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Preface

FCC Statement (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 in–stalled 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, 11A 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 Laser Class I Product

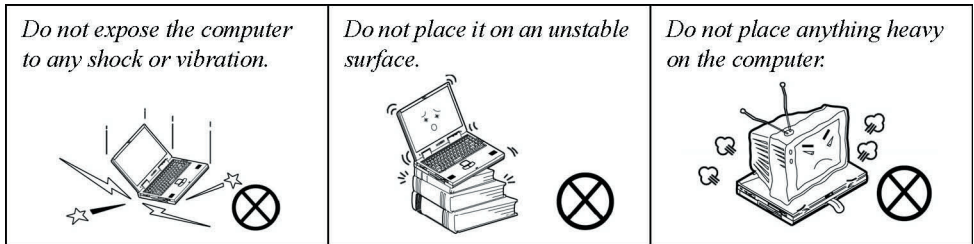


Preface

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.
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.
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 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.
- 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:

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

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.

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.

Removal Warning

When removing any cover(s) and screw(s) for the purposes of device upgrade, remember to replace the cover(s) and screw(s) before turning the computer on.

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/DC adapter and cables. Stow them in the carrying bag.
5. The AC/DC 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 hard-ware and software. Make sure your documents are prepared.

Power Off Before Traveling

Make sure that your notebook is completely powered off before putting it into a travel bag (or any other such container). Putting a notebook which is powered on in a travel bag may cause the Vents/Fan Intakes to be blocked. To prevent your computer from overheating make sure nothing blocks the Vent/Fan Intakes 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 knock-ing the computer against hard objects.

Beware of Electromagnetic fields - Devices such as metal detectors & X-ray machines can damage the com-puter, 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/DC 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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Chapter 1: Quick Start Guide Overview

This Quick Start Guide is a brief introduction to the basic features of your computer, to navigating around the computer and to getting your system started. The remainder of the manual covers the following:

- Chapter 2 A guide to using some of the main features of the computer e.g. the storage devices (hard disk, optical device, 4-in-1 card reader, ExpressCard/34/54), Auto Mail Program, TouchPad & Mouse, Audio & Printer.
- Chapter 3 The computer's power saving options.
- Chapter 4 The installation of the drivers and utilities essential to the operation or improvement of some of the computer's subsystems.
- Chapter 5 An outline of the computer's built-in software or BIOS (Basic Input Output System).
- Chapter 6 Instructions for upgrading your computer.
- Chapter 7 A quick guide to the computer's Wireless LAN, Bluetooth, PC Camera and Port Replicator modules (some of which may be optional depending on your purchase configuration).
- Chapter 8 A troubleshooting guide.
- Appendix A Definitions of the interface, ports/jacks which allow your computer to communicate with external devices.
- Appendix B Information on the Intel Video driver controls.
- Appendix C The computer's specification.

Advanced Users

If you are an advanced user you may skip over most of this Quick Start Guide. 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 in the User’s Manual. You may also find the notes marked with a (marker symbol) 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 the information contained in this Quick Start Guide should be enough to get you up and running. Eventually you should try to look through all the documentation (more detailed descriptions of the functions, setup and system controls are covered in the remainder of the User’s Manual), but do not worry if you do not understand every-thing 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 (marker symbol) as indicated in the margin. For a more detailed description of any of the interface ports and jacks see “Interface (Ports & Jacks)” on page A - 1.

Warning Boxes

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

Not Included

Operating Systems (e.g. Windows XP etc.) and applications (e.g. word processing, spreadsheet and database pro-grams) have their own manuals, so please consult the appropriate manuals.

Drivers

If you are installing new system software, or are re-configuring your computer for a different system, you will need to install the drivers listed in “Drivers & Utilities” on page 4 - 1. Drivers are programs which act as an interface between the computer and a hardware component e.g. a wireless network module. It is very important that you install the drivers in the order listed in Table 4 - 1, on page 4 - 6. You will be 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.

Ports and Jacks

See "Notebook Ports and Jacks" on page A - 2 for a description of the interface (ports & jacks) which allow your computer to communicate with external devices, connect to the internet etc.

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 Microsoft Windows XP (Home & Professional Editions) operating system.

System Startup

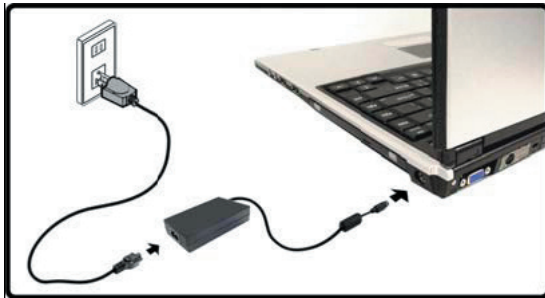


Figure 1 - 1 - Computer with AC/DC Adapter Plugged-In

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Securely attach any peripherals you want to use with the notebook (e.g. keyboard and mouse) to their ports.
4. Attach the AC/DC adapter to the DC-In jack on the right of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter (Note: If you have included the Port Replicator in your purchase option see page 7 - 12).
5. Raise the lid/LCD to a comfortable viewing angle, and press the power button to turn the computer “on”.
6. Adjust the LCD panel to a comfortable viewing angle.
7. The LED Power & Communication indicators show the power and battery status of the computer, and give notification of e-mail received.

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.

System Map: Top View with LCD Panel Open



Figure 1 - 2 - Top View with LCD Panel Open

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

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. Use the key combinations to toggle power to the WLAN/Bluetooth modules, and check the status indicator icon to see if the modules are powered on or not (see Table 1 - 2, on page 1- 6/Table 1 - 4, on page 1 -8).

LED Indicators

The two sets of LED indicators (LED Status Indicators and LED Power & Communication Indicators) on the computer display helpful information about the current status of the computer.

Table 1 - 1 - LED Status Indicators









Icon	Color	Description
	Blue	Number Lock Activated (to activate press Fn & NumLk)
	Blue	Caps Lock Activated
	Blue	Scroll Lock Activated (to activate press Fn & ScrLk)

Table 1 - 2 - LED Power & Communication Indicators




Icon	Color	Description
	Blue	The Computer is On
	Blinking Blue	The Computer is in Stand by Mode
	Amber	The AC/DC Adapter is Plugged In & the Computer is Powered Off
	Amber	The AC/DC Adapter is Plugged In & the Battery is Charging
	Blinking Amber	The Battery Has Reached Critically Low Power Status
	Blue	The Battery is Fully Charged

Icon	Color	Description
	Blinking Blue	New Mail Has Arrived
	Blue	Hard Disk Activity
	Blue	The WLAN Module is Powered On
	Blue	The Bluetooth Module is Powered On

Hot-Key Buttons & Keyboard

These buttons give instant access to the default Internet browser and e-mail program, and to a user-defined application, with one quick button press. To use the “user defined application Hot-Key Button”, you must install the driver (see “Hot-Key (WinXP)” on page 4 -10).

Table 1 - 3 -Hot-Key Buttons

Hot-Key	Function
	Activate the user specified application e.g. Microsoft Word or Excel
	Activate the Default E-Mail Program
	Activate the Default Internet Browser

See “Application Hot-Key” on page 2 - 10 for configuration instructions.

Note: The hot-key buttons may appear slightly different from those illustrated in Table 1 - 3, depending on your model/design.

The keyboard has an embedded numerical keypad for easy numeric data input, and features Function Keys to allow you to change operational features instantly (see Figure 1 - 3).

Figure 1 - 3 - Keyboard



Function Keys

The keyboard has an embedded numerical keypad for easy numeric data input, and features Function Keys to allow you to change operational features instantly (see Figure 1 - 3).

Table 1 - 4 -Function Keys

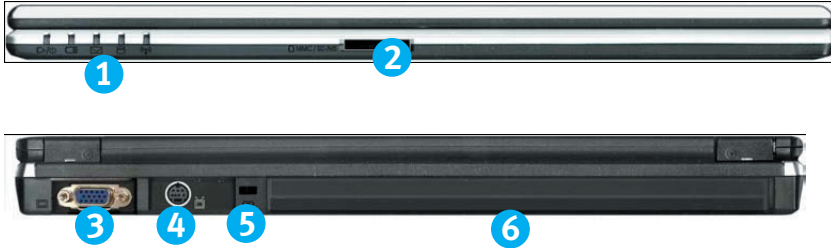
Keys	Description
Fn	Function Key
Fn + 1	Touchpad Toggle
Fn + F3	Mute Toggle
Fn + F4	Sleep Toggle
Fn + F5	Decrease Audio Volume
Fn + F6	Increase Audio Volume
Fn + F7	Display Toggle
Fn + F8	Decrease LCD Brightness
Fn + F9	Increase LCD Brightness
Fn + F10	PC Camera Power Toggle
Fn + F11	Wireless Power Toggle
Fn + F12	Bluetooth Power Toggle
Fn + NumLk	Number Lock Toggle
Fn + Scr Lk	Scroll Lock Toggle

Special Characters

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

System Map: Front & Rear Views

Figure 1 - 4 - Front & Rear Views



Front & Rear Views

1. LED Power & Communication Indicators
2. 4-in-1 Card Reader
3. External Monitor Port
4. S-Video-Out Jack
5. Security Lock Slot
6. Battery

4-in-1 Card Reader

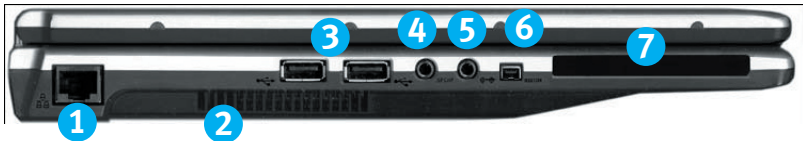
The card reader allows you to use the most popular digital storage card formats: MMC (MultiMedia Card) / SD (Secure Digital) / MS (Memory Stick) / MS Pro (Memory Stick Pro)

System Map: Left View

Figure 1 - 4 Left View

1. RJ-45 LAN Jack
2. Vent/Fan Intake
3. 2 * USB 2.0 Ports
4. S/PDIF-Out Jack
5. Line-In Jack
6. Mini-IEEE 1394 Port
7. ExpressCard Slot

Figure 1 - 5 - Left View



4-in-1 Card Reader

The card reader allows you to use the most popular digital storage card formats: MMC (MultiMedia Card) / SD (Secure Digital) / MS (Memory Stick) / MS Pro (Memory Stick Pro)

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.

Media Warning

Don't try to remove a floppy disk/CD/DVD while the system is accessing it. This may cause the system to “crash”.

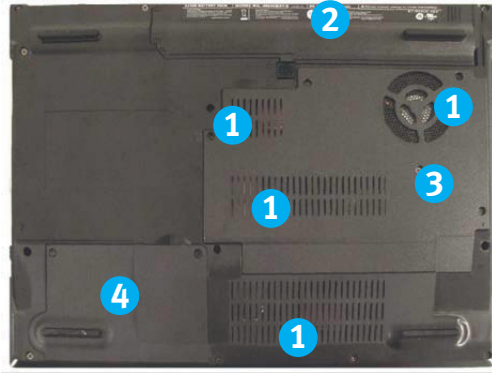
Changing DVD Regional Codes

Go to the **Control Panel** 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 dialogue box, and select the **DVD Region** (tab) to bring up the control panel to allow you to adjust the regional code (see “DVD Regional Codes” on pages 2-5).

