

Prestigio Aero 1214

User's Manual

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- Reorient 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.

Preface

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 18.5V, 3.5A minimum AC/DC Adapter).

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.

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

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

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

Instructions for Care and Operation

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

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



Do not expose the computer to any shock or vibration.



Do not place it on an unstable surface.



Do not place anything heavy on the computer.

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



Do not expose it to excessive heat or direct sunlight.



Do not leave it in a place where foreign matter or moisture may affect the system.



Don't use or store the computer in a humid environment.



Do not place the computer on any surface that will block the Vents/Fan Intakes.

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

4. Follow the proper working procedures for the computer. Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



Do not turn off the power until you properly shut down all programs.



Do not turn off any peripheral devices when the computer is on.



Do not disassemble the computer by yourself.



Perform routine maintenance on your computer

5. Take care when using peripheral devices.



Use only approved brands of peripherals.



Unplug the power cord before attaching peripheral devices.

Power Safety

The computer has specific power requirements:

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).

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.



Do not plug in the power cord if you are wet.



Do not use the power cord if it is broken.



Do not place heavy objects on the power cord.

Battery Precautions

Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.

Do not remove any batteries from the computer while it is powered on.

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 hardware and software. Make sure your "papers" are handy.

Power Off Before Traveling

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

On the Road

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

Hand-carry the notebook

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

Beware of Electromagnetic fields

- Devices such as metal detectors & X-ray machines can damage the computer, hard disk, floppy disks, and other media. They may also destroy any stored data.

- Pass your computer and disks around the devices. Ask security officials to hand-inspect them (you may be asked to turn it on). Note: Some airports also scan luggage with these devices.

Fly safely

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

Get power where you can

- If an electrical outlet is available, use the AC/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.

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.

Model Designs

This notebook series includes two different model designs which vary slightly in color and appearance. However both designs incorporate the same features, ports and jacks etc.

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 Chapters Drivers, BIOS, Upgrading and Modules & Options. You may also find the marked notes 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 everything the first time. Keep this manual nearby and refer to it to learn as you go. You may find it useful to refer to the marked notes. For a more detailed description of any of the interface ports and jacks see Chapter "Interface (Ports & Jacks)".

Warning Boxes

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

Notes: Check the text in this format to find detailed information about the computer's features.

Not Included

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

System Software

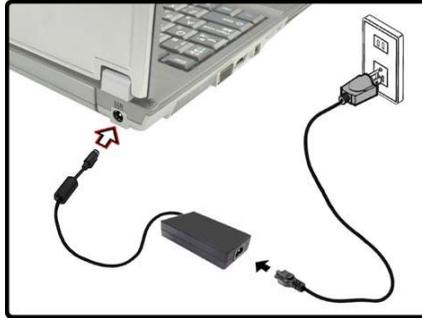
Your computer may already come with system software pre-installed. Where this is not the case, or where you are re-configuring your computer for a different system, you will find this manual refers to the Microsoft Windows XP (Home & Professional Editions) operating system.

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". 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 the corresponding Chapter. 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 Chapter "What to Install" for installation instructions.

System Startup

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 at the rear of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter.
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 indicators show the power and battery status of the computer.



AC/DC Adapter Plugged In

Shutdown

Please note that you should always shut your computer down by choosing the 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



Top View with LCD Panel Open

1. LCD
2. WLAN Power Switch
3. TouchPad Power Button
4. Power Button
5. Keyboard
6. TouchPad and Buttons
7. Fingerprint Reader
8. LED Indicators
9. LCD Latch

Security Modules

The encrypted channel between the Trusted Platform Module security chip and the fingerprint reader with Protector Suite Software provides a high level of security for your computer. See Chapter “Security Modules (Fingerprint & TPM)”.

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 combination/switch to toggle power to the WLAN/Bluetooth modules, and check the status indicator icon to see if the module is powered on or not.

LED Indicators

The LED indicators on the computer display helpful information about the current status of the computer.



Icon	Color	Description
	Green Blinking Green	The Computer is On The Computer is in Stand by Mode
	Orange Blinking Orange	The Battery is Charging The Battery has Reached Critically Low Power Status
	Green	Hard Disk/ODD Activity
	Green Orange	The WLAN Module is Powered On The Bluetooth Module is Powered On
	Green	Caps Lock Activated
	Green	Number Lock Activated

Keyboard & Hot Keys

The keyboard has a numerical keypad for easy numeric data input, and features function keys to allow you to change operational features instantly.



The touchpad (button) and WLAN (switch) hot keys give instant access to the functions indicated in the table below. Visual indicators are available when the hot key driver is installed (see “Hot Key Utility”).

Hot Key	Function
	WLAN Module Toggle
	Touchpad 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.

Function Keys

The function keys (F1 - F12 etc.) will act as hot keys when pressed while the Fn key is held down. In addition to the basic function key combinations; visual indicators are available for certain key combinations/hot keys when the hot key driver is installed (see "Hot Key Utility").

Key	Function	
Fn + F1	Sleep Toggle (Suspend)	
Fn + F2	Bluetooth Power Toggle	
Fn + F5/F6	Decrease/Increase LCD Brightness	
Fn + F7	Display Toggle	
Fn + F8	Mute Toggle	
Fn + F9/F10	Decrease/Increase Audio Volume	

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

System Map: Front & Rear Views



1. LED Indicators
2. LCD Latch
3. RJ-11 Phone Jack
4. RJ-45 LAN Jack
5. Battery
6. DC-In Jack

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.

10 Cell Battery Warning

Please be careful when using the 10 cell battery. The battery is heavy and extends beyond the case of the computer. Moving the battery, or exposing it to shock or vibration may interrupt the battery contacts and cause the computer to shutdown.

System Map: Left View



Overheating

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

1. Vent/Fan Intake/Outlet
2. External Monitor Port
3. 1 * USB 2.0 Port
4. Mini-IEEE 1394 Port
5. 4-in-1 Card Reader
6. PC Card Slot

Mini-IEEE 1394 Port

The Mini-IEEE 1394 Port only supports SELF POWERED IEEE 1394 devices.

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: Right View



1. Microphone-In Jack
2. Headphone-Out/Speaker-Out Jack
3. 2 * USB 2.0 Ports
4. Optical (CD/DVD) Device Drive Bay
5. Security Lock Slot

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").

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



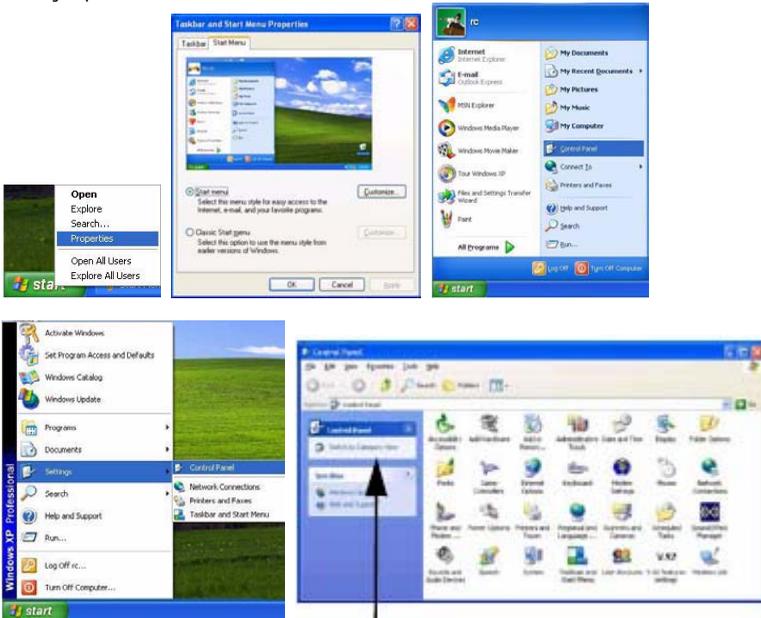
1. Vent/Fan Intake/Outlet
2. Battery
3. Optical (CD/DVD) Device Drive Release Cover
4. Component Bay Cover
5. Hard Disk Drive Bay Cover
6. Speaker

Overheating: To prevent your computer from overheating make sure nothing blocks the vent(s)/ fan intake(s)/outlet(s) while the computer is in use.

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

Windows XP Start Menu & Control Panel

Most of the control panels, utilities and programs within Windows XP (and most other Windows versions) 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.



Click here to toggle Category View

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, and it 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 controls for many of the features, however many new controls are added (or existing ones are enhanced) when you install the drivers provided. To see all controls it may be necessary to toggle off Category View.

