User's Manual

EU Declaration of Conformity

EU Declaration of Conformity

EU Übereinstimmugserklärung

Déclaration de conformité UE

Declaración de conformidad de la UE

Dichiarazione di conformità UE

EU Försäkran om Överensstämmelse

Declares, that the product: conforms to the following Standards:

Erklärt, daß das Produkt: folgenden Normen entspricht:

Déclarent que le produit cité ci-dessocus: est conforme aux normes suivantes:

Declaran que el producto: cumple los sigulentes estándares:

Dichiara, che il prodotto:è conforme alle seguenti norme:

Intygar att produkten: överensstämmer med föijande normer:

Supplementary Information:	“The product complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89336/EEC.”
Weitere Informationen:	“Das Produkt entspricht den Anforderungen der Niederspannungs-Richtlinie 73/23/EG undd der EMC-Richtlinie 89/ 336/EG.”

Informations complérnentaires:	“Ce produit est conforme aux exigences de la directive sur les basses tensions 73/23/ CEE et de la directive EMC 89/336/CEE.”
Información complementaria:	“El Producto cumple los requistos de baja tensión de la Directiva 73/23/CEE y la Directiva EMC 89/336/CEE.”
Ulteriori informazioni:	“Il prodotto é conforme ai requisiti della direttiva sulla bassa tensione 73/23/EG e la direttiva EMC 89/336/EG.”
Ytteligare information:	“Produkten uppfyller kraven enligt lägspänningsdirektiver 73/ 23EEC och EMC-direktiv 89/ 336/EEC.”

Working environment

This product was designed to fulfil the EMC (electromagnetic compatibility) requirement to be observed for so-called “Residential, commercial and light industry environments”.

Do not approve the use of this product in working environments other than the above-mentioned “Residential, commercial and light industry environments”.

For example, the following environments are not approved:

- Industrial Environments (environments with a mains volt age >230V~)
- Medical Environments
- Automotive Environments
- Aircraft Environments

NOTE: If this product is supplied with a network port, please refer to the paragraph «Network connection».

Any consequences resulting from the use of this product in working environments that are not approved are not the responsibility of Corporation.

The consequences of the use of this product in non-approved working environments maybe:

• Interference with other devices or machines in the near surrounding area.

• Malfunction of, or data loss from, this product caused by disturbances generated by other devices or machines in the near surrounding area.

Therefore strongly recommend that the electromagnetic compatibility of this product should be suitably tested in all non-approved working environments before use. In the case of automobiles or aircraft, the manufacturer or airline respectively should be asked for permission before use of this product.

Furthermore, for general safety reasons, the use of this product in environments with explosive atmospheres is not permitted.

Network connection (class A warning)

If this product has networking capabilities and will be connected to a network, Class A radiation limits will be observed (in accordance with technical conventions). This means that if the product will be used in a domestic environment, other devices in the near surrounding may suffer interference. Consequently, please do not use this product in such environments (for example a living room), otherwise you could be held responsible for any ensuing interference.

CE compliance

This product and the original options are designed to observe the related EMC (Electromagnetic compatibility) and safety standards. However, should not guarantee that this product still observes these EMC standards if options or cables not produced by are connected or implemented In this case the persons who have connected/ implemented those options / cables have to assure that the system (PC plus options / cables) still fulfils the required standards. To avoid in general EMC problems following advice should be observed:

- Only CE marked options should be connected / implemented
- Only best shielded cables should be connected

Conformity Statement

The equipment has been approved to [Commission Decision CTR21] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN).

However, due to differences between the individual PSTNs provided in different countries the approval does nod of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instance.

Pursuant to FCC CFR 47, Part 68

When you are ready to install or use the modem, call your local telephone company and give them the following information:

• The telephone number of the line to which you will connect the modem

• The registration number that is located on the device

The FCC registration number of the modem will be found on either the device which is to be installed, or, if already installed, on the bottom of the computer outside of the main system label.

• The Ringer Equivalence Number (REN) of the modem, which can vary. For the REN of your modem, refer to your computer's user's guide.

The Ringer Equivalence Number of this device is 0.6B

The modem connects to the telephone line by means of a standard jack called the USOC RJ11C.

Type of service

Your modem is designed to be used on standard-device telephone lines. Connection to telephone company-provided coin service (central office implemented systems) is prohibited. Connection to party lines service is subject to state tariffs. If you have any questions about your telephone line, such as how many pieces of equipment you can connect to it, the telephone company will provide this information upon request.

Telephone company procedures

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations, or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice in writing to allow you to make any changes necessary to maintain uninterrupted service.

If problems arise

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC. In the event repairs are ever needed on your modem, they should be performed by Corporation or an authorized representative of Corporation.

Disconnection

If you should ever decide to permanently disconnect your modem from its present line, please call the telephone company and let them know of this change.

Fax branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity or individual sending the message and the telephone number of the sending machine or such business, other entity or individual. In order to program this information into your fax modem, you should complete the setup of your fax software before sending messages.

Instructions for IC CS-03 certified equipment

1. NOTICE: The Industry Canada label identifies certified equipment This certification means that the equipment meets certain telecommunications network protective, operational and safety requirement as prescribed in the appropriate Terminal Equipment Technical Requirement document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions might not prevent degradation of service in some situations.

Repairs to certified a representative designated by the supplier should coordinate equipment. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

2. The user manual of analog equipment must contain the equipment's Ringer Equivalence Number (REN) and an explanation notice similar to the following:

The Ringer Equivalence Number (REN) of this device is 0.3B.

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

3. The standard connecting arrangement (telephone jack type) for this equipment is jack type(s): USOC RJ11C.

Notes for Users in Australia & New Zealand

Modem warning notice for Australia

Modems connected to the Australian telecom network must have a valid Austell permit. This modem has been designed to specifically configure to ensure compliance with Austell standards when the country selection is set to Australia. The use of other country setting while the modem is attached to the Australian PSTN would result in you modem being operated in a non-compliant manner. To verify that the country is correctly set, enter the command ATI9 that displays the currently active setting.

To set the country permanently to Australia, enter the following:

AT%TE=1

ATS133=1

AT&F

AT&W

AT%TE=0

ATZ

Failure to set the modem to the Australia country setting as shown above will result in the modem being operated in a non-compliant manner. Consequently, there would be no permit in force for this equipment and the Telecom Act 1991 prescribes a penalty of $12,000 for the connection of non-permitted equipment.

Notes for use of this device in New Zealand

• The grant of a Telepermit for a device in no way indicates Telecom acceptance of responsibility for the correct operation of that device under all operating conditions. In particular the higher speeds at which this modem is capable of operating depend on a specific network implementation, which is only one of many ways of delivering high quality voice telephony to customers. Failure to operate should not be reported as a fault to Telecom.

• In addition to satisfactory line conditions a modem can only work properly if:

a/ It is compatible with the modem at the other end of the call and

b/ The application using the modem is compatible with the application at the other end of the call - e.g., accessing the Internet requires suitable software in addition to a modem.

• This equipment shall not be used in any manner, which could constitute a nuisance to other Telecom customers.

• Some parameters required for compliance with Telecom's PTC Specifications are dependent on the equipment (PC) associated with this modem. The associated equipment shall be set to operate within the following limits for compliance with Telecom Specifications:

a/ There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation, and

b/ The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next.

c/ Automatic calls to different numbers shall be not less than 5 seconds apart.

- Immediately disconnect this equipment should it become physically damaged, and arrange for its disposal or repair.

- The correct settings for use with this modem in New Zealand are as follows:

ATB0 (CCITT operation)

AT&G2 (1800 Hz guard tone)

AT&P1 (Decadic dialing make-break ratio =33%/67%

ATS0=0 (not auto answer)

ATS10=less than 150 (loss of carrier to hangup delay, factory default of 15recommended)

ATS11=90 (DTMF dialing on/off duration=90 ms)

ATX2 (Dial tone detect, but not (U.S.A.) call progress detect)

• When used in the Auto Answer mode, the S0 register must be set with a value of 3 or 4. This ensures:

(a) a person calling your modem will hear a short burst of ringing before the modem answers. This confirms that the call has been successfully switched through the network.

(b) caller identification information (which occurs between the first and second ring cadences) is not destroyed.

• The preferred method of dialing is to use DTMF tones (ATDT...) as this is faster and more reliable than pulse (decadic) dialing. If for some reason you must use decadic dialing, your communications program must be set up to record numbers using the following translation table as this modem does not implement the New Zealand “Reverse Dialing” standard.

Number to be dialed: 0 1 2 3 4 5 6 7 8 9

Number to program into computer: 0 9 8 7 6 5 4 3 2 1

Note that where DTMF dialing is used, the numbers should be entered normally.

- The transmit level from this device is set at a fixed level and because of this there may be circumstances where the performance is less than optimal. Before reporting such occurrences as faults, please check the line with a standard Telepermitted telephone, and only report a fault if the phone performance is impaired.

- It is recommended that this equipment be disconnected from the Telecom line during electrical storms.

- When relocating the equipment, always disconnect the Telecom line connection before the power connection, and reconnect the power first.

- This equipment may not be compatible with Telecom Distinctive Alert cadences and services such as Fax Ability.

(NOTE THAT FAULT CALLOUTS CAUSED BY ANY OF THE ABOVE CAUSES MAY INCUR A CHARGE FROM TELECOM)

General conditions

As required by PTC 100, please ensure that this office is advised of any changes to the specifications of these products, which might affect compliance with the relevant PTC Specifications.

The grant of this Telepermit is specific to the above products with the marketing description as stated on the Telepermit label artwork. The Telepermit may not be assigned to other parties or other products without Telecom approval.

A Telepermit artwork for each device is included from which you may prepare any number of Telepermit labels subject to the general instructions on format, size and color on the attached sheet.

The Telepermit label must be displayed on the product at all times as proof to purchasers and service personnel that the product is able to be legitimately connected to the Telecom network.

The Telepermit label may also be shown on the packaging of the product and in the sales literature, as required in PTC 100.

The charge for a Telepermit assessment is $337.50. An additional charge of $337.50 is payable where an assessment is based on reports against non-Telecom New Zealand Specifications. $112.50 is charged for each variation when submitted at the same time as the original.

An invoice for $NZ1237.50 will be sent under separate cover.

FCC Notice “Declaration of Conformity Information”

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

- 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.

WARNING: Only peripherals complying with the FCC class B limits may be attached to this equipment. Operation with non-compliant peripherals or peripherals not recommended by is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer’s USB ports, external monitor port, PS/2 keyboard port and PS/2 mouse port.
Changes or modifications made to this equipment, not expressly approved by or parties authorized by could void the user’s authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. This device must accept any interference received, including interference that may cause undesired operation.

Canadian Regulatory Information (Canada Only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulation of the Canadian Department of Communications.

Note that Canadian Department of Communications (DOC) regulations provide, that changes or modifications not expressly approved by Corporation could void your authority to operate this equipment.

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

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

BSMI Notice (Taiwan Only)

警告使用者: 這是甲類的資訊產品，在開放的環境中使用時，可能會造成無線電干擾，在這種情形下，使用者會被要求採取某些適當的對策。

VCCI Notice (Japan Only) Class BITE

この装置は、情報処理装置等電波障害自主規制協会 (VCCI) の基準に基づくクラス B 情報技術装置です 。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に接近して使用されると、受信障害を引 き 起こすことがあります 。
取扱説明書に従って正しい取り扱いをしてください 。

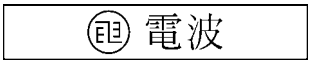
This is a Class B product based on the standard of the Voluntary Control Council for Interference (VCCI) for information technology equipment. If this equipment is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

DGT Short Range Devices Application document

1. DGT short range type approval documentation

- 4 copies of product and color photos larger than 4x6 inches
- 1 copy of user manual with instructions and technical specs (Must be stamped with Manufacturer's seal.)
- 1 copy of block digram
- 1 copy of circuit diagram
- A copy of the licensing permit for the operation of controlled telecommunications equipment
- Authorization letter (power of attorney) (Must be stamped with the Manufacturer's seal.)
- Application forma are to be completed in Chinese. (Must be stamped with the Manufacturer's seal.)

2. DGT Label illustrstion



3. The following is the statement that should be printed in user manual.

低功率電波輻射性電機管理辦法

第十二條	製造、輸入或販賣低功率射頻電機者，應於低功率射頻電機使用說明書內容加印第十四條、第十七條及第二十條之規定內容。
第十四條	經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十七條	低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。 前項合法通信，指依電信法規定作業之無線電信。 低功率射頻電機須忍受合法通信或工業，科學及醫療用電波輻射性電機設備之干擾。
第二十條	輸入、製造低功率射頻電機之公司、商號或其它使用者違反本辦法規定，擅自使用或變更無線電頻率、電功率者，除依電信法規定處罰外，電信總局並得撤銷其型式認證證明或型式認證標籤。

FCC Class B Digital Devices & Peripheral Devices (Declaration of Conformity or Certification Authorization)

Declaration of Conformity Label & Marking Requirements

- User Manual must provide user information in accordance with ±15.19(a)(3), 15.21, 15.27 and 15.105(b):

Instruction Manual Federal Communication Commission 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 instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral deresponsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: (Name) (Address In U.S.A.)

Telephone No: (1-800 number located in U.S.A.)

Warning:

This device and its antenna(s) must operate with a separation distance of at least 5 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users must be provided with specific operating instructions for satisfying RF explosure compliance.

Wireless Interoperability

The Wireless LAN Mini PCI Card products are designed to be interoperable with any wireless LAN product that is based on Direct Sequence Spread Spectrum (DSSS) radio technology, and is compliant to:

- The IEEE 802.11 Standard on Wireless LANs (Revision B), as defined and approved by the Institute of Electrical and Electronics Engineers.

- The Wireless Fidelity (WiFi) certification as defined by the WECA Wireless Ethernet Compatibility Alliance.

Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy.

The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones.

Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, believes Wireless LAN is safe for use by consumers.

These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

In some situations or environments, the use of Wireless LAN may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

- Using the Wireless LAN equipment on board of airplanes, or
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If your are uncertain of the policy that applies on the use of wireless devices in a specific organization or environment (e.g. airports), you are encouraged to ask for authorization to use the Wireless LAN device prior to turning on the equipment.

Regulatory Information

The Wireless LAN Mini PCI Card must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product. This device complies with the following radio frequency and safety standards.

Canada-Industry Canada (IC)

This device complies with RSS 210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device."L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilsateur du dispositif doit étre prét à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Europe-EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC with essential test suites as per standards:

- EN 60950 Safety of Information Technology equipment
- ETS 300 328 Technical requirements for radio equipment
- ETS 300 826 General EMC requirements for radio equipment.

Belegië/Belgique:

For outdoor usage only channel 10 (2457 MHZ) and 11 (2462 MHz) is allowed.

For private usage outside buildings across public grounds over less than 300m no special registration with IBPT/BIPT is required. Registration to IBPT/BIPT is required for private usage outside buildings across public grounds over more than 300m. An IBPT/BIPT license is required for public usage outside building.

For registration and license please contact IBPT/BIPT.

Gebruik buiten gebouw alleen op kanalen 10 (2457 MHz) en 11 (2462 MHz). Voor privé-gebruik buiten gebouw over publieke groud over afstand kleiner dan 300m geen registratie bij BIPT/IBPT nodig; voor gebruik over afstand groter dan 300m is wel registratie bij BIPT/IBPT nodig. Voor publiek gebruik buiten gebouwen is licentie van BIPT/IBPT verplicht. Voor registratie of licentie kunt u contact opnemen met BIPT.

L'utilsation en extérieur est autorisé sur le canal 10 (2457 MHz) et 11 (2462 MHz).

Dans le cas d'une utilization privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprés de l'IBPT est requise. Pour une utilization publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.

Deutschland:

License required for outdoor installations. Check with reseller for procedure to follow.

Anmeldung im Outdoor-Bereich notwendig, aber nicht genehmigungspflichtig. Bitte mit Händler die Vorgehensweise abstimmen.

