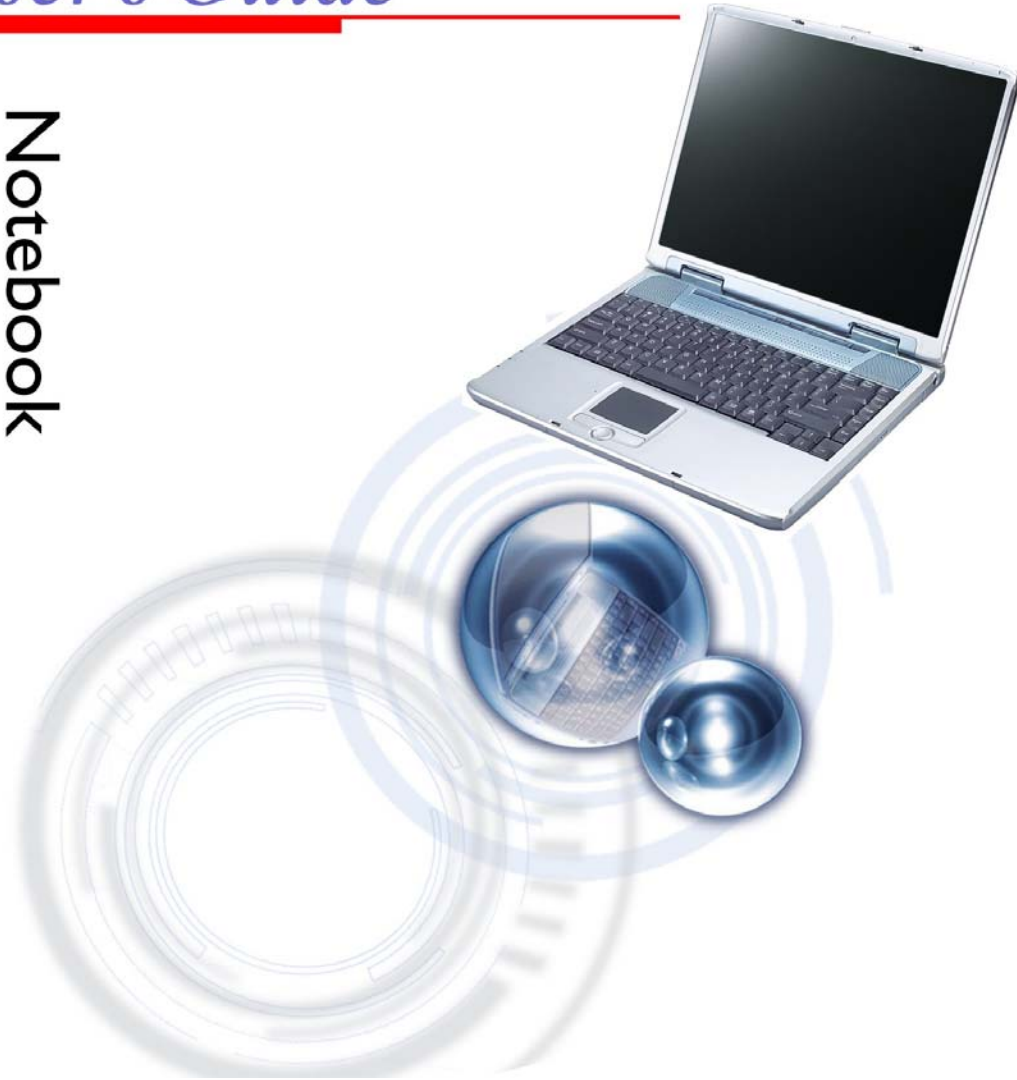


User's Guide

Notebook
Computer



Preface

Copyright 2004

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The information in this document is subject to change without prior notice in order to improve reliability, design and function and does not represent a commitment on the part of the manufacturer.

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Notices

Federal Communications Commission Radio Frequency Interference Statement



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

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

Notice:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cables and a non-shielded AC power cord must be used in order to comply with emission limits.

This equipment is to be used with power supply:
I/P: 100-240 Vac, 50-60Hz, 1.8A
O/P: 19Vdc, 3.42A

There is no internal power supply.

Warning:

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This Notebook is in compliance with SAR for general population /uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.

RF Exposure Information

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels.

The highest SAR value for the device as reported to the FCC is 0.289 W/kg when placed next to the body.

The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of <http://www.fcc.gov/oet/fccid> after searching on FCC ID: SA6G553IBXX.

Canadian DOC Notice For Class B Computing Devices

This Class B digital apparatus meets all requirements of the Canadian Interference - Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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Chapter

Before you Start

Conventions of This Manual

Use this manual will help you get the most from your notebook computer.

- If you are an experienced user of computers and/or Microsoft's Windows operating systems, you might find it useful to read the Quick Start Guide that comes along with your accessories.
- If you are a less experienced user, you should through the manual carefully before using your system.

Whether or not you are an experienced user, you should consult on the Troubleshooting Chapter if you encounter any problems with your notebook.



The check mark symbol indicates that you should take note on every detailed information when you encounter some function that might be useful when you are using your notebook.



The pencil symbol identifies information which is important for you to read to avoid damage to the computer.



This warning cautions you against actions which might be destructive to your data or might disrupt proper system operation.

Safety Precautions

This section is designed to assist you in identifying potentially unsafe conditions while working with this product. Required safety features have been installed in the computer to protect you from injury. However, you should use good judgment to identify potential safety hazards:

1. Please read these safety instructions carefully.
2. Please keep this User's Manual for later reference.
3. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
4. For pluggable equipment, that the socket-outlet shall be installed near the equipment and shall be easily accessible.
5. Please keep this equipment from humidity.
6. Lay this equipment on a reliable surface when installed. A drop or fall could cause injury.