Video Features

Your computer has built-in Intel on-board 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 resolution.
5. Click the arrow, and scroll to the preferred setting in Color quality.
6. Click Advanced (button) to bring up the Advanced properties tabs.
7. Click Intel(R) Graphics Media Accelerator Driver for Mobile (tab), and click Graphics Properties (button) to make any video adjustments you require.
8. You can also access Display Properties by right-clicking the desktop and scrolling down and clicking Properties. Click Settings (tab) and adjust as above.
9. You can also access Intel(R) GMA Driver for Mobile from the taskbar icon menu.

Display Devices & Options

Besides the built-in LCD, you can also use an external VGA monitor (CRT) or external Flat Panel Display connected to the external monitor port as your display device.

Display Properties Desktop



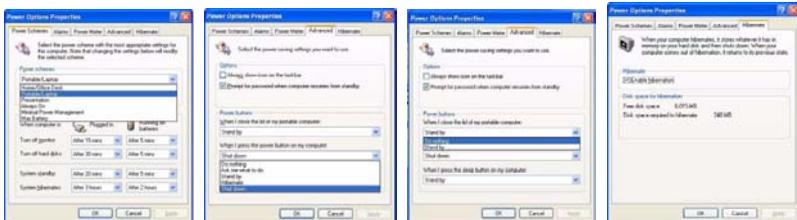
Display Options

Intel Display Mode	Description
Single Mode	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

Power Management Features

The Power Options control panel icon in Windows 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).

Power Options



The computer's power button, sleep button (Fn + F1 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 (e.g. the system may reduce processor performance/ speed if Max Battery is the chosen Power Scheme).

Features & Components

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" or 1.8" parallel (PATA) hard disk drives with a height of 9.5 mm.

The hard disk is accessible from the bottom of your computer as seen below. For further details see "Upgrading the Hard Disk Drive".

Hard Disk Location



Power Safety

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

Optical (CD/DVD) Device

There is a bay for a 5.25" optical (CD/DVD) device (9.5mm height). The actual device will depend on the module you purchased (see "Storage"). The optical device is usually labeled "Drive D:" and may be used as a boot device if properly set in the BIOS (see "Boot Menu").

Loading Discs

To insert a CD/DVD, press the open button (1) and carefully place a CD/DVD onto the disc tray with label-side facing up (use just enough force for the disc to click onto the tray's spindle). Gently push the CD/DVD tray in until its lock "clicks" and you are ready to start. The busy indicator (2) will light up while data is being accessed, or while an audio/video CD, or DVD, is playing. If power is unexpectedly interrupted, insert an object such as a straightened paper clip into the emergency eject hole (3) to open the tray.



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 (see "Audio Features").

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"

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

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, and can be accessed in the same way as your hard disk (s). Make sure you install the PCMCIA/Card Reader driver (see "PCMCIA/CardReader").

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



1. Card Reader

Card Reader Cover

Make sure you keep the cover in the card reader when not in use. This will help prevent foreign objects and/or dust getting in to the card reader.

PC Card Slot

The computer is equipped with a PCMCIA 3.3V/5V slot for one type II PCMCIA CardBus PC Card Slot. Make sure you install the PCMCIA/Card Reader driver (see "PCMCIA/CardReader").



1. PC Card Eject Button

Inserting and Removing PC Cards

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

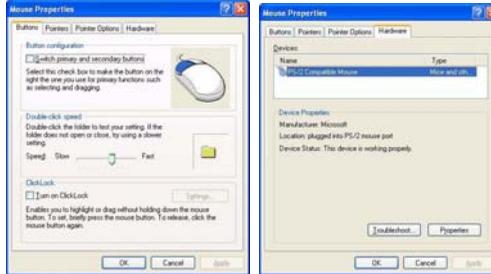
PC Card Slot Cover

Make sure you keep the cover in the PC Card slot when not in use. This will help prevent foreign objects and/or dust getting in to the PC Card Slot.

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. You can configure the mouse functions from the Mouse Properties control panel. Click Start, point to Settings and click Control Panel (or just click Control Panel), and then double-click Mouse. Use the TouchPad button to disable/enable the TouchPad. If you have installed the Hot Key driver then a visual indicator will appear on screen.

Mouse Properties



Mouse Driver

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

Audio Features

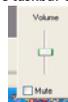
You can configure the audio options on your computer from the Sounds and Audio Devices Windows control panel, or from the Realtek HD Audio Manager icon in the taskbar/control panel (this will bring up the Realtek Audio Configuration menus). The volume may also be adjusted by means of the Fn + F9/F10 key combination.

Realtek Control Panel



Sound Volume Adjustment

How high the sound volume can be set depends on the setting of the volume control within Windows (and the volume control function keys on the computer). Click the Volume icon on the taskbar to check the setting.



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. To use a parallel printer you will need to purchase a parallel to USB converter.

The install instructions for Parallel Printer

After setting up the printer attach the parallel cable to the printer. Connect the printer's parallel cable to the Parallel to USB converter, and then plug the converter into the USB port. Turn ON the printer, then turn ON the computer. Windows will identify the printer and either load one of its own drivers or ask you to supply one. Follow the on-screen instructions.

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 individual components of the computer (the monitor and hard disk drive) or the whole system.

Advanced Configuration and Power Interface

The ACPI interface provides the computer with enhanced power saving techniques and gives the operating system (OS) direct control over the power and thermal states of devices and processors. For example, it enables the OS to set devices into low-power states based on user settings and information from applications. ACPI is fully supported in Windows 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.)

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 (see sidebar if you are using the optional Port Replicator).
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. Use the Battery Calibration Utility in the BIOS for the most efficient and straightforward method of battery recharging (or see "How do I completely discharge the battery?"). We recommend that you do not remove the battery. For more information on the battery, please refer to "Battery Information".

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.

Shutdown

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

Forced Off

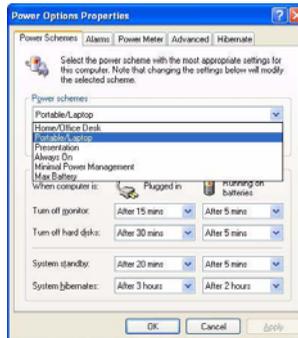
If the system "hangs", and the Ctrl + Alt + Del key combination doesn't work, press the power button for 4 seconds, or longer, to force the system to turn itself off.

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 the Power Button for details).

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 (see "System Power Options").



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.

Resuming Operation

Press a key on the keyboard, or move the mouse/TouchPad to resume from Monitor or Hard Disk Stand by.

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).

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

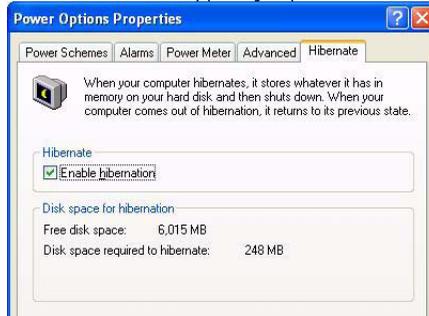
If you want to stay away from your work for just a while, you can put the system on Stand by instead of in hibernation. It takes a longer time to wake up the system from Hibernate mode than from Stand by mode.

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.



System Resume

The system can resume from Stand by mode by:

- Pressing a key on the keyboard.
- An incoming call received on the modem (if enabled)
- Network card (Wake On LAN) 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 + F1) from the menu. 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

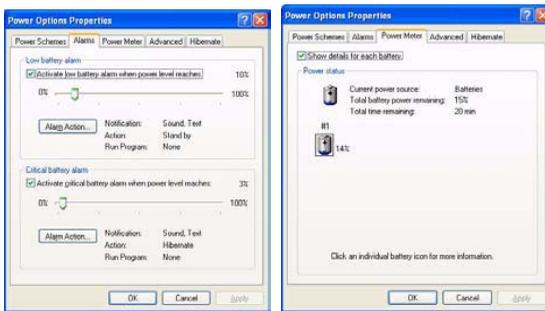
Always completely discharge, then fully charge, a new battery (see “Battery FAQ” for instructions on how to do this).

Battery Life

Your computer’s battery life is dependent upon many factors, including the programs you are running, and peripheral devices attached. Power Options (you may set low battery Alarms and actions, and check the Power Meter from the Power Options control panel), and settings in the OS will help prolong the battery life if configured appropriately.

Battery life may be shortened through improper maintenance. To optimize the life and improve its performance, fully discharge and recharge the battery at least once every 30 days. We recommend that you do not remove the battery yourself. If you do need to remove the battery for any reason see “Removing the Battery”.

Power Options (Alarm & Power Meter)



Low Battery Warning

When the battery is critically 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.

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. (Refer to “LED Indicators” for information on the battery charge status, and to “Battery Information” for more information on how to maintain and properly recharge the battery pack.)