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.

System Map: Bottom View

Figure 1 - 7 - Bottom View



1. Vent/Fan Intake
2. Battery
3. Module Bay Cover
4. Hard Disk Cover

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.

Battery Information

Always completely discharge, then fully charge, a new battery before using it. Completely discharge and charge the battery at least once every 30 days or after about 20 partial discharges. See “Battery Information” on page 3-9 for full instructions.

Windows XP Start Menu & Control Panel

Most of the control panels, utilities and programs within Windows XP are accessed from the Start menu. When you install programs and utilities they will be installed on your hard disk drive, and a shortcut will usually be placed in the Start menu and/or the desktop. You can customize the look of the Start menu by right-clicking the Start menu and selecting Properties from the menu.

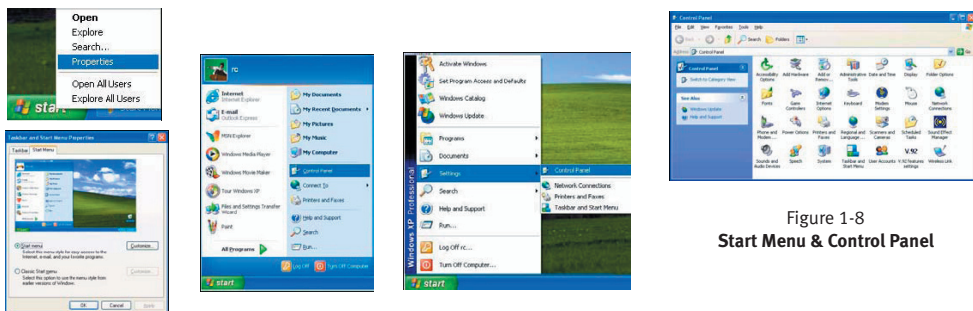


Figure 1-8
Start Menu & Control Panel

In many instances throughout this manual you will see an instruction to open the Control Panel. The Control Panel is accessed from the Start menu. The Control Panel allows you to configure the settings for most of the key features in Windows (e.g. power, video, network, audio etc.). Windows XP provides basic control panels for many of the features, however many new control panels are added (or existing ones are enhanced) when you install the drivers listed in Table 4 - 1, on page 4 - 6. To see all controls it may be necessary to toggle off Category View.

Video Features

Your computer has built-in Intel (Intel 945GM) video. You can switch display devices, and configure display options, from the Display Properties control panel in Windows as long as the appropriate video driver is installed. To access Display Properties in Windows:

1. Click Start, point to Settings and click Control Panel (or just click Control Panel).
2. Double-click Display (icon) - In the Appearance and Themes category.
3. Click Settings (tab) in the Display Properties dialog box.
4. Move the slider to the preferred setting in Screen area/resolution (1)
5. Click the arrow and scroll to the preferred setting in Colors/Color Quality (2)
6. You can also access Display Properties by right-clicking the desktop and scrolling down and clicking Properties. Click Settings (tab) and adjust as above.
7. Open the Display Properties control panel, and click Advanced (button) (3) (Figure 1 - 9 on page 1 - 15) to bring up the Advanced properties tabs.
8. Click the Intel(R) Graphics Media Accelerator Driver for Mobile tab, and click Graphics Properties (button) to make any video adjustments you require.

Display Devices & Options

Besides the built-in LCD, you can also use an external VGA monitor (CRT)/external Flat Panel Display or TV as your display device. A VGA monitor/Flat Panel Display connects to the external monitor port, a TV to the S-Video-Out jack. The following display modes are available (see “Intel Video Driver Controls” on page B- 1 for details).

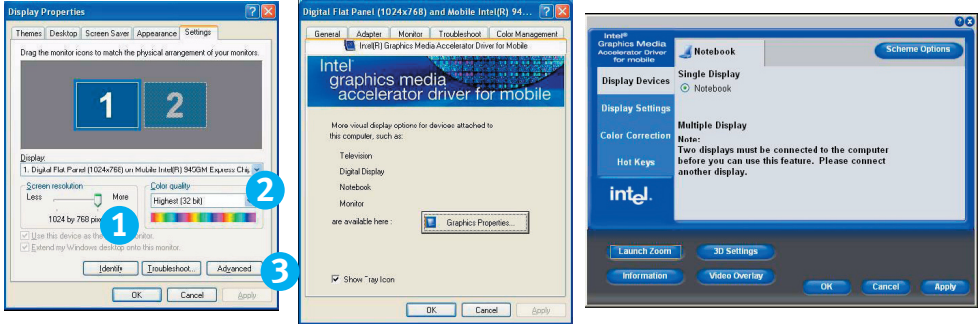


Figure 1 -9 - Display Properties Desktop

Display Mode	Description
Single	One of the connected displays is used as the display device
Twin Mode	This mode will drive multiple displays with the same content and resolutions, color quality etc.
Intel(R) Dual Display Clone Mode	Both connected displays output the same view and may be configured independently
Extended Desktop Mode	Both connected displays are treated as separate devices, and act as a virtual desktop

Table 1-5 Display Options

*Intel Display Note: Note that the notebook is the default Primary display device and may not be changed.

Power Management Features

The Power Options control panel icon in Windows (see page 1 - 13) allows you to configure power management features for your computer. You may conserve power through individual components such as the monitor or hard disk (by means of Power Schemes), or you may use either Stand by or Hibernate mode to conserve power throughout the system (enable Hibernate support from the control panel as pictured in Figure 1 - 10). Pay attention to the instructions on battery care in “Battery Information” on page 3 - 9.

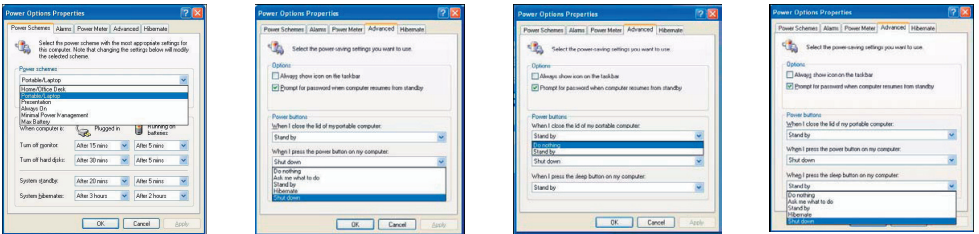


Figure 1 - 10 - Power Options

The computer’s power button, sleep button (Fn + F4 key combination), and lid (closing the lid) may be set to send the computer in to either Stand by or Hibernate mode.

Power Saving and Performance

Power Schemes may have an affect on your computer performance (see “Power Schemes” on page 3 - 4).

Chapter 2: Features & Components

Overview

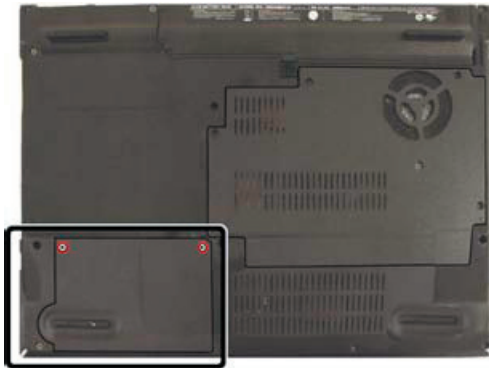
Read this chapter to learn more about the following main features and components of the computer:

- Hard Disk Drive
- Optical Device
- 4-in-1 Card Reader
- Express Card Slot
- Auto Mail Checker
- Application Hot-Key
- TouchPad and Buttons/Mouse
- Audio Features
- Adding a Printer

Hard Disk Drive

The hard disk drive is used to store your data in the computer. The hard disk can be taken out to accommodate other 2.5” serial (SATA) hard disk drives with a height of 9.5 mm. The hard disk is accessible from the bottom of your computer as seen below.

Figure 2 - 1 Hard Disk Location



Optical Device

There is a bay for a 5.25" optical (CD/DVD) device (12.7mm height). The actual device will depend on the module you purchased. The optical device is usually labeled "Drive D:" and may be used as a boot device if properly set in the BIOS.

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 interrupt-ed, insert an object such as a straightened paper clip into the emergency eject hole
3. to open the tray.



Figure 2 - 2 Optical Device

Sound Volume Adjustment

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

Peripherals must be connected before you turn on the system.

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 CDs/DVDs can be accessed.

Note the following:

- 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.

Disk Eject Warning

Don't try to remove a CD/DVD while the system is accessing it. This may cause the system to "crash."

DVD Regional Codes

To change the DVD regional codes see “Changing DVD Regional Codes” on page 1 - 10.

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 - 1 DVD Regional Coding

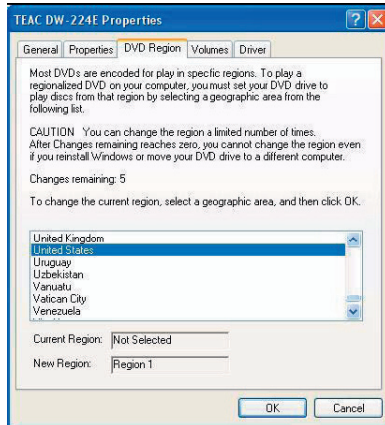


Figure 2 - 3 DVD Regions

4-in-1 Card Reader

The card reader allows you to use some of the latest digital storage cards. Push the card into the slot and it will appear as a removable device.

- MMC (MultiMedia Card)
- SD (Secure Digital)
- MS (Memory Stick)
- MS (Memory Stick Pro)

*Note: The PC adapters are usually supplied with these cards.

Figure 2 - 4 Left View



1. Card Reader

ExpressCard Slot

The computer is equipped with an ExpressCard/34/54 slot that reads Express Card/34 and ExpressCard/54 formats. ExpressCards are the successors to PCMCIA (PC Cards).

ExpressCard/54 is used for applications which require a larger interface slot, e.g. CompactFlash card reader. The number denotes the card width; 54mm for the Express Card/54 and 34mm for the ExpressCard/34. Make sure you install the Express-Card driver.

Inserting and Removing ExpressCards

- Align the ExpressCard with the slot and push it in until it locks into place.
- To remove an ExpressCard, simply press the card to eject it.

Figure 2 - 5 ExpressCard Slot

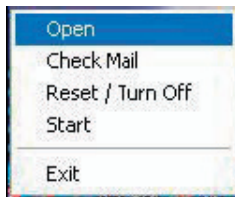


Auto Mail Checker

After you have installed the driver for the Auto Mail Checker program 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.

