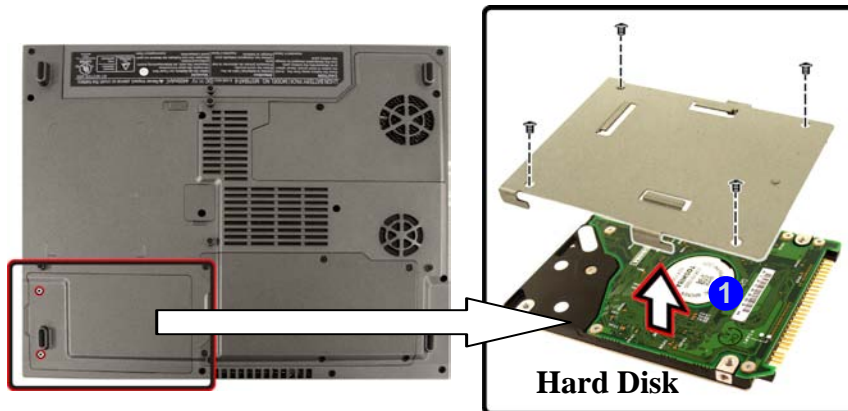
Power Safety

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.

Hard Disk

Figure 2 - 4
Hard Disk Location

2

Optical (CD/DVD) Device

The optical device bay will contain a 5.25" CD/DVD type optical device. The actual device type will depend on the option you purchased. The optical device is usually labeled "**Drive D:**"**,** and may be used as a boot device if properly set in the **BIOS** (see *"Boot Menu" on page 5 - 12*).

Loading Discs

To insert a CD/DVD, press the open button **1** 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 **2** 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 **3** to open the tray.

Figure 2 - 5
CD Device

2

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.

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.

2

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 - 6
**DVD Regional Codes
(Windows XP)**

General | Properties | DVD Region | Volumes | Driver

Most DVDs are encoded for play in specific regions. To play a regionalized DVD on your computer, you must set your DVD drive to play discs from that region by selecting a geographic area from the following list.

CAUTION You can change the region a limited number of times. After Changes remaining reaches zero, you cannot change the region even if you reinstall Windows or move your DVD drive to a different computer.

Changes remaining: 5

To change the current region, select a geographic area, and then click OK.

United Kingdom
United States
Uruguay
Uzbekistan
Vanuatu
Vatican City
Venezuela

Current Region: Not Selected

New Region: Region 1

OK   Cancel

2

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 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

2

PC Card Slot

The computer is equipped with a PCMCIA 3.3V/5V slot for **one type II** PC Card. Make sure you install the driver for the PC Card (see *"What to Install" on page 4 - 1*).

Inserting and Removing PC Cards

- Align the PC Card with the slot and push it in until it locks into place.
- To remove a PC Card, simply press the eject button **1** next to the slot.

Figure 2 - 7
PC Card Slot

HK Buttons

These buttons access the Internet and e-mail, and to enable/disable the module(s) (WLAN/Bluetooth/PC Camera) with one quick button press. Make sure you install the HK (Hot-Key) Buttons driver. Refer to *"What to Install" on page 4 - 1* for driver installation steps.

My Computer Key

The My Computer Key ⌨ at the bottom left of the keyboard gives you quick one button access to the **My Computer** folder on your computer.

Programming the HK Buttons

HK Buttons	Function
🅦	Activate the default Internet browser
✉	Activate the default e-mail program
📶	Toggle power to the module(s) - (Wireless LAN/Bluetooth/PC Camera modules)

Table 2 - 4
HK Buttons

2

 Ø

Other Keyboards

If your keyboard is damaged or you just want to make a change, you can use any standard 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.

Table 2 - 5
Function Keys

Function Keys and Numeric Keypad

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 functions press and hold the **Fn** key, then press the appropriate function key (F5 - F12 etc.) located on your keyboard.

Keys	Description
Fn	Function Key
Fn + Esc	Sleep/Resume Toggle
Fn + F5	Mute Toggle
Fn + F6	Display Toggle
Fn + F9	Decrease LCD Brightness
Fn + F10	Increase LCD Brightness
Fn + F11	Decrease Audio Volume
Fn + F12	Increase Audio Volume
Fn + Scr Lk	Scroll Lock Toggle

2

Numeric Keypad

The keyboard has an embedded numerical keypad for easy numeric data input. The numeric keys are highlighted by a yellow typeface.

Activate the **Number Lock** feature by pressing the **Num Lock** 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 Indicators" on page 2 - 5*). To type a number from the numeric keypad make sure **Num Lock** is enabled.

Activate **Scroll Lock** by pressing and holding the **Fn** key, and then press the **Scr Lk** key at the top right of the keyboard.

Figure 2 - 8
Keyboard

🖉

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 **Num Lock** is on.

2

> 🖋
>
> **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.

TouchPad and Buttons/Mouse

The TouchPad is an alternative to the mouse; however, you can also add a mouse to your computer through one of the USB ports. The TouchPad buttons function in much the same way as a two-button mouse. The central button may be configured to function as you require.

Configuring the TouchPad and Buttons

Once you have installed the TouchPad driver you can configure the functions by double-clicking the TouchPad driver icon 🖥 on the **taskbar**, or by going to the **Mouse** control panel in *Windows* (**Start** menu and point to **Settings** and click **Control Panel**, then double-click the **Mouse** icon). In *Windows XP* the **Mouse** control panel is in the **Printers and Other Hardware Category**.

Figure 2 - 9
Mouse Properties

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. You may use either of the USB ports on your computer 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.

2

Parallel Printer

This is still the most common type of printer. A **Parallel** to **USB** converter may be purchased at most computer stores.

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 to USB converter, and then plug the converter into the USB port.
4. Turn ON the printer.
5. Turn ON the computer.
6. *Windows* (some operating systems may require a driver to recognize the parallel to USB adapter) will identify the printer and either load one of its own drivers or ask you to supply one. Follow the on-screen instructions.

3

Chapter 3: Advanced Controls

Overview

This chapter covers:

- Advanced Video Controls
- Power and Battery Management Features

Note: All operating system pictures in this manual are from the *Microsoft Windows XP* OS.

> ✎
>
> **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 - 1* 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 **Lid Sensor**.

Advanced Video Controls

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

Video Memory

The system does not feature dedicated video memory, but automatically and dynamically allocates as much (up to **64MB** maximum) system memory (RAM) as needed to the video system (**the video driver must be installed - see** *"What to Install" on page 4 - 1*). The system returns whatever memory is no longer needed to the operating system, and is not user configurable.

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**).

Figure 3 - 1
Brightness Controls

Display Properties

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 pages *A - 3* for LCD information).

You configure 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 - 1*).

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** (or just click **Control Panel**) and click **Control Panel** (if you are in **Category View** choose **Appearance and Themes**).
2. Double-click **Display** (icon).
3. In the **Display Properties** dialog box, click **Settings** (tab).
4. In **Screen area/Screen resolution**, move the slider to the preferred setting for **resolution** (see ❶ *in Figure 3 - 2 on page 3 - 4*).
5. In **Colors/Color quality**, click the arrow and scroll to the preferred setting for **color depth** (see ❷ *in Figure 3 - 2 on page 3 - 4*).

🖉

**Screen Resolution/
Screen 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.

3

3

Figure 3 - 2
**Display Properties
&
Advanced Options**
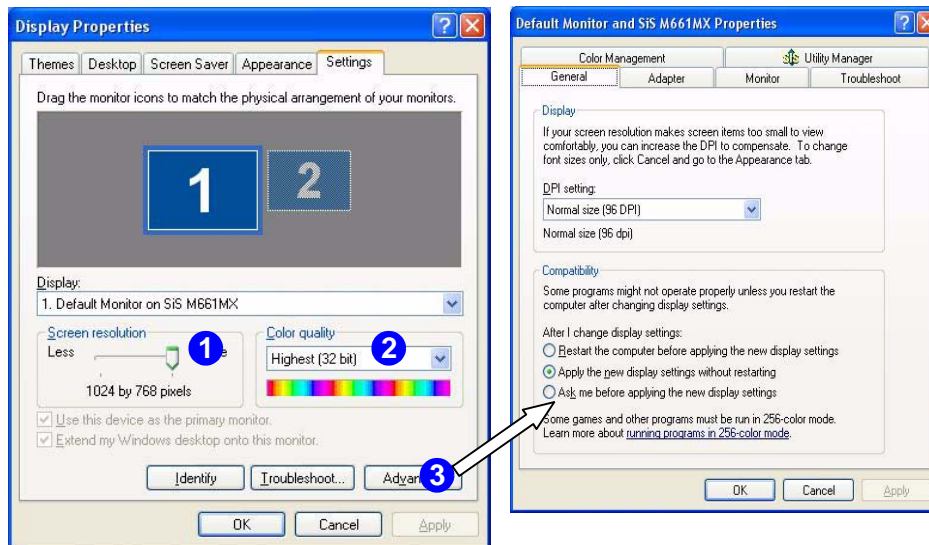
When the **Display Properties** control panel is open, click the **Advanced** ③ (button) to bring up the options tabs. Clicking through these tabs allows you to make any video adjustments you require.

SiS Utility Tray/Manager

With the video driver installed additional control panels are available. To get to the control panels do the following:

1. Click **Start**, point to **Settings** (or just click **Control Panel**) and click **Control Panel**.
2. Double-click **Display** (Icon).
3. In the **Display settings** dialog box, click **Settings** (tab).
4. Click **Advanced** (button), and click **SiS Utility Manager** (tab).
5. Choose the setting you wish to change.

                    OR

1. Right-Click the **SiS Utility Tray icon** in the taskbar.
2. Point to **Display Property** and choose the setting you wish to change.
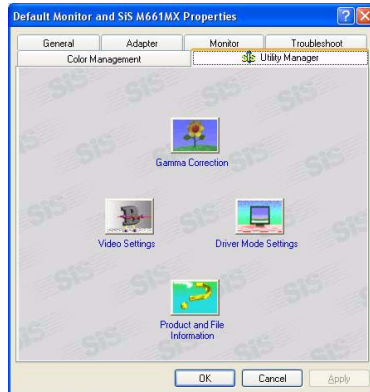
SiS Utility Tray Icon

Figure 3 - 3
**SiS Utility Tray Icon
Menu & SiS Utility
Manager**

3

You may make changes to the Driver Mode Settings, Video Settings, Gamma Correction Settings, and view General Information by clicking the appropriate tab and adjusting the setting, then clicking OK.