France:

Restricted frequency band: only channels 10 and 11 (2457 MHz and 2462 MHz respectively) may be used in France.

License required for every installation, indoor and outdoor installations. Please contact ART for procedure to follow.

Bande de fréquence restreinte: seuls les canaux 10 à 11 (2457 et 2462 MHz respectivement) doivent être utilisés en France. Toute utilisation, qu'elle soit intérieure ou extérieure, est soumise à autorisation. Vous pouvez contacter l'Autorité de Régulation des Télécommuniations (http://www.art-telecom.fr) pour la procédure à suivre.

Italia:

License required for indoor use. Use with outdoor installations not allowed

E'necessaria la concessione ministeriale anche per l'uso interno Verificare con i rivenditori la procedura da seguire. L'uso per installazione in esterni non e'permessa.

Nederland:

License required for outdoor installations. Check with reseller for procedure to follow.

Licentie verplicht voor gebruik met buitenatennes. Neem contact op met verkoper voor juiste procedure.

USA-Federal Communications Commission (FCC)

This device complies with Part 15 of FCC Rules. Operation of the devices in a Wireless LAN System is subject to the following two conditions:

- This device may not cuase harmful interference.
- This device must accept any interference that may cause un desired operation.

Caution: Exposure to Radio Frequency Radiation.

The radiated output power of the Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, the Wireless LAN Mini PCI Card shall be used in such a manner that the potential for human contact during normal operation is minimized. When using this device in combination with Wireless LAN Outdoor Antenna products, a certain separation distance between antenna and nearby persons has to be kept to ensure RF exposure compliance. The distance between the antennas and the user should not be less than 5.0cm

Refer to the Regulatory Statements as identificed in the documentation that comes with those products for additional information.

The Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, it is advised to use the Wireless LAN Mini PCI Card in such a manner that human contact during normal operation is minimized.

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. If not installed and used in accordance with the instructions, it 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 and correct the interference by one or more of the following measures:

•Reorient or relocate the receiving antenna.

•Increase the distance between the equipment and the receiver.

•Connect the equipment to 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.

Is not responsible for any radio or television interference caused by unauthorized modification of the devices included with the Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified. The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Copyright

Notice

The information contained in this manual, including but not limited to any product specifications, is subject to change without notice.

AND THE MANUAL. IN NO EVENT SHALL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL SPECIAL, OR EXEMPLARY DAMAGES, WHETHER BASED ON TORT, CONTRACT OR OTHERWISE, ARISING OUT OF OR IN CONNECTION WITH THIS MANUAL OR ANY OTHER INFORMATION CONTAINED HEREIN OR THE USE THEREOF.

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Microsoft Windows, MS-DOS, NetMeeting, Outlook and Media Player are registered trademarks of Microsoft corporation.

All other brand and product names are trademarks or registered trademarks of their respective companies.

Macrovision License of Notice

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual rights owned by Macrovision Corporation, and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Taiwan

Article 14: Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.

Article 17: Any use of the low power frequency electric machinery shall not affect the aviation safety and interfere with legal communications. In event that any interference is found, the use of such electric machinery shall be stopped immediately, and reusing of such products can be resumed until no interference occurs after improvement.

The legal communications mentioned in the above item refer to radio communications operated in accordance with telecommunication laws and regulations.

Low power radio frequency electric machinery shall resist against interference from legal communcations or from industrial, scientific and medical radio emission electric machinery.

Device Authorization

This device obtains the Technical Regulation conformity Certification, and it belongs to the device class of radio equipment of low-power data communication system radio station stipulated in the Radio Law of Japan.

•Do not disassemble or modify the device.

•Do not remove the authorization label from the device.

Chapter 1

Front with the Display Closed

Left side

Right side

Bottom

Front with the Display Open

System Status Indicators & Controls

Finding Your Way Around

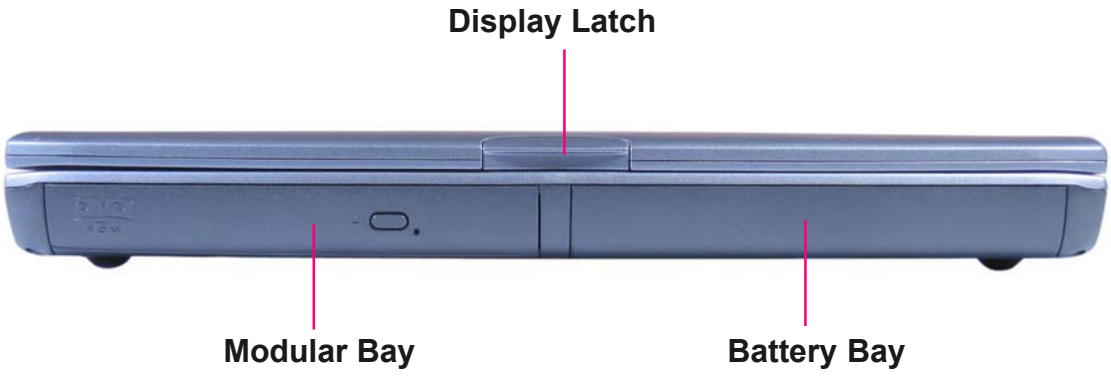
This chapter presents a grand tour of your new computer which serves as a reference when you need to locate specific parts of the computer.

Front with the Display Closed

The **Display latch** keeps the display panel closed and locked. To open the display panel, press the latch up and raise the panel.

The **Modular bay** comes with a CD or DVD drive installed. This bay can accommodate a CD-ROM, CD-RW, DVD-ROM, or multifunction DVD-ROM/CD-RW drive. It also supports a diskette drive. The bay only supports one device at a time. It is designated as drive D:.

The **Battery bay** has the main battery installed in it.



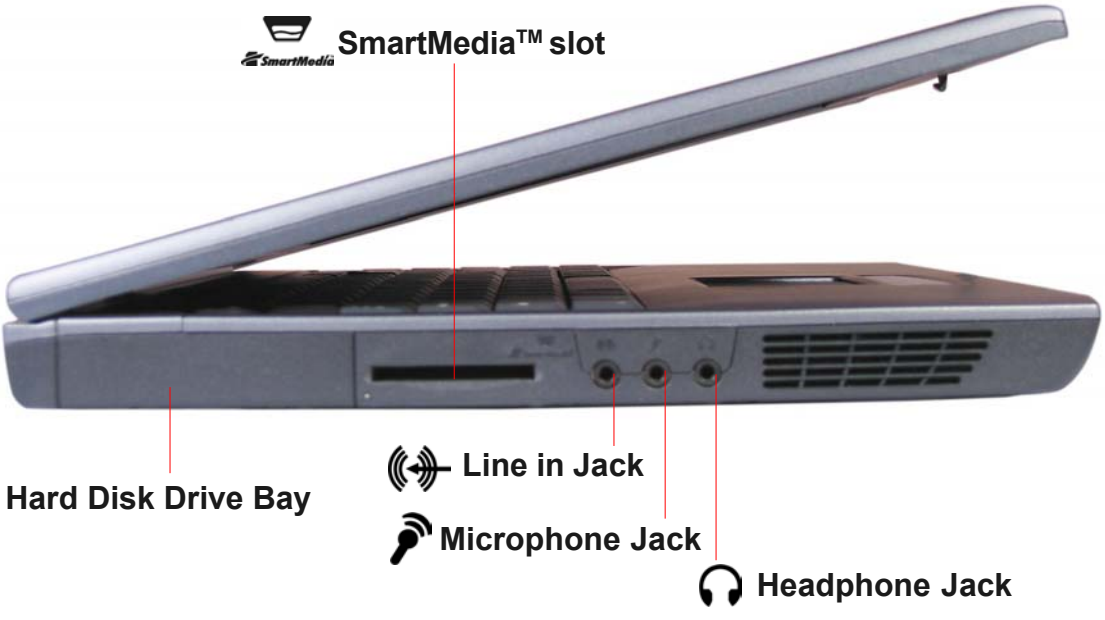
Left side

The **Line In** jack for an audio input device.

The **Microphone** jack let you connect external microphone or other audio input device.

The **Headphone** jack lets you connect stereo headphones or other audio-output devices such as external speakers. Connecting headphones or other devices to this jack automatically disables the internal speakers.

The **SmartMedia**™ slot is for digital SmartMedia™ cards which are used in digital still cameras and various forms of portable information equipment.



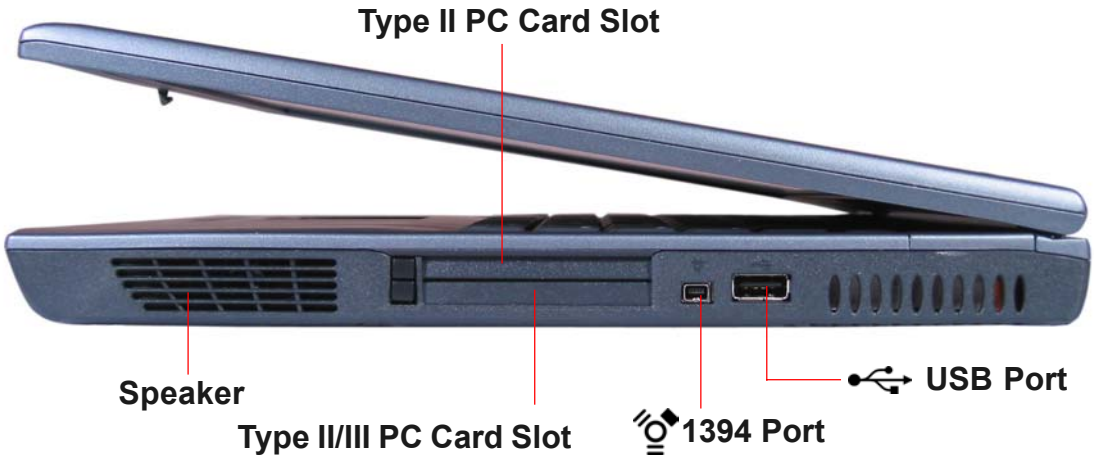
Right side

The two-stacked CardBus-ready PCMCIA-compatible **PC card slots** allow you to install additional devices. Each slot can accommodate one Type II PC card. Both slots are able to install one Type III PC card.

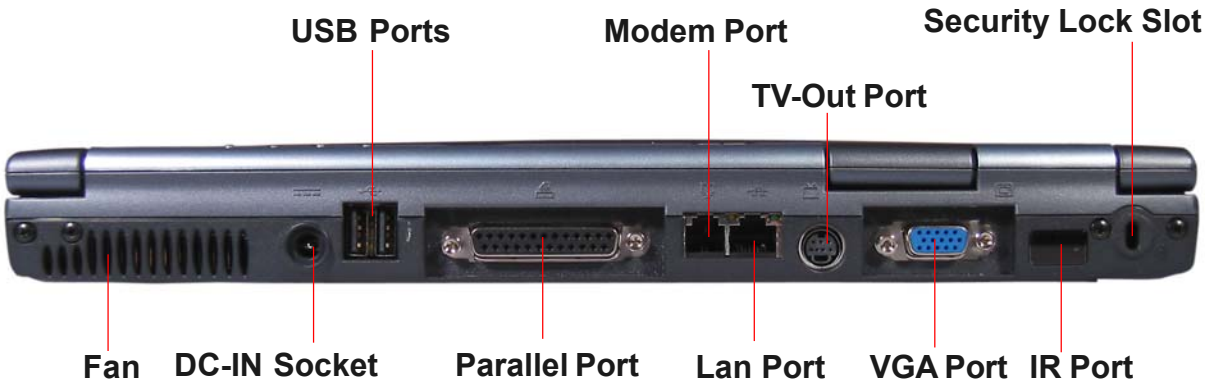
CAUTION: Keep foreign objects out of the PC Card slots. A staple or similar object that accidentally gets into a slot can damage the computer's circuitry.

The **1394 port** is a 4-pin port for IEEE 1394 connecting i.Link® (IEEE1394) standard devices.

This **USB** port allows you to connect USB peripherals to the computer, such as a full-size USB keyboard or a USB pointing device.



Rear Side



The **Fan** prevents the computer's central processing unit (CPU) and internal electronic components from overheating.

CAUTION: To prevent possible overheating of the CPU, never block the fan vents.

The **DC-IN socket** is where you plug in the AC adapter.

The two **USB** (Universal Serial Bus) ports allows you to connect USB peripherals to your computer, such as a printer, pointing device .

DEFINITION: USB is a peripheral expansion standard that supports a data- transfer rate of up to 12 Mbps. USB peripherals has a single standard for cables and connectors. The USB standard allows you to install and remove USB devices while the computer is on. Switching devices without turning off the computer is called "hot swapping."

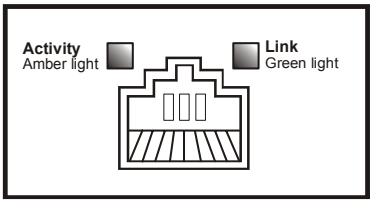
The **Parallel** port let you connect a parallel printer, or other devices including ECP-compatible devices.

The **Modem** port lets you connect to a standard telephone line through a Modem cable

The **LAN** port, is an RJ-45 jack for using a standard LAN cable to connect to a Local Area Network.

The **TV out** port allows you to connect to a television or TV monitor with an S-video cable.

NOTE: There are two status indicator on the LAN port. The right indicator grows green color when the LAN port links with cable well, and the left one flashes amber when the LAN is active.



The **VGA** port is a standard 15-pin VGA port for connecting an analog display such as a desktop computer monitor.

The **IR** port is a fast infrared communication port that allows the system to communicate with other IR-equipped devices.

The **Security** lock slot allows you to attach a Kensington® cable lock to secure the computer to a desk or other object to prevent theft of the computer.

Bottom Side

The **Expansion Memory slot Cover** protects the system memory modules.

The **Battery Release** latch locks the battery in the battery bay and prevents it from falling out. To release the battery, slide the latch in the direction the arrow indicates.

The **Modular Bay Release** latch locks a device in the modular bay. To release the device, slide the latch in the direction the arrow indicates.

Front with the Display Open

The **LCD Screen** is the computer's primary display. There are several LCD options available for this computer. The one you have will depend on which model you purchased. The options include:

- 14.1" TFT with SXGA+ (1400 x 1050) resolution
- 14.1" TFT with XGA (1024 x 768) resolution
- 13.3" TFT with XGA (1024 x 768) resolution

DEFINITION: TFT (Thin Film Transistor) is a type of LCD flat panel display screen in which each pixel controlled by from one to four transistors. Screens with TFT technology (sometimes called active-matrix LCDs) provide better resolution than other types of flat-panel LCD displays.

The **Power Button** turns the computer on and off, or let system enter lower power mode (Standby, Hibernation) depends on power management setting in OS.

The **Lid Switch** can be used to control the LCD back light or let system enter a lower power suspend mode depending on the power management setting in the OS.