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



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

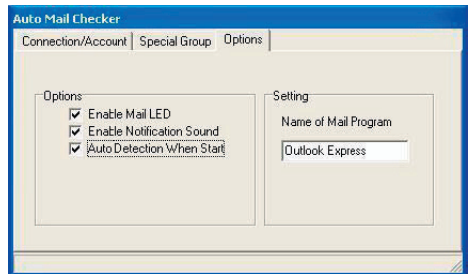
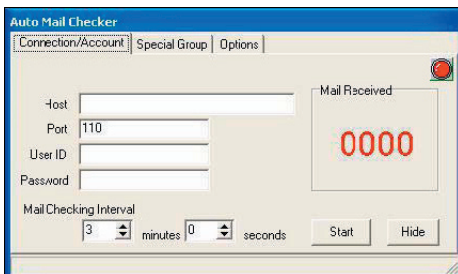


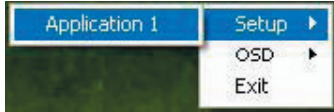
Figure 2 - 7 Auto Mail Checker Account Setup and Options

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

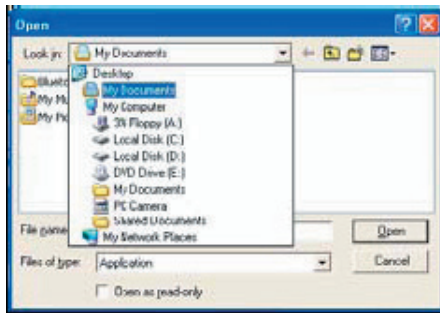
Application Hot-Key

The hot-key buttons give instant access to the default Internet browser and e-mail program, and to a user-defined application, with one quick button press. To configure a program to open when the application hot-key is pressed (Windows Media Player is the default program), follow the instructions below.

1. Right click the Hot-Key driver icon in the taskbar.
2. Select Setup from the menu, scroll to Application 1 and press Enter.



3. An Open dialog box will appear on the screen.



4. Browse to the directory where the desired application.exe (see the sidebar) program exists.
5. Double-Click on the program file or choose Open.

Figure 2 - 8 Hot-Key Configuration Screens

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 in 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. The TouchPad may be toggled on/off by means of the Fn + F1 key combination. Configuration (Advanced Menu)” on page 5 - 9). For further information, please refer to the manual of the device you wish to connect.



Figure 2 - 9 Mouse Properties

Audio Features

You can configure the audio options on your computer from the Sounds and Audio Devices Windows control panel, or from the Realtek HD Audio Manager icon in the taskbar/control panel (this will bring up the Realtek Audio Configuration menus). The volume may also be adjusted by means of the Fn + F5/F6 key combination.

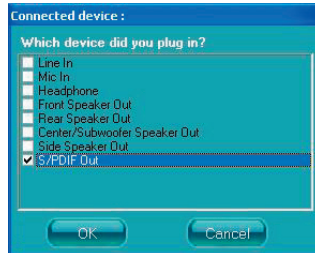


Figure 2 - 10 Realtek Audio Configuration Menus

Sound Volume Adjust 8 Channel Sound Support

If you wish to configure your system for 8 channel sound support, then the following ports should be used as outputs. Double-click the appropriate icon (e.g.) to bring up the “Connected device:” dialog box to configure the output port.

- Side Speaker Out - Connect to S/PDIF Out
- Center/Subwoofer Speaker Out - Connect to Microphone In
- Front Speaker Out - Connect to Speaker/Headphone Out
- Rear Speaker Out - Connect to Line In



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 current printers have a USB interface connection. You may use any one of the ports to connect the printer.

Install Instructions:

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

Parallel Printer

This is still a very common type of printer. The install instructions are in the sidebar. **Note:** If you have included the Port Replicator in your purchase option, then a parallel port will be available, otherwise you will need to purchase a parallel to USB converter.

Chapter 3: Power Management

Overview

To conserve power, especially when using the battery, your computer uses the ACPI power management system. Power management conserves power by controlling in-dividual components of the computer (the monitor and hard disk drive) or the whole system.

This chapter covers:

- The Power Sources
- Turning on the Computer
- Power Schemes
- System Power Options
- Configuring the Power Button
- Battery Information

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 XP.

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)

Power Button as Stand By or Hibernate Button

If you are using a fully ACPI-compliant OS, (such as Windows XP) you can use the OS's "Power Options" control panel to set the power button to send the system into Stand by or Hibernate mode (see your OS's documentation, or "Configuring in the Power Button" on page 3-8 for details)

The Power Sources

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

AC/DC Adapter

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

1. Attach the AC/DC adapter to the DC-In jack at the rear of the computer.
2. Plug the AC power cord into an outlet, and then connect the AC power cord to the AC/DC 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 computer while you are on the road or when 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.

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 Stand by/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.

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 system problems.

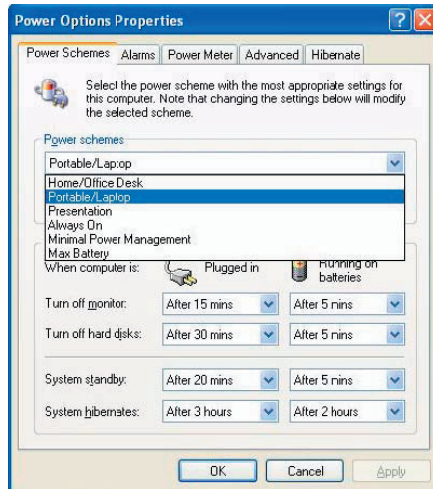
Resuming Operation

Press a key on the keyboard to have the system resume form Monitor or Hard Disk Stand By.

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 Stand by or Hibernate modes.

Figure 3 - 1 Power Schemes



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.

System Power Options

You can use the system power options to stop the computer's operation and restart where you left off. This system features Stand by 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 - 2 on page 3 - 7).

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.

Stand by Mode vs. Hibernate Mode

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

Stand by

Stand by saves the least amount of power, but takes the shortest time to return to full operation. During Stand by 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 Stand by 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 computer 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.

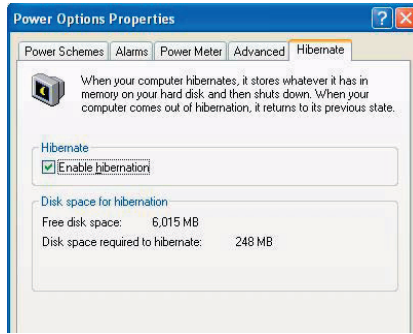


Figure 3 - 2 Enable Hibernation

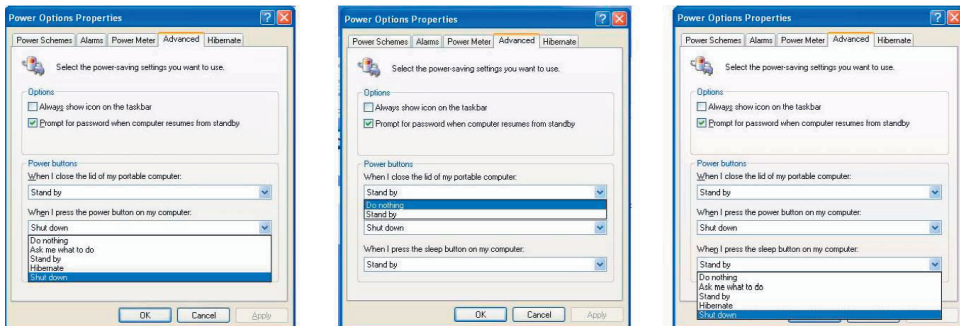
System Resume

The system can resume from Stand by mode by:

- Pressing the power button
- Pressing the Fn + F4 key combination
- An alarm resume that is enabled and expires
- An incoming call received on the modem (if enabled)
- Network card activity (if enabled)

Configuring the Power Button

The power button may be set to send the computer in to either Stand by or Hibernate mode. In Stand by mode, the LED will blink 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 Sleep/Resume (Sleep) Button

Sleep Button

You may also configure the Sleep/Resume key combination (Fn+F4) from the menu illustration in figure 3-3. In Windows this is referred to as the sleep button.

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.

Battery Life

Your computer's battery life is dependent upon many factors, including the pro-grams 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

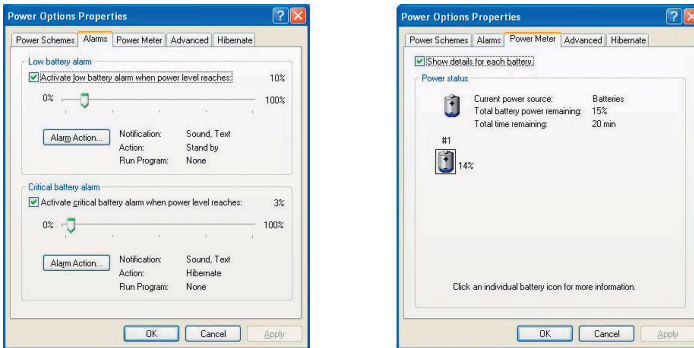


Figure 3 - 4 Power Options (Alarm & Power Meter)

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 re-move the battery for any reason see “Removing the Battery” on page 6 - 3.

Recharging the Battery with the AC/DC Adapter

The battery pack automatically recharges when the AC/DC 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.

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

Low Battery Warning

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

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/DC 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.

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.

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 - see 3 - 9) and Schemes (change all the settings to Never - see page 3 - 4). 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.

Chapter 4: Drivers & Utilities

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. The following operating system is covered.

- Windows XP Professional and Home Editions (with Service Pack 2)

What to Install

The Device Drivers & Utilities + User's Manual CDROM contains the drivers and utilities necessary for the proper operation of the computer. The drivers for all the modules (WLAN, Bluetooth, PC Camera and TV Tuner) are on the separate CD-ROMs supplied. Table 4 - 1 on page 4 - 6 lists what you need to install manually according to your choice of the operating system, and it is very important that the drivers are installed in the order indicated.

Module Driver Installation

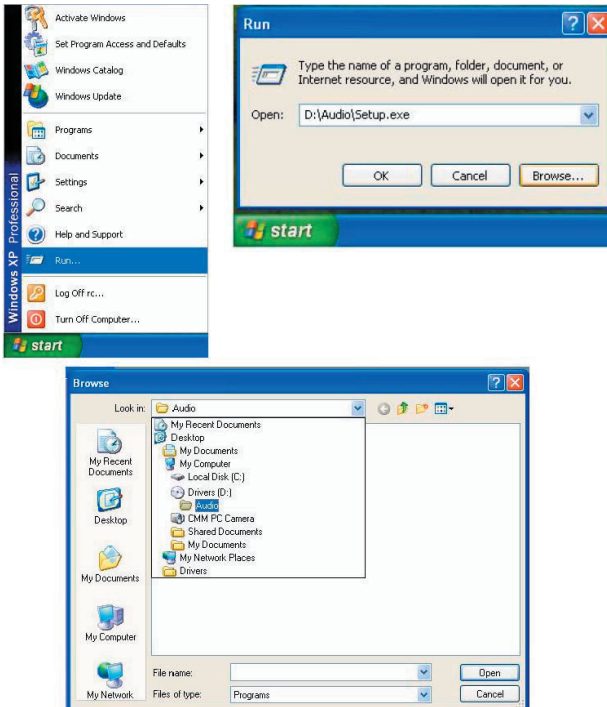
The procedures for installing drivers for the Wireless LAN, Bluetooth, TV Tuner, PC Camera and RAID modules are provided in "Modules". Make sure that the drivers are installed in the order indicated in Table 4 - 1.

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 its 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:”** dialog box at the top of the **Browse** window. Click the scroll button to navigate to **My Computer** to display the devices and drive letters.



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 in-stalled the appropriate Service Pack before installing all the drivers.

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 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.)

Windows XP Service Pack 2

Make sure you install Windows XP Service Pack 2 (or make a Windows XP version which includes Service Pack 2) before installing any drivers. Service Pack 2 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. 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 the Hardware (tab) > 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 (if you don't see the item then there is no need to take any further action).
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), un-install 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 Start > 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.