-
7. Make sure to use the right voltage for the power source when connecting the equipment to the power outlet.
 8. Place the power cord in such a way that people can not step on it. Do not place anything on top of the power cord.
 9. All cautions and warnings on the equipment should be noted.
 10. If the equipment is not use for a long time, disconnect the equipment from the main power outlet to avoid being damaged by transient overvoltage.
 11. Never pour any liquid into the opening, this could cause fire or electrical shock.
 12. Never open the equipment. For safety reason, the equipment should only be opened by a qualified service personnel.
 13. If on the following situations arises, get the equipment checked by a service personnel:
 - a. The Power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.
 - d. The equipment has not worked well or you cannot get it work according to the user's manual.
 - e. The equipment has dropped and damaged.
 - f. If the equipment has obvious sign of breakage.
 14. Do not leave this equipment in an environment unconditioned, storage temperature above 60°C (140°F), it may damage the equipment.
 15. The unit can be operated at an ambient temperature of max. 35°C.
 16. The sound pressure level at the operators position according to IEC 704-1: 1982 is equal or less than 70 dB(A).
 17. Power Cord Requirements
The power cord set used with the AC adaptor must meet the requirements of the country where you use the AC adaptor, whether it is 100-120 or 200-240 Vac.
The following information explains the requirements for power cord set

selection.

- The cord set must be approved for the country in which it is used.
 - The appliance coupler must have a configuration for mating with a CEE22/EN6032/IEC 320 appliance inlet.
- A.** For U.S. and Canada:
- The cord set must be UL Listed and CSA Certified.
 - The minimum specifications for the flexible cord are No. 18 AWG.
- B.** For Japan:
- All components of the cord set must bear a “PSE” or “ T ” mark and registration number in accordance with the Japanese Dentori Law.
 - The minimum specifications for the flexible cord are .75m m² conductors.
- C.** For Other Countries:
- The cord set fittings must bear the certification mark of the agency responsible for evaluation in a specific country.
 - The flexible cord must be of a HAR (harmonized) type H05VV-F.
 - The cord set must have a current capacity of a least 2.5 Amperes and voltage rating of 125 or 250 Vac.
- 18.** When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons. These precautions includes the following:
- Do not use this product near water, for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
 - Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
 - Do not use the telephone to report a gas leak in the vicinity of the leak.
 - Use only the power cord indicated in this manual.
- 19.** Do not use the AC adapter near open water or other liquids. Never spill liquid

into the AC adapter.

20. Laser Warning: Laser Class I Product Caution - Invisible laser radiation when open avoid exposure to beam.
21. Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Never remove the battery pack while the power is on as this may result in data loss when the system loses power.
22. The input receptacle is used as the main disconnecting device.

Wichtige Sicherheitshinweise

1. Bitte lesen Sie diese Hinweis sorgfältig durch.
2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Versenden Sie keine Flüssig- oder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlußsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schützen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
7. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
8. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
9. Alle Hinweise und Warnungen, die sich am Gerät befinden, sind zu beachten.
10. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
11. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in

-
- das Gerät gelangen. Dies könne einen Brand bzw. Elektrischen Schlag auslösen.
- 12.** Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von autorisiertem Servicepersonal geöffnet werden.
 - 13.** Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu Überprüfung.:
 - a.** Netzlabel oder Netzstecker sind beschädigt.
 - b.** Flüssigkeit ist in das Gerät eingedrungen.
 - c.** Das Gerät war Feuchtigkeit ausgesetzt.
 - d.** Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
 - e.** Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
 - f.** Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
 - 14.** **VORSICHT:** Explosionsgefahr bei unsachgemäßen Austausch der Batterie. Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.
 - 15.** Dieses Schaltnetzteil kann bis zu einer Außentemperatur von maximal 35°C.
 - 16.** Die Ausgangswerte dürfen nicht die auf dem Label angegebenen Werte überschreiten.
 - 17.** Anforderungen an das Stromkabel
Das Kabel-Set, das an das Netzteil angeschlossen wird, muss den Anforderungen des Landes, in dem Sie das Netzteil einsetzen, genügen, je nachdem, ob die Netzspannung 100-120 oder 200-240V Wechselspannung beträgt.
 - Das Kabel-Set muss für das Land, in dem es eingesetzt wird, zugelassen sein.
 - Der Gerätestecker des Kabels muss in eine CEE22/ EN603/ IEC 320 Buchse passen.
- A.** Für die USA und Kanada:
-

-
- Das Kabel-Set muss UL-gelistet und CSA zertifiziert sein.
 - Die Minimalanforderungen für das Kabel entsprechen No. 18 AWG.
- B.** Für Japan:
- Alle Teile des Kabel-Sets müssen entsprechend dem japanischen Dentori Law mit einem „PSE“ or „T“-Symbol markiert sein
 - Die Minimalanforderungen für das Kabel sind .75m m² Leiter.
- C.** Für andere Länder:
- Die Zubehörteile des Kabel-Sets müssen das Prüfsiegel derjenigen Stelle, die in dem jeweiligen Land für die Sicherheitsprüfung zuständig ist, tragen.
 - Das Kabel muss vom HAR (harmonisierten) Typ H05VV-F sein.
 - Das Kabel-Set muss eine Stromkapazität von mindestens 2,5 Ampere haben und Spannungen von 125 oder 250 V Wechselstrom gestatten.
- 18.** Bei der Benutzung Ihres Telefongerätes sollten Sie immer die grundlegenden Sicherheitsmaßnahmen beachten, um das Risiko von Feuer, Stromschlägen und Verletzungen zu minimieren. Zu beachten sind u.a. folgende Punkte:
- Benutzen Sie das Gerät nicht in der Nähe von Wasser, wie zum Beispiel Badewanne, Waschbecken, Spülbecken, Waschtisch, in feuchten Kellerräumen oder in der Nähe von Schwimmbecken.
 - Benutzen Sie kein Telefon (ausgenommen schnurlose Modelle) während eines Gewitters. Es besteht das geringe Restrisiko eines Blitzschlages.
 - Benutzen Sie das Telefon nicht um ein Gasleck zu melden, falls es sich in der Nähe des Lecks befindet.
 - Benutzen Sie nur solch ein Stromkabel, wie in dieser Anleitung beschrieben.
- 19.** Benutzen Sie das Netzteil nicht in unmittelbarer Nähe zu Wasser oder anderen Flüssigkeiten. Gießen Sie nie Flüssigkeiten über das Netzteil.
- 20.** Achtung Laser: Laser Produkt der Klasse I. Achtung - Unsichtbarer Laserstrahl, vermeiden Sie Kontakt mit dem Strahl bei offenem Gehäuse.