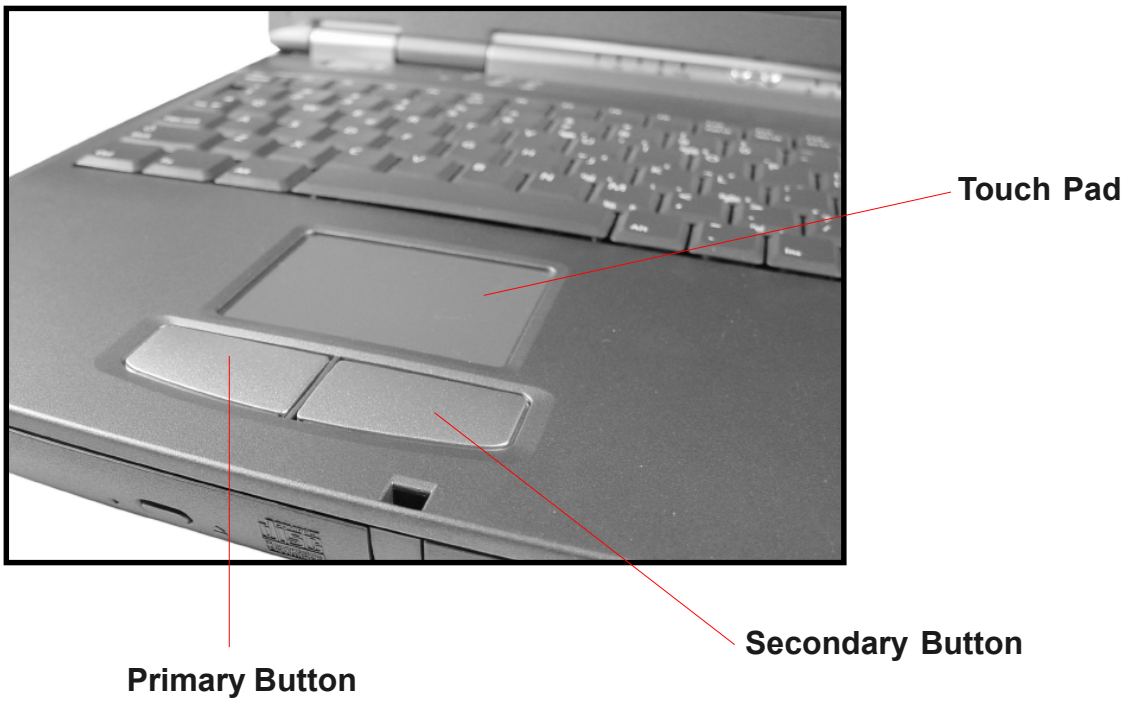
The **Keyboard** provides all the functionality of a full-size keyboard.

The front panel provides a palm rest to assist you in maintaining proper posture while using the computer.

The keyboard function keys, when used with the **Fn** key, activate various system functions, such as the LCD brightness control.

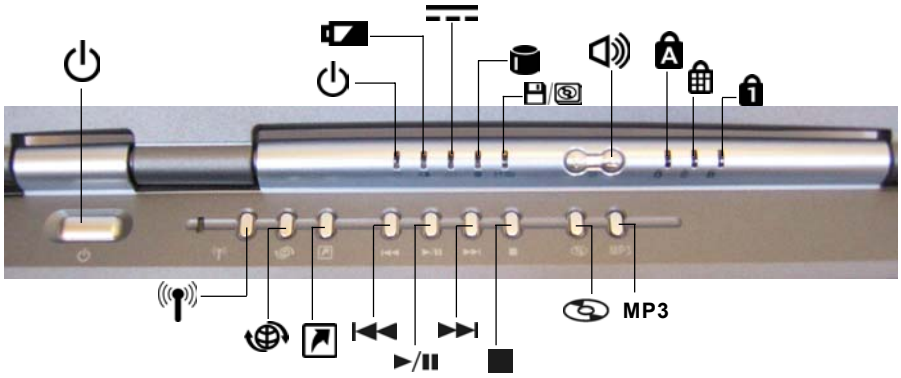
The **Touch Pad** is a pressure sensitive pointing device which works like a mouse to position the cursor on the screen.

The two **Touch Pad Control Buttons** are essentially the same function as mouse buttons.



System Status Indicators & Controls

The **System Status Indicators & Controls** are divided into two sections, those on the **Hinge Bar** and those on the **Base Panel**.



The **Hinge Bar** indicators and controls include the following items from left to right:

The **Power** LED lights blue when the computer is on or while playing CD or MP3 audio tracks with the system turned off. It flashes blue while the system is in Standby or Suspend mode. The LED turns off when the computer is turned off or in hibernation mode.

The **Battery** LED indicates the main battery's current charge or discharge status.

1.It light blue and solid on when the battery is fully charged.

2.It lights blue and blinking (LED on 1 second every 1 second) while the battery is being charged with AC adapter.

3.It lights blue and blinking (LED on 1 second every 4 second) when the battery capacity is below 10%.

4.It lights blue and blinking (LED on 1 second every 2 second) when the battery capacity reaches 3%.

The **DC-IN** LED lights blue when the computer is connected to the AC adapter and it is plugged into an AC power source.

The **HDD** LED flashes blue when the system is accessing the hard disk drive.

CAUTION: Never turn off the computer while any of the drives are in use. It may cause the data loss and possible damage the drive.

The **Modular Bay** LED flashes when the system is accessing a drive installed in the Modular Bay. The icon indicates either an optical disc (CD-ROM, DVD-ROM, CD-RW, multifunction DVD-ROM/CD-RW) or floppy disk.

The **Volume Control** buttons adjust the audio volume level. Pressing the Minus sign button lowers the volume. Pressing the Plus sign raises it.

The **Caps Lock** LED lights when you press the Caps Lock key. When this light is on, pressing a letter key on the keyboard produces an uppercase (capital) letter.

The **PAD Lock** LED lights when the arrow control overlay is on. When this light is on, pressing an overlay key moves the cursor in the direction of the reddish white arrow printed on the left front of the key instead of the letter printed on the key.

The **Num Lock** LED lights when the numeric keypad overlay is turned on. When this light is on, pressing this hot key can enable/ disable the emdedded numeric keypad. It depends on keypad on/of state, if keypad enable the Numeric lock state is logically enabled. If keypad disables the Numeric function also disable.

The **Wireless Communication (802.11B)** switch turns on and off the wireless networking transceiver. The left LED lights to indicate that wireless networking is turned on.

The **Internet** button Press the Internet button will open Microsoft Internet Explorer when the computer is turned on. When the computer is off, press the button will turn it and launch the Microsoft Internet Explorer.

The **Application** Press the Application button will bring up the EZ Button application. You can specify a special function for it. If the computer is turned off, pressing the button will turn on the computer and launch the program you specified.

MP3

The **CD** and **MP3** switch sets which audio playback mode to use, either audio CD or MP3. Set modes as follows:

• **CD Mode** Press the button to set the system in CD mode.

Computer Power Off state: You can use the CD controls to play an audio CD without turning on the computer.

Computer Power On state: Pushing the switch starts the Windows Media Player which will play an audio CD you have loaded in an optical drive in the Device Bay.

• **Digital Mode** Press the button to set the system in MP3 mode.

Computer Power Off state: Pushing the switch will turn on the computer, loads Windows® operating system and starts the Windows Media Player which will play MP3 audio tracks you have selected.

Computer Power On state: Pushing the switch starts the Windows Media Player which will play MP3 audio tracks you have selected.

The four **CD Control** buttons control and optical drive installed in the Device Bay. The buttons function like an audio CD player controls and have the following functions:

• **Previous/Fast Rewind** Returns to the preceding track on the disc.

►/II • **Play/Pause** Starts playing the disc, or pause the disc if it is currently playing.

►►I • **Next/Fast Forward** Skips to the following track on the disc. If a track is playing, it ast forwards through the track while the button is pressed.

■ • **Stop** Stops a disc that is currently playing.

Chapter 2

Getting Started

Setting Up Your Computer

Connecting a Printer

Connecting An Alternate Pointing Device

Using the Computer for the First Time

Getting Started

This chapter provides tips for working comfortably, describes how to connect components, and explains what to do the first time you use your notebook computer.

Making Sure You Have Everything

Before doing anything else, consult the Quick Start card to make sure you received everything. If any items are missing or damaged, notify your dealer immediately.

Selecting a Place to Work

Your computer is portable and designed to be used in a variety of circumstances and locations.

Creating a Computer-Friendly Environment

Place the computer on a flat surface, which is large enough for the computer and any other items you need to use, such as a printer. Leave enough space around the computer and other equipment to provide adequate ventilation and prevent overheating.

To keep your computer in prime operating condition, protect your work area from:

- Dust, moisture, and direct sunlight.

- Liquids and corrosive chemicals.

CAUTION: If you spill liquid into the computer, turn it off, unplug it from the AC power source, and let it dry out completely before turning it on again. If the computer does not operate correctly after you turn it back on, contact a authorized service provider.

- Equipment that generates a strong electromagnetic field, such as stereo speakers (other than speakers that are connected to the computer) or speakerphones.

- Rapid changes in temperature or humidity and sources of temperature change such as air conditioner vents or heaters.

- Extreme heat, cold, or humidity. Use the computer within a temperature range of 5° to 35° C and 20% to 80% non-condensing humidity.

Keeping Yourself Comfortable

Strain and stress injuries are becoming more common as people spend more time using their computers. However, with a little care and proper use of the equipment, you can work comfortably throughout the day.

This section provides hints on avoiding strain and stress injuries. For more information, consult books on ergonomics, repetitive-strain injury, and repetitive-stress syndrome.

Computer Placement

Proper placement of the computer and external devices is important to avoid stress-related injuries.

- Place the computer on a flat surface at a comfortable height and distance. You should be able to type without twisting your torso or neck, and look at the screen without slouching.
- If you are using an external monitor, the top of the display should be no higher than eye level.
- If you use a paper holder, set it at about the same height and distance as the screen.

Seating and Posture

When using your computer, maintain good posture with your body relaxed and your weight distributed evenly. Proper seating is a primary factor in reducing work strain. Some people find a backless chair more comfortable than a conventional chair.

Correct posture and positioning of the computer

Whichever type you choose, use the following guidelines to adjust your chair for maximum computing comfort.

The proper position to the K/B is at or slight below to the leavel of your below. so that your forearm will parellel to the grand. You should be able to type with relaxed shoulder.

Keep your knees a little higher than your hips. If necessary, use a footrest to raise your knees for eas the preasure on back of your thighs.

Make your spine be well support by the chair back. If need, you can adjust the chair back or use a lower back supported cushion which are available at many office supply stores.

Lighting

Proper lighting can improve the visibility of the display and reduce eyestrain.

• Position the display panel or external monitor so that sunlight or bright indoor ligndows or shades to reduce glare.

• Avoid placing your computer in front of a bright light that could shine directly in your eyes.

•If possible, use soft, indirect lighting in your computer work area.

Arms and wrists

• Avoid bending, arching, or twisting your wrists. Keep them in a relaxed, neutral position while typing.

• Exercise your hands, wrists, and arms to improve circulation.

WARNING: Using the computer keyboard incorrectly may result in discomfort and possible wound. If your hands, wrists, and/or arms bother you while typing, stop using the computer and rest. If the discomfort persists. Consult a physician.

Work Habits

The key to avoiding discomfort or injury from strain is to vary your activities. If possible, schedule a variety of tasks into your working day. Finding ways to break up the routine can reduce stress and improve your efficiency.

• Take frequent breaks to change position, stretch your muscles, and relieve your eyes. A break of two or three minutes every half hour is more effective than a long break after several hours.

• Avoid performing repetitive activities for long periods. Intersparse such activities with other tasks.

• Focusing your eyes on your computer screen for long periods can cause eyestrain. Look away from the computer frequently and focus your eyes on a distant object for at least 30 minutes.

Other Precautions

Your computer is designed to optimize safety, minimize strain, and withstand the rigors of portability. However, you should observe certain precautions to further reduce the risk of personal injury or damage to the computer.

WARNING: Avoid prolonged physical contact with the underside of the computer. If the computer is used for long periods, its case can become very warm. While the temperature may not feel too hot to the touch, if you maintain physical contact with the computer for a long time (if you rest the computer on your lap, for example), your skin might suffer low-heat injury.

CAUTION: Never apply heavy pressure to the computer or subject it to sharp impacts. Excessive pressure or impact can damage computer components or otherwise cause you computer to malfunction. Some PC Cards can become hot with prolonged use. If two cards are installed, both can become hot even if only one is being used. Overheating of a PC Card can result in errors or instability in its operation. Be careful when you remove a PC Card that has been used for a long period.

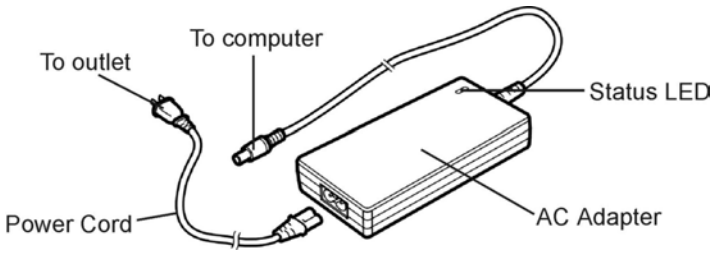
Setting Up Your Computer

Setting up your computer may include:

- Connecting the AC adapter
- Charging the battery
- Connecting a printer
- Connecting an alternate pointing device

Connecting the AC Adapter

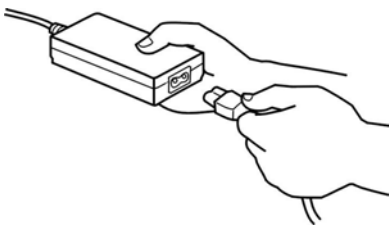
Your computer contains a rechargeable battery pack, which needs to be charged before you can use it the first time.



The AC adapter enables you to power the computer from an AC outlet and to charge the computer's batteries. An LED on the AC adapter lights green when Adapter is plugged into an outlet.

To connect AC power to the computer:

1. Connect the power cable to the AC adapter.



2. Plug the AC adapter into the computer's DC-IN socket.

DC-IN Socket

3. Connect the power cable to an AC power outlet.

The LED on the AC adapter comes on. If the battery is being charged, the Battery LED on the Hinge Bar of system indicator will light blue and blink. Once the battery is fully charged the battery light turns blue.

DANGER: To avoid electric shock, do not modify forcibly bend, damage, place heavy objects on top of, or apply treat to the power cable. If the power cable becomes damaged or the plug overheats, discontinue use. Never remove the power plug from the outlet with wet hands.

CAUTION: Using the wrong AC adapter could damage your computer. We assumes no liability for any damage in such cases. Never pull directly on the power cable to unplug it. Hold the power plug when removing the cable from the outlet.

Charging the Battery

Before you can use the battery to power the computer, you must charge it. Connect the computer to an AC power outlet using the AC adapter and power cable. The DC-IN LED will light and the Battery LED will light blue and blinking.

Once the computer is connected to a power outlet, you can charge the battery with the computer turned off or on. When the computer is turned off, the battery charges in about 3.0 hours.

NOTE: When the computer is turned on and is not consuming full power (under 18W), the battery charges in about 3.5 to 8 hours.

CAUTION: Once the battery is charged for the first time, avoid leaving the computer plugged in and turned off for more than a few hours at a time. Continuing to charge a fully charged battery may impact the battery.

Connecting a Printer

Before connecting a printer, you need to know whether it requires a USB or a parallel interface. Check the printer's documentation. If the printer can be switched between USB and parallel mode choose parallel if you want to leave your USB ports free for other use.

You also need a suitable printer cable which may come with your printer. If not, you can purchase one from a computer or electronics store.

CAUTION: Connecting the printer cable while the computer is on may damage the printer, the computer, or both.

NOTE: If your printer is ECP-or IEEE- compliant, make sure your printer cable is an IKE 1284 cable.

The following instructions assume you have a printer that uses a parallel port connection, which is the most common type of printer interface.