Using the BIOS Utility to Calibrate the Battery

The most efficient method of charging the battery is to use the BIOS Power menu Start Battery Calibration item (see “Power Menu”). If you use this method the system will prompt you through the process of fully charging and discharging the battery.

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 Card from the computer (PC Cards quickly use up battery power even if the system enters sleep mode).
- Disconnect any unnecessary external devices.

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

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.

10 Cell Battery Warning

Please be careful when using the 10 cell battery. The battery is heavy and extends beyond the case of the computer. Moving the battery, or exposing it to shock or vibration may interrupt the battery contacts and cause the computer to shutdown.

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 (uncheck the tickboxes) and Schemes (change all the settings to Never). As the battery nears the end of its life save and close any critical files. For the most efficient method of discharging the battery see "Using the BIOS Utility to Calibrate the Battery".

How do I fully charge the battery?

When charging the battery, don't stop until the battery LED changes from orange to clear.

How do I maintain the battery?

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

Caution

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

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.

What to Install

The Device Drivers & Utilities + User's Manual CD-ROM contains the drivers and utilities necessary for the proper operation of the computer.

Module Driver Installation

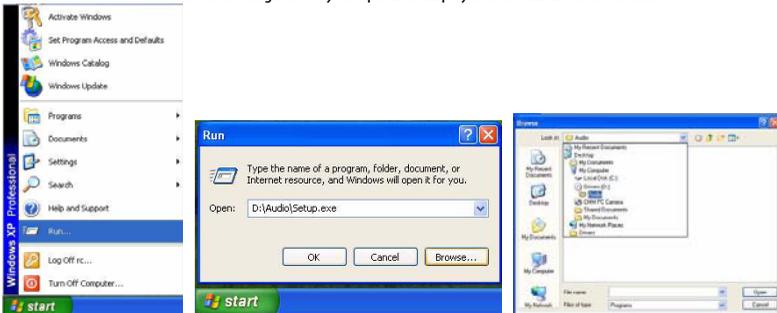
The procedures for installing drivers for the optional Bluetooth and Wireless LAN modules are provided in "Modules & Options". Make sure that the drivers are installed in the indicated order.

Navigate (Browse..) to D:

You will notice that many of the instructions for driver installation require you to "Navigate (Browse) to D:". We assume that you will install all drivers and utilities from the built-in CD device and it is assigned to "Drive D:". In addition, all file extensions can be seen.

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

When you click the Browse (button) after clicking Run in the Start menu you will see the "Look in:" 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. Make sure you have installed 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 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), uninstall it, following the on screen prompts (it may be necessary to restart the computer). Go to the appropriate section of the manual to complete the update/reinstall procedure for the driver in question. If the driver is not listed in the Add/Remove Programs item:

1. Click Start (menu), point to Settings and click Control Panel (or click 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 click Install WinXP Drivers (button). If you wish to install the drivers manually see the next page.

1. Check the driver installation order (the drivers must be installed in this order) which is the same as that listed in the Drivers Installer menu below.
2. Click to select the driver you wish to install, after installing each driver it will become grayed out (if you need to reinstall any driver, click the Unlock button).
3. Follow the instructions for each individual driver installation procedure as listed on the following pages.



Driver Installation Order (WinXP SP2 Driver)

Install the appropriate Service Pack for WinXP
Chipset
Video
Audio
LAN
Modem
PCMCIA/Card Reader
TPM (Trusted Platform Module) Security Chip
Fingerprint Reader
Hot Key Utility
Bluetooth
Intel Wireless LAN

Service Pack Installation

Make sure you install the appropriate service pack for your operating system before installing any drivers (see "Windows XP Service Pack 2").

New Hardware Found

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

Manual Driver Installation

If you wish to install the drivers manually, click the Exit button to quit the Drivers Installer 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..".

Chipset

1. Click 1. Install Chipset Driver > Yes.

OR

Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\Chipset\Setup.exe and click OK.

2. Click Next > Yes > Next.

3. Click Finish to restart the computer.

Video

1. Click 2. Install Video Driver > Yes.

OR

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

2. To continue click Next > Yes.

3. Click Finish to restart the computer.

Audio

1. Click 3. Install Audio Driver > Yes.

OR

Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\Audio\Setup.exe and click OK.

2. Click Next (click Cancel if a Found New Hardware Wizard appears).

3. Click Finish to restart the computer (click Cancel if a Found New Hardware Wizard appears after restart).

LAN

Note that you should click Cancel if a Found New Hardware Wizard appears before installing the LAN driver.

1. Click 4. Install LAN Driver > Yes.

OR

Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\LAN\SetupYukonWin.exe and click OK.

2. Click Next.

3. Click the button to accept the license, and then click Next > Install > Finish.

4. The network settings can now be configured

Modem

1. Click 5. Install Modem Driver > Yes.

OR

Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\Modem\ssetup.exe and click OK.

2. Click OK.

3. The modem is now ready for configuration.

Modem Country Selection

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

PCMCIA/CardReader

1. Click 6. Install CardReader Driver > Yes.

OR

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

2. Click Next.

3. Click Finish.

TPM (Trusted Platform Module)

1. Click 7. Install TPM Driver > Yes.

OR

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

2. Click Next.

3. Click the button to accept the license, and then click Next > Next > Next > Install.

4. Click Finish and close the ReadMe file.

5. Click Yes to restart the computer.

6. See "Security Modules (Fingerprint & TPM)" for configuration instructions.

Fingerprint Reader

1. Click 8. Install Fingerprint Driver > Yes.

OR

Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\Fingerprint\autorun.exe and click OK.

2. Click Software Installation (button).

3. Click Next.

4. Click the button to accept the license, and then click Next.

5. Click Next > Next > Next.

6. Click Finish > Yes to restart the computer.

7. See "Security Modules (Fingerprint & TPM)" for configuration instructions.

Hot Key Utility

1. Click 9. Install Hotkey Utility Driver > Yes.

OR

Click Start (menu) > Run... and navigate (Browse..) to
D:\Drivers\Hotkey\Setup.EXE and click OK.

2. Click Next > Install.

3. Click Finish > Finish to restart the computer.

Bluetooth

See install procedure in "Bluetooth Driver Installation".

Wireless LAN

See install procedure in "Intel PRO/Wireless WLAN Module".

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

POST Screen

Note that the POST screen as pictured will not appear if you have enabled Intel On-Screen Branding.

1. BIOS information
2. CPU type
3. Memory status
4. Enter Setup prompt appears only during POST

```
Phoenix TrustedCore(tm) MB
Copyright 1985-2005 Phoenix Technologies Ltd.
All Rights Reserved
BIOS Revision: 1.00.D05 1
KBC/EC Firmware Revision: 1.00.P2

CPU = Genuine Intel (R) CPU 2
VI400 @ 1.200GHz
503M System RAM Passed 3
2048 KB L2 Cache
System BIOS shadowed
Video BIOS shadowed
Fixed Disk: 0: HTC42603005C200
ATAPI CD-ROM: STAK775 DVD/CDRW
Mouse initialized

Press <F2> to enter SETUP 4
```

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 the PhoenixBIOS Setup Utility, turn on the computer and press F2 during the POST. The prompt (Press F2 to Enter Setup) 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 you have enabled Intel On-Screen Branding (see "Intel On-Screen Branding (Advanced Menu)") you can still click the mouse, or press Enter, and then choose "Launch System Setup" from the menu to access the PhoenixBIOS Setup Utility.

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 six (6) 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



CPU Type and Speed

This item contains information on the CPU type and speed, and is not user configurable.

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.

System 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.

Advanced Menu



IDE Channel 0 Master/Slave (Main Menu)

Press Enter here to open the sub-menu to show the configuration of hard disks and CD/DVD device(s) on the computer's IDE Channels. Use the Auto (Type:) setting to have the items configured automatically for you.

Internal Pointing Device (Advanced Menu)

Use this item to enable/disable the internal TouchPad (alternatively you can use the TouchPad power button to enable/disable the TouchPad).

Keyboard Language (Advanced Menu)

Use this item to choose either a US or UK Keyboard layout.

Onboard LAN Boot ROM (Advanced Menu)

This item may be used to enable/disable the network boot option.

Wake-Up On LAN (Advanced Menu)

Enable/Disable the Wake-Up On LAN option here. Wake-Up on LAN (WOL) is a standard that allows you to turn on a computer from another location over a network connection.

Intel On-Screen Branding (Advanced Menu)

Set this item to enable or disable the Intel logo display on the screen. If you enable this option the POST screen, as illustrated in "The Power-On Self Test (POST)", will not appear. If you have enabled this item you can still click the mouse, or press Enter, and then choose "Launch System Setup" from the menu to access the PhoenixBIOS Setup Utility.