Driver Installation

Insert the Device Drivers & Utilities + User's Manual CD-ROM and the Notebook Driver Installation application will run automatically.

1. Check the driver installation order from Table 4 - 1 (the drivers must be installed in this order) which is the same as that listed in the driver installation screen menu.
2. Double-click to select the name of the driver you wish to install.
3. Follow the instructions as listed in this chapter.
4. Make a note of the drivers you have installed.
5. If a restart is required after installing a driver, you will usually need to click the "Yes/Finish" button when prompted to restart the computer.
6. To get back to the Notebook Driver Installation screen click Start (menu) > Run... and navigate (Browse..) to D:\setup.exe and click OK.



Driver Installation Screen

- Double-click the My Computer icon, and then
- Double-click the CD icon.

Windows XP (SP2)			
Driver	Page	Driver	Page
Chipset	Page 4-7	AutoMail (Manual Driver Installation Only)	Page 4-11
Video	Page 4-7	Bluetooth	Page 7-2
Audio	Page 4-7	PC Camera	Page 7-5
Modem/LAN	Page 4-8	WLAN Module	Page 7-11
TouchPad	Page 4-9	Wireless LAN	Page 7-12
ExpressCard/ Card Reader	Page 4-9	Port Replicator Serial Port	Page 7-13
Hot-Key Buttons	Page 4-9	(LAN) Port	Page 7-14

Table 4 - 1 - Driver Installation

Manual Driver Installation

If you wish to install the drivers manually, click the Exit button to quit the Notebook Driver Installation application, and then follow the manual installation procedure for each driver. The manual installation procedure begins with instructions on how to browse to the executable file; “Click Start (menu) > Run..”.

Windows XP Driver Installation Procedure

This section covers driver and utility installation instructions for Windows XP Home & Professional. Insert the Device Drivers & Utilities + User’s Manual CD-ROM and click the appropriate driver name from the NoteBook Driver Installation menu and follow the instructions to install the driver, or Click Start and navigate (Browse..) to follow the manual setup instructions.

To get back to the Notebook Driver Installation screen click Start (menu) > Run... and navigate (Browse..) to D:\setup.exe and click OK. OR Double-click the My Computer icon, and then double-click the CD icon.

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.

Chipset

1. Double-click Chipset.
2. Give the driver time to install, and the computer will restart to complete the installation.

OR

1. Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\00CHIPSET\setup.exe and click OK.
2. Click Next > Next > Next > Yes.
3. Click Finish to restart the computer.

Video

1. Double-click VGA.
2. Give the driver time to install, and the computer will restart to complete the installation.

OR

1. Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\01VGA\setup.exe and click OK.
2. Click Next (click Continue Anyway if asked if you want to continue at any time).
3. Click Finish to restart the computer.

Audio

1. Double-click Audio.
2. The installation will be complete when the AVRack icon appears on the desktop.

OR

1. Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\02AUDIO\setup.exe and click OK.
2. Click Next.
3. Click Finish to restart the computer.

Modem

1. Double-click Modem.
2. Give the driver time to install, and a Found New Hardware bubble will appear in the bot-tom right of the screen to inform you when the driver has been successfully installed.

OR

1. Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\03MODEM\Setup.exe and click OK.
2. Click Next.
3. The modem is now ready for configuration.
4. Click Install > Finish.

LAN

1. Double-click Lan.
2. Give the driver time to install, and a Local Area Connection bubble will appear in the bottom right of the screen.

OR

1. Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\04LAN\SetupYukonWin.exe and click OK.
2. Click OK > OK.
3. Click the button to accept the license and click Next.
4. The network settings can now be configured.

Modem Country Selection

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

Hot-Key Buttons

1. Double-click Hot-key.
2. Give the driver time to install, and the computer will restart to complete the installation.

OR

1. Click Start (menu) › Run... and navigate (Browse..) to D:\Drivers\Hot-Key\Setup.exe and click OK.
2. Click Next.
3. Click Finish to restart your computer.

TouchPad

1. Double-click Touchpad.
2. Give the driver time to install, and then restart the computer to complete the installation (the TouchPad driver icon will appear in the task-bar).

OR

1. Click Start (menu) › Run... and navigate (Browse...) to D:\Drivers\06TOUCHPAD\setup.exe and click OK.
2. Click Next › Next (click Continue Anyway if asked if you want to continue at any time).
3. Click Finish to restart your computer.
4. You may then configure your TouchPad as outlined in “TouchPad and Buttons/Mouse” on page 2 - 8.

AutoMail Checker

1. Double-click **AUTOMAIL**.

OR

Click **Start** (menu) > **Run...** and navigate

(Browse..) to **D:\Drivers\09AUTOMAIL\SETUP.EXE** and click **OK**.

2. To continue click **Next > Next > Finish**.

3. Run the program from the **Auto Mail Checker** in the Start menu (**Start > Programs/All Programs > Auto Mail Checker**).

4. Click the X icon in the taskbar to input the e-mail account details.

5. For further details see **“AutoMailChecker” on page 2-8**.

Module Drivers

See the pages indicated for the driver installation procedures for any modules included in your purchase option.

PC Camera

See the install procedure in “PC Camera Module” on page 7 - 2.

Wireless LAN

See the appropriate install procedure for your WLAN module in either “Intel WLAN Driver Installation” on page 7 - 9, or “MSI 6833B WLAN Driver Installation” on page 7-10.

Bluetooth

See the install procedure in “Bluetooth Driver Installation” on page 7 - 12.

TV Tuner

See the install procedure for your TV Tuner module in “Installing the AverTV Utility Software” on page 7-15.

RAID

See the setup procedure for your RAID module in “RAID Setup” on page 7 - 17.

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

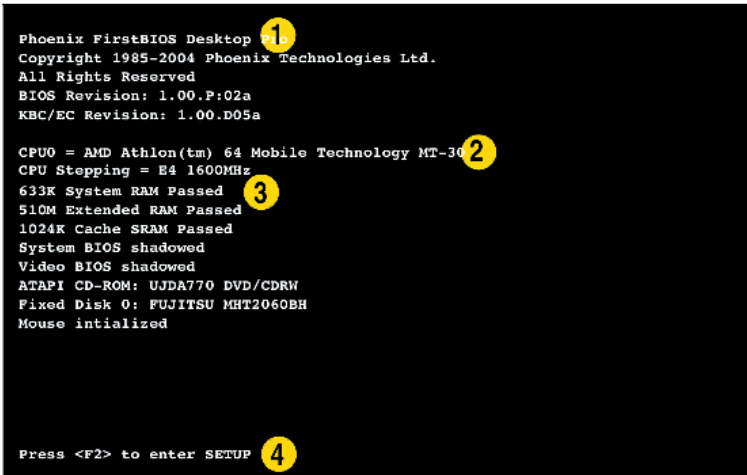
Incorrect settings can cause your system to malfunction. To correct mistakes, return to Setup and restore the Setup Defaults with <F9>.

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 FirstBIOS Desktop 1
Copyright 1985-2004 Phoenix Technologies Ltd.
All Rights Reserved
BIOS Revision: 1.00.P:02a
KBC/EC Revision: 1.00.D05a

CPU0 = AMD Athlon(tm) 64 Mobile Technology MT-36 2
CPU Stepping = E4 1600MHz
633K System RAM Passed 3
510M Extended RAM Passed
1024K Cache SRAM Passed
System BIOS shadowed
Video BIOS shadowed
ATAPI CD-ROM: UJDA770 DVD/CDRW
Fixed Disk 0: FUJITSU MHT2060BH
Mouse intialized