Figure 3 - 4
SiS M661MX Controller Properties
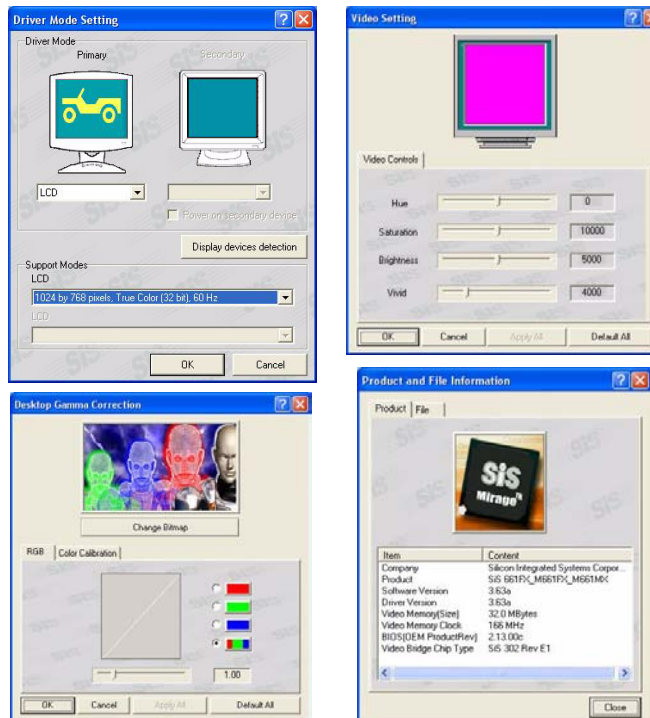
Display Devices & Options

Besides the built-in LCD, you can also use an **external monitor** connected to the external monitor port (see *Figure 1 - 7 on page 1 - 14*). The following driver mode settings are available as long as the video driver is installed (see *"What to Install" on page 4 - 1*):

1. The built-in LCD (**Single**).
2. A monitor connected to the external monitor port on the left side of the computer (**Single**).
3. The built-in LCD and a monitor showing the same image (**Mirrored**).
4. The built-in LCD and a monitor showing different images (**Extended Desktop - Not Available in Windows 2000**).

Driver Mode Setting	Windows XP	Windows 2000
Single	✓	✓
Mirrored	✓	✓
Extended Desktop	✓	**Not Available**

Table 3 - 1
Display Options

3

Switching/Enabling Displays (Keyboard)

To simply switch display devices, or enable other devices, use the **Fn** + **Display** (**F6**) toggle do the following:

1. Plug the monitor into the appropriate port.
2. Press and hold the **Fn** key, while simultaneously pressing the **F6** key.
3. You may toggle through the options to display the LCD only, the LCD and the external display together, and the external display alone (make sure you allow time for the screens to refresh as you toggle through).

Note: If you only use the keyboard toggle to switch through the display options you will not have all the configuration options available to you. If you want to access the options listed in *"Display Devices & Options" on page 3 - 7* use the driver control panel to configure the settings as per *"Switching/Enabling Displays (Driver)" on page 3 - 9*.

3

Switching/Enabling Displays (Driver)

Use the video driver's (see *"What to Install" on page 4 - 1*) built-in controls to switch between the displays as follows:

1. Plug the external monitor into the appropriate port.
2. Go to the **SiS Utility Manager** (see the instructions in *"SiS Utility Tray/ Manager" on page 3 - 5*), and choose **Driver Mode Setting**.
3. If the device list box doesn't show any plugged in devices, click **Display devices detection** (button), and click to put a check in **Power on secondary device** (box).
4. Click **OK > OK**, and **Yes** to keep the settings.
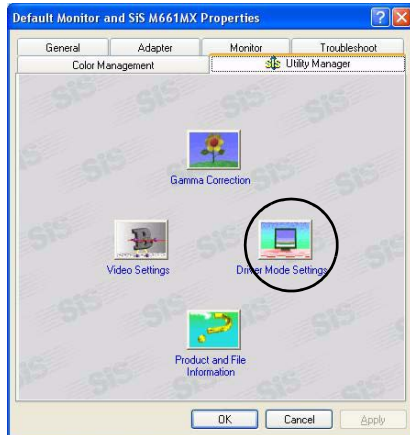
Figure 3 - 5
Driver Mode Setting Control Panel

Display Devices & Options 3 - 9

3

Driver Mode Setting

A Mirrored desktop simply shows an exact copy of the **Primary** display desktop on the **Secondary** display(s). Use this feature to display the screen through a projector for a presentation etc.

An **Extended** desktop (**not available in *Windows 2000***) allows the desktop to span the displays to act as a large work area, thus creating a lot more screen area for display. Each display device can be configured independently for specific resolutions and refresh rates.

Figure 3 - 6
Mode Setting Options

Driver Mode Toggle Box (Not Available in Win2000)
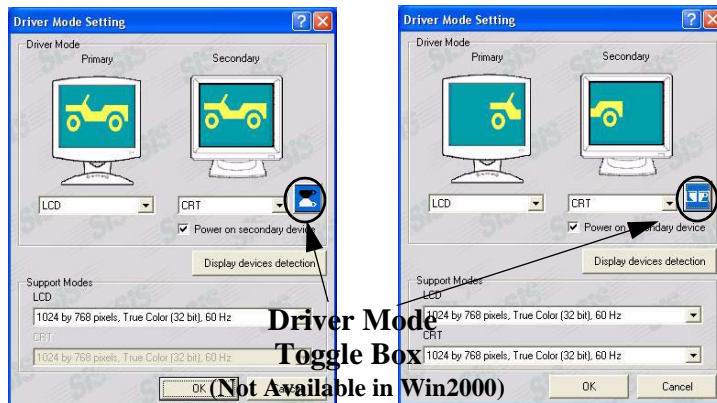
You can switch the display between **Mirrored** 🖼 and **Extended Desktop** 🖵 modes by clicking the icon in Driver Mode Setting control panel.

3

Configuring the Driver Mode Setting

1. Plug the external monitor into the appropriate port.
2. Go to the **SiS Utility Manager** (see the instructions in *"SiS Utility Tray/ Manager" on page 3 - 5*), and choose **Driver Mode Setting**.
3. If the device list box doesn't show any plugged in devices, click **Display devices detection** (button), and click to put a check in **Power on secondary device** (box).
4. Click either the **Mirrored** or **Extended Desktop** icon to toggle between the display modes.
5. Click **OK > OK**, and **Yes** to keep the settings.
6. Use the dropbox to switch the **Primary** and **Secondary** displays between the LCD and CRT (external monitor).
7. Use the **Support Modes** dropbox (in **Extended Desktop** mode only - see sidebar) to configure the resolution and refresh rates etc.

🖉
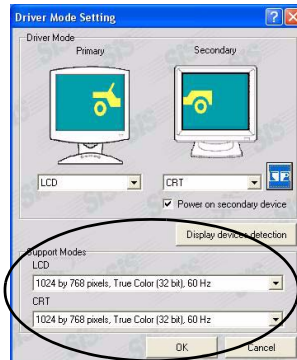
Support Mode Note

You may configure the resolution and refresh rate for **both** display devices in **Extended Desktop** mode only.

In **Mirrored** mode you may only configure the resolution and refresh rate for the **Primary** display device (LCD or CRT).

See page *3 - 12* for further instructions on enabling and configuring **Extended Desktop** mode.

Figure 3 - 7
Support Modes

3

Extended Desktop Configuration

You can drag any icons or windows across to either display desktop, which makes it possible to have one program visible in one of the displays, and a different program visible in the other display.

Figure 3 - 8
Display Properties (Extended Desktop Mode)

To Enable Extended Desktop (Display Properties - WinXP Only)

1. Plug the external monitor into the appropriate port.
2. Click **Start**, point to **Settings** and click **Control Panel** (or click **Control Panel**).
3. Double-click **Display** (icon); if you are in **Category View** choose **Appearance and Themes**.
4. In the **Display Properties** dialog box, click **Settings** (tab).
5. Click the appropriate monitor icon (e.g. **2**), and make sure you have checked "**Extend my Windows desktop onto this monitor**." and click **Apply**.
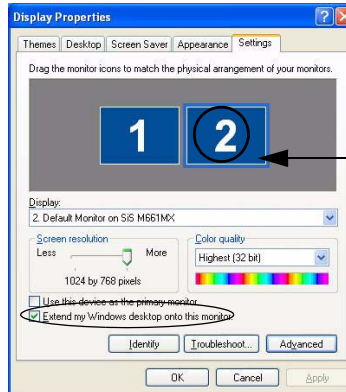
Click the appropriate monitor icon to be able to select the option to extend the desktop on to it.

6. Use the control panel to drag the monitors to match the physical arrangement you wish to use. In the example shown in *Figure 3 - 9* the primary monitor **1** is on the left; the secondary display is on the right.

Power Management Features

To conserve power, especially when using the battery, your notebook computer uses the ACPI power management system. 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

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 fully supported in *Windows 2000* and *Windows XP*.

3

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.)

3

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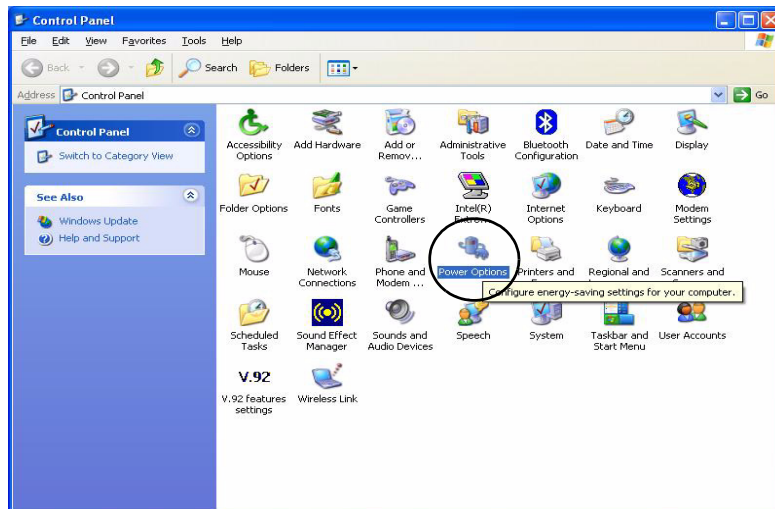
You may conserve power through individual components or throughout the whole system.

3

Power Schemes

You can set your computer to conserve power through individual components by means of **Power Schemes**. You can also adjust the settings for each scheme to set the monitor to turn off after a specified time, and the computer's hard disk motor to turn 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). The schemes may also be set to set a specified time for the system to enter **Standby** or **Hibernate** modes (see *"Conserving Power (System)" on page 3 - 17*).

Resuming Operation

The system can resume from Monitor or Hard Disk Standby by pressing a key on the keyboard.
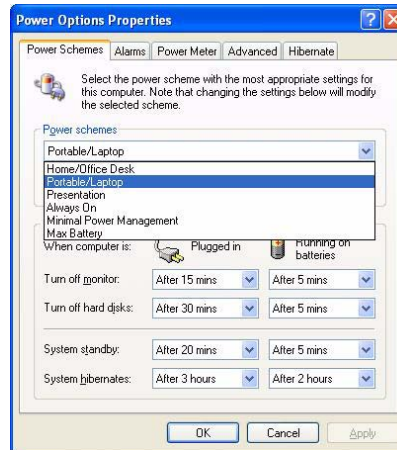
Figure 3 - 10
Power Schemes

3

Each *Windows* **Power Scheme** will also adjust the processor performance of your machine in order to save power. This is worth bearing in mind if you are experiencing any reduced performance (especially under DC/battery power).

Choose the **Home/Office Desk** scheme for maximum performance when the computer is powered from an AC power source. Choose the **Max Battery** scheme (bear in mind that this scheme may slow down the overall performance of the computer in order to save power) for maximum power saving when the computer is battery (DC power) powered.

Windows will use **Portable/Laptop** as the default scheme.

Conserving Power (System)

With this function you can stop the notebook's operation and restart where you left off. This system features **Standby** and **Hibernate** sleep 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 - 12 on page 3 - 18*).

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.

3

Figure 3 - 11
Enable Hibernation

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.