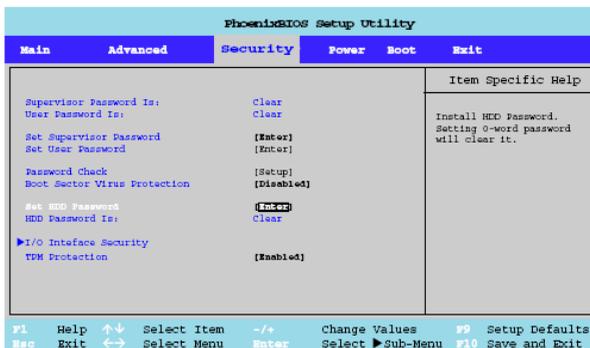
Detect External CRT (Advanced Menu)

You can disable automatic external CRT/display detection from this menu. Disabling this item will reduce power consumption, however you will need to enable the item if you want to attach an external CRT/display.

Security Menu

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.



Set Supervisor Password (Security Menu)

You can set a password for access to the PhoenixBIOS Setup Utility. This will not affect access to the computer OS, (only the PhoenixBIOS Setup Utility).

Set User Password (Security Menu)

You can set a password for user mode access to the PhoenixBIOS Setup Utility. This will not affect access to the computer OS, (only the PhoenixBIOS Setup Utility). Many menu items in the PhoenixBIOS Setup Utility utility cannot be modified in user mode. You can only set the user password after you have set the supervisor password.

Password Check (Security Menu)

Specify here when the system should prompt for a password. If the item is set to "Setup" then the password prompt will only appear when you attempt to access the PhoenixBIOS Setup Utility. If you set the item to "Always" the password prompt will appear when the computer boots up.

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.

Boot Sector Virus Protection (Security Menu)

If you choose "Enable" this will protect against viruses being written to the hard disk boot sector (this is not a substitute for installing an anti-virus program - see "Viruses").

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.

Set HDD Password (Security Menu)

Press Enter to create a password for access to the computer's hard disk when the computer boots up.

Password Protection

Note that you should set a supervisor password in the BIOS to protect the TPM information from being tampered with by unauthorized users.

I/O Interface Security (Security Menu)

The submenus here allow you to enable/disable the interface controllers for Bluetooth, PC Card/Card Reader, USB/Finger Print ID, LAN and Audio/Modem.

TPM Protection (Security Menu)

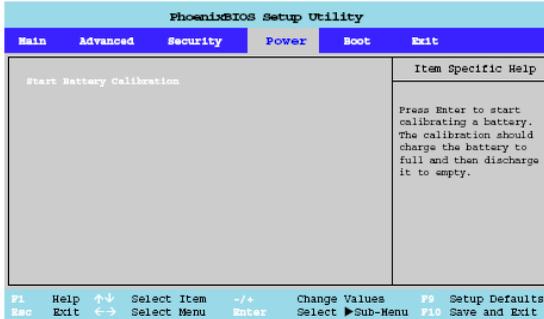
You can enable/disable TPM protection from this menu. If you choose to disable TPM protection then a submenu will appear as per TPM Function below. Note that you should disable TPM Protection when you are first going to initialize the TPM security module (see "Trusted Platform Module").

TPM Function (Security Menu)

If you disable the TPM function from the menu above this menu will appear to allow you to set the level of TPM functionality. You can enable/disable the TPM function altogether, or clear all existing TPM information but leave the function enabled, or clear all existing TPM information and disable the function.

Note: If you clear all TPM information it will be erased altogether and the information will need to be reconfigured.

Power Menu



Power Menu

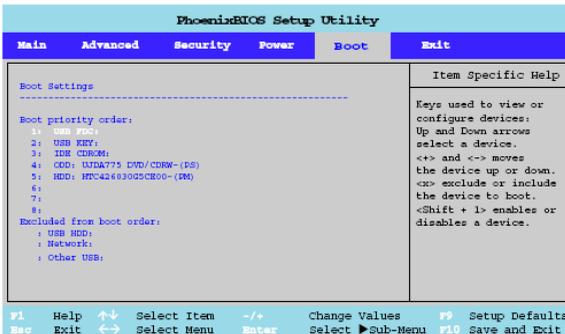
To optimize battery life it is necessary to discharge the battery completely and recharge it again about every 30 days. This Start Battery Calibration menu will begin this process for you. Allow some time for this process as the computer needs to charge the battery fully, discharge it, and then charge it again.

Start Battery Calibration (Power Menu)

Press Enter to start the battery calibration process. The system will prompt you to plug-in the AC/DC adapter and will begin to charge the battery to full capacity. Once the battery has reached full capacity you will then be prompted to remove the AC/DC adapter with the computer left on. This will completely discharge the battery.

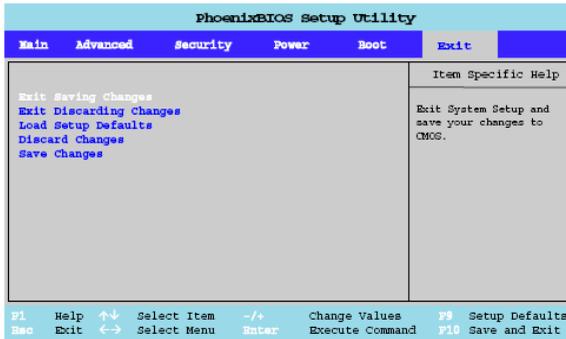
Once the computer has turned off the battery will be fully discharged. Plug-in the AC/DC adapter and allow the computer to fully recharge the battery. You may work on your computer as the battery charges, however if the computer is powered on, and in use, it will take several hours to fully recharge the battery. When the computer is turned off but plugged into an electrical outlet, battery charge time is less. While the battery is charging the battery LED will be orange; when the battery is fully charged the LED will be cleared.

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



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.

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
- Upgrading the Optical (CD/DVD) Device Drive
- Upgrading the System Memory (RAM)

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.

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).

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.

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 main board.

Removing the Battery

If you are confident in undertaking upgrade procedures yourself, for safety reasons it is best to remove the battery. Your computer may come with a 4 cell battery (4), or a 10 cell battery (5), depending on your purchase configuration.

1. Turn the computer off, and turn it over.
2. Slide the latch (1) in the direction of the arrow (it will remain in place).
3. Slide the latch (2) in the direction of the arrow, and hold it in place.
4. Slide the battery out of the computer in the direction of the arrow (3).



10 Cell Battery Warning

Please be careful when using the 10 cell battery. The battery is heavy and extends beyond the case of the computer. Moving the battery, or exposing it to shock or vibration may interrupt the battery contacts and cause the computer to shutdown.

Upgrading the Hard Disk Drive

The hard disk drive can be taken out to accommodate other 2.5" or 1.8" Parallel (PATA) hard disks with a height of 9.5mm (h) (see "Storage"). Follow your operating system's installation instructions, and install all necessary drivers and utilities (see "Driver Installation"), when setting up a new hard disk.

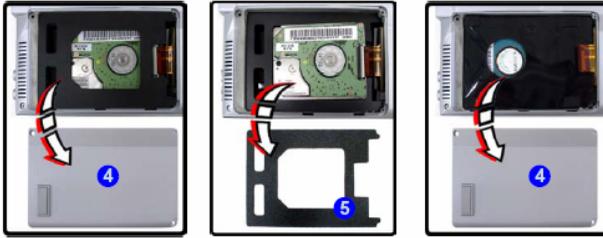
1. Turn off the computer, and turn it over and remove the battery.
2. Locate the hard disk bay cover and remove the screws from points (1) – (3).



HDD System Warning

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

3. Remove the hard disk bay cover (4) (and foam top cover (5) for 1.8" hard disks).



4. Carefully lift the hard disk assembly up and disconnect the cable at point (6).



5. Remove the hard disk (7) from the bay, and then remove the case (8).



6. Reverse the process to install any new hard disk; however if you are replacing your hard disk with a hard disk of a different size from that originally provided in the bay, then see overleaf.

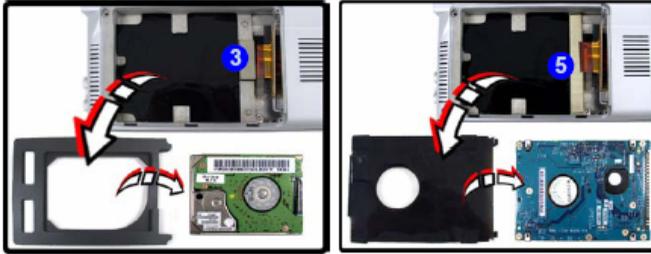
Changing Hard Disk Sizes

1. In your original packaging you will be provided with a case and a protective gasket appropriate for your hard disk.



- 1. 1.8" HDD Bottom Case
- 2. 1.8" HDD Top Case
- 3. 1.8" HDD Gasket
- 4. 2.5" HDD Case
- 5. 2.5" HDD Gasket

2. Remove the original gasket from its location in the bay.



3. Remove the backing from the new protective gasket.

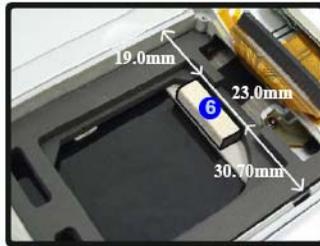
4. Follow the instructions below, depending on which disk you are installing.