Press <F2> to enter SETUP 4
```

POST Screen

1. BIOS Information
2. CPU Type
3. Memory Status
4. Enter Setup prompt appears only during POST

Note: The POST screen as pictured is for guideline purposes only.

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.

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 on page 5 - 2 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, and 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.

Main Menu

PhoenixBIOS Setup Utility				
Main	Advanced	Security	Boot	Exit
System Time:	[22:11:05]			Item Specific Help <Tab>, <Shift Tab>, or <Enter> selects field.
System Date:	[12/30/2005]			
Primary Master	[UJDA770 DVD/CDRW-(PM)]			
SATA Port 4	[FUJITSU MHT2060BH-(S4)]			
System Memory:	634 KB			
Extended Memory:	510 MB			
VGA Card:	nVIDIA 7800 GTX			
VBIOS Revision	5.70.02.24.C3			
VBIOS Build Date	11/22/05			
F1 Help	Select Item	~/+	Change Values	
Esc Exit	Select Menu	Enter	Select Sub-Menu	F10 Save and Exit

Figure 5 - 2 Main Menu

System Time & Date (Main Menu)

The hour setting uses the 24-hour system (i.e., 00 = 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.

Primary Master/SATA Port 3/4 (Main Menu)

Pressing Enter here opens the sub-menu to show the configuration of hard disks and CD/DVD device(s) on the computer's SATA Channels. Use the Auto (Type:) set-ting to have the items configured automatically for you.

System/Extended Memory: (Main Menu)

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

The Main menu also contains information on your video card and video BIOS ver-sion.

Advanced Menu

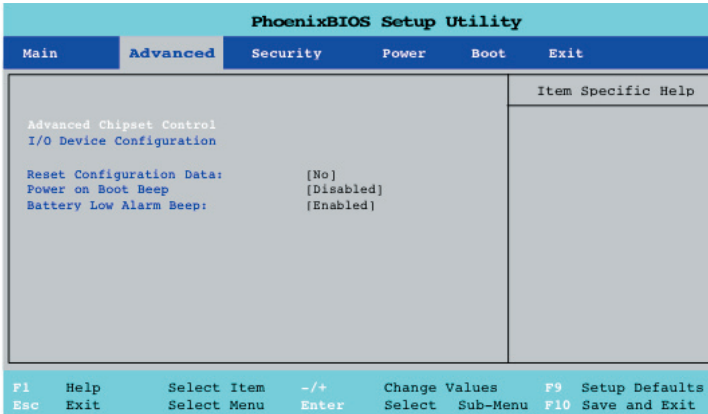


Figure 5 - 3 Advanced Menu

Advanced Chipset Control (Advanced Menu)

Pressing Enter here will access the sub-menu which allows you to disable the audio and modem devices if required; and you can also Enable/Disable the RAID function from this menu.

I/O Device Configuration (Advanced Menu)

The sub-menus under this item allow you to enable/disable the Serial port A (Serial Mouse), and FIR (Infrared) transceiver.

Reset Configuration Data (Advanced Menu)

This item is set to No as default. You can change the setting to Yes if you have in-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.

Power On Boot Beep (Advanced Menu)

Use this menu to enable/disable the single beep sound at the end of the POST. This item is “Disabled” by default.

Security Menu

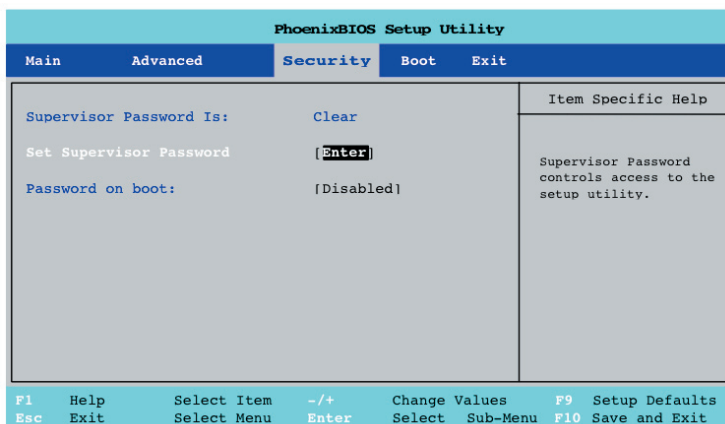


Figure 5 - 4 Security Menu

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) unless you choose to set a Password on Boot (see over).

Password on boot: (Security Menu)

Specify whether or not a password should be entered to boot the computer. If “Enabled” is selected, only users who enter a correct password can boot the system (see the warning in the sidebar). The default setting is “Disabled”.

Note: To clear existing passwords press Enter and type the existing password, then press Enter for the new password (without typing any password entry) and Enter again to confirm the password clearance.

Security Menu

The changes you make here affect the access to the Setup utility itself, and also access to your machine as it boots up after you turn it on. These settings do not affect your machine or network passwords which will be set in your software OS.

Password Warning

If you set a boot password (Password on boot is “Enabled”). 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

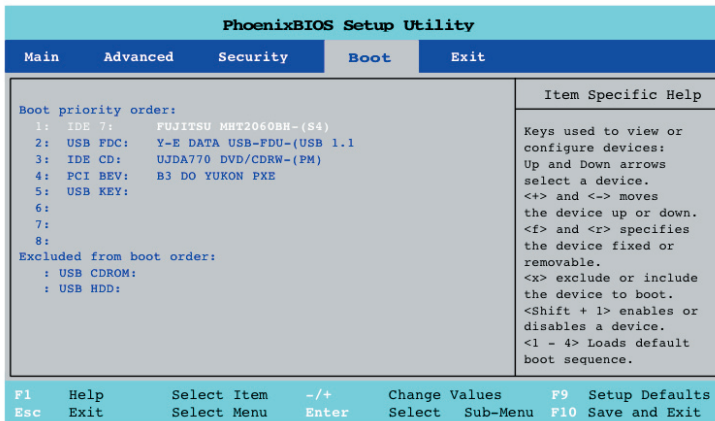


Figure 5 - 5 Boot Menu

When you turn the computer on it will look for an operating system (e.g. WindowsXP) 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 priority order. Item specific help on the right is available to help you move devices up and down the order.

Exit Menu

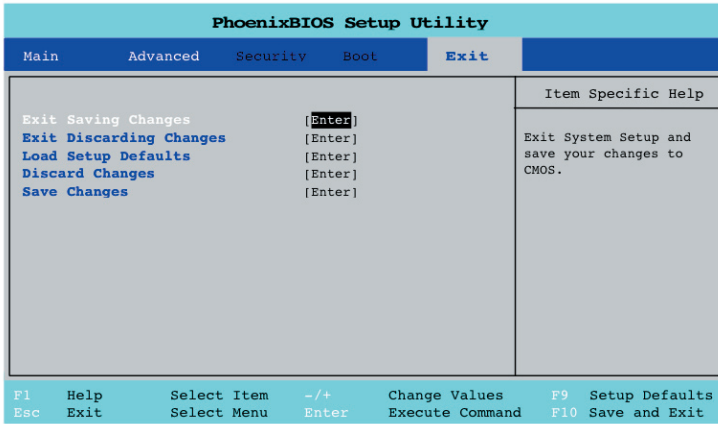


Figure 5 - 6 Exit Menu

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 Hard Disk Drive(s)
- Upgrading the System Memory (RAM)
- Upgrading the Optical (CD/DVD) Device(s)
- Removing the Video Card(s)

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.

Power Safety Warning

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

When Not to Upgrade

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

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

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

Removal Warning

When removing any cover(s) and screw(s) for the purposes of device upgrade, remember to replace the cover(s) and screw(s) before turning the computer on.

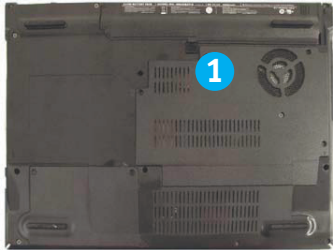
Upgrading the Processor

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.

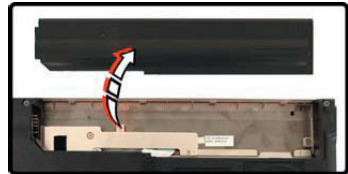
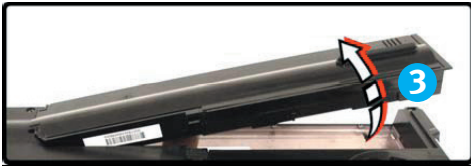
Removing the Battery

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. Slide the latch in the direction of the arrow, and hold it in place.
3. Slide the battery in the direction of the arrow .



4. Lift the battery up and out in the direction of the arrow .



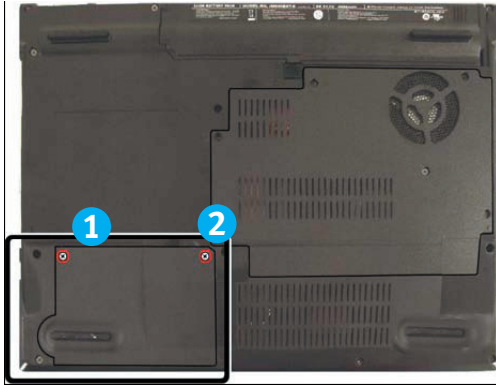
5. Insert the battery by pushing it straight down into the battery bay (it will only fit one way, don't force it).
6. Make sure the battery is sitting flat in the slot, and then slide the battery in the direction of the arrow until the lock clicks into place.



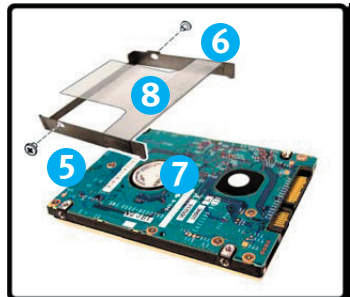
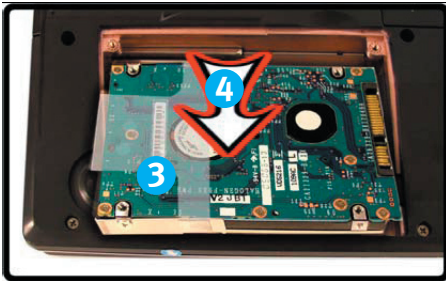
Upgrading the Hard Disk Drive(s)

The hard disk drive(s) can be taken out to accommodate other 2.5” serial (SATA) hard disk drives with a height of 9.5mm (h). Follow your operating system’s installation instructions, and install all necessary drivers and utilities , when setting up a new hard disk.

1. Turn off the computer, and turn it over and remove the battery.
2. Locate the hard disk bay cover and remove screws



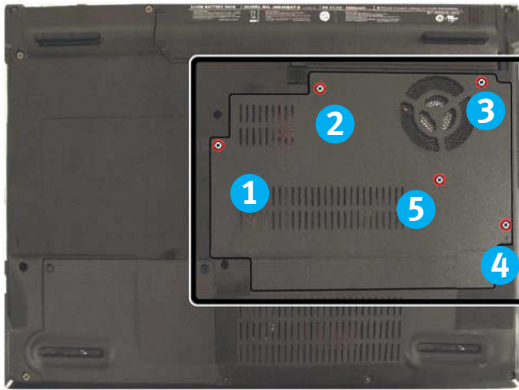
3. Pull the tab to slide the hard disk and case assembly in the direction of arrow .
4. Lift the hard disk and case assembly out of the bay in the direction of arrow .
5. Remove screws & to release the hard disk from the case , and reverse the process to install any new hard disk.



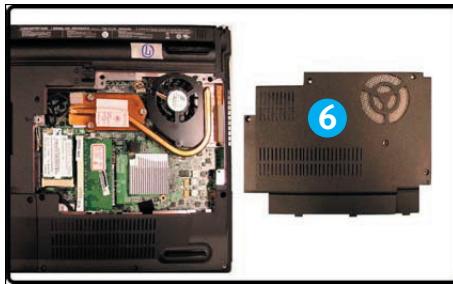
Upgrading the System Memory (RAM)

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

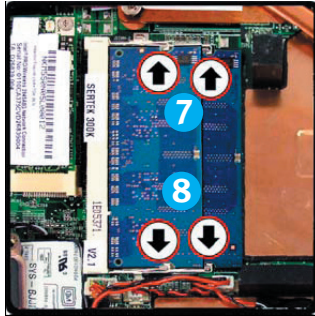
1. Turn off the computer, and turn it over and remove the battery.
2. Locate the component bay cover and remove screws



3. Remove the bay cover



4. Gently pull the two release latches on the sides of the memory socket in the direction indicated by the arrows



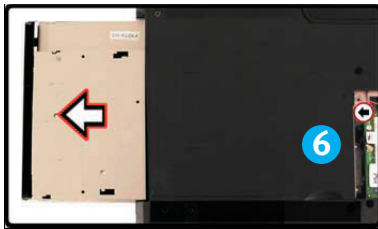
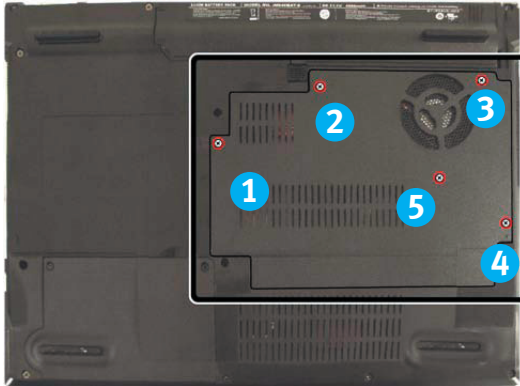
4. The RAM module will pop-up, and you can remove it



6. Pull the latches to release the second module if necessary.
7. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
8. 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.
9. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
10. Replace the memory socket cover and the screw.
11. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Upgrading the Optical (CD/DVD) Device(s)

1. Turn off the computer, and turn it over and remove the battery.
2. Locate the module bay cover and remove screws - and remove the bay cover.
3. Use a screwdriver to carefully push out the optical device at point .
4. Reverse the process to install the new device.



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.

Chapter 7: Modules Overview

This chapter contains the information on the various modules (some of which are optional) 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:

- PC Camera Module
- Bluetooth Module
- PCIe WLAN Module
- Port Replicator

PC Camera Module

If your purchase includes the optional PC Camera you will need to install the device driver for it as indicated on the following pages.

PC Camera Driver Installation

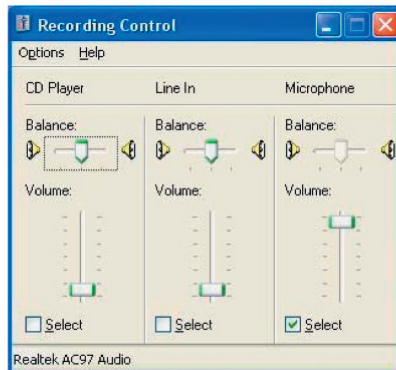
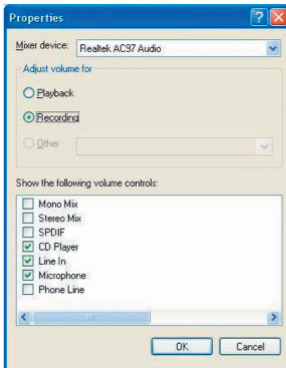
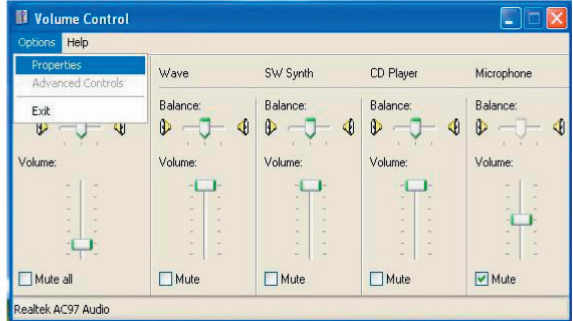
1. Insert the PC Camera CD-ROM into the CD/DVD Drive.
2. The program will run automatically.
3. Click Next (click Continue Anyway if asked if you want to continue at any time).
4. Click Finish > OK to restart the computer.
5. Use the Ap-Key button to turn the PC Camera module on (the LED will be green).
6. Run the emAMCAP application software from the USB2.0 1.3M PC CAM item in the Start > Programs/All Programs menu (give the computer time to find the hardware).

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.

1. Go to the Start menu and point to Settings (or click Control Panel) and click Control Panel, then double-click the Sounds & Audio Devices icon (Sounds, Speech, and Audio Devices in Category View).