-
21. Es besteht Explosionsgefahr, wenn der Akku nicht ordnungsgemäß ersetzt wird. Ersetzen Sie den Akku nur durch einen Akku gleichen oder äquivalenten Typs, der vom Hersteller empfohlen wird. Entsorgen Sie Akkus entsprechend den Anweisungen des Herstellers. Entfernen Sie den Akku auf keinen Fall bei eingeschaltetem Notebook, da hierdurch Daten verloren gehen könnten.
 22. Der Netzeingabeanschluss dient als Hauptschalter des Geräts.

Things you must remember before working on your computer

Let your computer acclimate itself

Your notebook can easily stand temperature extremes but it doesn't like rapid changes in temperature, like going from the cold outdoors to a warm office. Rapid changes in temperature can cause water droplets to condense inside your case, threatening to damage the electronic parts inside.

After receiving your notebook when it's hot or cold outside, try not to power up the computer immediately, let the computer adjust to the room temperature gradually at least for three to four hours.



If your system arrives in cold weather, do not apply power to the computer or monitor until they have been allowed to come to room temperature.

Heat, Cold, Humidity, and Glare

Find a suitable place for your computer that's not too hot, too cold, too dark, or too bright. Glare can make it hard to read the screen.

- Try to avoid the computer components from being destroyed if it is over heated, so try to allow plenty of room for air to circulate around the case.
- Do not block the ventilation opening.
- Do not place your computer in direct sunlight.

Suitable place to work

Your computer will run well wherever you're comfortable but extremes of temperature and humidity can be challenging to your system's parts.

There are some things you can tolerate that the computer can't – things like static electricity, dust, water, steam and oil. In case you decide to pull over for roadside computing, try to choose a clean, comfortable work area for your system.

A lithium-ion battery pack will be available when you are traveling. If you are running your system for the first time on battery power, remove the battery from the package, install it into the system and recharge the battery to fully prepare for service.

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Chapter

Introduction

There are more and more people spending large amounts of time in front of computer monitors now that scientists from many fields including anatomy, psychology, and occupational safety are involved in the study of ergonomically sound work environments.

A few tips to help you work effectively without a lot of physical discomfort:

- Purchase a chair with armrests and good back support. Don't slouch when sitting; keep your back straight.

-
- Try to place the LCD panel or external monitor so that there is little glare from the sun on the monitor.
 - Walk around the room every hour.
 - Every half hour look away from the computer screen for a few minutes.
 - Place everything that you need to work within easy reach.

Welcome to the Notebook PC

Congratulations on your purchase of the Notebook PC. Your Notebook features the latest advances in portable computing technology. The Notebook's modular design provides maximum expandability without compromising portability.

The high-performance CPU and enhanced IDE hard drive provides you with extra processing power for handling complex graphics and running large programs.

One PCMCIA slot gives you the ability to use standard PCMCIA cards, such as a LAN adapter or memory cards.

Getting to Know Your Computer

Opening the LCD Panel

At the front of the Notebook you will find a retaining latch on the display panel that locks the display in closed position when the Notebook is not in use.



1. Slide the display panel latch to the right until the display panel releases, and then raise the LCD screen.
2. At any time you can tilt the display toward or away from you to a comfortable viewing position.



To avoid damage to the display panel:

1. Try not to slam the display upon closing it.
2. Try not to place any object on top when it is closed or open.
3. Be sure the system is turned off or in suspend mode before you close the display panel.

With the LCD screen open, you will see several features important for operating your Notebook computer.



Each of these features is briefly described below.

1. LCD Cover Release Latch

Slide this latch to the right to open the LCD cover.

2. LCD Screen

Your Notebook computer is equipped with a replaceable color Liquid Crystal Display (LCD) screen that supports up to 1400 x 1050 resolution.

A built-in backlight allows you to comfortably view the screen even when ambient lighting is low.

3. Internet Explorer Button





Use this key to open the Internet Explorer.

4. Outlook Express Button

Use this key to open Microsoft's Outlook to send/receive your mail.

5. System Status Indicator Panel

The system status indicator panel keeps you informed of the computer's operating status.

	Indicates that the computer is accessing the hard disk drive.
	Indicates that the keyboard is in Num Lock mode.
	Indicates when the keyboard is in Caps Lock mode. In this mode, the keyboard produces uppercase text when you press a key. When you press the Caps Lock key again, the indicator goes off and the keyboard produces lowercase text.
	Indicates when the keyboard is in Scroll Lock mode. Some applications will move information across the screen differently when Scroll Lock is on.