If you are replacing a 1.8" hard disk with a 2.5" hard disk:

- Stick the 2.5" protective gasket in the appropriate location (5) (see picture above).
- Insert the 2.5" hard disk into the case, attach it to the connector and replace the case cover and screws.

If you are replacing a 2.5" hard disk with a 1.8" hard disk:

- Place the foam bottom cover inside the bay.
- Stick the 1.8" protective gasket in the location illustrated (6) (see picture below) as per the approximate dimensions outlined.
- Attach the disk to the connector, place the foam top cover inside the bay and replace the case cover and screws.



Upgrading the Optical (CD/DVD) Device Drive

1. Turn off the computer, and turn it over and remove the battery.
2. Locate the ODD release cover and remove the screw (1) and cover (2).
3. Use a screwdriver to carefully push out the optical device at point (3).
4. Reverse the process to install the new device.



ENG Upgrading the System Memory (RAM)

The computer has one memory socket for 200 pin Small Outline Dual In-line (SO-DIMM) DDRII (DDR2) type memory modules (see "Memory" for details of supported module types). 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 (1) & (2).



3. Carefully remove the component bay cover (3).



4. Gently pull the two release latches (4) & (5) on the sides of the memory socket.



5. The RAM module (6) will pop-up, and you can remove it.

**Contact Warning**

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

6. Insert a new module holding it at about a 30° angle and fit the connectors firmly into the memory slot.
7. The module's pin alignment will allow it to only fit one way. Make sure the module is seated as far into the slot as it will go. DO NOT FORCE the module; it should fit without much pressure.
8. Press the module in and down towards the mainboard until the slot levers click into place to secure the module.
9. Replace the cover and screws.
10. Restart the computer to allow the BIOS to register the new memory configuration as it starts up.

Modules & Options

Overview

This chapter contains the information on the Bluetooth, WLAN and Security modules which may come with your computer, depending on the configuration purchased. If you are unsure please contact your service representative.

- Bluetooth Module
- Intel PRO/Wireless WLAN Module
- Security Modules (Fingerprint & TPM)

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.

Bluetooth Module

If you have included a Bluetooth module in your purchase option, make sure that the optional Bluetooth module is on (the LED will be orange) before installing the Bluetooth driver. Use the Fn + F2 key combination (see "Function Keys") to toggle power to the Bluetooth module. Make sure you install the drivers in the indicated order.

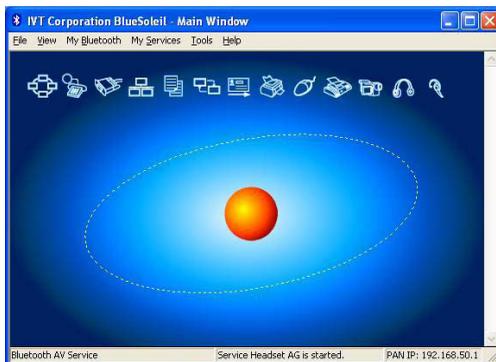
Wireless Device Operation Aboard Aircraft

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 Fn + F2 key combination to toggle power to the optional Bluetooth module, and check the indicator to see if the module(s) is powered on or not.

Bluetooth Driver Installation

1. Make sure the module is powered on, and then insert the Device Drivers & Utilities + User's Manual CD-ROM into the CD/DVD drive.
2. Click Install WinXP Drivers (button), and then click 10. Install Bluetooth Driver > Yes.
- OR
- (Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\Bluetooth\SETUP.exe and click OK.
3. Click Install Drivers and Application Software.
4. Choose the language you prefer, and click OK > 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 will appear on restart.
9. Configure the settings by going to the IVT Corporation BlueSoleil - Main Window control panel (Start > Programs/All Programs > IVT BlueSoleil > BlueSoleil), or click the taskbar icon .



Send To Bluetooth

Right-Click to select any file and scroll down to Send To... Bluetooth Device.



User Guide

View the BlueSoleil User Guides from the Help Menu (or press the F1 key) in the IVT Corporation BlueSoleil - Main Window. The Manual in Adobe .pdf format is on the Device Drivers & Utilities + User's Manual CDROM. Click Browse CD (button) and navigate (Browse...) to D:\Drivers\Bluetooth\Manual\Manual.pdf.



Intel PRO/Wireless WLAN Module

If you have included an Intel PRO/Wireless 3945ABG (802.11a/b/g) PCIe WLAN module in your purchase option, make sure that the Wireless LAN module is on (the LED  will be green) before installing the driver. Use the hot key **ON**  **OFF** to toggle power to the Wireless LAN module (make sure you install the drivers in the indicated order). To get help on the network settings you can view the User Guide from the Intel PROSet / Wireless menu.

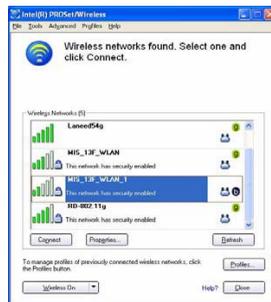


Operation Aboard Aircraft

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 hot key to toggle power to the WLAN module, and check the indicator to see if the module is powered on or not.

Intel WLAN Driver Installation

1. Make sure the module is powered on, and then insert the Device Drivers & Utilities + User's Manual CD-ROM into the CD/DVD drive.
 2. Click Install WinXP Drivers (button), and then click 11. Install WLAN Driver > Yes.
- OR
- (Click Start (menu) > Run... and navigate (Browse..) to D:\Drivers\WLAN\Autorun.exe and click OK.
3. Click Install Software (button).
 4. Click the button to accept the license and click Next > Next > OK.
 5. Click OK to complete the installation.
 6. Configure the settings from the Intel (R) PROSet Wireless control panel (Start > Programs/All Programs > Intel PROSet Wireless), or double-click the taskbar icon .



User Guide

You can view the User Guides from the Device Drivers & Utilities + User's Manual CD-ROM. Click Install Win XP Drivers and then click the Unlock button. Click 11. Install WLAN Driver. Click View User Guide (button).

Security Modules (Fingerprint & TPM)

The encrypted channel between the Trusted Platform Module security chip and the fingerprint reader with Protector Suite Software provides a high level of security for your computer. A further level of security and control is provided in the BIOS (see "Security Menu").

The fingerprint reader and Protector Suite Software allow you to:

- Access or Lock your computer
- Protect sensitive files
- Display and file your favorite web pages
- Fill in frequently used dialogs
- Run your favorite applications

The TPM security chip allows you to create and manage digital certificates for user and platform authentication. This type of security is usually administered within large enterprises and organizations, and therefore requires implementation by a system administrator before users can access security features. Individual users can use the TPM as an authentication with the fingerprint reader.

Password Warning

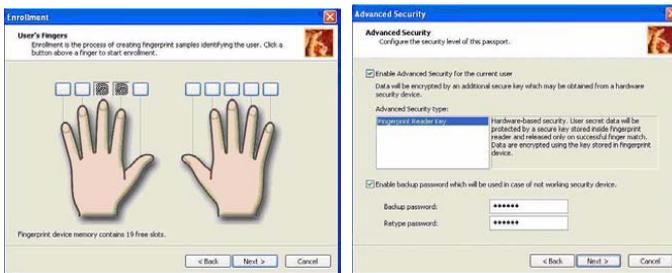
If you set passwords for any of the security modules, NEVER forget your password. The consequences of this could be serious. If you cannot remember your boot password you must contact your vendor and you may lose all of the information on your hard disk.

Fingerprint Reader

Make sure you have installed the Trusted Platform Module and Fingerprint drivers before configuring the fingerprint and security system. Make sure you have administrator's rights to your computer, and have a Windows password enabled for full security protection. Before beginning the enrollment process it is recommended that you go through the fingerprint tutorial. To run the tutorial click Start > Programs/All Programs > Protector Suite QL > Fingerprint Tutorial.