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. You will need to enable Hibernate mode from the **Hibernate** tab in the Power Options control panel. **The system will resume from Hibernate mode by pressing the power button**.

3
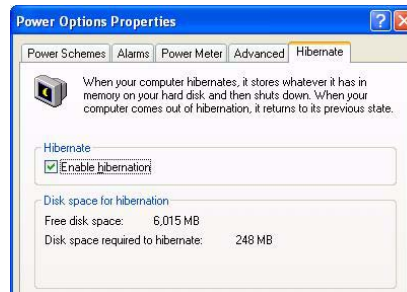
Configuring the Power Button

The power button may be set to send the computer in to either **Standby** or **Hibernate** mode. 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.
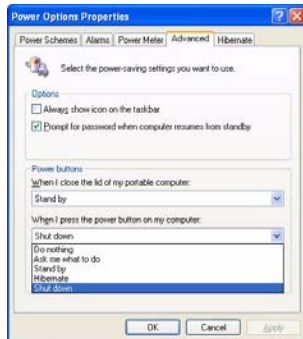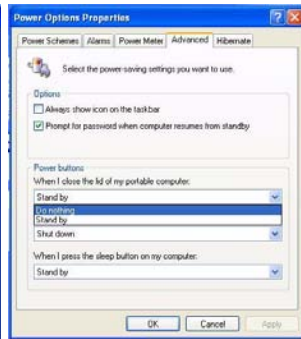
Power Button   Lid Sensor   Sleep/Resume(Sleep)Button
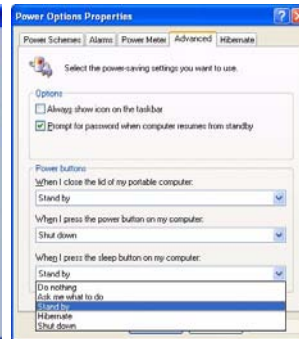
🖉

Sleep Button

You may also configure the **Sleep/Resume** key combination (**Fn + Esc)** from the menu illustrated in *Figure 3 - 13*. In *Windows* this is referred to as the **Sleep** button.

🔔

Lid Sensor

If you have set your computer to enter **Standby** mode when the lid ("*when I close the lid of my portable computer:*") of the computer is closed (the **Lid Sensor** detects when the lid/LCD panel is closed), the system will not resume normal operation when the lid is opened. Press a key on the keyboard to resume operation.

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

3

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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.

Figure 3 - 13
Power Options
(Alarm & Power
Meter)

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 (see *"Battery FAQ" on page 3 - 21* for instructions on how to do this).

Battery Life

Your computer's battery life is dependent upon many factors, including the programs you are running, and peripheral devices attached. **Power Options** (you may set low battery **Alarms** and actions, and check the **Power Meter** from the **Power Options** control panel), and 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.

We recommend that you do not remove the battery yourself. If you do need to remove the battery for any reason see *"Removing the Battery" on page 6 - 3*.

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. Disable the **Power Options** functions in the **Control Panel**, especially any **Alarms** (**unclick** the tickboxes) and **Schemes** (change all the settings to **Never**). As the battery nears the end of its life save and close any critical files.

How do I fully charge the battery?
When charging the battery, don't stop until the LED charging indicator light changes from orange to green.

How do I maintain the battery?
Completely discharge and charge the battery at least once every 30 days or after about 20 partial discharges.

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Conserving Battery Power

To conserve battery power:

Lower the brightness level of the LCD display. The system will decrease LCD brightness slightly to save power when it is not powered by the AC adapter.

Close modem or communication applications when they are not being used.

Remove any unused PC Cards from the computer (PC Cards quickly use up battery power even if the system enters sleep mode).

Disconnect any unnecessary external devices.

Advanced Controls

Chapter 4: Drivers & Utilities

Overview

This chapter deals with installing the drivers and utilities essential to the operation or improvement of some of the computer'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 Professional and Home Editions*

What to Install

The *Device Drivers & Utilities + User's Manual CD-ROM* contains the drivers and utilities necessary for the proper operation of the computer. (The **optional Wireless LAN** module, **optional Bluetooth** module and **optional PC Camera** drivers are on separate *CD-ROMs* supplied.) *Table 4 - 1 on page 4 - 7* lists what you need to install manually according to your choice of the operating system. **It is very important that the drivers are installed in the order indicated in the table**.

Module Driver Installation

The procedures for installing drivers for the **Wireless LAN**, **PC Camera** and **Bluetooth** modules are provided in *"Wireless, Bluetooth & PC Camera Modules" on page 7 - 1*. Make sure that the drivers are installed in the order indicated in *Table 4 - 1 on page 4 - 7*.

4

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Navigate (Browse..) to D:

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

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 "Drive 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:**" dialogue box at the top of the **Browse** window. Click the scroll button to navigate to **My Computer** to display the devices and drive letters.
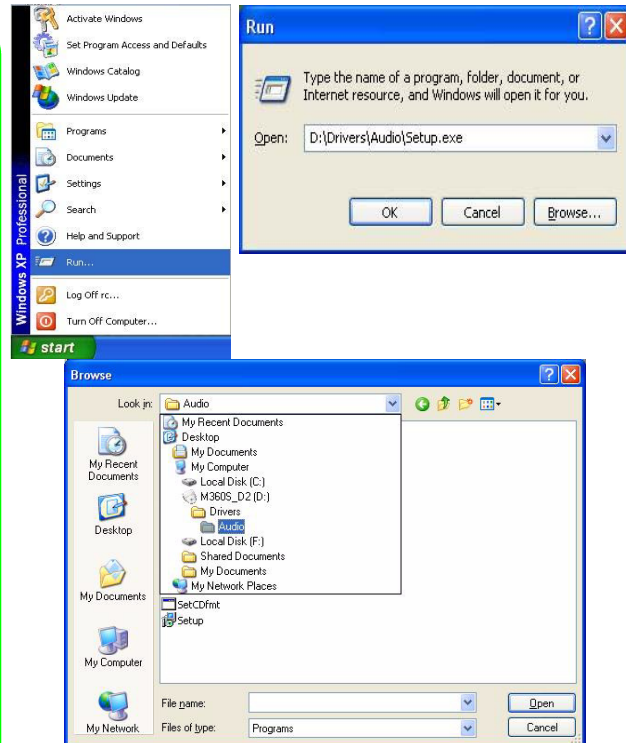
Figure 4 - 1 **- Navigate (Browse..) to..**

Service Packs

Check the warnings on the following pages regarding installation of the appropriate **Service Pack** for your *Windows* OS. If you are unsure of the Service Pack currently installed see below. Make sure you have installed the appropriate Service Pack **before** installing all the drivers.

4

Windows 2000 Service Pack 4

Make sure that your *Windows 2000* version includes **Service Pack 4** on the installation CD as this includes support for **USB 2.0**.

Service Pack Installed

To see which **Service Pack** is currently installed on your computer go to the **General** tab of the **System** control panel. Right-click the **My Computer** icon on the desktop or in the **Start** menu (in **WinXP only)** and select **Properties**. The Service Pack currently installed on your system will be listed under the "**System**:" heading. (If no Service Pack information is listed, then no Service Pack is installed.)

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Windows XP Service Pack 2

Make sure you install **Windows XP Service Pack 2**(or a Windows XP version which includes Service Pack 2) **before installing any drivers**. Service Pack 1 includes support for **USB 2.0**.

If you have **upgraded** the system by installing **Service Pack 2** (i.e. your Windows XP version does not include Service Pack 2) then follow these instructions:

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. Right-click **Universal Serial Bus (USB) Controller** and select **Uninstall > OK**.
6. Restart the computer and it will find the USB 2.0 controller.

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*.

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.

Updating/Reinstalling Individual Drivers

If you wish to update/reinstall individual drivers it may be necessary to uninstall the original driver. To do this go to the **Control Panel** in the *Windows OS* and double-click the **Add/Remove Programs** item. **If you see the individual driver listed** (if not see below), uninstall it, following the on screen prompts (it may be necessary to restart the computer). Go to the appropriate section of the manual to complete the update/reinstall procedure for the driver in question.

If the driver is not listed in the **Add/Remove Programs** item:

1. Click **Start** (menu), point to **Settings** and click **Control Panel** (or click **Control Panel**).
2. Double-click **System** (icon); **System** (icon) is in **Performance and Maintenance** (category).
3. Click **Hardware** (tab) > **Device Manager** (button).
4. Double-click the **device** you wish to update/reinstall the driver for (you may need to click "**+**").
5. Look for the **Update Driver** button (check the **Driver** tab) and follow the on screen prompts.

4

Driver Installation

Insert the *Device Drivers & Utilities + User's Manual CD-ROM* and click the **Install WinXP Drivers OR Install Win2K Drivers** button (only the button appropriate for your OS will be highlighted). Alternatively you can browse to the CD and select the appropriate driver folder, then run the auto-run.exe file.

1. Check the driver installation order from *Table 4 - 1 on page 4 - 7* (**the drivers must be installed in this order**) which is the same as that listed in the menu below.
2. Click to select the driver you wish to install, after installing each driver it will become greyed out (if you need to reinstall any driver, click the **Unlock** button).
3. Follow the instructions of each individual driver install as listed in the following pages.

Figure 4 - 2 **- Drivers Installer Screen 1**

Figure 4 - 3 **- Drivers Installer Screen 2**

Driver	Windows 2000 (SP4) or Windows XP (SP2)
Audio	*page 4 - 8*
Video	*page 4 - 8*
Network (LAN)	*page 4 - 8*
Modem	*page 4 - 9*
TouchPad	*page 4 - 9*
HK Buttons	*page 4 - 10*
Auto Mail Checker	*page 4 - 10*
802.11g Wireless LAN	See page *7 - 3*
Bluetooth	See pages *7 - 6* & *7 - 8*
PC Camera	See page *7 - 11*
Table 4 - 1 **- Driver Installation Order**	

Driver Installation Procedure

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

New Hardware Found

If you see the message "**New Hardware Found**" (**Found New Hardware Wizard**) during the installation procedure (other than when outlined in the driver install procedure), click **Cancel** to close the window, and follow the installation procedure as directed.

Service Pack Installation

Make sure you install the appropriate service pack for your operating system before installing any drivers (see *"Windows 2000 Service Pack 4" on page 4 - 3* and *"Windows XP Service Pack 2" on page 4 - 4*).

4

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Audio (Win2000/WinXP)

1. Click **1. Install Audio Driver** > **Yes** from the Drivers Installer menu.
   OR
   Click **Start** (menu) > **Run...** and navigate (**Browse..**) to **D:\Drivers\Audio\Setup.exe** and click **OK**.
2. Click **Next** > **Finish** to restart the computer.
3. You can click the **AC97 Audio Configuration** icon in the taskbar for configuration options.

Video (Win2000/WinXP)

1. Click **2. Install Video Driver** > **Yes** from the Drivers Installer menu.
   OR
   Click **Start** (menu) > **Run...** and navigate (**Browse..**) to **D:\Drivers\Video\setup.exe** and click **OK**.
2. Click **Next > Next > Next > Next**.
3. If you wish to view the Readme file select **Yes** and click **Next**, otherwise select **No** and click **Next**.
4. Click **Finish** to restart the computer.