6. Power/Resume Button

Pressing this button for 1-2 seconds will turn on the system or pressing this button when the computer is in Suspend mode will resume normal operation. Pressing this button for 4-6 seconds will also turn off the system.

7. TouchPad

The TouchPad is hardware-compatible with the IBM PS/2 mouse and software-compatible with the Microsoft mouse.

8. TouchPad Buttons

The buttons below the TouchPad correspond to the left and right buttons on a standard mouse. The PS/2 compatible mouse will work with the Notebook PC's TouchPad simultaneously.

9. Scroll Button

Use this button to scroll up and down the scrolling bar.

10. The Built-in Microphone

The built-in microphone is located to the left of the TouchPad.

The Left Side



1. Ventilation Opening

Please don't block this opening during operation of the system.

2. 1394A

A very fast external bus standard that supports data transfer rates of up to 400 Mbps (400 million bits per second).

Can be used to connect up to 63 external devices, also supports isochronous *data* -- delivering data at a guaranteed rate. This makes it ideal for devices that need to transfer high levels of data in real-time, such as video devices. Also supports both Plug-and-Play and hot plugging, and also provides power to peripheral devices.

3. PCMCIA Socket Cover

Open this cover to access the PCMCIA socket. The computer's PCMCIA socket lets you extend the capabilities of your computer by inserting PC cards.

4. PCMCIA Socket Button

The computer has one PCMCIA type II socket

5. The LAN Port

This jack provides a standard RJ-45 connection for integration with an existing network or a high-speed (DSL or cable) connection via a network cable.



When using a LAN, please use an EMI Shielding Cable to minimize an interference when transmitting.

6. The Modem Port

This jack is an internal 56K voice/fax/data modem. You will connect your computer to your phone line through this port.



Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment. To reduce the risk of fire use only No. 26 AWG or larger telecommunication line cord.

7. Microphone Jack

Allows you to receive monophonic input from an external microphone. Use of an external microphone will disable the built-in microphone.

8. Audio Line Out Jack

You can plug an external speaker, headphone or connect the line out jack to an audio device such as a cassette recorder to record the notebook's audio output.

LED Indicators

These three LED indicators are separately program for the following functions: Power On, Suspend Mode and Battery Charge.



1. Power On

This indicator will lit when the notebook is powered On.

2. **Battery Charge**

This indicator will lit green when the battery is in charging status. When the indicator light turns off, it indicates the system is in full charge.

3. **Suspend Mode**

This indicator will lit when the notebook enter the suspend mode.

The Right Side



1. The CD-ROM/DVD-ROM or DVD CD-RW Combo (Option)

Your Notebook comes with a swappable 24X (or higher) 5.25" IDE CD-ROM/DVD-ROM/Combo Drive (DVD-ROM+CD-RW), DVD-RW, DVD+RW, DVD-Dual.

2. DC IN Connector

Plug the AC adapter into this connector.

The Rear



1. Ventilation Opening

Please don't block this opening during operation of the system.

2. Kensington Lock

Allows you to connect a special computer lock to secure your system.
You can purchase a lock at most computer retailers.

3. S-Video Port

Allows you to connect any S-Video ready television to your system. You can display output simultaneously on both the LCD and the television or toggle between the two screens.

4. Parallel Port

This port allows you to easily connect a parallel printer or plotter using this 25-pin bi-directional female port.

5. External CRT Port

This port allows you to easily connect an external VGA/SVGA display monitor into your Notebook using the 15-pin female connector.

6. Infrared Data Port

The Infrared Data Port allows your Notebook to become truly wireless.
You can use this port to transfer large amounts of data very quickly to any other machine (Notebook computers, printers, etc.), which is also equipped with an IrDA-compliant IR port.

This allows you to print documents without any inconvenient cable hookups.

7. USB Ports

Your computer includes two Universal Serial Bus (USB) port. USB is the latest development in Plug and Play technology.

It will eventually replace the need for separate connectors for external keyboards, serial ports, and parallel (printer) port.

The Bottom Panel



1. MiniPCI/Wireless LAN/Modem Combo Compartment (Option)

This compartment can be used to extend the capabilities of your system by providing a connection with various extension card.

2. Expansion Compartment

This compartment will serve as an expansion to upgrade your RAM module.

3. Battery Release Latch

Lift up this latch to release the battery from its bay.

4. Battery

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

5. Hard Disk Drive

Your computer includes a 2.5-inch IDE hard disk drive (9.5mm in height). The notebook PC's BIOS automatically detects IDE drive types.

Chapter

Getting Started

Connecting to a Power Source

Connecting the AC Adapter

A universal AC adapter is provided to supply your computer with power and also charge the computer's battery pack.

The adapter's AC input voltage can range anywhere from 100 to 240 volts, covering the standard voltages available in almost every country.

The power cord for the AC adapter requires a three-hole grounded AC outlet. To connect the computer to an external power source:



1. Plug the AC adapter's connector into the DC-IN connector on the rear of the computer.
2. Connect the power cord to the AC adapter and then to a wall outlet.



The best kind of AC power source to connect your Notebook to is a UPS (Uninterruptible Power Supply). Lacking this, use a power strip with a built-in surge protector. Do not use inferior extension cords as this may result in damage to your Notebook. The Notebook comes with its own AC adapter. Do not use a different adapter to power the computer and other electrical devices.

Whenever possible, keep the AC adapter plugged into the Notebook and an electrical outlet to recharge the battery.



Never turn off or reset your Notebook while the hard disk is in use and the HDD status icon is lit; doing so can result in loss or destruction of your data. Always wait at least 5 seconds after turning off your Notebook before turning it back on; turning the power on and off in rapid succession can damage the Notebook's electrical circuitry.