User Enrollment

1. Click Start > Programs/All Programs > Protector Suite QL > User Enrollment, or double click the taskbar icon .
2. Click Next and select "Enrollment to the biometric device", and click Finish.
3. If you have not set a Windows password you will be prompted to do so (note: If you have not set a password Protector Suite QL cannot secure access to your computer).
4. Click Next.
5. You will then be prompted to enter your Windows password.
6. Click Next > Next (if you have the "Run interactive tutorial" tickbox selected you will run through the Fingerprint Tutorial).
7. Click Next for each window of the tutorial (you can click the button to "skip tutorial" at any time).
8. Click the button above any of the fingers to begin the enrollment process for that finger.
9. Swipe the finger three times to enroll that finger.
10. Repeat the process for all the fingers you wish to enroll (see sidebar), and then click Next.
11. Make sure you have a tick in the "Enable Advanced Security for the current user" tickbox (the Fingerprint Reader Key will appear in the "Advanced Security type" box).



Fingerprint Enrollment

Note that it is strongly recommended that you enroll more than one finger in case of injury etc.

15. See “Help & Manual” for further details.
16. If you swipe your finger over the reader at any time you can access the Biomenu to lock the computer, register websites, Unlock My Safe, open the Control Center and access the Help menu.
17. The Control Center allows you to change the Settings, enroll Fingerprints and get Help.
18. The My Safe storage folder on the desktop allows you to store documents with added security protection.
19. Double-click the folder, send then swipe a finger to open the folder.
20. Add a backup password for My Safe, click Next and then set the initial size of the folder.
21. Click Finish to initialize the My Safe folder.
22. You can now initialize the TPM security chip (see over).
23. After Initializing the TPM (and setting up a user) you can then initialize the TPM for use with the Protector Suite Software.



Help & Manual

Right-click the taskbar icon to bring up the menu to select Help. Insert the Device Drivers & Utilities + User's Manual CD-ROM and click Install WinXP Drivers (button).

Click Unlock (button) and then click 8.Install Fingerprint Driver > Yes. Click Documentation to open the folder containing the manual in .pdf format.

To install the Adobe Acrobat Reader software to read the file, insert the Device Drivers & Utilities + User's Manual CD-ROM and click User's Manual (button), and click Install Acrobat Reader (button).

Control Center

To use your Fingerprint reader to replace the hard disk and/or power on passwords, enable the option from the Power-on Security item in the Control Center. Use the TPM item in System Settings to initialize TPM for use with the Protector Suite software.

Trusted Platform Module

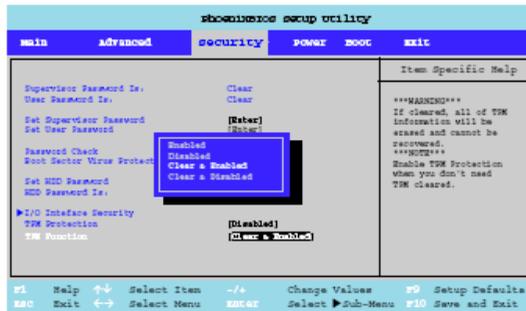
Before setting up the TPM functions you must initialize the security platform.

Backup & Archive

Note that it is very important to perform routine backup and archive procedures. This is the only way to recover if the TPM fails, the information is cleared or the computer develops a problem. Backup should be performed to a location other than the computer itself. It is not possible to recover any TPM protected data if there is no backup available.

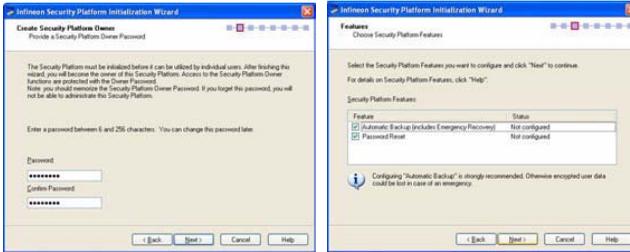
Initializing TPM

1. Restart the computer.
2. Enter the PhoenixBIOS Setup Utility by pressing F2 during the POST (or press Enter and select Launch System Setup).
3. Use the arrow keys to select the Security menu.
4. Select TPM Protection and set the item to Disabled.
5. Select TPM Function and set the item to Enabled (or Clear & Enabled if you want to clear previous TPM information).
6. Press F10 to save the changed BIOS information, exit the BIOS and restart the computer.



7. Click Start > Programs/All Programs > Infineon Security Platform Solution > Manage Security Platform, or double-click the taskbar icon, to bring up the Infineon Security Platform Initialization Wizard.
8. Click User Settings (tab), and then click Yes.
9. Click Next and select either Initialize a new Security Platform, or Restore a Security Platform from a Backup Archive, and click Next.
10. Enter and confirm a new owner password and click Next.
11. Select the Features you want to configure and click Next.

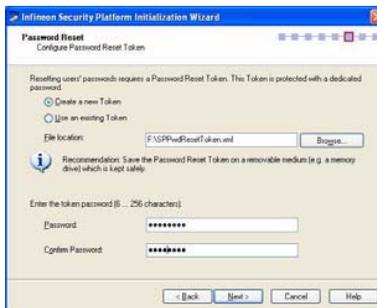




Owner Password

It is recommended that you set a different owner password from the administrator password for added security.

12. If you have chosen to set an Automatic Backup you will need to browse to a location for the backup, and you can also Schedule any backups required.



Recovery & Password Reset Tokens

It is strongly recommended that you save your Recovery/Password Reset Tokens to a removable medium (e.g. a USB flash memory drive), and that you backup this/these token(s) and save it/them in a safe location.

13. Click Next (you can now create an emergency Recovery Token and set a password).
14. Click Next (you can now create a Password Reset Token and set a password).
15. Click Next to confirm the settings.
16. If you want to use the TPM for this account select Start Security Platform User Initialization Wizard and click Finish.
17. The Wizard will now continue to take you through setting up a user (or see below).

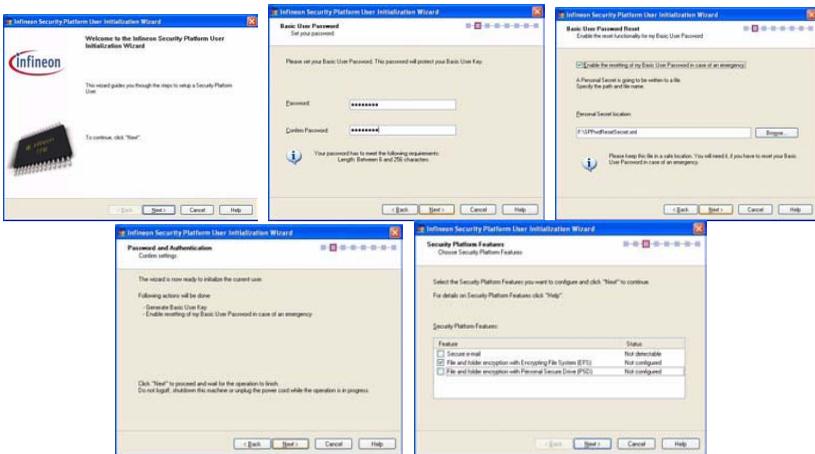
Initialization Screens



TPM User Set Up

To use the TPM you must be set up as a user. You can manually add users as follows:

1. Click Start > Programs/All Programs > Infineon Security Platform Solution > Manage Security Platform, or double-click the taskbar icon, to bring up the Infineon Security Platform Initialization Wizard.
2. Click User Settings (tab), and then click Yes.
3. Click Next.
4. Set your Basic User Password, and click Next.
5. Save a location for a Basic User Password reset file, and click Next.



6. Click Next to confirm the settings.
7. Select the Security Platform Features you require:

Note: Make sure you select File and folder encryption with Encrypting File System to have the TPM work with the Fingerprint ID.

8. Click Next.
9. The wizard will then guide you through the setup procedures for the features you have enabled.
10. You will then need to restart the computer.

Help

To learn more about all the features click Start > Programs/All Programs > Infineon Security Platform Solution > Help on Security Platform.

Initialize the TPM for use with the Protector Suite Software

1. Click Start > Programs/All Programs > Protector Suite QL > Control Center, or select the Control Center from the Biomenu or right click the taskbar icon and select Start Control Center.
2. Click Settings > System Settings.
3. Click TPM (tab).
4. Click Initialize TPM (button).
5. Click Next > Finish and close the control panels.



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 Indicators (see "LED Indicators") 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"), the Fn + F1 key combination, or power button to wake-up the system.

Brightness - Check the brightness of the screen by pressing the Fn + F5 and F6 keys to adjust the brightness.

Display Choice - Press Fn + F7 to make sure the system is not set to "external only" display.

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 password for the BIOS (see "Security Menu").