2. Click Advanced in Device volume (Volume tab).
3. Click Options and scroll down and click Properties.
4. Select Realtek AC97 Audio from the Mixer Device menu.
5. Click Recording (button).
6. Click Microphone (check box) if it is not checked, and then click OK.
7. 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).
8. Close the window, and then click OK.

X



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.

BisonCap

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

1. Run the BisonCap program from the Start > Programs/All Programs > Bison-Cam 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 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, and then click Open (you can view the file using the Windows Media Player).

Set Capture File

In the EMAMCAP 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).

Eliminating Screen Flicker

If you find that the video screen in the EMAMCAP program is flickering, you can try to adjust the setting in the Lighting Selection options.

1. Run the EMAMCAP program.
2. Go to Options and scroll down to select “Video Capture Filter...”.
3. Click Video Image (tab).
4. Select Florescent 50Hz, Florescent 60Hz or Incandescent in the Light dropbox.

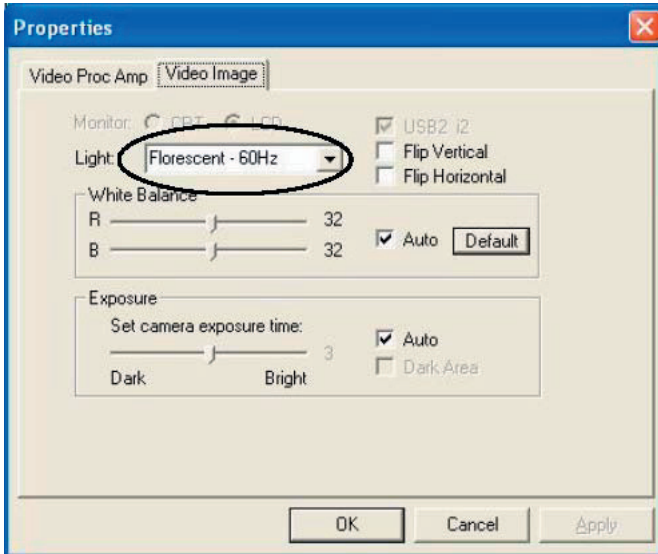


Figure 7 - 3 Video Image

PCIe WLAN Module

If you have included an Intel PRO/Wireless 3945ABG (802.11a/b/g) PCIe WLAN module in your purchase option, you will have the appropriate software CD provided for your module.

Before installing the Intel 3945ABG (802.11a/b/g) PCIe WLAN driver, make sure that the Wireless LAN module is on (the LED will be blue). Use the Fn + F11 key combination to toggle power to the Wireless LAN module. Make sure you install the drivers in the order indicated.

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.

Intel WLAN Driver Installation

1. Make sure the module is powered on, and then insert the Intel PROSet/ Wireless CD-ROM into the CD/DVD drive.
2. Click Install Software (button).
3. Click the button to accept the license and click Next > Next > OK.
4. Click OK to complete the installation.
5. You can configure the settings by going to the Intel (R) PROSet Wireless control panel (Start > Programs/All Programs > Intel PROSet Wireless), or by double-clicking the taskbar icon



Figure 7 - 4 Intel PROSet/ Wireless

Port Replicator

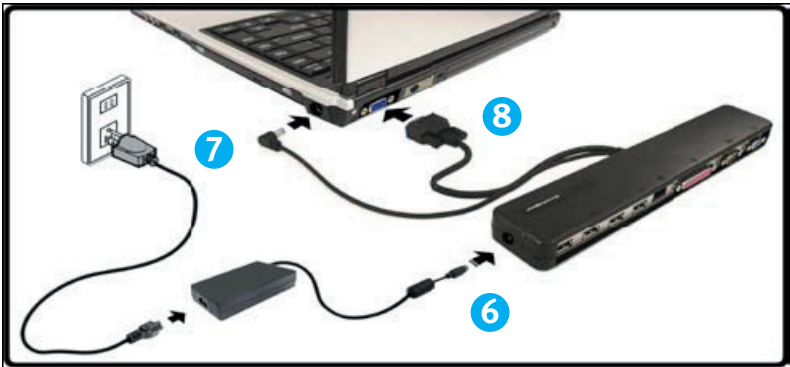
If you have included the Port Replicator in your purchase option, the device will allow you to easily attach the notebook to standard, non-portable devices e.g. a printer or monitor. Note the sidebar warning on the power supply.

You will be provided with a CD including drivers for the serial (COM) port, and for the network (LAN) jack. See “Port Replicator Setup Instructions:” for configuration information.

1. 4 * USB Ports
2. RJ-45 LAN Jack
3. Parallel (printer) Port
4. Serial Port
5. External Monitor Port



6. Port Replicator DC-In
7. Port Replicator Power Cable (to computer's DC-In)
8. External Monitor Cable (to computer's External Monitor Port)



Port Replicator AC/DC Adapter

You will be provided with a 90W AC/DC adapter if you purchase the port replicator option. If you are using the computer with the Port Replicator, then you must use the 90W AC/DC adapter to power the port replicator and computer (DO NOT USE the computer's 65W AC/ DC adapter to power the Port Replicator).

Port Replicator Setup Instructions:

1. Turn the computer OFF.
2. Attach the Port Replicator's external monitor cable to the external monitor port on the rear of the computer.
3. Attach the Port Replicator's power cable to the DC-In jack on the right of the computer.
4. Attach the Port Replicator's (90W) AC/DC adapter unit to the DC-In jack on the left side of the Port Replicator (DO NOT USE THE COMPUTER'S POWER SUPPLY UNIT TO POWER THE PORT REPLICATOR).
5. Turn ON the computer.
6. Install the serial port driver (see below).
7. Install the LAN driver.
8. Plug in any devices you require into the appropriate Port Replicator port/jack (note certain devices may require their own drivers, and/or the computer to restart).

For a more detailed description of any of the interface ports and jacks, see "Interface (Ports & Jacks)".

Port Replicator Serial (COM) Port Driver (WinXP)

1. Insert the provided Port Replicator CD into the computer's CD/DVD drive.
2. Click Start (menu) > Run... and navigate (Browse...) to D:\PL-2303 Driver Installer\PL-2303 Driver Installer.exe and click OK.
3. Click Next > Finish (see over for LAN driver installation instructions).

Port Replicator Network (LAN) Driver (WinXP)

1. Attach the Port Replicator as per the instructions in "Port Replicator".
2. Insert the provided Port Replicator CD into the computer's CD/DVD drive.
3. If you can see the My Computer icon on the desktop (if you cannot see the My Computer icon go to step 4) click on it once to select it, then rightclick it to make the sub-menu appear and scroll down to Properties and click on it (go to step 5).
4. If you cannot see the My Computer icon Start (menu), then point to (but don't click it, 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 5).
5. Click Hardware (tab), and then click Device Manager (button).
6. Click "+" next to Other devices (if its sub-menu items are not shown).

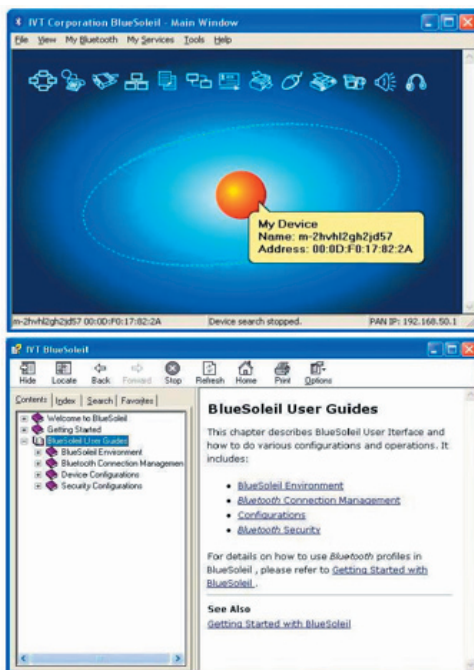
7. Double-click AX88772 and click Driver (tab).
8. Click Update Driver (button).
9. Select “No, not this time” and then click Next.
10. When the Hardware Update Wizard appears, click “Install from a list or specific location (Advanced)” and then click Next.
11. Select “Search for the best driver in these driver in these locations.” and select ONLY “include this location in the search:”.
12. Navigate (Browse...) to D:\LAN and click OK > Next.
13. Click Finish and close the open windows.

Bluetooth Module

Before installing the Bluetooth driver, make sure that the optional Bluetooth module is on (the LED will be green). Use the Ap-key to toggle power to the Bluetooth module. Make sure you install the drivers in the order indicated in Table 4 - 1, on page 4 - 6.

Bluetooth Driver Installation

1. Make sure the module is powered on, and then insert the Bluetooth CDROM into the CD/DVD drive.
2. The program will run automatically.
3. Choose the language you prefer, and click OK.
4. Click Next.
5. Click the button to accept the license agreement, and then click Next.
6. Click Next > Next > Install.
7. Click Finish > Yes to restart the computer.
8. The IVT Corporation BlueSoleil - Main Window screen appears on restart.
9. You can configure the settings at any time by going to the IVT Corporation BlueSoleil - Main Window control panel (Start > Programs/All Programs > IVT BlueSoleil), or by clicking the taskbar icon



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.

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 Indicators" on page 1 - 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 Stand by mode by pressing the keys configured in your Power Management/Power Options (see "Configuring the Power Button" on page 3 - 8), the Fn + F4 key combination, or power button to wake-up the system.
- **Brightness** - Check the brightness of the screen by pressing the Fn + F8 and F9 keys to adjust the brightness (see Table 1 - 4, on page 1 - 8).
- **Display Choice** - Press Fn + F7 to make sure the system is not set to "external only" display (see Table 1 4, on page 1 - 8).
- **Boot Drive** - Make sure there are no optical media and/or USB storage devices in any connected drive when you start up your machine (this is a common cause of the message "Invalid system disk - Replace the disk, and then press any key" / "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 Boot password for the SCU (see "Security Menu" on page 5 - 10).
- Keep copies of vital settings files such as network, dialup settings, mail settings etc. (even if just brief notes).

Viruses

- Install an Anti-Virus program and keep the definitions file (the file which tells your program which viruses to look for) up to date. New computer viruses are discovered daily, and some of them may seriously harm your computer and cause you to lose data. Anti-Virus programs are commercially available and the definitions file updates are usually downloadable directly from the internet.