Turning On Your Notebook Computer

Turn on your Notebook by pressing the power button. Hold the button down for a second or two and release. The Power-On Self Test (POST) runs automatically.

After the POST is completed, the computer reads the operating system from the hard disk drive into computer memory (this is commonly referred to as “booting” a computer). If your OS (Operating System such as Windows XP.... etc) is installed, it should start automatically.

To turn the Notebook off, save your work and close all open applications, click on Start, then select the “Turn off the computer”. A selection box will be displayed and click on the “Turn Off” button to shut down your computer.



When your computer hangs up, press the power button for 4-6 seconds to shut down the computer

Operating on Battery Power

Your computer comes with a rechargeable battery pack that lets you operate the computer without an external power source. When the battery pack is fully charged, you can operate the computer for approximately 2 hours under the following conditions:

- The battery pack initially has a full charge.
- No peripheral devices are installed.

-
- The disk/CD-ROM drives run no more than 10% of the time.

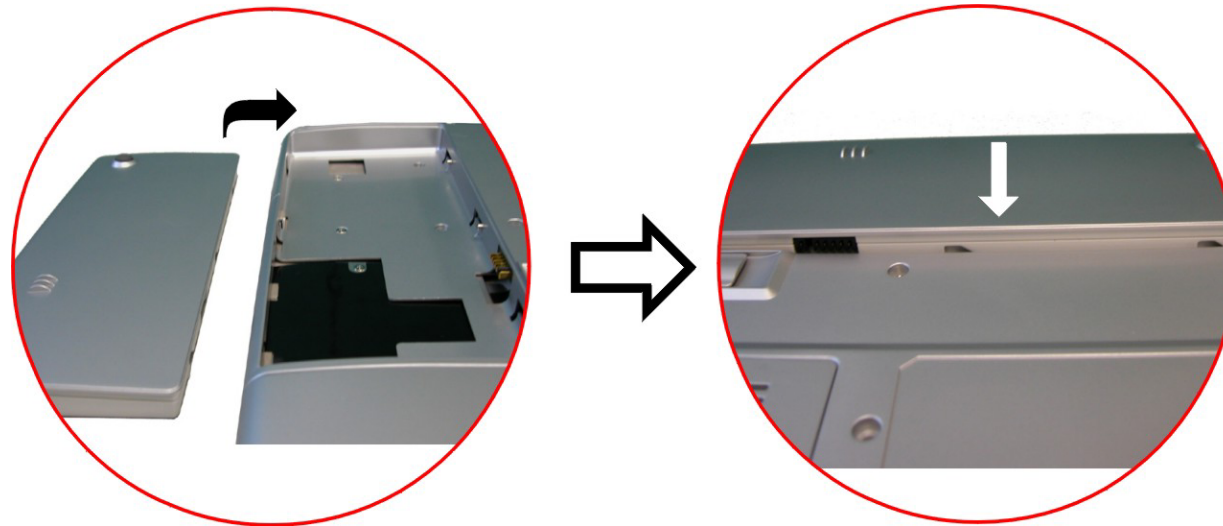


Only use batteries that are approved by an authorized dealer. All batteries are not the same and therefore should not be treated as such. Using the wrong battery could cause serious damage to your computer and yourself through toxic emissions.

Inserting and Removing the Battery Pack

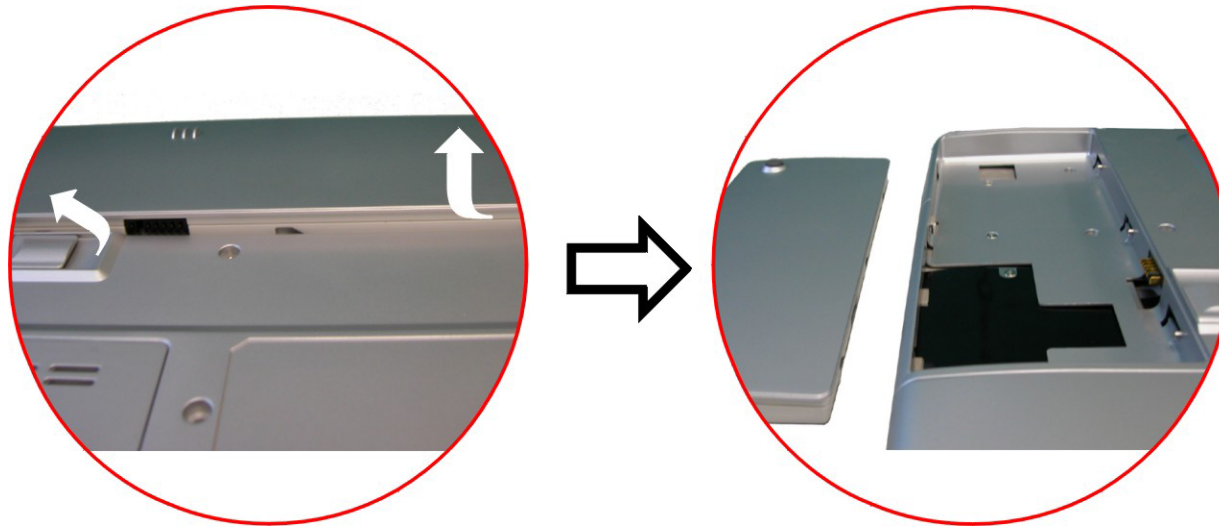
The battery pack should already be inserted in your Notebook computer when you unpack it. If not inserted, follow these directions:

1. Turn over the notebook with the front of the unit facing you and place it on a solid, flat surface.
2. Angle the battery into the bay. The front edge of the battery should slide into the grooves in the system case.
3. Gently lower the battery into the bay and push it until it clicks securely in the bay.