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

Warranty

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

Viruses

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

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

Keep a "Bootable CD-ROM/DVD-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 on the power but it doesn't work.	Battery missing / incorrectly installed. Check the battery bay, make sure the battery is present and seated properly (the design of the battery only allows it to go in one way). Make sure there's nothing interfering with the battery contacts.
The battery LED power indicator, is blinking orange.	Low Battery. Plug in the DC power source. If the computer doesn't start up immediately, turn it off then on again.
You are losing battery power too quickly.	The system is using too much power. If your OS has a Power Options scheme (see "Power Schemes") 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.	The battery has not been fully discharged before being recharged. Make sure the battery is fully discharged and recharge it completely before reusing (see "Battery Information"). Power Options have been disabled. Go to the Control Panel in Windows and re-enable the options. A peripheral device or PC Card is consuming a lot of power. Turn off the unused device to save power.
The computer feels too hot.	Make sure the computer is properly ventilated and the Vent/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"). Make sure you're using the correct adapter. Make sure that your notebook is completely powered off before putting it into a travel bag (or any such container). Putting a notebook which is powered on in a travel bag may cause the Vent/Fan intakes to be blocked.
Nothing appears on screen.	The system is in a power saving mode. Toggle the Fn + F1 sleep/resume key combination (see "Sleep Button"). The screen controls need to be adjusted. Toggle the screen control key combinations Fn + F5/F6. If you're connected to an external monitor, make sure it's plugged in and turned on. You should also check the monitor's own brightness and contrast controls. The computer is set for a different display. Toggle the screen display key combination, Fn + F7. If an external monitor is connected, turn it on. The screen saver is activated. Press any key or touch the TouchPad.
No image appears on the external monitor I have	You haven't installed the video driver and configured it appropriately from the Control Panel. See "Intel Video Driver Controls" for instructions on installing and configuring the

plugged in and powered on. video driver.

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 very low.

The volume might be set too low. Check the volume control in the Volume Control Panel in the Windows taskbar, or use the key combination Fn + F9 and F10 (see "Audio Features") to adjust.

The compact disc cannot be read.

The compact disc is dirty. Clean it with a cleaner kit.

The compact disc tray will not open when there is a disc in the tray.

The compact disc is not correctly placed in the tray. Gently try to remove the disc using the eject hole (see "Loading Discs").

The DVD regional codes can no longer be changed.

The code has been changed the maximum 5 times. See "DVD Regional Codes".

Unwelcome numbers appear when typing.

If the LED is lit, then Num Lock is turned ON. (see "LED Indicators").

Other Keyboards

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

The system freezes or the screen goes dark.

The system's power saving features have timed-out. Use the AC/DC adapter, press the sleep (Fn+ F1) 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"). Make sure you have enabled Hibernate mode from the control panel.

The Wireless LAN/Bluetooth modules cannot be detected.

The modules are off. Check the LED indicator to see if the WLAN/Bluetooth module is on or off (see "LED Indicators"). If the LED indicator is off, then move the WLAN switch (see "Keyboard & Hot Keys") to the ON position, or press the Fn + F2 (Bluetooth) key combination in order to enable the modules (see "Function Keys").

The Wireless LAN and/or Bluetooth modules cannot be configured.

The driver(s) for the module(s) have not been installed. Make sure you have installed the driver for the appropriate module (see the instructions for the appropriate module in "Modules & Options").

Interface (Ports & Jacks)

Overview

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

Notebook Ports and Jacks

Item	Icon	Description
Built-In Microphone		The built-in microphone allows you to record on your computer
Card Reader Port		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.
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 (see "Attaching Other Displays").
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.
Microphone-In Jack		Plug an external microphone in to this jack to record on your computer.
Mini-IEEE 1394 Port		This port allows a high-speed connection to various peripheral devices, e.g. external disk drives and digital cameras (see note below). Mini-IEEE 1394 Port The Mini-IEEE 1394 port only supports SELF POWERED IEEE 1394 devices.
RJ-11 Phone Jack		This port connects to the built-in modem. You may plug the telephone line directly into this RJ-11 telephone connection. Note: Broadband (e.g. ADSL) modems usually connect to the LAN jack.
RJ-45 LAN Jack		This port supports LAN (Network) functions. Note: Broadband (e.g. ADSL) modems usually connect to the LAN jack.
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.
USB 2.0/1.1 Ports		These USB 2.0 compatible ports (USB 2.0 is fully USB 1.1 compliant) are for low-speed peripherals such as keyboards, mice or scanners, and for high-speed peripherals such as external HDDs, digital video cameras or high-speed scanners etc. Devices can be plugged into the computer, and unplugged from the computer, without the need to turn the system off (if the power rating of your USB device is 500mA or above, make sure you use the power supply which comes with the device).

Intel Video Driver Controls

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

Intel Video Driver Installation

Make sure you install all the drivers in the indicated order. Instructions for installing the video driver are repeated below.

1. Click 2. Install Video Driver > Yes.

OR

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

2. To continue click Next > Yes.

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.

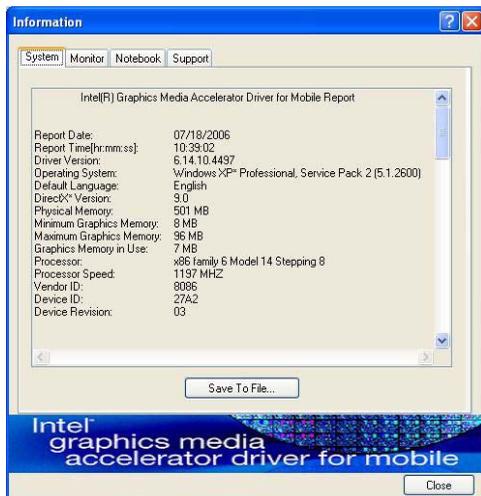
DVMT Notes

DVMT is not user-configurable. DVMT is not local video memory. DVMT will not function in MS-DOS. DOS uses the legacy memory indicated.

Information Tab

The information tab in Graphics Properties in the intel(R) Graphics Media Accelerator Driver (tab) lists details of your computer's memory etc. See “Intel Graphics Properties” to see how to access this Information tab.

DVMT Memory Requirements



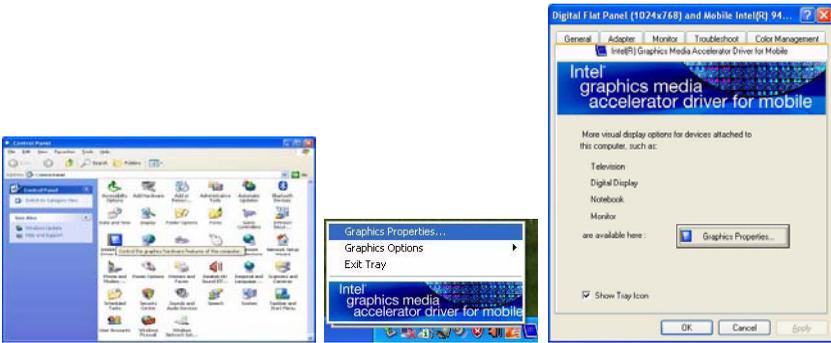
Intel Graphics Properties

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

1. Open Display Properties (see “Video Features”) and click Advanced.

2. Click the Intel(R)... tab and click Graphics Properties (button).

3. You can also access Intel(R) GMA Driver for Mobile by double-clicking the Windows control panel, or from the taskbar icon menu.

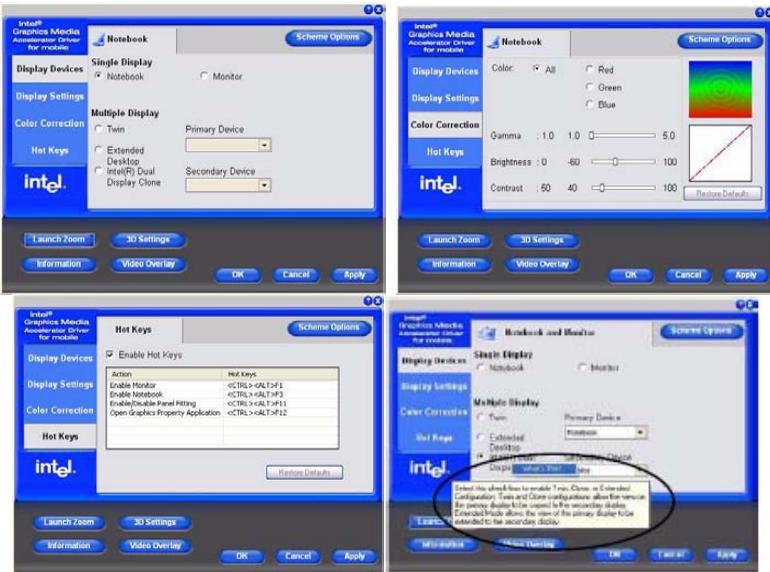


Taskbar Icon

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 tab (in the Display Properties > Advanced options) and click the “Show Tray Icon” tickbox.

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.