1. Turn off the computer.

2. Connect the printer cable to the printer and to the computer's parallel port.

3. Plug the printer's power cable into an AC outlet.

4. Refer to your printer documentation for additional configuration steps.

Connecting An Alternate Pointing Device

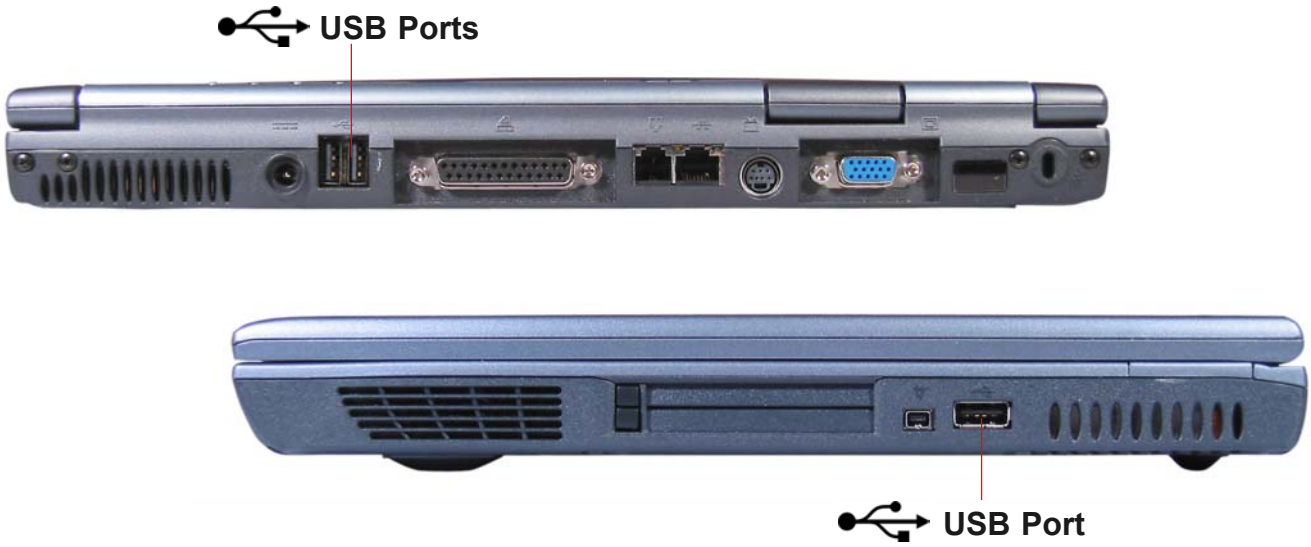
You may want to use an external mouse or trackball instead of the computer's built-in Touch Pad pointing device. Your computer supports USB-compatible pointing devices.

The Touch Pad remains operable, even if you connect a millenary pointing device to the computer.

Using a USB Pointing Device

1. Plug the USB pointing device cable into one of the USB ports. We recommend the USB port on the right-side of the computer. For left-handded user's, use one of the rear USB ports.

2. Refer to your device documentation for configuration steps.



NOTE: In Windows® Millennium Edition, the green question mark is displayed on USB Universal Host Controller-2485/2484/2487, the reason is the newer USB controller was unknown at the time Windows® Millennium Edition was release, the USB function no any loss.

Using the Computer for the First Time

Flip the display panel latch up to release it and then lift the display panel to open the computer.

CAUTION: Don't force the display panel open beyond the point where it moves easily. Never lift or move the computer by grasping the display panel.

Turning On the Computer

1. Make sure that the diskette drive is empty.

2. Open the display panel.

3. If you have a printer connected to your computer, turn the printer on and wait until it indicates it is ready.

4. Turn on the computer by momentarily pressing then releasing the power button.

When you release the power button, the Power LED on the system indicator Hinge Bar comes on.

NOTE: When turning on the computer for the first time. Don't turn it off until the operating system has loaded completely. Turning off the computer during its initial startup will cause an error the next time you start the computer.

NOTE: When the computer is connected to an external power source, the DC-IN LED lights. If the battery is being charged, the Battery LED lights pink.

NOTE: The HDD LED flashes when the hard disk drive is accessed.

CAUTION: To avoid data loss, never turn off the computer while a drive is in use.

Hot keys

Fn + F5 Power on display. When pressing the hot key, the display device will switch among CRT only, LCD only and simultaneous display. It will not update the setting of option 'Power on Display' in system setup.

Fn + F10 Cursor keypad on/off. Pressing this hot key can enable/disable the embedded cursor keypad. Numeric lock state is logically disabled.

Fn + F11 Numeric keypad on/off. Pressing this hot key can enable/disable the embedded numeric keypad. It depends on keypad on/off state, if keypad enable the Numeric lock state is logically enabled. If keypad disables the Numeric function also disable.

Fn + F12 Scroll Lock on/off.

Fn + ▲ Increase brightness

Fn + ▼ Decrease brightness

After rebooting, pad lock is set to off and Num lock is set to off also. In this state, the embedded cursor numeric keypad is not enabled on the notebook keyboard.

Using the Touch Pad

The Touch Pad is a touch-sensitive point device that provides all the features of a mouse. Please refer to the following instructions on how to operate the Touch Pad.

The Touch Pad is easily accessible by moving either your finger off the space bar and onto the Touch Pad.

Gently move your finger across the Touch Pad in the direction you want the cursor to move. The pad detects the change in pressure and moves the cursor in the corresponding direction.

With a conventional mouse, selections are usually made by double clicking the mouse's left button. The Touch Pad also supports this feature. It is described in detail below. If you are familiar with the operations of a mouse you may only need to skim the information below.

The Touch Pad buttons have essentially the same function as mouse buttons. Clicking these buttons makes selections, drags object, or performs a variety of other functions depending on the software. To select an object, first move the pointer to the object you want to select, and then press the left button one time and release it. The functionality of these buttons depends on your software. Refer to your software user's manuals for specific information on the Touch Pad (mouse) functions.

Double clicking is a common technique for selecting objects or launching programs from icons. Move the pointer over the object you wish to select, then rapidly press the left button two times. This action is commonly referred to as “double clicking on an object.

Double tapping is another technique for selecting objects or executing applications from icons. For the most part double tapping is very similar to the double clicking technique of a mouse. The difference is that instead of double clicking on a mouse button, you double tap on the pressure sensitive touch pad to make the selection. Once the cursor has been moved the object you want select, lightly double tap the Touch Pad itself. The double tapping will select the desired item and prompt the software to perform the related operation.

Many of the functions within Microsoft® Windows® series operating system can also be launched by using single tap on the Touch Pad. This single tapping will select the desired item and prompt the software to perform the related operation.

When working with programs that employ a graphical user interface (GUI), such as Windows®, dragging objects from one point on the screen to another is a technique you will have to master. To drag an object, first move the pointer over the object, then press and hold down the left button. Now without releasing the button, move the object to a new location on the screen by moving your finger across the Touch Pad. Once the object is in the desired position, release the button to drop the object in place.

Chapter 3

Precautions

Computing Tips

Using the keyboard

Starting a Program

Saving Your Work

Printing Your Work

Backing Up Your Files

Using Compact Discs

Using PC Cards

Using Your Computer at the Office

Setting Up Communications

Turning Off the Computer

Caring for Your Computer

Learning the Basics

This chapter covers precautions and computing tips that you should follow when using your computer. It also provides important information about the basic features of your system.

Precautions

• Don’t spill liquids into the computer’s keyboard.

If you did spill a liquid that gets into the keyboard, turn off the computer immediately. Leave the computer turned off over night to let it dry out before you use it again.

• Don’t turn off the computer if a drive light indicates a drive is active.

Turning off the computer while it is reading from or writing to a disc may damage the disk, the drive, or both.

• Keep the computer and disks away from objects that generate strong magnetic fields, such as large stereo speakers.

Information on disks is stored magnetically. Placing a magnet too close to a disk can erase important files.

• Scan all new files for viruses.

This precaution is especially important for files you receive via diskette, email, or download from the Internet. Occasionally, even new programs you buy from a supplier may contain a computer virus. You’ll need a special program to check for viruses. Ask your dealer to help you.

To turn the numeric overlay on and off, press **Fn** and **F11** simultaneously. The numeric mode light on the status panel glows when the numeric overlay is on.

You can still use the overlay keys to type alphabetic characters while the numeric overlay is on.

- For lowercase letters, hold down **Fn** while you type the letters.
- For uppercase letters, hold down both **Fn** and **shift** while you type the letters.

To use the cursor control keys when the numeric overlay is on, press and hold down **Shift** while you use the cursor control keys To return to the numeric overlay, release **Shift.**

Using the Cursor Control Overlay

To turn the cursor control overlay on and off, press **Fn** and **F10** simultaneously. The cursor control light on the keyboard indicator panel glows when the cursor control overlay is on.

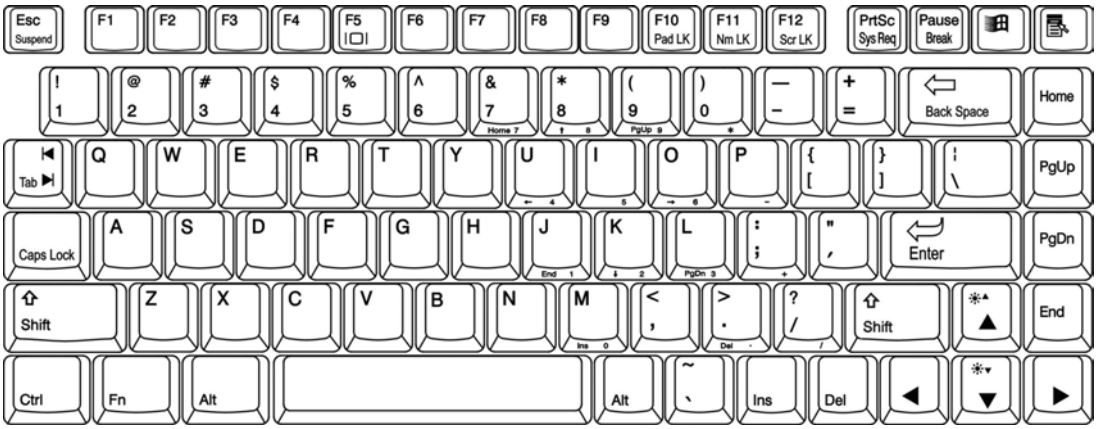
To type alphabetic characters while the overlay is on:

- For lowercase letters, hold down **Fn** while you type the letters.
- For uppercase letters, hold down both **Fn** and **Shift** while you type the letters.

To use the numeric overlay keys when the cursor control overlay is on, hold down **Shift** while you use the numeric overlay keys. To return to the cursor control overlay, release **Shift.**

Using the keyboard

85-key keyboard



Character Keys

Typing with the character keys is very much like typing on a typewriter, except that:

- The spacebar creates a space character instead of just passing over an area of the page.

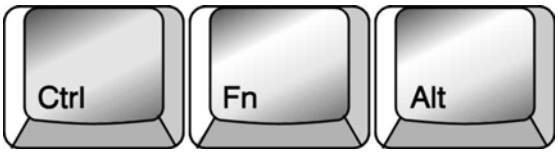
- The lowercase letter **l** and the number **1** are not interchange able.

- The uppercase letter **O** and the number **0** are not interchange able.

The **Caps Lock** key shifts the letter keys to upper case – the number and symbol keys are not affected. The Caps Lock LED

on the keyboard indicator panel illuminates when you press the **Caps Lock** key.

Ctrl, Fn, and Alt keys



The **Ctrl**, **Fn**, and **Alt** keys do different things depending on the program you are using. For more information, see your program documentation.

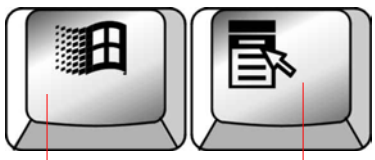
Function keys

The function keys (not to be confused with the **Fn** key) are the 12 keys at the top of the keyboard.

Through **F1** to **F12** are called function keys because they perform programmed functions when pressed. Used in combination with the **Fn** key, function keys marked with icons execute specific functions on the computer.

Windows Special Keys

The keyboard provides two keys that have special functions in Windows. The Windows key activates the Start menu. The Application key has the same function as the secondary mouse (or the Touch Pad) button.

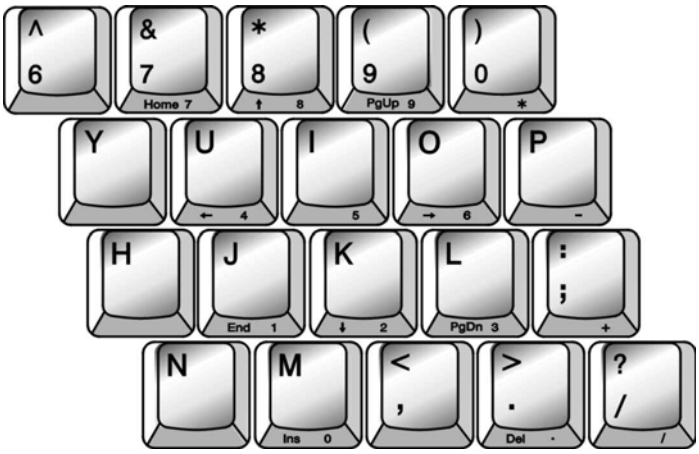


Windows Logo Key

Application Key

Overlay Keys

The keys with numbers and symbols on the front of them form the numeric and cursor overlay. This overlay lets you enter numeric data or control the cursor as you would use the ten-key keypad on a desktop computer's keyboard.



To turn the numeric overlay on and off, press **Fn** and **F10** first then press **Fn** and **F11** simultaneously. The numeric mode light on the status panel glows when the numeric overlay is on.

You can still use the overlay keys to type alphabetic characters while the numeric overlay is on.

- For lowercase letters, hold down **Fn** while you type the letters.
- For uppercase letters, hold down both **Fn** and **shift** while you type the letters.

To use the cursor control keys when the numeric overlay is on, press and hold down **Shift** while you use the cursor control keys To return to the numeric overlay, release **Shift.**

Using the Cursor Control Overlay

To turn the cursor control overlay on and off, press **Fn** and **F10** simultaneously. The cursor control light on the keyboard indicator panel glows when the cursor control overlay is on.

To type alphabetic characters while the overlay is on:

- For lowercase letters, hold down **Fn** while you type the letters.
- For uppercase letters, hold down both **Fn** and **Shift** while you type the letters.

To use the numeric overlay keys when the cursor control overlay is on, hold down **Shift** while you use the numeric overlay keys. To return to the cursor control overlay, release **Shift.**

Starting a Program

There are three ways to start a program in Microsoft® Windows® series operating system which are from the Start menu, from the Windows Explorer, or from the Run menu on the taskbar.

Starting a program from the Start menu

1. Click **Start,** then point to **Programs.**

Microsoft® Windows® series operating system displays the Programs menu, which lists programs and program groups. If your program is listed, go to step 3; otherwise, continue with step 2.

2. Point to the program group containing the program that you want to start.

Microsoft® Windows® series operating system displays the associated program menu.

3. Click the program's icon to start the program.

To close the program, click the **Close** button at the upper-right corner of the program's window.

Starting a Program from Windows Explorer

If a program is not in the Programs menu, you can start it from Windows Explorer. Windows Explorer gives you a view of your computer's contents as a hierarchy or "tree." You can easily see the contents of each drive and folder on your computer. To use this method, you need to know the name and location of the program's executable file (this file ends with ".exe".)

1. Click **Start,** point to **Programs,** and then clicks **Windows Explorer.**

• The left side of the window displays the disk drives and folders on your computer.

• The right side of the window displays the contents of the item you click on the left.

2. To open a document or start a program, double-click its icon in the right side of the window.

Starting a Program from the Run Menu

You can start a program from the taskbar if you know its name and location.

1. Click **Start** on the taskbar.

2. Point to **Run.**

3. In the dialog box, type the command line.

4. Click **OK.**

Saving Your Work

Before you turn off the computer, save your work to the hard disk drive or a diskette. This is one of the most important rules of computing.

NOTE: Save your data even when you are using Standby, in case the battery discharges before you return to work.

Many programs offer a feature that saves documents at regular intervals, such as every 15 minutes. Check your program's documentation to see whether they have an automatic save feature.

- To save a file you are updating, open the program's **File** menu and click **Save.**
- To save the current file with a new name, choose **Save As** from the File menu, type a name for the file and click **OK.**

HINT: To make another copy of the file you are currently working with, choose Save As from the File menu and give the new file a different name.

File Names

Microsoft® Windows® series operating system supports file names of up to 255 characters. You may use all the letters and numbers on the keyboard plus the following characters: _, ^, $, ~, !, #, %, &, {, }, (,), @, [,], +, -, ;, and '. The names can include spaces.

If you plan to share your files with a computer using MS-DOS® or a pre-Windows® 95 version of Windows, the file name must be no more than eight characters followed by a period and a three character extension. An MS-DOS file name may not contain a space.

Most programs assign an extension that identifies the file as having a particular format. For example, Microsoft® Word saves files with a .doc extension.

Printing Your Work

Make sure that the Microsoft® Windows® series operating system is set up for your printer.