To remove the battery pack:

1. Turn off the notebook, and disconnect the AC adapter. Close the LCD panel and turn it over and place it on a solid, flat surface.
2. Lift the release latch to release the battery from the bay. At this time the battery will now be angled slightly out of the bay.
3. Hold the battery at the finger grip and lift it out of the compartment.



Charging the Battery Pack

The installed battery pack charges automatically any time the computer is connected to the AC adapter and an external power source.

It is a good idea to occasionally discharge the battery pack fully to preserve its operating performance.

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Using the Notebook Computer

Adjusting the LCD Screen Display

The LCD screen display can be adjusted by the following key combinations.

KEYS	FUNCTIONS
[Fn] + [F7]	Decreases the brightness level.
[Fn] + [F8]	Increases the brightness level.
[Fn] + [F10]	Use this key combination to expand your video screen or reset to its original size. This function will be disabled when the system is in

	Overlay mode (playing video).
[Fn] + [F12]	This key combination toggles the display between the LCD, CRT, simultaneous LCD/CRT, and TV only. This function will be disabled when the system is in Overlay (playing video) or Extended Desktop mode.

LCD Care

LCD screens are delicate devices that need careful handling. Please pay attention to the following precautions:

- When you are not using the computer, keep the LCD screen closed to protect it from dust.
- If you need to clean your LCD screen, use a soft tissue to gently wipe the LCD surface.
- Do not put your fingers or sharp objects directly on the surface and never spray cleaner directly onto the display.
- Do not press on, or store any objects on the cover when it is closed. Doing so may cause the LCD to break.

External CRT Display

You can hook up an external monitor through the 15-pin CRT connector. Configurations are available:

- LCD only
- CRT only
- Simultaneous display of the LCD screen and CRT monitor
- TV only

You can switch between these display configurations by pressing the key combination **[Fn] + [F12]**.

A Tour of the Notebook's Keyboard

The Notebook's keyboard uses a standard QWERTY layout with the addition of special function keys and an embedded numeric keypad for number intensive data entry. Your keyboard supports Windows by incorporating the two Windows specific keys. With the two Windows keys you will be able to access and take advantage of many of the timesaving features of Windows software.

The function keys (F1-F12) on the top row of the keyboard, serve different purposes and carry out different tasks depending on the application you are running.

The cursor (arrow) keys (which are all located in the lower right corner of your keyboard) and the [PgUp], [PgDn], [Home] and [End] keys (which are located along the right edge of the keyboard) allow you to move the active cursor of the computer to various locations on the screen or within the document.

The embedded numeric keypad consists of 15 keys that make number intensive input more convenient. Like the [Num Lock] key, these keys are labeled in blue on the keycaps. Numeric assignments are located at the upper right of each key.

When the numeric keypad is engaged, the NumLock icon will appear in the System Window. The keypad is activated by pressing the [Fn] + [NumLk] key. If an external keyboard is connected, pressing the NumLock key on either the Notebook or external keyboard will enable/disable NumLock of both keyboards in unison.

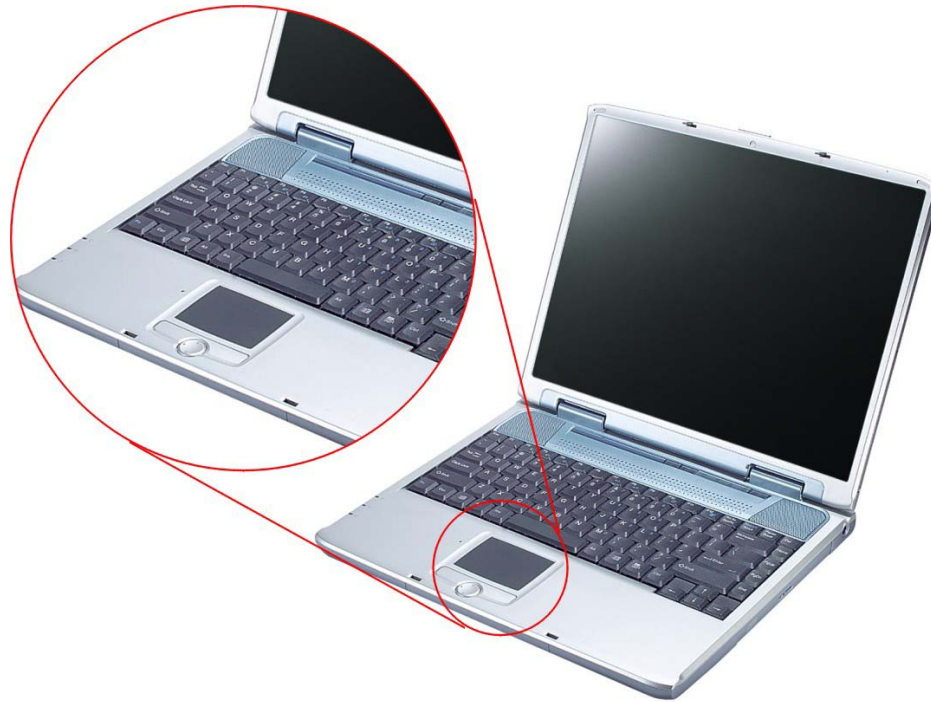
To disable the Notebook numeric keypad while keeping the keypad on an external keyboard activated, use the [Fn] + [NumLk] hot key on the Notebook keyboard.