LAN (Win2000/WinXP)

1. Click **3. Install Lan Driver** > **Yes** from the Drivers Installer menu.
   OR
   Click **Start** (menu) > **Run...** and navigate (**Browse..**) to **D:\Drivers\LAN\setup.exe** and click **OK**.
2. Click **Next** > **Finish**.
3. Click **Finish** to restart the computer.
4. The network settings can now be configured.

Modem (Win2000/WInXP)

1. Click **4. Install Modem Driver** > **Yes** from the
   Drivers Installer menu.
   OR
   Click **Start** (menu) > **Run...** and navigate
   (**Browse..**) to **D:\Drivers\Modem\Win2K or
   WinXP\Setup.exe** and click **OK**.
2. Click ⟦ >> ⟧ (button).
3. Click ⟦ ✔ ⟧ (button).
4. The modem is ready for dial-up configuration.

> 🖉
>
> **Modem Country Selection**
>
> Be sure to check if the modem country selection is ap-
> propriate for you (**Control Panel** > **Phone and Mo-
> dem Options**).

TouchPad (Win2000/WinXP)

1. Click **5. Install TouchPad Driver** > **Yes** from
   the Drivers Installer menu.
   OR
   Click **Start** (menu) > **Run...** (go to step 2) and
   navigate (**Browse...**) to **D:\Drivers\Touch-
   pad\Win2K or WinXP\SETUP.EXE** and click
   OK.
2. Click **Next** > **Next**.
3. If you wish to view the Readme file select **Yes**
   and click **Next**, otherwise select **No** and click
   Next.
4. Click **Finish** to restart your computer.
5. You may then configure your TouchPad as
   outlined in *"TouchPad and Buttons/Mouse"
   on page 2 - 18*.

4

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HK Buttons (Win2000/WinXP)

1. Click **6. Install HotKey Driver** > **Yes** from the Drivers Installer menu.
   OR
   Click **Start** (menu) > **Run...** and navigate (**Browse..**) to **D:\Drivers\Hotkey\Setup.exe** and click **OK**.
2. Choose the language you prefer and click **OK**.
3. Click **Next** > **Finish** to restart your computer.
4. The program will run upon startup.
5. For further details see *"HK Buttons" on page 2 - 15*.

Auto Mail Checker (Win2000/WinXP)

1. Click **Start** (menu) > **Run...** and navigate (**Browse..**) to **D:\Drivers\AUTO-MAIL\SETUP.EXE** and click **OK**.
2. To continue click **Next > Next > Finish**.
3. For further details see *"Auto Mail Checker" on page 2 - 7*.

Wireless LAN (Win2000/WinXP)

See the install procedure in *"802.11g WLAN Driver Installation (WinXP/Win2K)" on page 7 - 3*.

Bluetooth (Win2000/WinXP)

See install procedure in *"Bluetooth Driver Installation (Win2000)" on page 7 - 6* or *"Bluetooth Driver Installation (WinXP)" on page 7 - 8*.

PC Camera (Win2000/WinXP)

See install procedure in *"PC Camera Driver Installation (Win2000/WinXP)" on page 7 - 11*.

Chapter 5: BIOS Utilities

Overview

This chapter gives a brief introduction to the computer's built-in software:

Diagnostics: The **POST** (Power-On Self Test)

Configuration: The *Setup* utility
If your computer has never been set up, or you are making important changes to the system (e.g. hard disk setup), then you should review this chapter first and note the original settings found in *Setup*. 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.

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.

BIOS Settings Warning

Incorrect settings can cause your system to malfunction. To correct mistakes, return to *Setup* and restore the *Setup Defaults* with <F9>.

5

5

Figure 5 - 1
POST Screen

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 (memory).

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

If there are no problems, the *Setup* prompt will disappear and the system will load the operating system. Once that starts, you can't get into *Setup* without rebooting.

```
Phoenix cME FirstBIOS Notebook Pro                    ①
Copyright 1985-2003 Phoenix Technologies Ltd.
All Rights Reserved

Build Time: 12/17/04 17:30:43
SiS661MX A1(FirstBIOS)

M3 Series-R1.00.D8C
KBC Ver:1.00.D1

CPU = Intel(R) Celeron(R) M processor     ②    1.40GHz
639K System RAM Passed         ③
989M Extended RAM Passed
1024K Cache SRAM Passed
System BIOS shadowed
Fixed Disk 0: TOSHIBA MK3018GAP
ATAPI CD-ROM: QSI DVD-ROM SDR-083
Mouse intialized



Press <F2> to enter SETUP            ④
```

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
- <F2> to enter Setup

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

Press **F2** to run the **Setup** 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.

5

The Setup Program

The **Phoenix Setup** program tells the system how to configure itself and manage basic features and subsystems (e.g. port configuration).

Entering Setup

To enter *Setup*, turn on the computer and press **F2** during the **POST**. The prompt (*Press F2 to Enter Setup*) 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 **F2** too quickly) just press **F2** again.

If the computer is already on, reboot using the **Ctrl** + **Alt** + **Delete** combination and then hold down **F2** when prompted. The *Setup* main menu will appear.

Setup Screens

The following pages contain additional advice on **portions** of the *Setup*.

Along the top of the screen is a menu bar with five (**5**) menu headings. When you select a heading, a new screen appears. Scroll through the features listed on each screen to make changes to *Setup*.

Instructions on how to navigate each screen are in the box along the bottom of the screen. If these tools are confusing, press **F1** to call up a **General Help** screen, then use the arrow keys to scroll up or down the page.

The **Item Specific Help** on the right side of each screen explains the highlighted item and has useful messages about its options.

If you see an arrow ▶ next to an item, press **Enter** to go to a sub-menu on that subject. The sub-menu screen that appears has a similar layout, but the **Enter** key may execute a command.

Setup Menus

The **Setup** menus shown in this section are for **reference** only. Your computer's menus will indicate the configuration appropriate for your model and options.

5

Main Menu

5

```
                      PhoenixBIOS Setup Utility
   Main        Advanced      Security    Boot        Exit

                                                  Item Specific Help

   System Time:            [13:11:05]
   System Date:            [09/22/2004]
                                               <Tab>, <Shift Tab>, or
   Legacy Diskette A:      [Disabled]          <Enter> selects field.
  ▶Primary Master         [Toshiba MK3018GAP-  (PM)]
  ▶Secondary Master       [QSI DVD-ROM SDR 083- (PM)]

   QuickBoot Mode:         [Enabled]
   Floppy Check            [Disabled]

   System Memory           640 KB
   Extended Memory         989 KB



   F1   Help   ↑↓   Select Item   -/+     Change Values    F9   Setup Defaults
   Esc  Exit   ←→   Select Menu   Enter   Select ▶Sub-Menu F10  Save and Exit
```

System Time & Date
The hour setting uses the 24-hour system (i.e., ØØ = midnight; 13 = 1 pm). If you can change the date and time settings in your operating system, you will also change these settings. Some applications may also alter data files to reflect these changes.

Legacy Diskette A:
This control allows you to enable/reconfigure the floppy disk drive.

Primary Master
Pressing **Enter** opens the sub-menu to show the configuration of the HDD that fits in the computers HDD bay. These items are configured automatically for you.

Secondary Master
Pressing **Enter** opens the sub-menu to show the configuration of the CD device. These items are configured automatically for you.

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

Floppy Check:
Enabling this will verify floppy type on boot. Boot process will be faster with this disabled.

System/Extended Memory:
This item contains information on the system memory, and is not user configurable. The system will auto detect the amount of memory installed.

Advanced Menu

Figure 5 - 3

Advanced Menu

5

```
                    PhoenixBIOS Setup Utility

  Main      Advanced     Security      Power      Boot      Exit

              Setup Warning                      Item Specific Help
  Setting items on this menu to incorrect
  values may cause your system to malfunction.   Display Chipset
                                                 Information if you
▶Chipset Information                             need it.

  Select Keyboard Language          [English]
  Intel On-Screen Branding Logo:    [Disabled]
  USB Host Controller:              [Enabled]
  USB BIOS Legacy Support:          [Enabled]
      USB 2.0 Host:                 [Enabled]

  PS/2 Mouse                        [Auto Detect]
  Large Disk Access Mode            [DOS]
  Installed O/S:                    [WINXP]
  Local Bus IDE adapter:            [Both]

  Embedded MAC Device               [Enabled]
  Embedded Modem Device             [Enabled]
  Embedded Audio Device             [Enabled]
  Reset Configuration Data:         [No]
  Secured Setup Configurations      [No]

  F1   Help   ↑↓  Select Item   -/+    Change Values   F9  Setup Defaults
  Esc  Exit   ←→  Select Menu   Enter  Select ▶Sub-Menu F10 Save and Exit
```

Chipset Information (Advanced Menu)

Pressing **Enter** here will provide valuable information on your system including CPU type and speed etc.

Select K/B Language (Advanced Menu)
Allows you to choose between English or Japanese keyboard language.
Intel On-Screen Branding Logo (Advanced Menu)
Enables or disables the Intel startup splash screen.

USB Host Controller (Advanced Menu)
This item enables or disables USB hardware support.

USB BIOS Legacy Support (Advanced Menu)
Choose "*Enabled*" if you intend to use **USB** devices in systems which do not normally support USB functionality (e.g. *DOS*). The default setting is "**Enabled**" and does not need to be changed if you intend to use your USB devices in *Windows*.

USB 2.0 Host (Advanced Menu)
Enables or disables SiS embedded USB 2.0 (EHCI) Host.

PS/2 Mouse (Advanced Menu)
Configure the PS/2 mouse port here.

Large Disk Access Mode (Advanced Menu)
Select "**Other**" if you are using systems such as Novell, UNIX etc. Select "**DOS**" (default) if you are using Windows.

5

5

Installed OS (Advanced Menu)
This item tells the computer what operating system you're using. The default setting is *WinXP*.

Local Bus IDE adapter (Advanced Menu)
This item allows you to enable or disable support for the local bus IDE adapter (the interface for the hard disk and CD devices).

Embedded MAC/Modem/Audio Device (Advanced Menu)
Enable or Disable the SiS Embedded network, modem and audio devices from these menu items.

Reset Configuration Data (Advanced Menu)
This item is set to *No* as default. You can change the setting to *Yes* if you have installed a new add-on which has reconfigured the system, resulting in such a serious system conflict that the operating system is unable to boot.

Secured Setup Configuration (Advanced Menu)
Choosing "**Yes**" in this item prevents a Plug and Play Operating system from changing system settings.

Security Menu

```
                    PhoenixBIOS Setup Utility

    Main      Advanced      Security    Boot    Exit

                                          ┌─────────────────────┐
                                          │  Item Specific Help │
    Supervisor Password Is:    Clear      ├─────────────────────┤
    User Password Is:          Clear      │                     │
                                          │  Supervisor Password│
    Set Supervisor Password    [Enter]    │  controls access to │
    Set User Password          [Disabled] │  the                │
                                          │  setup utility.     │
                                          │                     │
                                          │                     │
                                          │                     │
                                          │                     │
                                          │                     │
                                          │                     │
                                          │                     │
                                          │                     │

    F1    Help    ↑↓   Select Item   -/+    Change Values   F9   Setup Defaults
    Esc   Exit    ←→   Select Menu    Enter  Select ▶Sub-Menu F10  Save and Exit
```

Figure 5 - 4
Security Menu

Set Supervisor Password (Security Menu)
You can set a password for access to the *Setup* utility. This will not affect access to the computer OS (only the *Setup* utility).