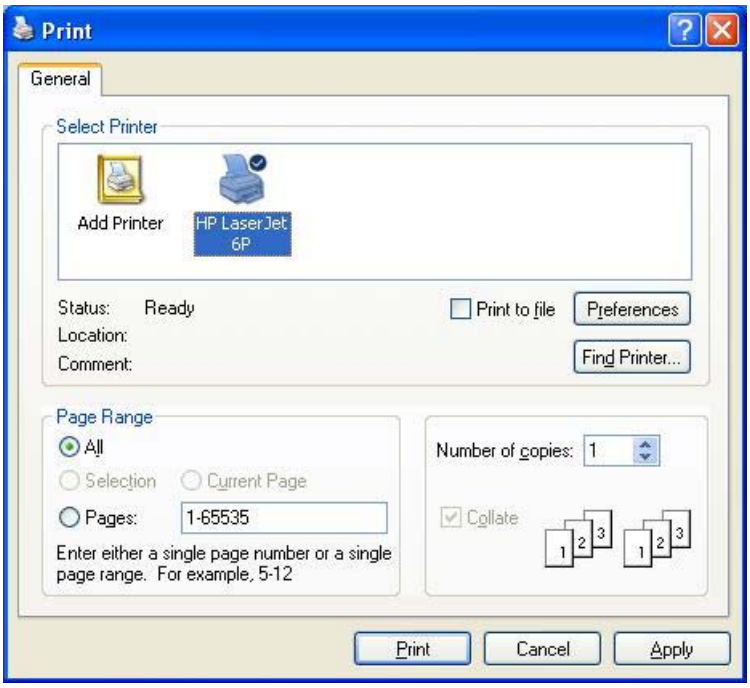
TECHNICAL NOTE: You only need to setup the printer the first time you connect it. If you use more than one printer or are changing printers, you will need to setup your Microsoft® Windows® operating system to run with the additional printer(s).

1. If your printer is not on, turn it on now.

2. In the File menu of your Windows program, click Print.

The program displays a Print dialog box similar to the one below.

A sample Print dialog box



3. Click **OK** to print.

Backing Up Your Files

Backing up your files simply means copying individual files to a floppy disk or copying entire sections of your hard disk to another media, such as a CD-R or CD-RW discs.

Copying to a diskette

1. Insert a formatted floppy disk into the floppy disk drive.

2. Double-click the **My Computer** icon on the Windows desktop.

3. Double-click the drive that contains the file you want to copy.

4. Double-click the folder containing the file, then click the file you want to copy.

HINT: Use the Ctrl or Shift keys to select more than one file.

5. Click **File,** then click **Send To.**

6. Click the icon for the diskette drive.

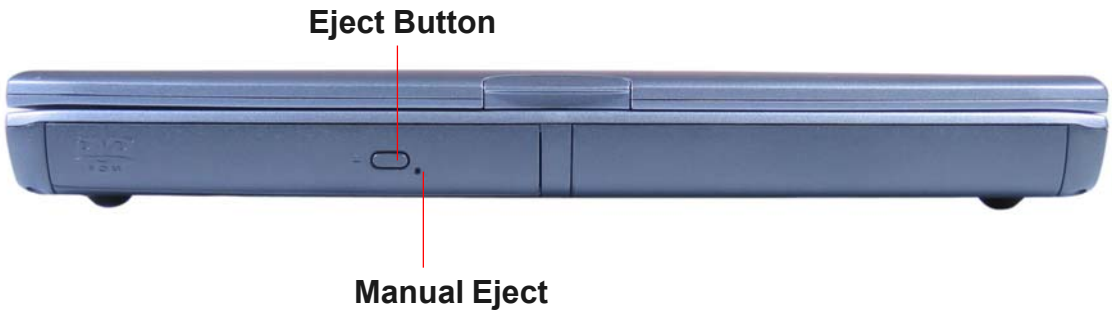
HINT: You can also back up a file to a diskette by clicking the file (or files) you want to backup with the secondary button, then pointing to Send To and clicking 3 1/2 Floppy (A:).

Using Compact Discs

The CD-ROM drive lets you read CD-ROM discs and play audio Compact Discs.

CAUTION: When inserting and removing CD-ROM discs, be careful not to touch the lens on the disc tray or the area around it, due to it may cause the drive to malfunction.

The CD-ROM Drive



Press the eject button to open the disc tray. The eject button will not open the disc tray when the computer is off.

The manual eject button—accessed through the small hole just to the right of the eject button allows you to open the disc tray when the computer is off.

Inserting compact discs into the CD-ROM drive

1. With the computer turned on, press the eject button to open the disc tray.

2. Pull the disc tray until it is fully open.

3. Hold the CD by its edges, ensure it is dust-free, and place it carefully in the disc tray, with the label side up.

4. Press down on the CD until the disc locks on the spindle.

5. Close the disc tray.

CAUTION: If the CD is not seated properly when you close the disc tray, the CD might be damaged and the tray may not open fully when you press the eject button.

Removing a CD with the Computer on

1. Press the eject button.

CAUTION: Do not press the eject button while the computer is accessing the CD-ROM drive. If the CD is still spinning when you open the disc tray wait for it to stop before you remove it.

2. Pull the disc tray until it is fully open, remove the CD, and place it in its protective cover.

3. Close the disc tray.

Removing a CD with the Computer Off

1. Insert a slender object, such as a straightened paper clip, into the manual eject hole.

CAUTION: Never use a pencil to press the manual eject button. Pencil lead can break off inside the computer end and damage the devices.

2. Pull the disc tray until it is fully open, remove the CD, and place it in its protective cover.

3. Close the disc tray.

Caring for Compact Discs

• Store your CDs in their original containers to protect them from scratches and keep them clean.

• Don't bend a CD or place heavy objects on top of it.

• Don't apply a label to, or otherwise mar, the surface of a CD.

• Hold a CD by its outside edge. Fingerprints on the surface of a CD can prevent the drive from reading the data properly.

• Don't expose CDs to direct sunlight or extreme heat or cold.

• To clean a CD, wipe it with a clean, dry cloth—starting from the center of the CD and wiping toward the outward edge. Do not wipe using a circular motion. If necessary, moisten the cloth with water or a neutral cleaner (not benzene or rubbing alcohol). Let the CD dry completely before inserting it in the drive.

Using PC Cards

PC Cards expand your computer's capabilities and usefulness. You can purchase additional PC Cards from your dealer. Most PC Cards conform to the PCMCIA (Personal Computer Memory Card International Association) standard.

Your computer comes with two stacked PC Card slots and supports two types of PC Card:

• Type II cards are typically used for fax/modems, memory storage, network cards, etc. You can install up to two of these cards, one in each slot.

• Type III cards are used for removable hard disks and other functions that require a larger card. You can install just one of these cards.

Check the documentation that came with the PC Card to see if it conforms to the PCMCIA 2.1 standard, or later. Other cards may work with your computer, but are likely to be much more difficult to set up and use.

Inserting PC Cards

PC Cards require Card and Socket Services software a set of programs that acts as a translator between the PC Card and the computer, and that makes hot swapping (switching cards while the computer is on) possible.

TECHNICAL NOTE: Microsoft® Windows® series operating system provides the Card and Socket Services for your PC Card. Even if your PC Card comes with its own version of Card and Socket Services, you should use the files included in Microsoft® Windows® series operating system. Some PC Cards do not support Hot swapping. Refer to your PC Card's manual for information.

1. If your PC Card does not support hot swapping, save your data and turn off the computer before inserting the PC Card. For more information, see "Hot swapping".

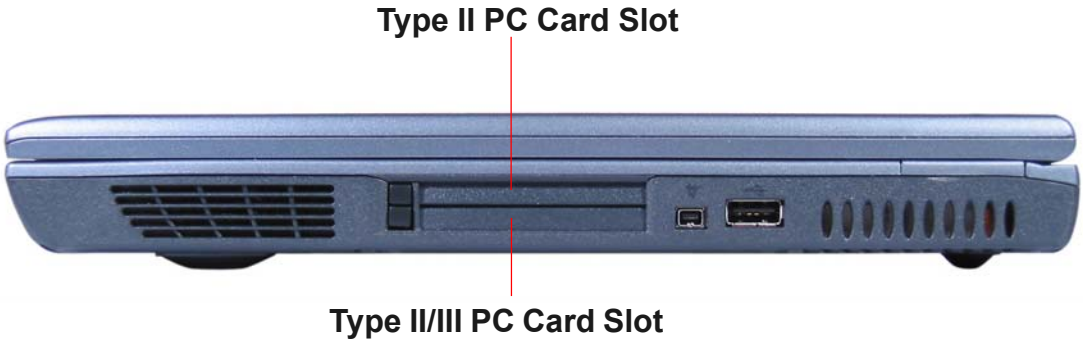
2. Hold the PC Card with the arrow side up and the connector side toward the slot.

3. Align the card connectors with an available PC Card slot and carefully slide the card into the slot until it locks into place.

There are two eject buttons, one per slot. When the PC card is seated, the eject button for that slot pops out.

4. Press the eject button to put it in its retracted position.

NOTE: If you have a Type III card, insert the connector into the lower slot. If you have a Type II card, insert it into either the upper or the lower slot.



NOTE: An HDD or CD-ROM connected to a 16-bit PC card, might affect the performance of the computer's sound system and data transmission, including slower transmission speeds and dialing errors.

CAUTION: To avoid damaging the computer or the PC Card, don't force the card into the slot.

Removing PC Cards

1. Click the **PC Card** button on the taskbar.

2. Click **Stop *xxxx*** where *xxxx* is the name of the PC Card you want to stop.A message will appear indicating that you may safely remove the card.

3. To remove the PC Card, press the respective eject button once. The eject button pops out.

CAUTION: If your PC Card supports hot swapping, you can remove it at any time. However, to avoid data loss, never remove a card while it is in use. For more information, see "Hot swapping".

4. Press the eject button again to eject the PC Card. The upper eject button will eject Type II PC Card from the upper slot. The lower button will eject a Type II, or Type III card from the lower slot.

5. Remove the PC Card and store it properly.

PC Card Slots

PC Card Eject Button

Hot swapping

With PC Cards, you can replace one PC Card with another while the computer is on. This is called "hot swapping."

Hot swapping precautions

Although you can insert a PC Card at any time, to avoid data loss do not remove a card while it is in use. Before removing a PC Card, stop it by clicking the PC Card (PCMCIA) icon on the taskbar. After the PC Card is stopped, it is safe to remove it.

- Don't remove a hard disk card while the system is accessing it.
- Don't remove a network card while you are connected to a network.

- Don’t remove a SCSI card while any of the SCSI devices connected to it is operating.

DEFINITION: SCSI is an acronym for Small Computer Systems Interface. A single SCSI PC Card enables you to connect several SCSI devices, such as a scanner or digital camera to your computer.

Using Your Computer at the Office

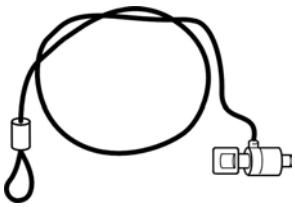
By connecting an external monitor, external full-size keyboard, and a mouse, you can work with your notebook as if it were a standard office computer.

An external monitor connects to the monitor port.

Any USB devices including an external keyboard and pointing device connect to the USB ports.

Using a Computer Lock

You may want to secure your computer to a heavy object such as your desk. The easiest way to do this is to purchase a computer cable lock.



1. Loop the cable through or around some part of a heavy object.

Make sure there is no way for a potential thief to slip the cable off the object.

2. Pass the locking end through the loop.

3. Insert the cable's locking end into the security lock slot, then rotate the key a quarter turn and remove it.

Security Lock Slot

Setting Up Communications

To connect to the Internet, use an online service, or communicate across the telephone lines with another computer, you need:

- A modem (supplied with your notebook computer)
- A telephone line
- A browser or communications program
- An Internet Service Provider (ISP) or online service if you plan to use the Internet

CAUTION: Never connect the Modular jack to a digital line. Digital line's high current can damage the modem.

Connecting the Modem to a Telephone Line

Before you can use the modem, you must connect it to a standard voice-grade telephone line.

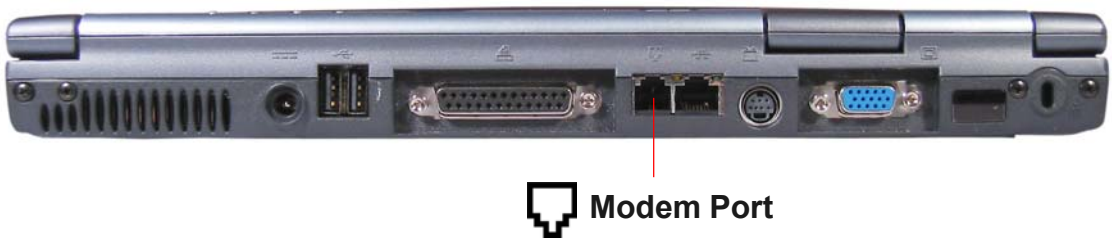
TECHNICAL NOTE: Disable Call Waiting before you connect through the modem. Call Waiting interrupts data transmission.

NOTE: If you use a storage device such as a CD-ROM drive or HDD connected to a 16-bit PC card, modem speed might be slow or communication might be interrupted.

1. Plug one end of a standard RJ-11 telephone cable into the modem port.

2. Plug the other end of the RJ-11 telephone cable into the modular jack of a standard voice-grade telephone line.

NOTE: The plug may be different in your country.



Connecting Directly to a Remote Computer

If you are connecting directly to a remote computer or a bulletin board service (BBS), you need a general-purpose communications program.

In addition, there are two things you need to know before you can connect to another computer:

- The communications parameters
- The file transfer protocol (only if you are downloading or uploading files)

Communications Parameters

There are four communications parameters:

- Modem speed - The speed at which the modem transfers information. Speeds are measured in bits per second.
- Data bits - The number of bits in one character. This number is usually seven or eight.
- Stop bit - Indicates the end of a character. This number is usually one or two.
- Parity - An error-checking method, which will be set to even, odd, or none.

Communications parameters, except for the modem speed, are usually abbreviated and combined. Common examples are N81 (no parity, eight data bits and one stop bit) and E72 (even parity, seven data bits and two stop bits).

You set each of these parameters in your communications program. Each parameter must be set the same on both computers or you will not be able to connect.

File Transfer Protocols

File transfer protocols are standards that given how computers transfer files between modems over a telephone line. You do not really need to know anything about specific protocols-just make sure you are using the same protocols as the computer with which you are communicating.

Turning Off the Computer

It is a good idea to turn off your computer when you are not using it for a while.

- If you have work in progress and expect to resume shortly, use your Microsoft® Windows® operating system Standby command to save your system settings so that, when you turn on the computer again, you automatically return to where you left off.

To leave the computer turned off for a longer period, use your Microsoft® Windows® operating system Shut Down command instead.

- Never turn off the power if the hard disk drive light is on. It may damage your hard disk drive.

Caring for Your Computer

This section gives tips on cleaning and moving your computer. For information about taking care of your computer's battery, see "Running the computer on battery power" in Chapter 5.

Cleaning the Computer

To keep your computer clean, gently wipe the display panel and exterior case with a lightly dampened cloth. Ask your dealer for suggestions for appropriate cleaning products.

CAUTION: Keep liquid, including cleaning fluid, out of the computer's keyboard, speaker grille, and other openings. Never spray cleaner directly onto the computer. Never use harsh or caustic chemical products to clean the computer.

Moving the Computer

Before moving your computer, even across the room, make sure that all disk activity has ended and all external peripheral cables are disconnected.

CAUTION: Don't pick up the computer by its display/panel or by the back (where the ports are located).

Chapter 4

Energy-Saving Design

Managing Power Usage

Charging Batteries

Monitoring Battery Power

Conserving Battery Power

Battery Alarms

Changing the Main Battery

Disposing of Used Batteries Safely

Traveling Tips

Mobile Computing

This chapter covers all aspects of using your computer while traveling.

Energy-Saving Design

Your computer enters a low-power state when it is not being used, thereby conserving energy and saving money in the process. It has a number of other features that enhance its energy efficiency.

Many of these energy-saving features. We recommend you leave these features active, allowing your computer to operate at its maximum energy efficiency, so that you can use it for longer periods while traveling.