The Notebook's Hot Key Controls

KEYS	FUNCTION(S)
Power Button	Press this button once to power on or enter the suspend/resume mode. Press this button for more than 4 seconds to power off the system.
Internet Button	Open Internet WWW Home short-cut key
Email Button	Open Email Reader short-cut key
[Fn] + [F1]	This key combination turns on/off the battery beeping sound
[Fn] + [F2]	This key combination turns on/off the volume.
[Fn] + [F3]	Decreases the speaker volume.
[Fn] + [F4]	Increases the speaker volume.
[Fn] + [F7]	Decreases the brightness level.
[Fn] + [F8]	Increases the brightness level.
[Fn] + [F10]	Use this key combination to expand your video screen or reset to its original size. This function will be disabled when the system is in Overlay mode (playing video).
[Fn] + [F12]	This key combination toggles the display between the LCD, CRT, simultaneous LCD/CRT, and TV only. This function will be disabled when the system is in Overlay (playing video) or Extended Desktop mode.

The TouchPad

The touchpad is a rectangular electronic panel located just below your keyboard. You can use the static-sensitive panel of the touchpad and slit it to move the cursor. You can use the buttons below the touchpad as left and right mouse buttons.



TouchPad Precautions

The TouchPad is a pressure sensitive device. Please take note of the following precautions.

- Make sure the TouchPad does not come into contact with dirt, liquids or grease.
- Do not touch the TouchPad if your fingers are dirty.
- Do not rest heavy objects on the TouchPad or the TouchPad buttons.

You can use the TouchPad with Microsoft Windows as well as non-Windows applications.

Connecting an External Tracking Devices

The system will only enables you to use one tracking device whether it is an internal or external tracking device.

Data Storage and Retrieval

Data storage and retrieval are two of the most fundamental tasks you will perform when working with your computer. The Notebook is equipped with a hard disk drive (HDD). The HDD is removable allowing for easy upgrades.

The CD-ROM/DVD-ROM/Combo Drive

Features of the CD-ROM/DVD-ROM/Combo Drive

The features of the CD-ROM/DVD-ROM/Combo Drive are listed below.

- The Audio Play feature allows you to play music CDs
- Front panel load/unload button
- Supports CD-DA, CD-ROM mode 1 and mode 2, Multi-Session Photo CD™, CD-I/Video CD (pcs.)
- Low power consumption
- 12.7mm height

Precautions for Handling CD-ROM/DVD-ROM/Combo Drive

- Always hold the disc by the edges, avoid touching the surface.
- Use a clean, dry, cloth to remove dust, smudges, or fingerprints. Wipe from the center outward.
- Do not write or place objects on the surface of the disc.

-
- Store discs in a cool dry place not to damage the disc.
 - Do not use benzene, thinners, or cleaners with detergent. Only use CD-ROM/DVD-ROM cleaning kits.
 - Do not bend or drop the discs.

Loading a Disc

To play a CD disc, follow the instructions listed below.

1. Push the CD-ROM/DVD-ROM/Combo Drive eject button on the CD drive door. Gently pull the tray all the way out.
2. Carefully lift the CD-ROM/DVD-ROM/Combo Drive by the edges and make sure the shiny surface is face down (the side with no writing on it). Carefully insert the CD-ROM onto the tray. Push the CD-ROM/DVD-ROM/Combo Drive down gently so that it snaps onto the center ring.
3. Push the tray back into the drive.

To remove a disk, do the following:

1. Check the LED display and make sure that the computer is not accessing the CD-ROM/DVD-ROM/Combo Drive.
2. Push the eject button and pull the tray all the way out.
3. Carefully pick up the CD disk by the edges and – while pressing down on the center ring – remove the CD-ROM/DVD-ROM/Combo from the tray.



Do not insert any foreign objects into the disc tray. If you experience difficulty when ejecting the CD disk tray, stretch a paper clip (or use a pin or a thin metal rod) and insert it into the emergency eject hole located on the right side of the front panel. The CD disk tray should eject immediately. This procedure can also be used to remove a CD from the drive when the Notebook is powered off.

PCMCIA Cards and Expansion Sockets

The Notebook features one PCMCIA expansion socket design to interface with one Type II card.

Inserting a PCMCIA Card

The computer will emit a medium tone followed by a high tone when a PC card is inserted. When you eject a card, the computer will emit a high tone followed by a medium tone. You can insert and remove a PC card whether the computer is turned **On** or **Off**.

Follow these instructions to insert a PCMCIA card:

1. Hold the PCMCIA card with the arrow side up and the connector side toward the socket.
2. Align the card connectors with the socket and carefully slide into the socket until it locks into place. The system will beep once to indicate that it has detected the PC card.

To remove a PC card push the eject button, the button will pop out, push the button again to eject the PCMCIA.



When inserting a Type II PC card, make sure the connector is inserted in the socket. Before ejecting a PC card, ensure that it is not being accessed by the System.

For example, if the message "Write protect error writing Drive x" is displayed, the user has to change the write protect switch setting on the memory card. To change the switch setting, (a) eject the card, (b) change the switch setting, and (c) re-insert the card.



Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment. To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

Power Saving Modes

This section contains information on the Notebook's power system, including the AC Adapter, the battery system, recharging the battery, and tips for conserving battery power.

The power system is comprised of two parts, the AC Adapter and the battery system. The AC Adapter converts AC power from a wall outlet to the DC power required by the computer.

The Battery Power System

A fully charged pack will provide approximately 2 hours of battery life depending on your system configuration application it runs.

Before using the computer on battery power for the first time, check the battery status icon on the Windows Toolbar to make sure the battery is fully charged.

See Battery Status later in this section for a description and explanation of the Windows Battery icon. Charging the battery takes about 3 hours to charge when the system is in off state. If possible, always charge the battery completely.

Removing the Battery Pack

To remove the battery pack from its compartment, please refer to Chapter 3, ***Inserting and Removing the Battery Pack***.