Set User Password (Security Menu)
Entering a user password will control access to the system at boot.

5

⚠
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.

Boot Menu

```
                    PhoenixBIOS Setup Utility

    Main        Advanced        Security    Boot      Exit

                                                    Item Specific Help

        Removable Devices                    Keys used to view or
        CD-ROM Drive                         configure devices:
        +Hard Drive                          <Enter> expands or
        Network Boot                         collapses devices with
                                             a + or -
                                             <Ctrl+Enter> expands
                                             all
                                             <Shift+1> enables or
                                             disables a device.
                                             <+> and <-> moves the
                                             device up or down.
                                             <n> May move removable
                                             device between the Hard
                                             Disk or Removable Disk
                                             <d> Remove a device
                                             that is not installed.

    F1    Help    ↑↓   Select Item    -/+     Change Values    F9   Setup Defaults
    Esc   Exit    ←→   Select Menu    Enter   Select ▶Sub-Menu F10  Save and Exit
```

When you turn the computer on it will look for an operating system (e.g. *Win-dowsXP*) from the devices listed in this menu, and **in this priority order**. If it cannot find the operating system on that device, it will try to load it from the next device in the order specified in the **Boot Menu**.

Boot devices usually are hard drives, floppy drives, CD-ROMs and LANs (Local Area Networks).

When you specify a device as a boot device on the **Boot Menu**, it requires the availability of an operating system on that device. Most home computers come with an operating system already installed on "Drive **C**:".
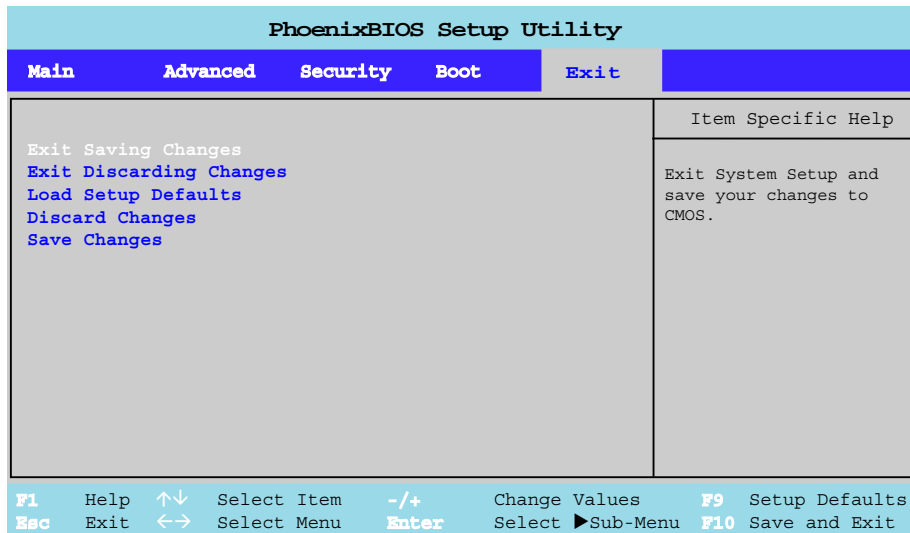
If you wish to boot from a CD-ROM you will need to add it to the boot order. As a general rule the order below is recommended:

1. Removable Devices (usually floppy disks)
2. CD-ROM/DVD-ROM Drive
3. Hard Drive
4. Network Boot

In everyday use you will usually boot from the hard drive, however there may be occasions when it is advantageous to boot from a floppy disk or CD-ROM/DVD-ROM.

Exit Menu

5

```
                    PhoenixBIOS Setup Utility

  Main       Advanced    Security    Boot      Exit

                                              Item Specific Help

  Exit Saving Changes
  Exit Discarding Changes                   Exit System Setup and
  Load Setup Defaults                       save your changes to
  Discard Changes                           CMOS.
  Save Changes




  F1   Help   ↑↓   Select Item   -/+     Change Values   F9   Setup Defaults
  Esc  Exit   ←→   Select Menu   Enter   Select ▶Sub-Menu F10  Save and Exit
```

Choosing to *Discard Changes*, or *Exit Discarding Changes*, will wipe out any changes you have made to the *Setup*. You can also choose to restore the original *Setup* defaults that will return the *Setup* to its original state, and erase any previous changes you have made in a previous session.

Chapter 6: Upgrading The Computer

Overview

This chapter contains 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 slotted (flathead) screwdriver
- An antistatic wrist strap

Before working with 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:

- Removing the Battery
- Upgrading the HDD
- Upgrading the System Memory
- Upgrading the Optical Device

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

Warranty Warning

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

6

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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.

6

When Not to Upgrade

These procedures involve opening the system's case, adding and sometimes replacing parts.
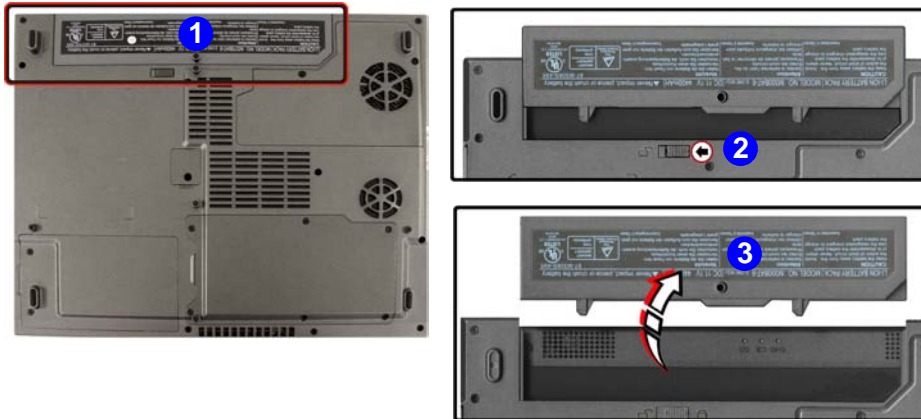
You should **not** perform any of these upgrades if:

- 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).

Removing the Battery

If you are confident in undertaking upgrade procedures yourself, for safety reasons it is best to remove the battery.

1. Turn the computer **off**, and turn it over.
2. Locate the battery bay at point **1**.
3. Slide the battery lock **2** in the direction of the arrow (towards the unlock symbol ⌕), and hold it in place.
4. Slide the battery **3** out of the computer's battery bay.

6

Figure 6 - 1
Battery Removal

🔔

HDD System Warning

New HDD's 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.

Figure 6 - 2
HDD Cover Removal

6

Upgrading the Hard Disk Drive

The hard disk drive can be taken out to accommodate other 2.5" IDE hard disk drives with a height of 9.5mm (h) (see Storage on pages *A - 3*) Follow your operating system's installation instructions, and install all necessary drivers and utilities (as outlined in *"What to Install" on page 4 - 1*), when setting up a new hard disk.

1. Turn **off** the computer, and turn it over and remove the battery.
2. Remove screws **1** & **2** from the hard disk cover, and remove the cover **3** (**Note**: Only **Model A** computer hard disk removal is pictured. **Model B** computers have a single cover for the HDD & RAM modules).
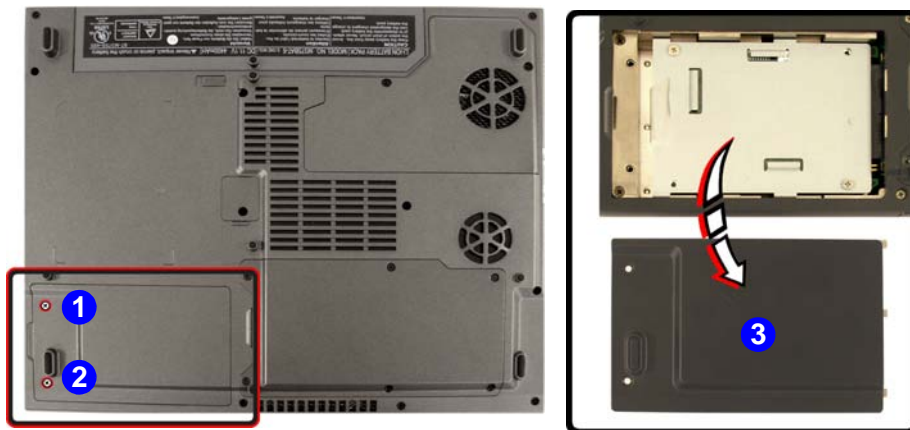
3. Pull the tab **1** to slide the hard disk assembly in the direction of the arrow **2**.
4. Lift the hard disk assembly **3** up out off the computer.
5. Remove screws **4** - **7**, and separate the hard disk cover **8** from the hard disk **9**.
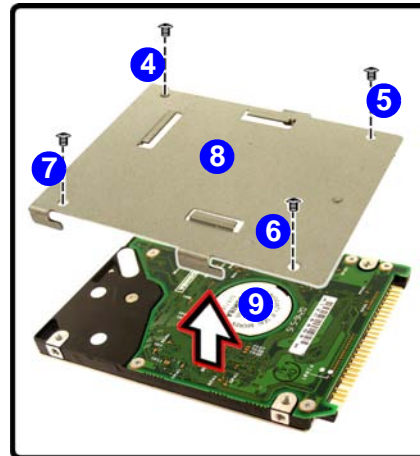6. Reverse the process to install a new hard disk.
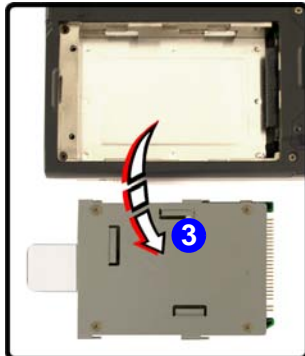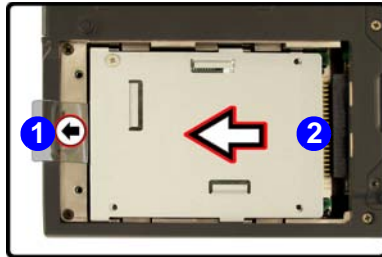
Figure 6 - 3
HDD Assembly Removal

6

Upgrading the Hard Disk Drive 6 - 5

Upgrading the System Memory (RAM)

The computer has two memory sockets for 200pin Small Outline Dual In-line (SO-DIMM) memory modules (see Memory on page *A - 3*). The total memory size is automatically detected by the POST routine once you turn on your computer.

1. Turn **off** the computer, and turn it over and remove the battery.
2. Remove screws **1** - **6** from the memory socket cover **7**, and remove the cover (**Note**: Only **Model A** computer RAM removal is pictured. **Model B** computers have a single cover for the HDD & RAM modules).

Figure 6 - 4
Memory Socket Cover Removal
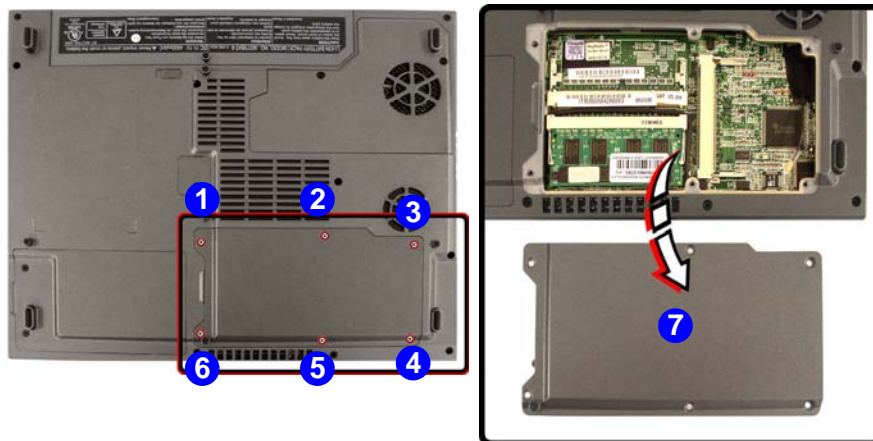
3. Gently pull the two release latches (**1** & **2** in *Figure 6 - 5*) on the sides of the memory socket in the directions of the arrows.