Managing Power Usage

Your computer's power-saving options greatly increase the length of time you can use the computer before you need to recharge the battery.

To change the power usage mode, click **Start,** point to **Settings,** then click **Control Panel.** In Control Panel, double-click the **Power Option** icon to display the Power Option Properties window.

Select the power scheme with the most appropriate settings for your computer. Keep in mind that changing any settings on the Power Option Properties window will modify the currently selected scheme.

Consult your Microsoft® Windows® operating system documentation for more information on the Power Option utility.

Running the Computer on Battery Power

The computer uses a removable Lithium Ion (Li-ION) battery pack that provides power when you are away from an AC power source. You can recharge it many times.

In addition to the removable main battery, the computer has an internal real-time clock (RTC) Lithium rechargeable battery. The RTC battery powers the RTC memory, which stores your system configuration settings and the current time and date for up to a month while the computer is turned off.

Using Additional Battery Packs

If you spend a lot of time traveling and need to work for many hours without an AC power source, you may want to carry additional charged battery packs with you. You can then replace a discharged battery and continue working.

NOTE: A new battery pack should be fully discharged and recharged three times before being used.

Maximizing Battery Life

A main battery can be recharged many times. Gradually over time it will lose its ability to hold a charge. To maximize the life of your main battery:

• Don't leave the computer plugged in and unused for more than a few hours. Overcharging the main battery may shorten its life.

• If you are not going to use the computer for a long period of time, remove the battery.

• Alternate between battery packs if you have a spare.

• Make sure the computer is off when you are replacing the battery.

• Store spare battery packs in a cool dry place out of direct sunlight.

Charging Batteries

The main battery needs to be charged before you can use it to power the computer. You can charge the battery using your computer.

Charging the Main Battery

To charge the batteries while they are in your computer, plug the computer into a live AC outlet. It takes approximate 3.0 hours to charge the battery to full while the computer is off. It takes much longer to charge a battery to full while the computer is on.

TECHNICAL NOTE: The battery only can charge a small current while the computer Is consuming full power.

The battery may not start charging immediately if:

- The battery is extremely hot or cold.

  To ensure that the battery charges to its full capacity, wait until it reaches room temperature: 5°C to 35°C. (41°F to 95°F).

- The battery is almost completely discharged.

  Leave the power connected, and the battery should begin charging after a few minutes.

HINT: Once a battery pack is fully charged, we recommend that you operate your computer on battery power until the battery pack discharges completely. Doing this extends battery life and helps ensure accurate monitoring of battery capacity.

Charging the RTC Battery

In addition to the main battery, the computer contains an internal battery for the real-time clock (RTC). The RTC battery provides power for the internal real-time clock and calendar.

During normal use, the main battery keeps the RTC battery adequately charged. Occasionally, the RTC battery may lose its charge completely, especially if you have had the computer turned off and without main battery pack inserted for a long time.

It is seldom necessary to charge the RTC battery because it charges while the computer is on. However, if the RTC battery is low, the real-time clock and calendar may display the incorrect time and date or stop working.

To recharge the RTC battery, plug the AC adapter into the computer for at least 24 hours.

The computer can be used while the RTC battery is being charged. Although the charging status of the RTC battery cannot be monitored, if the power is on, it takes approximately 24 hours to fully charge the RTC battery.

Monitoring Battery Power

The battery LED on the system indicator panel comes on when you are using the battery to power the computer.

HINT: Be careful not to confuse the battery light with the on/off light. When the on/off light flashes, it indicates that the system is in Standby mode.

Determining Remaining Battery Power

NOTE: Wait at least 20 seconds after turning on the computer before checking the remaining battery power. The computer needs this time to check the battery's remaining capacity and perform calculations.

To check the battery level, you can look at the Microsoft® Windows® operating system Power Meter control panel. To access the panel:

1. Click on the **Start** button, point to **Settings,** and then click the **Control Panel.**

2. Double-click the **Power Options** icon.

3. Choose the **Power Meter** tab to show the current battery status. The meter displays a percentage of a full battery charge remains.

TECHNICAL NOTE: The computer drains the battery faster at low temperatures. Check your remaining charge frequently if you are working in temperatures below 10 degrees Centigrade. The computer calculates the remaining battery charge based on your current rate of power use and other factors such as the age of the battery.

NOTE: When removing or inserting the battery pack, click on the Power Meter tab to show the latest battery status.

Conserving Battery Power

How long a fully charged battery pack lasts when you are using the computer depends on a number of factors, such as:

• How is the computer configured?

• How much do you use the display panel instead of an external monitor?

• How much do you use the hard disk and other drives?

• Do you use any optional devices that the battery supplies power to, such as a PC Card?

• What is your working condition (operating time decreases at low temperatures)?

What To Do When the Battery Runs Low

When the battery runs low you have these options:

• Plug the computer into a live AC outlet and recharge the battery.

• Save your work and turn off the computer.

If you don't manage to do any of these things before the battery completely runs out of power, the computer automatically enters Standby and keeps track of where you were so. When you turn on the power by using AC adapter again, you can continue where you left off.

Battery Alarms

The computer can be configured to warn you when the battery is running low. You can set each of the following alarms:

- Low Battery
- Critical Battery

Each alarm can be set to alert you when a specified percentage of remaining battery power has been reached. You can also set how the alarm action occurs – sound an alarm, display a message, both, or none. You can also set the computer to enter Standby when the alarm goes off.

To set the alarm levels:

1. Click the **Start** button, point to **Settings,** and then click **Control Panel.**
2. Double-click the **Power Option** icon.
3. Click **OK** to clear the Power Option Advisory dialog box.

   The Power Option dialog box appears.
4. Click the **Alarm** tab.
5. Set the alarm levels as desired.

For more information on battery alarms, refer to the Microsoft® Windows® operating system documentation or Help.

Changing the Main Battery

When your battery runs out of power, you have two options connect the AC adapter or install a fresh battery. For instructions on using the AC adapter, see “Connecting the AC adapter”.

Removing the Battery

1. Save your work.
2. Shut down the computer. Never removes the battery while the computer is on.
3. Close the display panel, ensuring that it snaps in to place.
4. Turn the computer upside down with the front of the computer facing away from you.
5. Slide the Battery Release latch in the direction of the arrow.
6. Carefully pull the battery out of the Battery Bay.

NOTE: The Battery Release latch is spring-loaded and will snap back into place when you release it.

Inserting a Battery

1. Wipe the battery terminals of the battery with a clean cloth to ensure a good connection.

2. Slide the battery in to the Battery Bay. When the battery is fully inserted, you should hear it click into place.

NOTE: The release latch is spring-loaded and clicks as it latches the battery in place when you insert it.

3. Turn the computer bottom side up and ensure the battery is fully inserted in the bay.

WARNING: If the battery housing is leaking or cracked, put on protective gloves to handle it and discard it immediately following the advice in the section on "Disposing of Used Batteries Safely".

Disposing of Used Batteries Safely

You can recharge a main battery many times. When the useful life of the battery expires or if the battery becomes damaged, you must discard it responsibly.

Batteries should not be disposed of together with household waste. To make sure that they are forwarded to recycling or proper disposal they may be returned free of charge to an authorized dealer/ distributor.

Only use replacement batteries recommended

CAUTION: The computer uses a Li-Ion battery which can explode if not handled or disposed of properly. Putting spent batteries in the trash is not only irresponsible, it may also be illegal. Dispose of the battery as required by local ordinances or regulations.

Traveling Tips

The Environmental precautions also apply on journeys.

- Do not leave your computer exposed to direct sunlight for long periods of time for instance, on the dashboard of a car or place it here it could get wet or covered in dust.

- Always travel with the computer in a carrying case. offers a choice of carrying cases for the computer. They all provide plenty of extra space for manuals, power cables, CD-ROM discs, and floppy disks, etc. See your dealer for more information.

WARNING: When traveling by air, you maybe required to put your notebook through airport security The X-ray equipment used may or may not harm your computer.

WARNING: Ensure your personal computer is turned off before you put it in your bag.

Chapter 5

Advanced Features

Using the Modular Bay

Using the CD/Digital Switch to Play MP3 Tracks Audio CD Player Feature

Using i.Link® Port (IEEE1394)

Using the SmartMedia™ Cards

Using the IR Port

Using Wireless LAN

Using the SpeedStep Utility

Using Advanced Features

This chapter explains many advanced features of your notebook computer.

Advanced Features

Your notebook built in nVidia GeForce4 420 Go video display hardware which supports superior 2D and 3D performance.

GeForce4 420 Go Features

You can either go into the GeForce4 420 Go settings through **Start**, **Settings**, **Control Panel**, **Display** or, Right-click on the Windows desktop then check **Properties.** Follow the on screen display step by step panels, you will find the following settings.

1. nView: The nView allows you connect two separate output devices which includes analog monitor, digital flat panel or TV. You can connect to a TV through TV-OUT connector. The default setup is nView disabled. You can do the Color Correction controls at the panel too.

2. GeForce4 420 Go Settings: You can check the installed technical information, customize Direct 3D Settings, customize OpenGL setting, and show the nVidia QuickTweak utility on the taskbar. By default, the setting is good enough for the most of usages.

3. Overlay Controls: It allows you to adjust the display screen appearance.

Using the Modular Bay

The modular bay supports one of following removable modules:

- CD-ROM drive
- CD-RW drive
- DVD-ROM drive
- DVD/CD-RW drive
- Floppy Disk drive

Your computer comes with some of these drives depending on which model you purchased. You may purchase additional drives separately as accessories.

Device Swapping

You can swap devices in the device bay when the computer is turned off . The Microsoft® Windows® 2000 and XP operating system support native driver utility of hot-swapping, you can swap devices in the device bay either the computer turned off or turned on. You can find the utility program on the right system task bar tray.

CAUTION: You should always keep a device or battery installed in the modular bay. Don't leave it empty.

Playing DVD

Your computer comes with the WinDVD software utility disc which is for playing DVD movie titles. You have to install it by yourself. Firstly, insert the disc into the drive, then the setup manual will show up automatically. You can follow the on screen display step by step method to install it. Please read the InterVideo WinDVD on line Help for detail using instructions.

Using a CD-RW Drive

If your computer comes with either the CD-RW or DVD-ROM/ CD-RW drive, you can write to either CD-R or CD-RW media. There is a disc called Easy CD Creator software that comes with the drive. You have to installed the software by yourself. Firstly, insert the disc into the drive, then the setup manual will show up automatically. You can follow the on screen display step by step method to install it. Please read the program Quick Reference Guide for detail using instructions.

CAUTION : When using CD-RW device, do not copy data directly from external device. (e.g USB, IEEE1394 device). Please copy the data into the Hard Disk Drive, then copy to the CD-RW disk.

Using the CD/Digital Switch to Play MP3 Tracks Audio CD Player Feature

This player application supports audio CDs direct play and MP3 with the computer turned off. To play MP3 files, you need to use the Windows Media Player that comes with the Windows® operating system. You can refer to previous Chapter 1 **System Status Indicators & Controls** for instruction.

Using the Easy Buttons

The Easy Button utility program is preinstalled in your computer. This software supports you to configure various button functions. Most of the button functions are fixed which include Volume Control, CD/Digital Switch, and CD Control Buttons. There are another two programmable buttons on the Base Panel. They are the Application button and the Internet button.

You can double-click the Easy Button icon on the system taskbar to configure the Application button or Internet button. By default:

Pressing the Application button will bring up the Easy Button application.

Pressing the Internet button will open Microsoft Internet Explorer.

It is recommended not to change the Internet button. You can configure the button to any application launch program you preferred. For more detail information, please refer to the Easy Buttons Users' Help.

Using i.Link® Port (IEEE1394)

The i.Link® port on the right side of the computer provides very fast data transfer rates (up to 400 Mbps or 400 Mega bits per second). You can connect up to 63 external devices to this port.

In addition to its high speed, it supports isochronous data-the delivery of data at a guaranteed rate. This makes it ideal for devices that transfer high levels of data in real-time, such as video cameras. The i.Link® port supports plug-and-play (automatic configuration) and hot-swapping (the ability to connect and disconnect devices while the computer is on).

Using the SmartMedia™ Cards

The computer has a SmartMedia™ card slot which supports 2MB, 4MB, 8MB, 16MB, 32MB, 64MB and 128MB SmarkMedia™ Ramdom Access Memory (RAM) Cards. SmartMedia™ card are used to exchange data with other portable devices, such as digital cameras and Personal Digital Assistants (PDAs). They are also found in electronic musical instrument, voice recorders, scanners, word processors. These small cards are about one-third the size of conventional PC Cards.

CAUTION: The computer supports 3.3V SmartMedia™ card only. It is prohibited to use other votage SmartMedia™ card.

Inserting the SmartMedia™ Card

1. Turn the card face down.

2. Push the card into the slot until it locks in place.

NOTE: If Windows does not recognize a SmartMedia™ card , try removing the card and inserting it again. SmartMedia™ LED will turn on even if system is not accessing SmartMedia™ . Below is for your reference. If SmartMedia™ access LED keeps turning on when SmartMedia™ card is inserted, try accessing to the card. Be careful not to touch the connectors. You could export the storage area to static electricity, which can destroy.

Removing the SmartMedia™ Card

CAUTION: Do not remove a SmartMedia™ card while data is being written or read. Data could be destroyed. Wait for the SmartMedia™ access LED to go out. Event if the message ***Copying...*** *on the screen disappears, writing to a SmartMedia™ card might still be in progress.*

1. Right click on the SmartMedia™ drive's icon and select **Eject** from the pop-up menu.

2. Push the card and release it. The card will pop out slightly.

3. Lift the left side of the computer slightly and grasp the card. Pull it straight out.

NOTE: Please format SmartMedia™ card by device such like digital camera.

NOTE: The SmartMedia™ card metal (Golden color) connector should be on the button side when insert.

CAUTION: Don't remove SmartMedia™ during access LED for SmartMedia™ is turning on.

CAUTION: Do not format SmartMedia™ card with FAT32/NTFS format.

NOTE: Pull the card completely out when you remove it. Do not leave it partially

Using the IR Port

You can transfer files to another computer using your notebook computer's Infrared port. Both computers involved in the data transfer must have compatible Infrared ports and synchronization software.

Using Wireless LAN

Your computer may integrate an 802.11b Wireless Networking depending on which model that you purchased. It is a high-speed wireless network connection uses two-way radio transmission to communicate with an "Access Point" transceiver that is physically connected to the network by cable.

The Wireless Networking driver utility has been preinstalled and set up on the computer. You may get the detail operating explanation set up information from it's online Help

1. Push the Wireless Networking switch to turn on the Wireless Networking. The LED beside the switch light blue to show the on status.

2. Run the system task bar to connect the nearest Access Point.

NOTE: Please turn off wireless networking feature before boarding a plane.

Using the SpeedStep Utility

Your Computer supports Intel SpeedStep technology utility when your computer comes with Intel Mobile Pentium 4 CPU. The SpeedStep Technology can automatically change your computer's performance when the power source changed. It will extend the usable length of your battery power.

When your computer is running battery power, you can choose either "Battery optimized performance" or "Maximum performance". The battery optimized performance is recommended. It is set Battery optimized performance by default.

When your computer is running AC power, you can choose either "Battery optimized performance" or "Maximum performance" too. But, the Maximum performance is recommended. It is set Maximum performance by default.

Begin from Windows XP, Microsoft implement new processor control policy instead of SpeedStep utility.

windows XP processor control policy

The user selects the Power Scheme to be used, and Windows XP matches it with a processor control policy.

Power Scheme	AC Power	DC Power
Home/Office Desktop	None	Adaptive
Portable/Laptop	Adaptive	Adaptive
Minimal Power Management	Adaptive	Adaptive
Maximize Battery Life	Adaptive	Degrade
Presentation	Contant	Degrade
Always On	None	None

Policy	Description
None	Highest performance state
Constant	Lowest performance state
Adaptive	Performance state chosen according to demand
Degrade	Lowest performance state + additional linear performance reduction as battery discharges

Chapter 6

Using External Peripherals

Connecting a USB Keyboard

Connecting an External USB Pointing Device

Connecting an External Monitor

Connecting Audio Devices

Connecting A Microphone

Connecting an External Audio Source

Additional Disk Drive Options

Upgrading System Memory

Expanding & Upgrading

This chapter covers things you can do to expand and upgrade your computer including connecting external peripherals, buying additional disk drives to use in the device bay and installing more system memory.