- Be careful when opening e-mail from sources you don't know. Viruses are often triggered from within e-mail attachments so take care when opening any attached file. You can configure most Anti-Virus programs to check all e-mail attachments. Note: You should also beware of files from people you know as the virus may have infected an address book and been automatically forwarded without the person's knowledge.
- Keep a "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).
- 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.

Problems & Possible Solutions

Problem	Possible Cause - Solution
You turned the power on 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. Plugin 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 "PowerSchemes" on page 3- 4) check its settings. You may also be using a PC Card device that is drawing a lot of power.
Actual battery operating time is shorter than expected.	<p>The battery has not been fully discharged before being recharged. Make sure the battery is fully discharged and recharge it completely before using (see "Battery Information" on page 3-9).</p> <p>Power Options have been disabled. Go to the Control Panel in Windows and re-enable the options.</p> <p>A peripheral device or PC Card is consuming a lot of power. Turn off the unused device to save power.</p>

Problem	Possible Cause - Solution
The computer feels too hot.	<p>Make sure the computer is properly ventilated and the vents/fan intakes are 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 computer isn't sitting on a thermal surface (see "Overheating" on page 1-9). Make sure you're using the correct adapter.</p> <p>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 intake to be blocked.</p>
Nothing appears on screen	<p>The system is in a power saving mode. Toggle the sleep/resume key combination, Fn+F4 (see "Sleep Button" on page 3-8). The screen controls need to be adjusted. Toggle the screen control key combination, Fn+F8/F9 (see Table 1-4, on page 1-8). 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.</p> <p>The computer is set for a different display. Toggle the screen display key combination, Fn+F7 (see Table 1-4, on page 1-8). If an external monitor is connected, turn it on.</p> <p>The screen saver is activated. Press any key or touch the TouchPad.</p>
No image appears on the external monitor I have plugged in and powered on.	You haven't installed the video driver and configured it appropriately from the Control Panel . See "NVIDIA Video Driver Controls" on Page 8-1 for instructions on installing and configuring the video driver.




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.	
The sound cannot be heard or the volume is verylow .	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+ F5 and F6 (see “Audio Features” on page 2-11) to adjust.
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 “LoadingDiscs” on page 2-3).
The DVD regional codes can no longer be changed.	The code has been changed the maximum 5 times. (See “DVDRegional Codes” on page 2-5).









Problem	Possible Cause - Solution
The TouchPad doesn't work.	The Touch pad has been disabled. Press the Touchpad toggle Fn+F1 key combination (make sure you have installed the Touchpad driver).
The system freezes or the screen goes dark.	The system's power saving features have timed-out. Use the AC/DCadapter, press a key on the keyboard, or press the sleep Fn+F4 key combination, or press the power button if no LEDs are lit.
The system never goes into a power saving mode .	Power Options features are not enabled. Go to the Windows Power Options menu and enable the features you prefer (see “System Power Options”on page 3- 6). Make sure you have enabled Hibernate mode from the control panel.
The Wireless LAN/Bluetooth/PC Camera modules cannot be detected.	The modules are off. Check the appropriate LED indicator to see if the modules are on or off (see “LED Indicators”on page 1- 6). If the LED indicator is off, then press the appropriate AP-Key button/function key combination in order to enable the modules (see Table1- 3, on page 1-7/ Table 1-4,on page 1-8).
The Wireless LAN/Bluetooth/PC Camera modules cannot be configured.	The modules are off. Check the appropriate LED indicator to see if the modules are on or off (see “LED Indicators”onpage 1- 6). If the LED indicator is off, then press the appropriate AP-Key button/function key combination in order to enable the modules (see Table1- 3, on page 1-7/Table 1-4,on page 1-8).
The PC Camera software displays a black screen when the EMAMCAP software is run.	The software is using the incorrect device. If you have both the optional PC Camera and TV Tuner modules present, make sure you install the TV Tuner driver and application first. After installing the PC Camera driver you will need to select which device to use with the EMAMCAP program. Go to the Devices menu in the EMAMCAP program and select the USB 2.01.3M PC CAM device (see “PCCamera & TV Tuner”on page 7- 2).




Appendix A: Interface (Ports & Jacks) Overview

The following chapter will give a quick description of the ports & jacks which allow your computer to communicate with external devices, connect to the internet etc.

Ports and Jacks

Icon	Description
 Built in Microphone	The built-in microphone allows you to record on your computer .
 Card Reader	The card reader allows you touse the following digital storage cards: MMC (MultiMedia Card) SD(SecureDigital) MS(MemoryStick)
DC-In Jack	Plug the supplied AC/DC adapter into this jack to power your computer.
External Monitor (VGA) Port	This port allows you to connect an external monitor, or Flat Panel Display, to get dual video or simultaneous display on the LCD and external monitor/ FPD.
Headphone-Out Jack	Headphones or speakers may be connected through this jack. Note: Set your system's volume to a reduced level before connecting to this jack.
USB 2.0/1.1 Ports 	These USB2.0 compatible ports (USB2.0 is fully USB1.1 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).

Icon	Description
 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) modem 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.
 S/PDIF-Out Jack	This S/PDIF (Sony/Philips Digital Interface Format) Out Port allows you to connect your DVD-capable PC to a Dolby AC-3 compatible receiver for "5.1" or 'dts' surround sound.
 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.
 Serial Port	Connect a serial type mouse to this port.
 S-Video-In Jack	The S-Video-In jack allows video input to the computer if you have included the optional Mini-PCI TV Tuner in your purchase.
 7-Pin S-Video-Out Jack	Connect your television to your computer and view DVDs, VCDs or anything else your computer can display. You will need a 7-pin S-Video plug to 4-pin S-Video jack adapter and S-Video cable to make the connection (see "7-Pin S-Video-Out Jack" on page 1-9).
 Headphone-Out Jack	Headphones or speakers may be connected through this jack. Note: Set your system's volume a reduced level before connecting to this jack.

Icon	Description
Infrared (FIR) Transceiver	The FIR (far infrared) transceiver on the right of the computer allows the computer to communicate with similarly equipped devices (see “Configuring the Infrared Settings for “FIR” on page 2- 12).
 Line-In Jack	The Line-In jack allows you to play audio sources through the computer’s speakers. Note that audio input through Line-in will default to the mute setting. To set up your audio sources to play through the Line-in jack go to the Sounds and Audio Devices Windows control panel and make sure the Mute box is not ticked.
 Microphone-In Jack	Plug an external microphone in to this jack to record on your computer.
 Mini-IEEE 1394a Ports	This allows high-speed connection to various peripheral devices, e.g. external disk drives And digital cameras. The Mini-IEEE 1394a ports only support SELF POWERED IEEE 1394 devices.

Appendix B: Intel Video Driver Controls

The basic settings for configuring the LCD are outlined in “**Video Features**”.

Intel Video Driver Installation

Make sure you install the drivers in the order indicated.

OR

1. Double-click **VGA**.

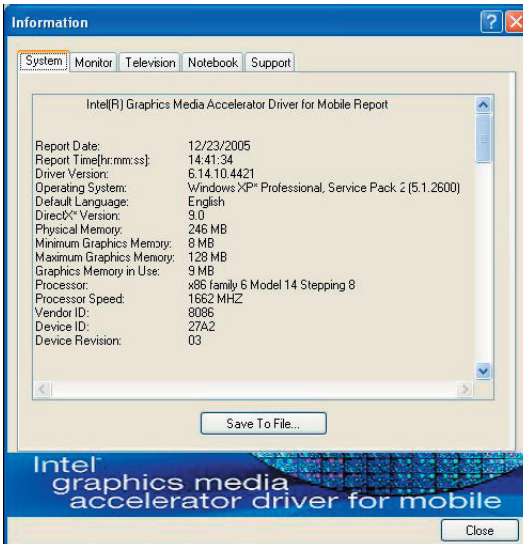
Click **Start** (menu) > **Run...** and navigate (**Browse..**) to **D:\Drivers\Video\setup.exe** and click **OK**.

2. Click **Next** (click **Continue Anyway** if asked if you want to continue at any time).

3. Click **Finish** to restart the computer.


Dynamic Video Memory Technology

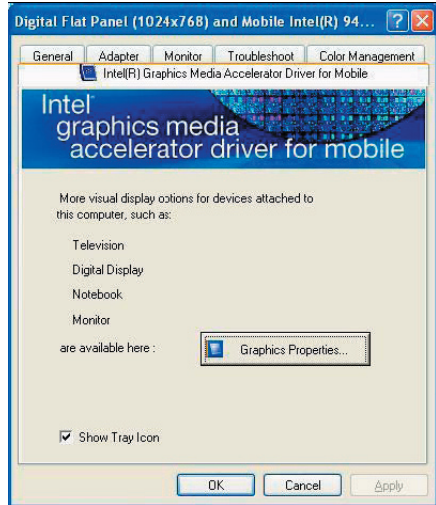
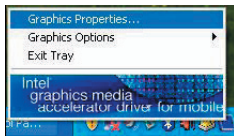
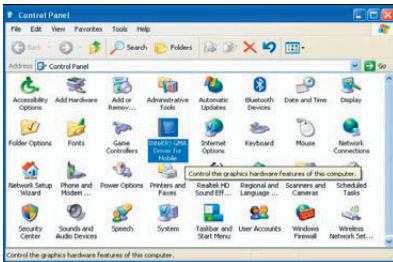
Intel® DVMT 3.0 automatically and dynamically allocates as much (up to 128MB) system memory (RAM) as needed to the video system (the video driver must be installed). DVMT returns whatever memory is no longer needed to the operating system.