> ⚠️
>
> **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.
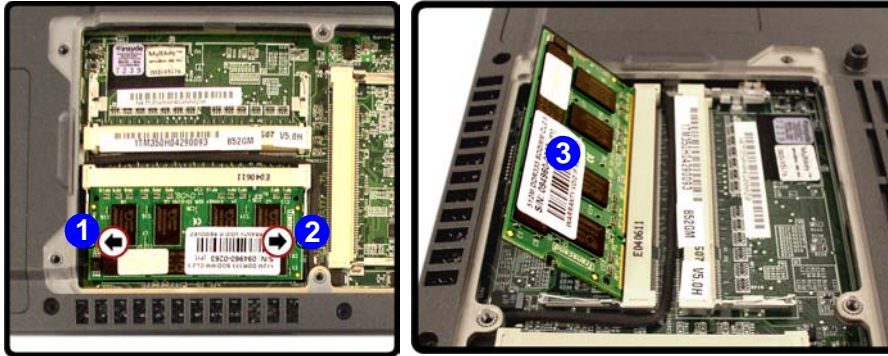
4. The module **3** will pop-up, and you can remove it.
5. Pull the latches to release the second module if necessary.
6. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
7. The module's pin alignment will allow it to only fit one way. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE the module; it should fit without much pressure.
8. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
9. Replace the memory socket cover and **6** screws (see *Figure 6 - 4*).
10. Restart the computer, and the BIOS will register the new memory configuration as it starts up.

Figure 6 - 5
**Removing/
Installing a RAM
Module**

Upgrading the Optical Device

1. Turn **off** the computer, and turn it over and remove the battery.
2. Remove screw **1** from the optical device screw cover **2**, and remove the cover.
3. Apply pressure at point **3** to push the optical device **4** out of the computer.
4. Reverse the process to install the new device.

Figure 6 - 6
**Optical Device
Removal Procedure**

6
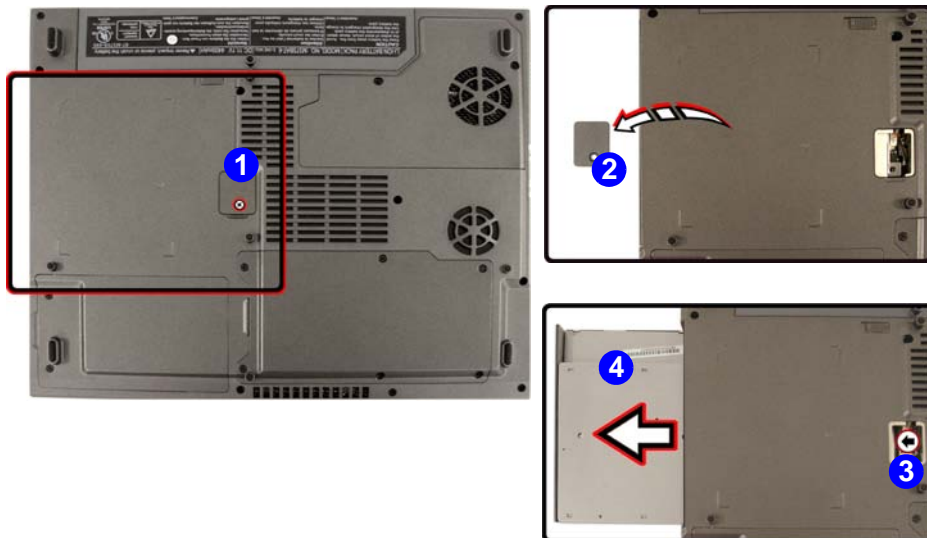
Upgrading the Processor

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, or accessing the CPU in any way, may violate your warranty.

Unauthorized tampering with the HDD may also violate your warranty.

6

Upgrading The Computer

Chapter 7: Wireless, Bluetooth & PC Camera Modules

Overview

This chapter contains the information on the optional WLAN, Bluetooth and PC Camera modules 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:

- 802.11g Wireless LAN Module
- The Bluetooth Module
- The PC Camera Module

🔔

Wireless Device Operation Aboard Aircraft

The use of any portable electronic transmission devices aboard aircraft is usually prohibited. Make sure the module(s) are **OFF** if you are using the computer aboard aircraft. When your computer 'Boots Up' the modules will be **OFF**.

7

Mini-PCI Wireless LAN Module

A **802.11g Mini-PCI WLAN module** is supplied as an **option** for your computer (see *"Getting to Know Your Computer" on page 1 - 4*).

Before installing the **802.11g WLAN** driver, make sure that the Wireless LAN module is on (the (( )) LED will be green). Use the Module ON/OFF Button (see *"Module ON/OFF Button" on page 1 - 13*) to toggle power to the Wireless LAN module (**make sure you install the drivers in the order indicated in** *Table 4 - 1 on page 4 - 7*).

802.11g WLAN Driver Installation (WinXP/Win2K)

1. Turn the WLAN module on (if the *Found New Hardware Wizard* appears, click **Cancel**).
2. Insert the *Wireless LAN CD-ROM* into the CD drive.
3. The program will run automatically.
4. Click **Install Software** (button).
5. Click **Next**.
6. Click the button to accept the license agreement, then click **Next**.
7. Click **Install** >**Finish > Exit**.
8. Access any available wireless networks from the icon in the taskbar 📶 **(Win2000)**, or from **Network Connections (WinXP)** control panel in *Windows* (see sidebar).

The **INPROCOMM Wireless LAN Configuration Utility** may be run from the **Start** menu (**Start > Programs/All Programs > Wlan > WLAN Configuration Utility**), and may then be accessed from the icon 📶 in the taskbar.

Figure 7 - 1
**INPROCOMM
WLAN Utility**
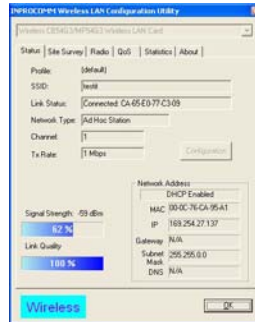
Network Connection

Use the *Windows Network Connections* control panel to access available wireless networks (**Start > Settings > Network Connections / Network and Dial-up Connections** or **Start > Connect To > Show all Connections**).

See *"Changing the Control Setting in WinXP" on page 7 - 4*

7

Changing the Control Setting in WinXP

The operating system is the default setting for wireless LAN control in Win XP. It is recommended that you switch to use the **INPROCOMM Wireless LAN Configuration Utility** to control your WLAN connection. Check the User's Manual for instructions on how to do this.

1. Right-click the WLAN icon in the taskbar and click **Open Network Connections**.
2. Click to select the **Wireless Network Connection** and then click "**Change Settings of this connection**" (or right-click it and scroll to select **properties**).
3. Click **Wireless Networks** (tab).
4. Click to remove the tick in the tickbox "**Use Windows to configure my wireless network settings**", then click **OK**.
5. Double-click the WLAN icon in the taskbar to begin using the **INPROCOMM Wireless LAN Configuration Utility** to control the WLAN connection.

7

Figure 7 - 2
**Switching WLAN
Controls (WinXP)**
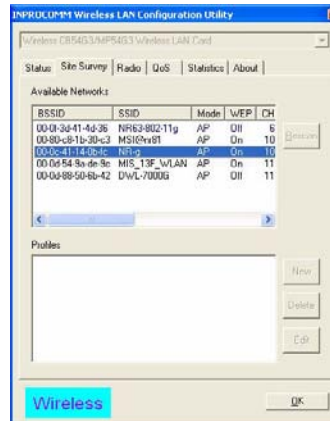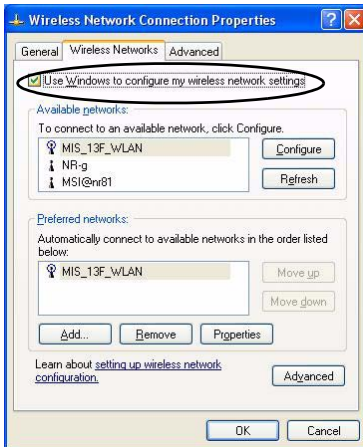
Wireless Device Operation Aboard Aircraft

The use of any portable electronic transmission devices aboard aircraft is usually prohibited. Make sure the module(s) are **OFF** if you are using the computer aboard aircraft. When your computer 'Boots Up' the modules will be **OFF**.

7

Bluetooth Module

Before installing the Bluetooth driver, make sure that the **optional** Bluetooth module is on (the ((ı)) LED will be green). Use the Module ON/OFF Button (see *"Module ON/OFF Button" on page 1 - 13*) to toggle power to the Bluetooth module (if the *Found New Hardware Wizard* appears, click **Cancel**). **Make sure you install the drivers in the order indicated in** *Table 4 - 1 on page 4 - 7*.

Bluetooth Driver Installation (Win2000)

1. Turn the Bluetooth module on (if the *Found New Hardware Wizard* appears, click **Cancel**).
2. Insert the *Bluetooth CD-ROM* into the CD drive.
3. The program will run automatically.
4. Click **Install Drivers and Application Software** and click **Next**.
5. Click the button to accept the license agreement, then click **Next**.
6. Click **Next > Install** (click **OK** if asked if you want to continue).
7. Click **Finish** > **Yes** to restart the computer.
8. After the computer restarts, press the ((ı)) button to turn the module on.
9. You can configure the settings in the **Bluetooth Configuration** control panel (**Start** menu and point to **Settings** and click **Control Panel** then double-click the **Bluetooth Configuration** icon).
10. The Bluetooth Manual (**readme.pdf**) is on the *Bluetooth CD-ROM* in the Userguide folder (insert the *Bluetooth CD-ROM* and click **Browse this CD**). Click A**crobat Reader** to install the program to read the file.

Bluetooth Driver Audio Setup (Win2000)

After installing the Bluetooth driver in *Windows 2000* you may no longer hear any sound, nor see the **Volume** icon in the taskbar. If this is the case then follow this procedure:

1. Go to the **Sounds & Multimedia Control Panel** (**Start** Menu and point to **Settings** and click **Control Panel** then double-click the **Sounds & Multimedia** icon).
2. Click the **Audio** tab.
3. In the **Sound Playback** and **Sound Recording** menus choose **Realtek AC97 Audio**.
4. Click the **Sounds** tab and make sure that the tickbox to "**Show volume control on the taskbar**" is ticked.
5. Click **OK**.