Using External Peripherals

Your computer's numerous ports allow you to connect all sorts of peripheral devices to it. In this section we'll cover some of the most common devices you might want to use if you frequently use your computer at one location.

Connecting a USB Keyboard

You can install a full-size USB keyboard. This may be more convenient for some tasks and saves wear and tear on the computer's built-in keyboard. To install an external USB keyboard do as follows:

1. Plug the keyboard into one of the USB ports on the computer. We recommend one of the rear ports if you will also connect an external pointing device for left-handed users. Use the USB port on the right-hand side of the computer. for right-handed users.

2. If the keyboard has advanced features that require driver or other software, install it according to the instructions that come with it.

3. Position the keyboard where you want to use it.

NOTE: You don't have to turn off the computer to connect or disconnect USB devices.

Connecting an External USB Pointing Device

You can install an external USB pointing device to use instead of the built-in Touch Pad device. You can use any type of pointing device as long as it has a USB interface. To install an external USB pointing device do as follows:

1.Plug the device into one of the USB ports on the computer. We recommend the USB port on the right-hand side of the computer. For left-handed users, use one of the rear USB ports.

2.The device will probably require driver and possibly other software, install it according to the instructions that come with the it.

3.Position the device where you want to use it.

Connecting an External Monitor

You might want to connect an external monitor to your computer to have a larger screen and to reduce wear on the built-in LCD screen. You can connect a CRT desktop monitor to the standard 15-pin VGA port on the rear of the computer, or, if the monitor has a USB interface, to one of the USB ports. To connect a monitor to the VGA port do as follows:

1. Turn off the computer.

2. Check the instructions that come with the monitor.

3. Plug the VGA connector from the monitor onto the VGA port of the computer.

4. Tighten the thumbscrews on the connector to secure the connector to the monitor.

If the monitor supports “Plug-and-Play” as most newer monitors do, Microsoft® Windows® opersting system will automatically recognize and configure the system for it. You can then use the Display Properties control panel to configure display settings for the monitor.

Connecting Audio Devices

The audio jacks on the left side of the computer allow you to connect several devices including speakers, a microphone and an external audio source.

Connecting External Speakers

You can connect self-powered stereo speakers to the computer to provide better sound reproduction than the built-in speakers and save wear on them. To connect self-powered external speakers do as follows:

1.Turn off the computer.

2.Position the speakers where you want them.

3.Plug the miniplug connector from the speakers into the Headphone jack on the left side of the computer.

4.Plug the speakers into a power source.

5.Turn on the speakers and adjust the volume control to no more than 80% of maximum.

6.Turn on the computer and adjust the volume from the volume control in the taskbar system tray. You may want to play something to check the volume level.

The internal speakers are disabled when you connect external speakers to the Headphone jack.

Connecting A Microphone

If you want to use a microphone for recording, voice commands or computer telephony, you can connect one to Microphone jack. To connect a microphone, do as follows:

1. Make sure the microphone you get is a standard computer microphone with a miniplug connector.

2. Plug the microphone into the Microphone jack on the computer.

3. Adjust the microphone volume in the Windows Sounds and Multimedia control panel's Audio panel section by clicking on the Volume button for Sound Recording.

4.Adjust the recording quality in the Windows Sounds and Multimedia control panel's Audio panel section by clicking on the Advanced button for Sound Recording.

Now you're all set to use the microphone.

Connecting an External Audio Source

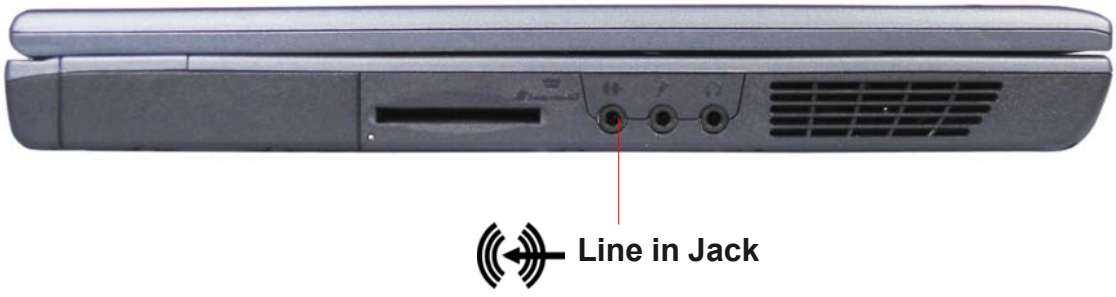
You can connect an external audio source to the computer to transfer audio data to it for recording or to playback through the speakers. To connect an external audio source, do as follows:

1. Plug the miniplug connector from the connecting audio cable into the Line In jack on the left side of the computer.

2. Adjust the Line In volume in the Windows Sounds and Multimedia control panel's Audio panel section by clicking on the Volume button for Sound Recording.

3. Adjust the recording quality in the Windows Sounds and Multimedia control panel's Audio panel section by clicking on the Advanced button for Sound Recording.

Now you're all set to either record or playback audio from the external source.



Additional Disk Drive Options

You can get additional disk drives to either install in the device bay or connect externally.

Modular Bay Drive Options

In addition to the drive that came in the modular bay of your computer, you can purchase any of the device bay drive options separately. The drives available include:

- CD-ROM
- CD-RW
- DVD
- DVD/CD-RW

You will have received at least one of these with your computer. If for example your model came with a CD-ROM drive, you might want to get either a Floppy Disk drive or you might want one of the CD-RW drives that can record to CD-R and CD-RW media.

External Floppy Disk Drive

You can also purchase an external USB floppy disk drive from other electronics stores . The drive is powered from the computer. You simply plug it in and it works.

Upgrading System Memory

You can upgrade the system memory in your computer. The computer has two sockets for SODIMM memory modules. They are located in the memory compartment on the underside of the computer. Generally, one socket has a module installed when you get the computer and the other socket is empty to allow for upgrades. The computer can have a maximum of 1GB installed.

If you want to upgrade the system memory, you need to use only certified modules. Ask your vendor or check the web site for a list of approved memory products. The basic specifications of the memory used are:

- 200-pin DDR module
- 2.5-Volt DDR
- PC-133
- 128MB, 256MB or 512MB capacity

Installing a Memory Upgrade

Unless you are familiar with computer upgrades and comfortable doing so, we suggest that you have any memory upgrades installed at the nearest Service Center.

If you want to install a memory upgrade yourself, do as follows:

1. Make sure the computer is turned off.

2. Place the computer on a static-free surface and turn it over.

3. Remove the memory compartment panel by removing the two retaining screws and lifting the cover panel out.

4. Insert the SODIMM module in the socket at a 45º angle and then press it down into the socket until it snaps in place.

5. Place the compartment cover panel and retain screws.

The memory upgrade is now installed. Turn the computer right side up, open it and turn it on. The system should automatically recognize the new total memory capacity. You can check this by clicking on My Computer with the right Mouse button, clicking on the Properties item in the menu that appears and display the memory size in the General panel of the System Properties control panel.

CAUTION: If you install a memory module that is not compatible with the computer, a beep will sound and the LCD screen will be blank when you turn on the power. In this case shut down the power and remove the incompatible memory module.

Chapter 7

Problems That are Easy to Fix

Problems When you Turn On the Computer

Fixing Device Related Problems

Power Problems

Keyboard Problems

Display Problems

Disk Drive Problems

CD-ROM Drive Problems

Sound System Problems

PC Card Problems

Resolving PC Card Problems

Printer Problems

Modem Problems

Develop Good Computing Habit

Contacying

If Something Goes Wrong

Some problems you may encounter when using the computer are relatively easy to identify and solve. Others may require helps from your dealer or the manufacturer of a software program.

This chapter aims to help you solving many problems by yourself without additional helps. It covers the problems you are most likely to encounter.

If all else fails, contact nearest dealer or service support.

Problems That are Easy to Fix

Your program stops responding

If you are working with a program that suddenly freezes all operations, or the execution program has stopped responding. You can exit the failed program without shutting down the Microsoft® Windows® operating system or closing other programs.

To close a program that has stopped responding:

1. Press **Ctrl, Alt,** and **Del** simultaneously (once).

The operating system displays the Close Program dialog box. This box lists all the programs and processes currently in operation. If a program has stopped responding, the words “not responding” appear beside its name in the list.

2. Select the program you want to close then click **End Task.**

Closing the failed program should allow you to continue working. If it does not, continue with step 3.

3. Close the remaining programs one by one by selecting the program name and clicking **End Task.**

4. Click **Shut Down.**

The Shut Down Windows dialog box.

5. Select **Restart**, then click **Yes**.

Your computer shuts down and restarts, thus restoring operations.

CAUTION: Pressing Ctrl, Alt, and Del simultaneously twice to restart your computer is not recommended. By closing all open programs prior to shutting down Microsoft® Windows® operating system you ensure that all data is saved.

Your program performs an illegal operation

If you receive the message, “Your program has performed an illegal operation,” you should record the details of the message and consult the software manufacturer.

To record the details:

1. Click the **Details** button and select the text, Microsoft® Windows® operating system displays.

The Details button displays information that the software manufacturer needs to help you solve your problem.

2. Press **Ctrl** and **c** simultaneously to copy the text to the clipboard.

3. Open Notepad (click **Start**, point to **Programs**, then point to **Accessories** and click **Notepad).**

4. Press **Ctrl** and **v** simultaneously to paste the details into Notepad.

5. Add a paragraph break and type some notes describing what you were doing when you received the message.

6. Save the file and refer to it when you contact the software manufacturer.

You open a program that immediately stops responding

If CPU Sleep mode is on (enabled), it may stop a program from responding. Close the program you are trying to open and turn off (disable) Sleep mode. Then, try to run the program again.

To close the program:

1. Press **Ctrl**, **Alt**, and **Del** simultaneously.

The Close Program dialog box displays all the programs and processes currently in operation. If the program has stopped responding, the words “not responding” appear beside it.

2. Click **End Task.**

3. When the dialog box appears, click **End Task** again.

Problems When You Turn On the Computer

These problems may occur when you turn on the power.

The computer will not start

Make sure you attached the AC adapter and power cable properly or installed a charged battery.

Press and hold down the power button for a few seconds.

The computer is not accessing the hard disk or the diskette drive

Your computer normally loads Windows from the hard disk. If you have a hard disk problem, you will not be able to start the computer. Insert a system diskette into the diskette drive, then press the power button.

Power Problems

The computer displays the **Non-System disk or disk error** message.

Make sure there is no diskette in the diskette drive. If there is one, remove it and press any key to continue. If pressing any key does not work press **Ctrl, Alt, and Del** to restart the computer.

Fixing Device-Related Problems

If you do not have a hardware conflict, but you think your problem could be related to one of your computer's devices, you can use:

• Dr. Watson - A diagnostic tool that takes a snapshot of your system whenever a system fault occurs.

• System Information - Collects your system configuration information and provides a menu for displaying the associated system topics.

After diagnosing the problem, read the part of this section that describes problems and solutions related to specific devices.

Memory Module Problems

Incorrectly connected or faulty memory module may cause errors that seem to be device-related. So it is worthwhile checking for these first:

1. Click **Start,** then click **Shut Down.**

2. Click the button next to **Shut down,** then click **OK.**

Microsoft® Windows® operating system shuts down and turns off the computer automatically.

3. Remove the memory module(s).

4. Reinstall the memory module(s), following the instructions in Chapter 7 and making sure they are seated properly in the modules sockets.

5. Check for the error again.

6. If the error recurs, remove the memory module entirely and check for the error again using the second or another module.

If removing the memory module eliminates the error, the module may be faulty. If the error occurs without the module installed, the module is not causing the error.

Power Problems

Your computer receives power through the AC adapter or from the main battery. Power problems are interrelated. For example, a faulty AC adapter or power cable will neither power the computer nor recharge the main battery.

Here are some typical problems and how to solve them:

The AC power LED does not come on when you plug in the AC adapter and power cable

Make sure the AC adapter and power cable are finely plugged into both a working wall outlet and the computer.

If the AC power light still does not come on, check that the wall outlet is working properly by plugging in a lamp or other appliance.

The AC adapter and power cable work correctly, but the battery will not charge

The battery doesn't charge while the computer is consuming full power. Try turning off the computer.

The main battery may not be inserted correctly in the computer. Turn off the computer, remove the battery, clean the contacts with a soft dry cloth (if necessary) and replace the battery.

The battery may be too hot or too cold to charge properly. Its temperature needs to be in the range 5 degrees to 50 degrees Centigrade. If you think this is the probable cause, let the battery reach room temperature and try again.

If the battery has completely discharged, it will not begin charging immediately. Leave the AC adapter and power cable connected, wait 20 minutes and see whether the battery is charging.

If the battery light is glowing after 20 minutes, let the computer continue charging the battery for at least another 20 minutes before you turn on the computer.

If the battery light does not glow after 20 minutes, the battery may have reached the end of its useful life. Try replacing it.

The battery appears not to power the computer for as long as it usually does

Check the power options using the Microsoft® Windows® operating system Power Management utility. Have you added a device, such as a PC Card or memory module, that takes its power from the battery? Is your software using the hard disk more? Is the display power set to turn off automatically? Was the battery fully charged to begin with? All these conditions affect how long the charge lasts.

For more information on maximizing battery power, see "Maximizing battery life".

Keyboard Problems

If, when you type, strange things happen or nothing happens, the problem may be related to the keyboard itself.

The keyboard produces unexpected characters

A keypad overlay may be on. If the numeric keypad or cursor control light is on, press **Fn** and **F10** simultaneously to turn off the cursor control light or press **Fn** and **F11** simultaneously to turn off the numeric keypad light.

If the problem occurs when both the keypad overlays are off, make sure the software you are using is not remaking the keyboard.

Refer to the software's documentation and check that the program does not assign different meanings to any of the keys.

You have connected an external keyboard and operating system displays one or more keyboard error messages

If you have a second keyboard, try it. If it works, the first keyboard may be defective or incompatible with your computer.

Nothing happens when you press the keys on the external keyboard

You may have plugged the external USB keyboard in while the computer was turned on. Using the Touch Pad or pointing device to click **Start,** then click **Shut Down.** When Microsoft® Windows® operating system displays the Shut Down dialog box, select **Restart** and click **OK**. The computer will restart and recognize the device.

The keyboard locks and the computer will not restart

Push the power button more then 4 seconds. The computer will shut down. Then push the power button again to turn on the computer.

Display Problems

Here are some typical display problems and their solutions:

The display is blank

Display Auto Off may have gone into effect. Press any key to activate the screen.

If you are using the built-in screen, make sure the display priority is not set for an external monitor. To do this, press **Fn** and **F5** simultaneously (once). If this does not correct the problem, press **Fn** and **F5** simultaneously again to return the display priority to its previous setting.

If you are using an external monitor:

• Check that the monitor is turned on.

• Check that the monitor's power cable is firmly plugged into a working power outlet.

• Check that the cable connecting the external monitor to the computer is firmly attached.

• Try adjusting the contrast and brightness controls on the external monitor.

• Press **Fn** and **F5** simultaneously to make sure the display priority is not set for the built-in screen.

The screen does not look right

You can change the display settings by clicking a blank area of the desktop with the Touch pad secondary button, then clicking Properties. This causes operating system to open the Display

Properties dialog box. The Appearance tab of this dialog box allows you to choose the colors for the screen. The Settings tab allows you to choose the screen resolution.

The built-in screen flickers

Some flickering is a normal result of the way the screen produces colors. To reduce the amount of flickering, try using fewer colors.

To change the number of colors displayed:

1. Point at the desktop and click with the secondary button.

2. Click **Properties**, and then **Settings**.

3. Change the Colors option and click **OK**.

For more information, see Windows Help.