Preparing the Battery Pack for Use

Before using the battery pack for the first time, the Smart Battery IC within the battery pack should be calibrated in order to get accurate reporting of remaining battery life status.

To calibrate the battery pack follows the instructions below:

1. Insert the battery into the battery compartment and turn on the Notebook. If the battery is completely without power go to the next step.

Otherwise, let the battery run down until the battery low-low warning beeps are heard.

The system will automatically enter Suspend mode.

2. Turn the Notebook off. Connect the AC adapter and let the battery fully recharge. When the battery charge indicator turns off, the battery is fully charged.
3. Turn On the notebook, let the battery run down until the battery is in low-low state and you hear a warning beeps. The system will automatically enter the Suspend mode. You can now connect the AC adapter.
4. The battery pack is now calibrated properly.

In general, using the battery until the low-low battery-warning indicator appears and fully recharges the battery each time (full discharge/charge cycle) will ensure the accurate reporting of the battery gauge status.

Automatic Battery Pack Charging Function

You can automatically charge the battery pack by using the AC Adapter. The charge time is about three hours when the Notebook power is turned off. The following table summarizes the charging modes:

Charge Mode	Charge Time
Fast	3 hours with the system off or in Suspend mode. The temperature must be 25°C or below room temperature.
Pre-Charge	A pre-charge is supplied to the Li-Ion battery pack.

Battery Status

Windows XP has an applet in the Control Panel that will display an icon in the Windows taskbar indicating when the Notebook is running on battery power or is attached to the AC adapter.

This applet also displays a meter that indicates how much charge is remaining in the battery.

Battery Low Warning

When the pack initially reaches the “Battery Low” state approximately 10 ~ 15 minutes of the usable battery life is left.

You will hear an audible beep signal every 1.5 seconds alerting you to the “Battery Low” status. When the battery power reaches the “Battery Low Low” status the beeping sound will accelerate.

Your battery now has 1 ~ 2 minutes of battery charge remaining. You must save your data or connect AC power immediately; otherwise, you may lose your data.

Sound	Meaning
Continuous beeping every 1.5 seconds	Battery Low: Indicates that there is 7 to 10 minutes charge remaining.
Beeping accelerates	Battery Low Low: Indicates that there is 1 to 2 minutes of battery charge remaining. Save your work and turn off the Notebook, or connect the AC adapter.

When there is only one minute of battery charge remaining, the Notebook will suspend to the HDD and power off. You should connect AC power and resume to save your work.

Small Battery for the Real Time Clock

There is a small built-in battery pack that supplies power to the system in order to maintain certain system information while the power is off.

If the Notebook is left without a power source for long period of time, this battery will be exhausted and system information will be lost.

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Never remove the battery pack while the power is on as this may result in data loss when the system loses power.

Resetting the System

After installing a software application package, you may be prompted to reset the system to load the changed operating environment. To reset the system, or “**reboot**,” press the **[Ctrl] + [Alt] + [Delete]** keys simultaneously. This is known as “**warm boot**.” This key combination acts as “**software**” reset switch when you encounter hardware or software problems, which lock up the Notebook.

If this key combination does not shut down the Notebook, you can reset the Notebook by using the Notebook's power button. Should the Notebook lock up for some reason, pressing this button powers the Notebook off.

Adjusting the Brightness

To adjust the brightness on the LCD screen, press and hold down the **[Fn]** key in the lower left hand corner of the keyboard and press the **[F7]** key to reduce the brightness or **[F8]** to increase the brightness.

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*Chapter**Desktop Operation*

Your notebook is capable of providing you with efficient and productive mobile computing, it also has the speed and capacity to service as a desktop system.

This chapter discusses those functions of your notebook that are typical of desktop systems.

Audio

The Multimedia Sound System

The Notebook's built-in audio capabilities allow you to take advantage of a wide range of education and entertainment multimedia software. The Notebook is equipped with internal stereo speakers, a microphone, and input audio ports for external audio units.

An external microphone can be connected to the microphone jack. External speakers or headphones can be connected to the Notebook's audio-out jack.

External audio devices can be connected to the Line in jack. All audio features are software controlled. The Notebook's multimedia sound system includes the following features:

- Supports Windows Sound System compatibility
- Full Duplex operation
- Dynamic filtering reduces noise and distortion rate
- 16-bit digitized audio playback
- A built-in microphone for convenient recording
- Built-in stereo speakers
- Digitized audio recording through the Notebook's built-in microphone or any external source

Audio Volume Control

The Notebook is equipped with hot-key volume controls: Pressing the **[Fn] + [F3]** hot-key combination decreases the audio output volume, press the **[Fn] + [F4]** hot-key combination increases the audio output volume.

Audio Software

Your notebook comes equipped with an integrated sound system capable of providing you with quality audio sound through the built-in speakers or through external speakers connected via the system ports.

Sound Recording

Your system allows you to record sounds and store them as files using the microphone via the microphone jack on the rear of the notebook computer.

Check the Windows Help and Support Center in Windows for information on using the various elements in sound recording.



For a high-quality sound, click on the "Volume Control" at the lower right end of your screen. From the Volume Control windows, click on the "Advanced" tab, click and select the "Microphone Boost" item.

Playing Sound Files

Your notebook can play audio files stored in MIDI, WAVE or MP3 file format. Check the Help and Support Center in Windows for information on the functions of the Media Player.

External Speakers and Microphone

The sound system is capable in providing high-quality sound to external speakers and receiving and processing sounds from an external microphone or external sound source.

Connecting Peripheral Devices

To expand your computing capabilities, you can add a variety of external devices to your computer. You may, for example, want to add a mouse, modem, or a printer.