7

Bluetooth Driver Installation (WinXP)

1. Turn the Bluetooth module on (if the *Found New Hardware Wizard* appears, click **Cancel**).
2. Insert the *Bluetooth CD-ROM* into the CD drive.
3. The program will run automatically.
4. Click **Install Drivers and Application Software** and click **Next**.
5. Click the button to accept the license agreement, then click **Next**.
6. Click **Next > Install > Finish** (click **OK/Continue Anyway** if asked if you want to continue).
7. The **System Properties** window should be open (if the window is not open see *"Windows XP Service Pack 2" on page 4 - 4* for instructions); click **Device Manager** (button) from the **Hardware** (tab).
8. Click "+" next to **Bluetooth Radios** (if its sub-items are not shown).
9. Right-click **Generic Bluetooth Radio** and select **Update Driver**.
10. Select **"No, not this time"** and click **Next**.
11. When the *Hardware Update Wizard* appears, click **"Install from a list or specific location (Advanced)"** then click **Next**.
12. Click **"don't search. I will choose the driver to install."** > **Next**.
13. Click to select **Billionton USB Bluetooth Device**, and click **Next**.
14. Click **Finish** and close the open windows.
15. You can configure the settings in the **Bluetooth Configuration** control panel (**Start** menu and point to **Settings** and click **Control Panel** then double-click the **Bluetooth Configuration** icon).
16. The Bluetooth Manual (**readme.pdf**) is on the *Bluetooth CD-ROM* in the Userguide folder (insert the *Bluetooth CD-ROM* and click **Browse this CD**). Click **Acrobat Reader** to install the program to read the file.

Bluetooth Control Panel Options

You may need to change some control panel options after installing the Bluetooth driver:

Audio

1. Go to the **Start** menu and point to **Settings** (or just click **Control Panel**) and click **Control Panel**, then double-click the **Sounds & Audio Devices/ Sounds & Multimedia** icon (**Category View > Speech, and Audio Devices**).
2. Click **Audio** (tab) and make sure that the "**Default device:**" is **Realtek AC97 Audio**.

Hyper Terminal

1. Go to **Start** menu and click **Programs/All Programs**, then point to **Accessories > Communications > HyperTerminal**.
2. Double-Click your connection, and make sure you have selected "**Connect Using:**" **Smart Link 56K Modem**.

FAX (WinXP)

1. Go to the **Start** menu and point to **Settings** (or just click **Control Panel**) and click **Control Panel**, then double-click the **Printers and Faxes** icon (**Category View > Printers and Other Hardware**).
2. Double-click your fax icon to bring up the **Fax Console**.
3. Click the **Tools** menu and scroll down to "**Configure Fax...**".
4. Click **Next > Next** and make sure that the fax device is the **Smart Link 56K Voice Modem**.

7

FAX (Win2000)

1. Go to the **Start** menu and point to **Settings** and click **Control Panel**, then double-click the **Fax** icon.
2. Click **Advanced Options (tab)** and click the **Open Fax Service Management Console (button)**.
3. Click **Devices** in the **Tree** window on the left.
4. The fax devices will be displayed in the right window, with the device with the highest priority displayed at the top.
5. Select the **Smart Link 56K Voice Modem** and use the arrows to move it to the top of the priority list, then close the windows.

PC Camera

If you have purchased the **optional** PC Camera you will need to install the device driver for it as indicated on the following pages (**make sure you install the drivers in the order indicated in** *Table 4 - 1 on page 4 - 7*). Use the Module ON/OFF Button (see *"Module ON/OFF Button" on page 1 - 13*) to toggle power to the PC Camera module.

> 🔔
>
> **Latest PC Camera Driver Information**
>
> Check the **PC Camera CD**, and any accompanying insert pages, for the latest updated information on the PC Camera driver, which may override the information provided here.

PC Camera Driver Installation (Win2000/WinXP)

1. Insert the **PC Camera CD-ROM** into the drive.
2. Click **Next** (click **Yes/Continue Anyway** if asked if you want to continue at any time).
3. Click **Finish** to restart the computer.
4. After the computer restarts, press the ((ᵖ)) button to turn the module on. (the computer will find and install the new hardware for you).
5. Run the **AMCAP** program from the **CMM PC Camera** item in the **Start > Programs/All Programs** menu.

> 🖉
>
> **Taking Still Pictures**
>
> You may take still pictures in the *Windows XP* operating system **only**.
>
> Double-click the **My Computer** icon on the desktop, or go the **Start** menu and point to **My Computer**, then click it.
>
> Double-click the **CMM PC Camera** icon.
>
> CMM PC Camera
>
> Click **Take a new picture** in the **Camera Tasks** box.

7

PC Camera Audio Setup

If you wish to capture video & **audio** with your camera, it is necessary to setup the audio recording options in *Windows*.

(WinXP)

1. Go to the **Start** menu and point to **Settings** (or just click **Control Panel**) and click **Control Panel**, then double-click the **Sounds & Audio Devices** icon (**Category View > Speech, and Audio Devices**).
2. Click **Advanced** in the **Device volume** tab.
3. Click **Options** (Volume Control) and scroll down and click **Properties**.
4. Click **Recording** (Adjust volume for) and click **Microphone** (check box), then click **OK**.
5. Make sure the **Select** (check box) in the **Recording Control** panel, under the **Microphone** section, is checked (boost the volume as high as it will go).
6. Close the open windows.

(Win2000)

1. Go to the **Start** menu and point to **Settings** and click **Control Panel** then double-click the **Sounds and Multimedia icon**.
2. Click **Audio** (tab) and click **Volume** (button) in the **Sound Recording** menu.
3. Select **Advanced Controls** from the **Options** menu.
4. Make sure the **Select** (check box) in the **Microphone** section is checked, and boost the volume as high as it will go.
5. Close the windows.

7

Figure 7 - 3
Audio Setup (Windows XP)

7

P
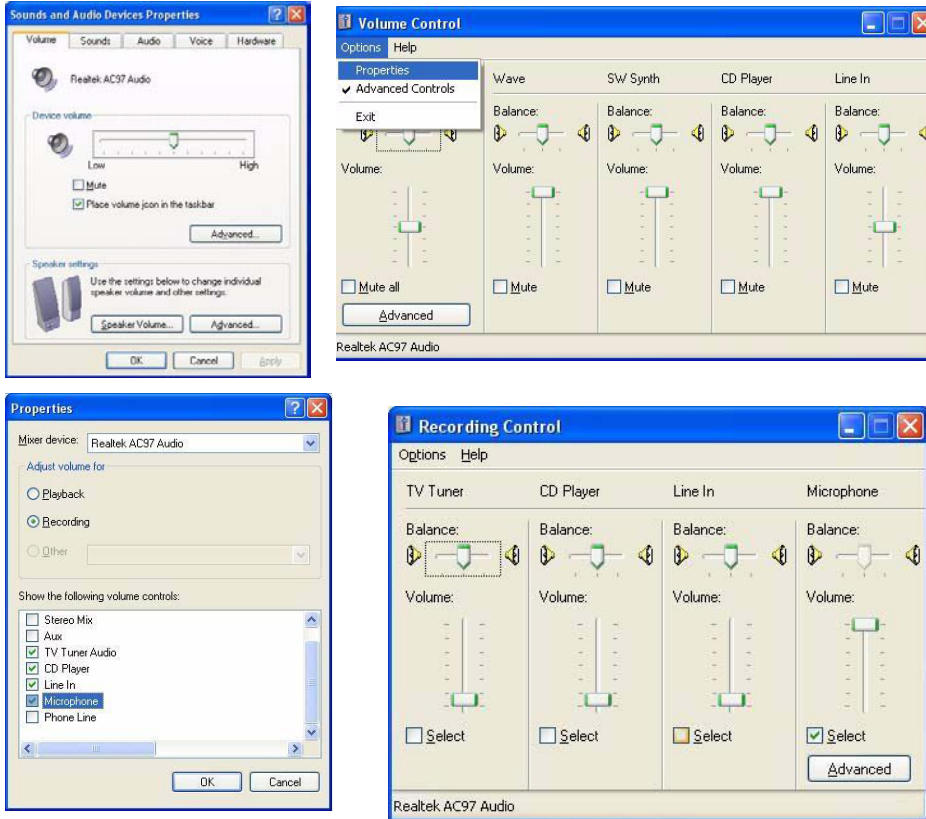
Pre-Allocating File Space

You may pre-allocate the file size for the capture file in the AMCAP program. You can choose to ignore this by clicking **Cancel**.

Pre-allocating space on the hard disk can improve the capture quality (particularly of large capture files), by reducing the amount of work the hard disk has to do in finding space for the video data as it is being captured.

You may find it helpful to defragment the HDD before capture.

AMCAP

AMCAP is a video viewer useful for general purpose video viewing and testing, and can capture video files to .avi format.

1. Run the **AMCAP** program from the **Start > Programs/All Programs > CMM PC Camera** menu (it is recommended that you **set the capture file** before the capture process - **see Set Capture File below**).
2. Go to the **Capture** menu heading (if you wish to capture audio make sure that the **Capture Audio** option is ticked) and select **Start Capture**.
3. On the first run of the program (if you have not set the captured file) you will be asked to choose a file name and size (**see the sidebar - Pre-Allocating File Space**) for the captured file. Click **Start Capture** again.
4. Click **OK** to start capturing the video, and press **Esc** to stop the capture.
5. If you wish to, you may go to the **File** menu and select **Save Captured Video As...**, choose a file name and location, then click **Open** (you can view the file using the **Windows Media Player**).

Set Capture File

In **AMCAP** program you will only be asked to set the capture file name on the first run of the program. When you run the program the next time the file will automatically be overwritten with the newly captured file. To avoid overwriting files you can go to the **Set Capture File..** option in the **File** menu, and set the file name and location before capture. Set the name and location then click **Open** (you can choose **Cancel** to ignore the file size if prompted).

7

Eliminating Screen Flicker

If you find that the video screen in the AMCAP program is flickering, you can
try to adjust the option from the **Video Capture Filter** options.

1. Run the **AMCAP** program from the **Start > Programs/All Programs > CMM
   PC Camera** menu.
2. Go to **Options** and scroll down to select "**Video Capture Filter...**".
3. You can choose either **50Hz** or **60Hz** from the **No Flicker** box.
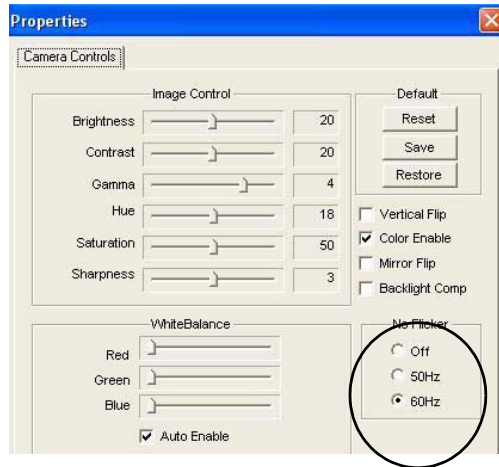
Figure 7 - 4
Camera Controls

7

7

Chapter 8: Troubleshooting

Overview

Should you have any problems with your computer, before consulting your service representative, 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 representative. 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.

8

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. Check the **LED Power Indicators** (see *"LED Power & Communication Indicators" on page 2 - 6*) to see the computer's power status.

- **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 keys configured in your *Power Management/Power Options* (see *"Conserving Power (System)" on page 3 - 17*), or by pressing the **Fn** + **Esc** key combination, to wake-up the system.

- **Brightness** - Check the brightness of the screen by pressing the **Fn** + **F9 and F10** keys to adjust the brightness (see *"Advanced Video Controls" on page 3 - 2*).