A message indicates a problem with your display settings and that the adapter type is incorrect or the current settings do not work with your hardware

Reduce the size of the color palette to one that is supported by the computer's internal display. To change the display properties:

1. Point at the desktop and click with the secondary button.

2. Click **Properties**, and then **Settings**.

3. Change a setting and click **OK**.

For more information, see Windows Help.

Disk Drive Problems

Problems with the hard disk or with a diskette drive usually show up as an inability to access the disk or as sector errors. Sometimes a disk problem may cause one or more files to appear to have garbage in them. Typical disk problems are:

You are having trouble accessing a disk, or one or more files appear to be missing

Make sure you are identifying the drive by its correct name (A: or C:).

Run ScanDisc, which analyzes the directories, files and File Allocation Table (FAT) on the disk and repairs any damage it finds:

To run ScanDisk:

1. Click **Start**, point to **Programs, Accessories, System Tools** and click **ScanDisk**.

2. Click the drive you want to test.

3. Select the type of test you want to use.

A thorough test is more complete but takes much more time than a standard test.

4. Click **Start.**

ScanDisc tests the disk.

Your hard disk seems very slow

If you have been using your computer for some time, your files may have become fragmented. Run Disk Defragmenter. To do this, click **Start,** point to **Programs, Accessories, System Tools,** and click **Disk Defragmenter**.

Your data files are damaged or corrupted

Refer to your software documentation for file recovery procedures. Many software packages automatically create backup files.

You may also be able to recover lost data using utility software, which is available from your dealer.

Some programs run correctly but others do not

This may be a software configuration problem. If a program does not run properly, review the program's hardware configuration requirements. Most software documentation lists the minimum hardware requirements. See "Features and Specifications" to review the hardware configuration of this computer.

A disk will not go into the diskette drive

You may already have a diskette in the drive. Make sure the drive is empty.

You may be inserting the diskette incorrectly. Hold the label of the disk with the hub side facing down, and insert it so that the metal head window cover goes into the drive first.

The metal cover or a loose label may be obstructing the path into the drive. Carefully inspect the diskette. If the metal cover is loose, replace the diskette. If the label is loose, replace the label and try inserting the diskette again.

The computer displays the Non-system disk or disk error message

If you are starting the computer from the hard disk make sure there is no diskette in the diskette drive.

If you are starting the computer from a diskette, the diskette in the drive does not have the files necessary to start the computer. Replace it with a bootable diskette.

The drive can not read a diskette

Try another diskette. If you can access the second diskette, the first diskette (not the diskette drive) is probably causing the problem. Run ScanDisk on the faulty diskette (for instructions, see “Disk drive problems”).

CD-ROM Drive Problems

You cannot access a CD in the drive

Make sure the CD-ROM tray has closed properly. Press gently until it clicks into place.

Open the CD-ROM tray and remove the CD. Make sure the CD-ROM tray is clean. Any dirt or foreign object can interfere with the laser beam.

Examine the CD to see whether it is dirty. If necessary, wipe it with a soft clean cloth dipped in water or a neutral cleaner.

Replace the CD in the drawer. Make sure it is laying flat, label side uppermost. Press down until the CD-ROM disc locks on the spindle. Close the CD-ROM tray carefully, making sure it has shut completely.

You press the CD-ROM eject button, but the CD-ROM tray does not slide out

Make sure the computer is connected to a power source and turned on. The CD-ROM drive eject mechanism requires power to operate.

If you need to remove a CD and cannot turn on the computer, use a narrow object, such as a straightened paper clip, to press the manual eject button. This button is in the small hole next to the CD-ROM eject button on the right side of the computer.

Some CDs run correctly, but others do not

If the problem is with a data CD, refer to the software's documentation and check that the hardware configuration meets the program's needs.

The color of the materials used to make the CD can affect its reliability. Silver-colored CDs are the most reliable, followed by gold-colored CDs. Green-colored CDs are the least reliable.

Sound System Problems

You do not hear any sound from the computer

Adjust the volume control.

If you are using an external headphone or speakers, check that they are securely connected to your computer.

In SETUP, check that the sound function is enabled.

The computer emits a loud, high-pitched noise

This is feedback between the microphone and the speakers. It occurs in any sound system when input from a microphone is fed to the speakers and the speaker volume is too loud. Adjust the volume control.

Changing the settings for the Record Monitor feature in the Recording Control Utility (default off, or the Mute feature in the Mixer Utility (default Enabled), may cause feedback. Revert to the default settings.

PC Card problems

PC Cards (PCMCIA-compatible) include many types of devices, such as a removable hard disk, additional memory, fax/modem, or pager.

Most PC Card problems occur during installation and setup of new cards. If you're having trouble getting one or more of these devices to work together, several sections in this chapter may apply.

- Resource conflicts can cause problems when using PC Cards.
- If the device is a modem, see "Modem problems".

PC Card Checklist

- Make sure the card is inserted properly into the slot.
- Make sure all cables are securely connected.
- Make sure the computer is loading only one version of Card and Socket Services.
- Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is available, try the card in that machine. If the card malfunctions again, it may be defective.

Resolving PC Card Problems

Here are some common problems and their solutions:

The slots appear to be dead and PC Cards that used to work no longer do

Check the PC Card status:

1. Click the **My Computer** icon with the secondary button, then click **Properties.**

Windows® operating system displays the System Properties dialog box.

2. Click the **Device Manager** tab.

3. Double-click the device listed as your PC Card.

Windows® operating system displays your PC Card's Properties dialog box. This dialog box contains information about your PC Card configuration and status.

The computer stops working when you insert a PC Card

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address.

Since all PC Cards share the same socket, each card is not required to have its own address.

Hot swapping (removing one PC Card and inserting another without turning the computer off) fails

Follow this procedure before you remove a PC Card:

1. Click the **PC Card** icon on the taskbar.

2. Click **Stop *xxxx,*** where ***xxxx*** is the identifier for your PC Card.

Windows® operating system displays a message that you may safely remove the card.

3. Remove the card from the slot.

The system does not recognize your PC Card or PCMCIA socket controller

This problem may be caused by a low battery. Replace the battery with a fully-charged one or charge the battery fully as follows:

1. Make sure the computer is not in Standby.

2. Turn off the computer.

3. Connect the AC adapter and power cable.

4. Keep the computer plugged in for about seven hours with the power turned off.

If power is not the problem, try removing the card, inserting it again, and reinstalling it using the procedure in “Inserting PC Cards”.

The problem may also be caused by a conflict with any additional memory in your system. If you recently installed a memory expansion card, turn off the computer, remove the memory, turn on the computer and try the PC Card again.

A PC Card error occurs

Reinsert the card to make sure it is properly connected.

If the card is attached to an external device, check that the connection is secure.

Refer to the card's documentation, which should contain a troubleshooting section.

Printer Problems

This section lists some of the most common printer problems.

The printer will not print

Check that the printer is connected to a working power outlet, turned on and ready (on line).

Make sure the printer cable is firmly attached to the computer and the printer.

If your printer is ECP- or IEEE 1284-compliant, make sure you have an IEEE 1284 printer cable.

Check that the printer has plenty of paper. Some printers will not start printing when there are just two or three sheets of paper left in the tray.

Run the printer's self-test to check for any problem with the printer itself

Make sure you installed the proper printer driver.

Try printing another file. For example, you could create and attempt to print a short test file using Notepad. If a Notepad file prints correctly, the problem may be in your original file.

Contact your network administrator if the printer is on your network.

The printer will not print what you see on the screen

Many programs display information on the screen differently from the way they print it. See if your program has a print preview mode. This mode lets you see your work exactly as it will print. Contact the software manufacturer for more information.

Modem Problems

This section lists common modem problems.

The modem will not receive or transmit properly

Make sure the RJ-11 cable (the one that goes from the modem to the telephone line) is firmly connected to the modem's RJ-11 jack and the telephone line socket.

Check the serial port settings to make sure the hardware and software are referring to the same COM port (look in Device Manager under Modems for the PC Card modem).

Check the communications parameters (baud rate, parity, data length and stop bits) specified in the communications program. It should be set up to transmit at 300, 1200, 2400, 4800, 9600, 14400, 28800, 33600, 56000 bps (bits per second) or higher. Refer to the program's documentation for information on how to change these settings.

The modem is on, set up properly and still not transmit or receive data

Make sure the line has a dial tone. Connect a telephone handset to the line to check this.

The other system may be busy or offline. Try making a test transmission to someone else.

Develop Good Computing Habit

- Make sure you are prepared.

- Save your work frequently.

You can never predict when your computer will lock forcing you to close a program and lose unsaved changes. Many software programs build in an automatic backup, but you should not rely solely on this feature. Save your work!

- On a regular basis, back up the information stored on your hard disk.

Here are two ways you can do this:

- Copy files to diskette in Microsoft® Windows® operating system.

- Connect a backup device (ex. CD-R) to the system and use specialized software to copy everything on the hard disk to a backup device.

Some people use a combination of these methods, backing up all files to backup device weekly and copying critical files to diskette on a daily basis.

If you have installed your own programs, you should back up your programs as well as your data files. If something goes wrong that requires you to format your hard disk and start again, reloading all your programs and data files from a backup will save time.

- Read the user's guides.

It's very difficult to provide a fail-safe set of steps you can follow every time you experience a problem with the computer. Your ability to solve problems will improve as you learn about how the computer and its software work together.

Get familiar with all the user's guides provided with your computer, as well as the manuals that come with the programs and devices you purchased.

Your local computer store or book store sells a variety of self-help books you can use to supplement the information in the manuals.

• If problem- solving is taking a long time, take a break.

If you have been fighting to solve a problem for a long time, you are probably frustrated by now. Stand up and take a deep breath. Often, you can find a new solution to a problem just by stepping away from it for a few moments.

If You Need Further Assistance

If you have followed the recommendations in this chapter and are still having problems, you may need additional technical assistance. This section contains the steps to take to ask for help.

Before you call

Since some problems may be related to the operating system or the program you are using, it is important to investigate other sources of assistance first.

Try the following before contacting :

• Check Windows update via internet for drivers, softwave update,....etc.

• Review the troubleshooting information in your Microsoft® Windows®98 Second Edition or Millennium Edition or Windows® 2000 or Windows®XP documentation.

• If the problem occurs while you are running a program, consult the program's documentation for troubleshooting suggestions. Contact the software company's technical support group for their assistance.

• Consult the dealer from whom you purchased your computer and/or program. Your dealer is your best source for current information.

Contacting

If you still need helps and suspect that the problem is hardware related, you can call your dealer to help you.

Appendix A

Hot Keys

Hot keys are keys that, when pressed in combination with the Fn key, turn system functions on and off. Hot keys have a label on or above the key indicating the option or feature the key controls.

Power-on Display

Fn+ 

Power on display. When pressing the hot key, the display device will switch between CRT only, LCD only and simultaneous display. It will not update the 'Power on Display' setting in system setup.

Keyboard Hot Keys

Fn+ 

Keypad on/off. pressing this hot key can enble/disable the embedded keypad. In this mode the keypad is coursor function.

Fn+ 

Numeric keypad on/off. pressing this hot key can enable/disable the emdedded numeric keypad. It depends on keypad on/of state, if keypad enable the Numeric lock state is logically enabled. If keypad disables the Numeric function also disable.

Fn+ 

Scroll Lock on/off. This hot key turns the scroll lock feature on and off.

Fn+ 

Brightness up. When pressing the hot key can increase the brightness of LCD display.

Fn+ 

Brightness down. When pressing the hot key can decrease the brightness of LCD display.

Appendix B

Features and Specifications

This appendix lists the features of the computers and summarizes their specifications.

Features

This section lists the computer's standard features and specifications.

CPU

- Intel Pentium 4 1.4GHz/1.5GHz/1.6GHz/1.7GHzHz
- µFCPGA Socket CPU, 512KB L2 Cache on CPU
- Designed for Intel SpeedStep
- 133MHz FSB

Chip Set

- Intel MCH-M 845MP 625BGA for system controller
- Intel ICH3-M for PCI to LPC Bridge, PCI IDE controller, Power Management Logic.
- NS87591 Keyboard Controller, Battery Management Unit, and RTC.
- OZ 6933 for Card Bus PCMCIA controller.
- nVidia SQ17 for VGA controller.
- ALC101 for AC97 CODEC.

- LPC47N227 Super I/O controller.
- OZ165 for Direct CD play controller.
- VT6306 for 1394 controller.
- RTL81 for LAN controller.
- TC6371AF for SmartMedia™ controller.

Memory

- No onboard memory.
- Supports 200/266M DDR RAM modul 128MB, 256MB,512MB
- Two slot supported, Maximum capacity 1GB if build 2 modules.

BIOS

- 512KB Flash ROM for system BIOS.
- Password protection (System).
- Microsoft® Windows® 2000 or Windows® XP with PnP.
- Suspend to RAM/Disk.
- Various hot key for system control.
- Refreshable.
- Complete ACPI 1.0B Function.

Power

- 8 cells LI-ION 18650 size battery Pack with 58.05WH capacity.
- Approximately 2.2 hours operation with default setting (Running Battery mark 4.0.1).
- Approximately 3.0 hours charging time to 100% capacity on single 3900mAH Li-Ion Battery (System off or Suspend).

One 2.5", 9.5mm Hard Disk, Up to 30GB

- Bus Master IDE
- 9.5m/m, 2.5”HDD Support
- Support Ultra 66/100 synchronous DMA

Modular BAY

- 12.7mm, 1.44MB FDD device (3 Mode)
- 5.25” 12.7mm height CD-ROM device
- 5.25” 12.7mm height CD-RW device
- 5.25” 12.7mm height DVD-ROM & CD-RW Multi-Drive
- 5.25” 12.7mm height DVD-ROM device

Options

- 128MB/256MB/512MB SO-DIMM modules
- Li-ION Battery Pack
- MINI PCI Wireless module

Touch Pad pointing device with two buttons

- Left Button
- Right Button

I/O Ports

- One 25 pins Parallel port, EPP/ECP Capability
- One 15 pins CRT port, Support DDC 2B
- One 7 pins TV out port
- One MIC-In port
- One Line-In port
- One headphone-out Port
- One 2pins AC Adapter Jack
- One type III or two type II PCMCIA Card Bus slot
- Three USB ports
- One RJ11 Port
- One RJ45 Port
- FIR
- One SmartMedia™ slot (Optional) or Serial Port Connector
- One IEEE 1394 Port (Optional)
- One Serial Port (Optional)

PCMCIA Card

- One type III card socket or two type II card sockets
- SRAM, OTPROM, FLASH ROM, mask ROM memory card up to 64MB
- MODEM/LAN card
- 1.8" 10.5mm removable ATA Device
- Card bus card
- ACPI 1.0b Compliant

Power Management Function

- Standby mode, Suspend to RAM or Suspend to Disk mode, by time out or by hot Key
- HDD Local Stand-By mode by time out
- LCD Local Stand-By mode by time out
- Low battery alarm by beep
- Auto-backlight off when LCD cover closed
- Full ACPI 1.0b supported
- LCD Auto-DIM mode by time out

Switches

- Power switch
- Lid switch
- Wireless
- CD/Digital Switch
- Stop Button
- Play/ Pause Button
- Reverse Button
- Forward Button
- Volume Down Button
- Volume Up Button
- Internet Button
- Application Button

AC Adapter

- Universal AC adapter module. 90-264V AC, 47-63HZ, 60W.

Dimension

- 12.28”(L) x 10.48”(W) x 1.43”(H)

  (312mmm x 266mm x 35.5mm Front/36.5mm Rear)

Weight

- Approximately 5.9lbs/2.7kgs for 14.1” XGA TFT LCD with 8 cells main battery and DVD-ROM. The actual weight is depending on which configuration you purchase.

Appendix C

Power Cable Connectors

The computer features a universal power supply you can use worldwide. This appendix shows the configuration of typical AC power cord plugs and sockets in various parts of the world.

USA and Canada

UL approved CSA approved

United Kingdom

BS approved

Australia

AS approved

Europe

VDE approved NEMKO approved