Intel Graphics Media Accelerator Driver for Mobile(Control Panel Tabs)



Help Menus

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.

Scheme Options

Use Scheme Options to configure quick settings for applications which require specific resolution and color settings in order to run properly e.g. games, multimedia programs. To set the scheme options:

1. Open the Intel(R) GMA Driver for Mobile control panel (see "Intel Graphics Properties").
2. Configure your display configuration, resolution etc. as per your requirements from Display Settings.
3. Click on Scheme Options (button).
4. Type a name for the scheme.
5. If you want to automatically launch an application when running the scheme click on Browse (button).
6. Browse to the executable file for the application you want to set the scheme for, and click Open to select it.
7. Click Save to save the settings (you can click in the "Restore the display settings after exiting this application" box to return to your original settings when you exit the program).
8. Click OK to exit Scheme Options.
9. Click the taskbar icon and scroll to Select Scheme to choose the scheme to run.



Application.exe

You will need to locate the actual application executable (.exe) file, not just the shortcut. To find the application rightclick its shortcut on the desktop click Properties. Click the Shortcut (tab) and see where the executable file is located by clicking the Find Target (button). Note the location and you will then be able to browse to this file.

Attaching Other Displays

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

1. The built-in LCD OR an external monitor/flat panel display connected to the external monitor port (Single Display).
2. The built-in LCD AND an external monitor/flat panel display connected to the external monitor port (Multiple Display). If you want use an external display follow these instructions:
 1. Attach your external monitor to the external monitor port and turn it on.
 2. Open the Intel(R) GMA Driver for Mobile control panel (see "Intel Graphics Properties").
 3. Click to choose the display option from the Multiple or Single 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. See "Twin Mode Support" 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 Display Devices (tab) to drag the monitors to match the physical arrangement you wish to use, or you may use Windows Display Properties (control panel) to configure the relative size and position.

Function Key Combination

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

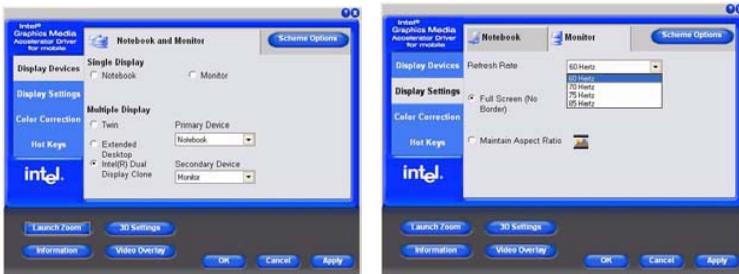
- Notebook Only
- External Display Only
- Notebook + External Display

Make sure you give the displays enough time to refresh.

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

1. Attach your external display to the external monitor port and turn it on.
2. Open the Intel(R) GMA Driver for Mobile control panel (see "Intel Graphics Properties").
3. Click to choose Intel(R) Dual Display Clone or Twin from Display Devices (tab).
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 Support

The Twin mode option will only appear if the notebook and external monitor support the same resolution (e.g. 1280 * 800). Check any documentation supplied with an external monitor to see supported resolutions.

Twin Mode



To Enable Extended Desktop Mode:

1. Attach your external monitor to the external monitor port and turn it on.
2. Open the Intel(R) GMA Driver for Mobile control panel (see "Intel Graphics Properties").
3. Click to choose Extended Desktop from Display Devices (tab).
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 Windows Display Properties.



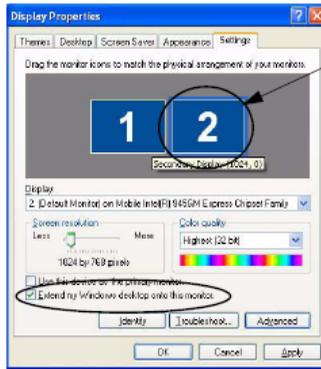
Display Settings Extended Desktop

You can have different Colors, Screen Area and Monitor Refresh Rates for each display device provided your monitor can support them. You can drag the monitor icons to match the physical layout of your displays. Icons and programs may also be dragged between the displays.

To Enable Extended Desktop (Display Properties)

1. Attach your external monitor to the external monitor port (or TV to the 7-Pin SVideo-Out Jack), 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. In the Display Properties dialog box, click Settings (tab).
5. Click the monitor icon (e.g. (2)), and make sure you have checked "Extend my Windows desktop onto this monitor." and click Apply.

Click the appropriate monitor icon (e.g. (2)) to be able to select the option to extend the desktop on to it.
In this example the Primary monitor (1) is on the left, the secondary display (2) is on the right.



Display Settings

Extended Desktop

Use the control panel to drag the monitors to match the physical arrangement you wish to use. You can drag any icons or windows across to either display desktop, which makes it possible to have one program visible in one of the displays, and a different program visible in the other display.

Specifications

Latest Specification Information

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

Processor (CPU On Board)

Intel® Core™ Solo Processor

FC-PGA6 Package

U1400

65nm (65 Nanometer) Process Technology

2MB On-die L2 Cache & 533MHz FSB

1.20 GHz

Intel® Celeron® M Processor

FC-PGA6 Package

ULV 423

65nm (65 Nanometer) Process Technology

1MB On-die L2 Cache & 533MHz FSB

1.06 GHz

Core Logic

Intel 945GMS + ICH7-M Chipset

Memory

512MB On Board Memory

64-bit Wide DDRII (DDR2) Data Channel

One 200 Pin SO-DIMM Sockets Supporting DDRII (DDR2)

533 MHz

Memory Expandable up to 1.5GB (256/ 512/ 1024 MB

DDRII Modules)

(Note: Do Not Use Other Module Types)

Security

Security (Kensington® Type) Lock Slot

Fingerprint ID Support

TPM1.2

BIOS Password

HDD Password Lock

BIOS

One 8Mb Flash ROM

Phoenix™ BIOS

LCD Options

12.0" XGA (1024*768) Flat Panel TFT LCD

Video Adapter

Intel 945GMS Integration

Intel® Graphics Media Accelerator 950 (Intel® GMA 950)

Dynamic Video Memory Technology DVMT 3.0 - Supports up to 128MB of Video Memory (dynamically allocated from system memory where needed)

Supports DualView™

Storage

Optional Device Drive Bay Options:

One Changeable 9.5mm(h) Optical Device (CD/DVD) Type Drive (see "Optional" on page C - 5 for drive options)

Hard Disk Bay:

Easy Changeable 2.5" OR 1.8", 9.5mm (h) Hard Disk (HDD) with PATA (Parallel) Interface

Audio

AZALIA High Definition Audio Interface

3D Stereo Enhanced Sound System

Sound-Blaster PRO™ Compatible

1 * Built-In Monaural Speaker

Built-In Microphone

Keyboard & Pointing Device

Winkey Keyboard

Built-In TouchPad

PCMCIA

One Type-II PCMCIA (3.3V/5V) CardBus PC Card Slot

Card Reader

Embedded 4-in-1 Card Reader (MS/ MS PRO/ SD/ MMC)

Interface

Three USB 2.0 Ports (1.1 Compatible)

One External Monitor Port

One Headphone-Out Jack

One Microphone-In Jack

One RJ-11 Modem Jack

One RJ-45 LAN Jack

One DC-in Jack

One Mini-IEEE 1394 Port

Communication

AZALIA 56K Fax Modem - V.90 & V.92 Compliant
 10/100M Fast Ethernet LAN
 Intel PRO/Wireless 3945ABG PCIe Interface Wireless LAN
 Module (Option)
 USB (2.0) Bluetooth Module (Option)

Power Management

Supports ACPI 2.0 and APM v 1.2
 Supports Wake On Modem Ring
 Supports Wake On LAN

Power

Full Range AC/DC Adapter - AC Input 100 ~ 240V, 50 ~ 60Hz / DC Output 18.5V, 3.5A
 4 Cell Smart Lithium-Ion Battery Pack, 5200mAH, 38.48W
 10 Cell Smart Lithium-Ion Battery Pack, 13000mAH, 96.2W

Environmental Spec

Temperature

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

Relative Humidity

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

Dimensions & Weight

281mm (w) * 237mm (h) * 32 - 35mm (d)
 1.2kg (with 1.8" 30GB HDD, DVD Dual & 4 Cell Battery)

Optional

Optical Device Module Options:
 Dummy ODD
 DVD-ROM Drive Module
 DVD/CD-RW Combo Drive Module
 DVD Dual - Supporting Super MULTI Drive Module
 USB (2.0) Bluetooth Module (Including Bluetooth Cable)
 Intel PRO/Wireless 3945ABG PCIe Interface Wireless LAN
 Module (Option)
 10 Cell Smart Lithium-Ion Battery Pack, 13000mAH,
 96.2W