- **Display Choice** - Press **Fn** + **F6** to make sure the system is not set to "external only" display (see *"Switching/Enabling Displays (Keyboard)" on page 3 - 8*).

- **Boot Drive** - Make sure there are no **floppy disks** in the drive (if you have one connected) 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*" / "*Remove disks or other media. Press any key to restart*").

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 that 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 *"Security Menu" on page 5 - 11*).

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

🔔

Warranty

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

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**" or "**Bootable CD-ROM**" (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).

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).

Troubleshooting

- 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.

8

Power

Problem	Possible Cause - Solution
You turned on the power but it doesn't work.	*Battery missing / 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 **LED power** indicator [🔋], 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.
You are losing battery power too quickly.	*The system is using too much power.* If your *OS* has a *Power Options* scheme (see *"Power Schemes" on page 3 - 15*) check its settings. You may also be using a PC Card device that is drawing a lot of power.
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.*
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 (see *"Battery Information" on page 3 - 20*).
	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.

8

Troubleshooting

Problem	Possible Cause - Solution
The notebook feels too hot.	Make sure the notebook is properly ventilated and a vent/fan intake is not blocked. If this doesn't cool it down, put the system into **Hibernate** mode or turn it off for an hour. Make sure the vents aren't blocked and the computer isn't sitting on a thermal surface (see *"Overheating" on page 1 - 18*). Make sure you're using the correct adapter. Make sure that your notebook is completely powered off before putting it into a travel bag (or any such container). Putting a notebook which is powered on in a travel bag may cause the vents/fan intakes to be blocked.

Display

Problem	Possible Cause - Solution
Nothing appears on screen.	*The system is in a power saving mode.* Toggle the sleep/resume key combination, **Fn + Esc** (see *"Function Keys and Numeric Keypad" on page 2 - 16*).
	The screen controls need to be adjusted. Toggle the screen control key combinations **Fn + F9/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 *"Switching/Enabling Displays (Keyboard)" on page 3 - 8*). If an external monitor is connected, turn it on.
	The **screen saver** *is activated.* Press any key or touch the **TouchPad**.
No image appears on the external monitor I have plugged in and powered on.	*You haven't used the key combination to switch the display options.* Press the **Fn + F6** key combination to toggle through the options.
	You haven't installed the video driver and configured it appropriately from the **Control Panel**. See *"What to Install" on page 4 - 1* for instructions on installing the driver, and see *"Making Adjustments for the Display" on page 3 - 3* for instructions on configuring the video driver.

8

Boot Password

Problem	Possible Cause - Solution
You forget the boot password.	*If you forget the password, you may have to discharge the battery of the CMOS.* Contact your service representative for help.

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.

8

Audio & CD Device

Problem	Possible Cause - Solution
The sound cannot be heard or the volume is very low.	*The volume might be set too low.* Check the volume control in the *Volume Control Panel* in the *Windows* taskbar, or use the key combination **Fn + F11** and **F12** (see *"Function Keys and Numeric Keypad" on page 2 - 16*) to adjust.
	The headphone is plugged into the wrong jack. It should be plugged into the headphone-out jack (see *"Headphone-Out Jack" on page 1 - 16*).
The sound cannot be heard or the volume is very low when playing a Video CD.	*The Equalizer settings in the Audio Configuration control panel is set too low.* Click the **AC97 Audio Configuration** icon 🔊 in the taskbar for configuration options. Select the **Equalizer** tab, and click the **ON** tickbox. Make sure that all the sliders are set to the top level (**+12dB**), then click **OK** and close the open windows.
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 Discs" on page 2 - 10*).
The DVD regional codes can no longer be changed.	*The code has been changed the maximum 5 times.* See *"DVD Regional Codes" on page 2 - 12*.

8

Keyboard and Mouse

Problem	Possible Cause - Solution
Unwelcome numbers appear when typing.	*If the LED ⊞ is lit, then Num Lock is turned **ON**.*
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.

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Other Keyboards

If your keyboard is damaged or you just want to make a change, you can use any standard 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.

8

Operation

Problem	Possible Cause - Solution
The system freezes or the screen goes dark.	*The system's power saving features have timed-out.* Use the AC adapter, press the sleep (**Fn + Esc**) key combination, or press the power button if no LEDs are lit.
	A software conflict made the system "crash". 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 does not go into a power saving mode when the battery is low.	*Power Options features are not enabled.* Go to the **Windows** Power Options menu and enable the features you prefer. Make sure you have enabled **Hibernate** mode from the control panel (see *"Hibernate" on page 3 - 18*).

8

Modules

Problem	Possible Cause - Solution
The Wireless LAN/ Bluetooth/PC Camera modules cannot be detected.	*The module(s) are off.* Check the LED indicator ((ᵗᵨ)) to see if the module(s) is(are) on or off (see *"LED Status Indicators" on page 2 - 5*). If the LED indicator is off, then press the Module On/Off button in order to enable the module(s). (See *"Mini-PCI Wireless LAN Module" on page 7 - 2*, *"Bluetooth Module" on page 7 - 6* and/or *"PC Camera" on page 7 - 11*.)
The Wireless LAN/ Bluetooth/PC Camera modules cannot be configured.	The driver(s) for the module(s) has(have) not been installed. Make sure you have installed the driver(s) for the appropriate module(s). (See *"Mini-PCI Wireless LAN Module" on page 7 - 2*, *"Bluetooth Module" on page 7 - 6* and/or *"PC Camera" on page 7 - 11*.)

8

Appendix A: Specifications

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Latest Specification Information

The specifications listed in this Appendix are correct at the time of going to press. Certain items (particularly processor types/speeds) may be changed or updated due to the manufacturer's release schedule. Check with your service center for details.

Model A and B Specifications

Feature	Model A and B Specifications	
Processor Types	Intel Pentium® M - (478-pin) Micro-FCPGA package	(μ0.13) 0.13 Micron Process Technology, 1MB On-die L2 Cache & 400MHz FSB - 1.3/ 1.4/ 1.5/ 1.6/ 1.7 GHz
	Intel Pentium® M - (478-pin) Micro-FCPGA package	(μ0.09) 0.09 Micron Process Technology, 2MB On-die L2 Cache & 400MHz FSB - 715/ 725/ 735 (1.5A ~ 1.7 GHz)
	Intel Pentium® M - (478-pin) Micro-FCPGA package	(μ0.09) 0.09 Micron Process Technology, 2MB On-die L2 Cache & 533MHz FSB - 740/ 750/ 760/ 770/ 780 (1.73 ~ 2.26 GHz)
	Intel Celeron® M - (478-pin) Micro-FCPGA package	(μ0.13) 0.13 Micron Process Technology, 512KB On-die L2 Cache & 400MHz FSB - 320/ 330/ 340 (1.3 ~ 1.5 GHz)
	Intel Celeron® M - (478-pin) Micro-FCPGA package	(μ0.09) 0.09 Micron Process Technology, 1MB On-die L2 Cache & 400MHz FSB - 350/ 360/ 370 (1.3 ~ 1.5 GHz)
Core Logic	SiS M661MX + SiS 963L Chipset	
Structure	PC2001 Compliant	
Security	Security (Kensington® Type) Lock Slot	BIOS Password

A

Feature	Model A and B Specifications	
Memory	One 64-bit wide DDR channel Two 200-pin SODIMM sockets, supporting 266/ 333 MHz DDR modules	Memory expandable up to 2GB (128/ 256/ 512/ 1GB MB DDR modules)
BIOS	One 4MB Flash ROM	Phoenix BIOS, Plug and Play (1.0a)
LCD	**Model A** 14.1" XGA Flat Panel TFT (1024*768)	**Model B** 15.4" WXGA TFT(1280*800)

Display	SiS M661MX Integration
	    Shared Memory Architecture, up to 64 MB of Dynamic Video Memory Allocation
	    Supporting Analog Monitor Resolution up to 1600 x 1200
	    Integrated High Quality 256 bit 3D Graphics Engine
	    Supports 2 Displays Dual View	

Storage	One changeable 12.7mm(h) Optical Device Drive(see *"Optional" on page A - 6*)
	
	Easy changeable 2.5" 9.5 mm (h) HDD
	    Supports Master Mode IDE
	    Supports PIO Mode 4/ ATA-33/ ATA-66/ ATA-100/ ATA-133	

Audio	AC'97 2.2 Compliant 3D Stereo enhanced Sound system Compatible Sound-Blaster PRO™	Built-In Microphone 2*Built-In Speakers
Keyboard & Pointing Device	Winkey Keyboard	Built-In TouchPad with Scrolling Function

A

Feature	Model A and B Specifications	
PCMCIA	One Type-II PCMCIA 3.3V/5V Socket Supporting Card Bus	
Interface	Two USB 2.0 Ports One External Monitor Port One Headphone-Out Jack One Microphone-In Jack	One S/PDIF-Out Jack One RJ-11 Jack for Plug & Play Fax/Modem One RJ-45 Jack for 100M (Max) Fast Ethernet One DC-in Jack
Communication	56K Plug & Play Fax/Modem V.90/92 Compliant 10M/100M (Max) Fast Ethernet PC Camera with USB Interface 802.11g Wireless LAN Module with Mini-PCI Interface Bluetooth 1.1 & MDC Modem Combo Module (**optional**)	
Power Management	Supports ACPI 2.0 Power Button as Sleep/Resume Key Supports Hibernate Mode Supports Standby Mode	Supports Battery Low Sleep Mode Supports Resume From Modem Ring Supports Wake on LAN

A

Feature	Model A and B Specifications	

Power	**Model A**
	Full Range AC Adapter
	      AC-Input 100~240V, 47~63Hz
	      DC Output 20V, 3.25A (**65W**)
	
	One 4 cell, Smart Lithium-Ion Battery Pack 2200mAH (**standard**)
	
	One 6 cell, Smart Lithium-Ion Battery Pack 4400mAH (**optional**)
		Model B
		Full Range AC Adapter
		      AC-Input 100~240V, 47~63Hz
		      DC Output 20V, 3.25A (**65W**)
		
		One 6 cell, Smart Lithium-Ion Battery Pack 4400mAH (**standard**)
		
		One 12 cell, Smart Lithium-Ion Battery Pack 8800mAH (**optional**)

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 & Weight	**Model A** 312mm (w) * 263mm (d) * 27.5mm (h) Min 2.2 kg without Battery	**Model B** 360mm (w) * 273mm (d) * 27.5mm (h) Min 2.5 kg without Battery

A

Feature	Model A and B Specifications	
Optional	**(Model A)** 6 Cells, 4400mAH, Smart Lithium-Ion Battery	**(Model B)** 12 Cells, 8800mAH, Smart Lithium-Ion Battery
	2.5" 12.5/12.7mm Height Hard Disk Drive	2.5" 12.5/12.7mm Height Hard Disk Drive
	DVD-ROM Drive Module DVD/CD-RW Combo Drive Module Dual DVD Drive Module	DVD-ROM Drive Module DVD/CD-RW Combo Drive Module Dual DVD Drive Module
	Software DVD Player	Software DVD Player
	PC Camera with USB Interface	PC Camera with USB Interface
	802.11g Mini-PCI WLAN Module	802.11g Mini-PCI WLAN Module
	Bluetooth & MDC Modem Combo Module	Bluetooth & MDC Modem Combo Module

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