Intel Graphics Properties

More advanced video configuration options are provided by the Intel(R) Graphics Media Accelerator Driver for Mobile control panel.

1. Open Display Properties > Settings > Advanced.
2. Click the Intel(R)... tab and click Graphics Properties (button).
3. You can also access Graphics Properties from the Windows Intel(R) GMA Driver for Mobile control panel, or from the taskbar icon  .



Taskbar Icon

You can also access the controller properties from the taskbar. Click on the icon to bring up the menu and scroll to Graphics Properties.

If you cannot see the tray icon go to the Intel(R) Graphics Media Accelerator Driver for Mobile tab and click the “Show Tray Icon” tickbox. Alternatively rightclick the desktop and select Graphics Options > Tray Icon > Enable.

You may make changes to the devices, color, schemes, Hot Keys etc. by clicking the appropriate menu item or button. Click Information (button) to obtain useful information about the graphics properties of the computer, and see the Support tab in Information to get weblinks to the latest information on the Intel Website.



Figure B - 3 Intel Graphics Media Accelerator Driver for mobile (Control Panel Tabs)

Help Menu

Right-click on many of the items in the tabs to bring up the “What’s This?” button. Click the “What’s This?” button to bring up the help menu.

Multiple Display

At least one other display must be attached in order to view Multiple Display options.

Display Devices

Besides the built-in LCD, you can also use an external monitor/flat panel display or TV as your display device. The following are the display options:

1. The built-in LCD.
2. An external monitor connected to the external monitor port.
3. A flat panel display connected to the external monitor port.
4. A TV connected to the S-Video-Out jack.

Function Key Combination

You can use the Fn + F7 key combination to toggle through the display options:

- Notebook Only
- External Display Only
- Notebook + External Display

Make sure you give the displays enough time to refresh.

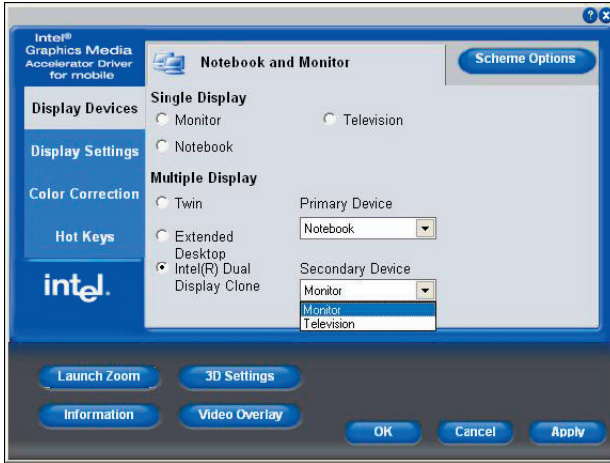
Switching Modes When Using the Power DVD Application

Switch display modes before playing any DVD in the Power DVD Application it is not be possible to switch display modes while a DVD is playing (you will be required to stop the DVD playing, switch display modes, then start the DVD playing again).

Attaching Other Displays

If you prefer to use a monitor or flat panel display, connect it to the external monitor port at the rear of the computer.

1. Attach your external monitor to the external monitor port (or TV to the S-Video-Out jack), and turn it on.
2. Go to the Graphics Properties control panel (see “Intel Graphics Properties” on page B - 3) and click Display Devices.
3. Click to choose the display option from the Multiple Display menu.
4. Click Apply (and OK to confirm the settings change) and OK (button).



Intel Display Note

Note that the notebook is the default Primary display device and may not be changed.

Display Modes

Single Display

Only one of your attached displays is used.

Twin

This mode will drive multiple displays with the same content and resolutions, color quality etc. (does not support a TV as a display device). See “Twin Mode Support” on page B - 8 for more information.

Intel(R) Dual Display Clone

This mode will drive multiple displays with the same content. Each device may be configured independently for different resolutions, refresh rates, color quality etc. Use this feature to display the screen through a projector for a presentation.

Extended Desktop

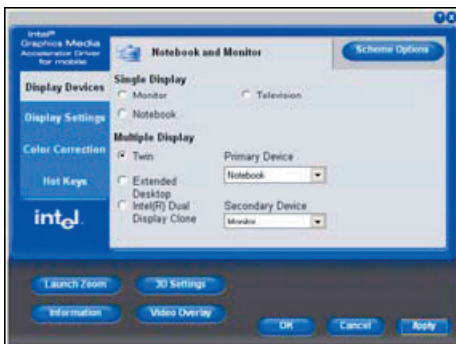
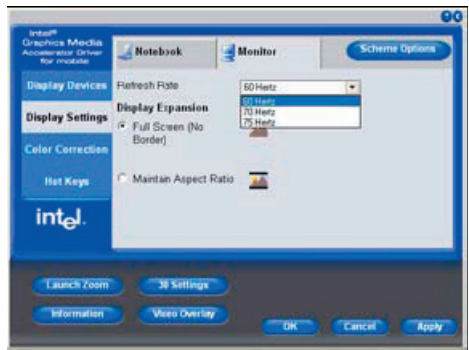
This mode allows a desktop to span multiple displays and acts as a large workspace. This creates a lot more screen area for display. Use the Display Properties control panel to drag the monitors to match the physical arrangement you wish to use, or you may also use the Extended Desktop Settings control panel tab in Graphics Properties to configure the relative size and position.

To Enable Intel(R) Dual Display Clone Mode OR Twin Mode

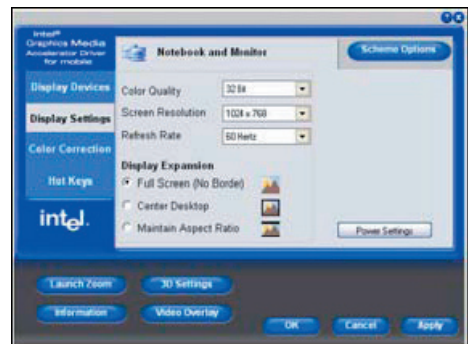
1. Attach your external monitor to the external monitor port (or TV to the S-Video-Out jack), and turn it on.
2. Go to the Graphics Properties control panel (see “Intel Graphics Properties”) and click Display Devices.
3. Click to choose Intel(R) Dual Display Clone or Twin.
4. Click Apply, and OK to confirm the settings change.
5. Click Display Settings to adjust the settings for the attached devices.



Clone Mode

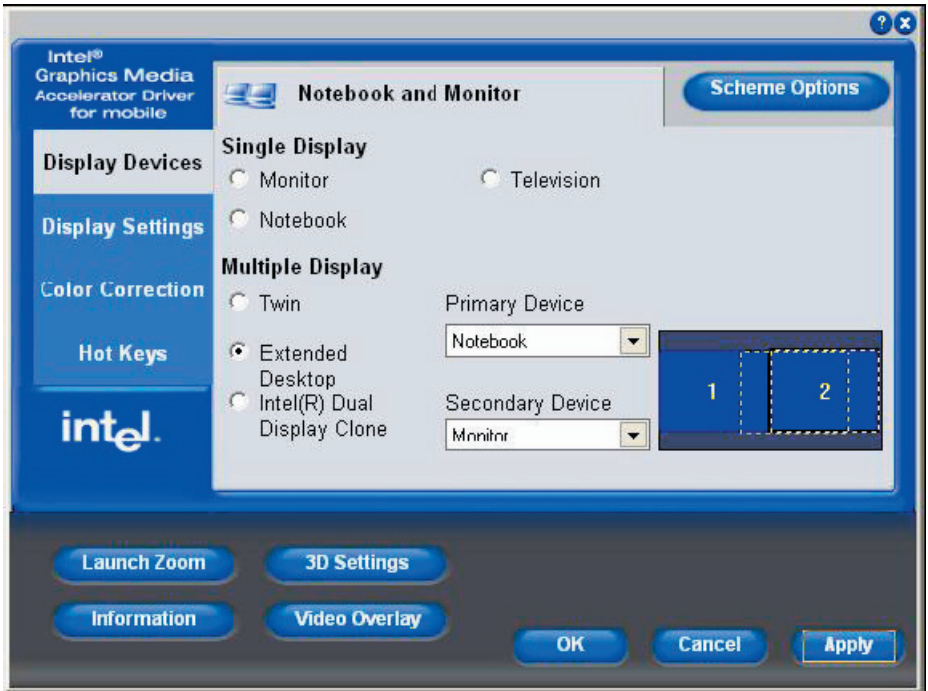


Twin Mode



To Enable Extended Desktop Mode:

1. Attach your external monitor to the external monitor port (or TV to the S-Video-Out jack), and turn it on.
2. Go to the Graphics Properties control panel (see “Intel Graphics Properties”) and click Display Devices.
3. Click to choose Extended Desktop.
4. Click Apply, and OK to confirm the settings change.
5. Click Display Settings to adjust the settings for the attached devices.



Click the appropriate monitor icon and drag it to match the physical arrangement you wish to use (e.g. the secondary display may be extended left/right/above/below the primary display). Click Display Settings to make any adjustments required.

You can also enable the Extended Desktop mode from the Display Properties control panel.

To Enable Extended Desktop (Windows Display Properties)

1. Attach your external monitor to the external monitor port and turn it on.
2. Click **Start**, point to **Settings** (or click **Control Panel**) and click **Control Panel** (if you are in **Category View** choose **Appearance and Themes**).
3. Double-click **Display** (icon).
4. Click **Settings** (tab).
5. Click the monitor icon (e.g. **3**), and make sure you have checked “**Extend my Windows desktop onto this monitor.**” and click **Apply**.

Click the appropriate monitor icon (e.g. **3**) to be able to select the option to extend the desktop on to it.

In this example the Primary monitor **1** on the left, the secondary display **3** is on the right.



Figure B-10 Display Properties (Extended Desktop)

Display Settings Extended Desktop

To get a full range of options from the **Device Settings** menu click the **Detect Displays** button. Click to select the TV icon, then click the **Device Settings** button.

Alienware Sentia 3450 Technical Reference

Feature	Specifications
PCMCIA	OneType II PCMCIA 3.3V/5V Socket
Interface	<p>Three USB 2.0 Ports One External Monitor Port One Headphone-Out Jack One Microphone-In Jack One Line-In Jack One S/PDIF Output Jack</p> <p>One RJ-11 Jack for Plug & Play Fax/Modem One RJ-45 Jack for 10Mb/ 100Mb/ 1000Mb Fast Ethernet One Mini-IEEE 1394 Port One S-Video-Out Jack (supports HDTV) One DC-in Jack</p>
Card Reader	Embedded 4-in-1 Card Reader (MS/ MS PRO/ SD/ MMC)
ExpressCard Slot	ExpressCard/34/54 Slot
Communication	<p>AZALIA 56K Plug & Play Fax/Modem v.90/92 Compliant 10Mb/ 100Mb/ 1000Mb Fast Ethernet (Option) Intel PRO/Wireless 3945ABG Wireless LAN Module with PCIe Interface (Factory Option) Bluetooth Module - Version 2.0 (Factory Option) PC Camera with USB Interface</p>
Power Management	<p>Supports ACPI 2.0 Power Button as Sleep/Resume Key Supports Hibernate Mode Supports Stand by Mode</p> <p>Supports Battery Low Suspend Supports Resume from Modem Ring Supports Wake on LAN</p>

Feature	Specifications
Power	<p>Full Range AC/DC Adapter 20V, 3.25A (65 Watts), 100~240V, 47~63Hz Full Range AC/DC Adapter 20V, 4.5A (90 Watts), 100~240V, 47~63Hz (If Using the Optional Port Replicator) 6 Cell Smart Lithium-Ion Battery Pack, 4000mAh (44.4W) OR 6 Cell Smart Lithium-Ion Battery Pack, 4400mAh (48.8W)</p>
Environmental Spec	<p>Temperature Operating: 5°C~ 35°C Non-Operating: -20°C~60°C</p> <p>Relative Humidity Operating: 20% ~ 80% Non-Operating: 10% ~ 90%</p>
Physical Dimensions & Weight	<p>333mm (w) * 243mm (d) * 24-33mm (h) 2.2 kg Without Battery</p>
Optional	<p>Optical Drive Module Options: DVD/CD-RW Combo Drive Module DVD-Dual Drive Module Port Replicator (10/100 Base-T Ethernet Port, 4 * USB 2.0 Ports, Serial Port, Parallel Port, External Monitor Port, DC-In Jack) (Note: Port Replicator requires the supplied 90W power adapter)</p> <p>Charger Box Intel PRO/Wireless 3945ABG Wireless LAN Module with PCIe Interface (Factory Option) PC Camera with USB Interface (Factory Option) Bluetooth Module - Version 2.0 (Factory Option) Swap Battery - 2 ~ 3 Minutes Swap Time</p>

