# **TOSHIBA**Leading Innovation >>>

## NB100 Series User's Guide

If you need assistance:

- Toshiba's Support Web site pcsupport.toshiba.com
- ❖ Toshiba Customer Support Center Calling within the United States (800) 457-7777 Calling from outside the United States (949) 859-4273

For more information, see "If Something Goes Wrong" on page 68 in this guide.

#### AWARNING

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. *Wash hands after handling*.

## Model: NB100 Series

## **Protection of Stored Data**

For your important data, please make periodic back-up copies of all the data stored on the hard disk or other storage devices as a precaution against possible failures, alteration, or loss of the data. IF YOUR DATA IS ALTERED OR LOST DUE TO ANY TROUBLE, FAILURE OR MALFUNCTION OF THE HARD DISK DRIVE OR OTHER STORAGE DEVICES AND THE DATA CANNOT BE RECOVERED, TOSHIBA SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS OF DATA, OR ANY OTHER DAMAGE RESULTING THEREFROM. WHEN COPYING OR TRANSFERRING YOUR DATA, PLEASE BE SURE TO CONFIRM WHETHER THE DATA HAS BEEN SUCCESSFULLY COPIED OR TRANSFERRED. TOSHIBA DISCLAIMS ANY LIABILITY FOR THE FAILURE TO COPY OR TRANSFER THE DATA CORRECTLY.

## **Critical Applications**

The computer you have purchased is not designed for any "critical applications." "Critical applications" means life support systems, medical applications, connections to implanted medical devices, commercial transportation, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage.

ACCORDINGLY, TOSHIBA, ITS AFFILIATES AND SUPPLIERS DISCLAIM ANY AND ALL LIABILITY ARISING OUT OF THE USE OF THE COMPUTER PRODUCTS IN ANY CRITICAL APPLICATIONS. IF YOU USE THE COMPUTER PRODUCTS IN A CRITICAL APPLICATION, YOU, AND NOT TOSHIBA, ASSUME FULL RESPONSIBILITY FOR SUCH USE.

## 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, 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 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 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.

#### NOTE

Only Peripherals complying with the FCC Class B limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Toshiba is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's ports. Changes or modifications made to this equipment not expressly approved by Toshiba or parties authorized by Toshiba 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:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

#### Contact either:

- Toshiba's Support Web site at pcsupport.toshiba.com.
- Or call the Toshiba Customer Support Center: Within the United States at (800) 457-7777 Outside the United States at (949) 859-4273

## **Industry Canada Requirement**

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conformé à la norme NMB-003 du Canada.

## Wireless Interoperability

The TOSHIBA 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 A/B/G), as defined and approved by the Institute of Electrical and Electronics Engineers.
- The Wireless Fidelity (Wi-Fi®) certification as defined by the Wi-Fi Alliance. The "Wi-Fi CERTIFIED" logo is a certification mark of the Wi-Fi Alliance.

#### CAUTION

Bluetooth® and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection.

If you should experience any such problem, immediately turn off your *Bluetooth* or Wireless LAN device.

Please contact Toshiba computer product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

#### NOTE

The above caution applies to products that operate with an 802.11a radio device.

## **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, TOSHIBA 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 airplanes, or
- In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

If you 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 TOSHIBA 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.

#### CAUTION

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's Web site www.hc-sc.gc.ca/rpb. The RF device shall not be co-located with any other transmitter that has not been tested with this device.

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 soumis aux deux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même s'il est susceptible de compromettre son fonctionnement.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met.

To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

Pour empecher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit etre utilize a l'interieur et devrait etre place loin des fenetres afin de Fournier un ecram de blindage maximal. Si le matriel (ou son antenne d'emission) est installe a l'exterieur, il doit faire l'objet d'une licence.

## **EU Declaration of Conformity**

TOSHIBA declares that this product conforms to the following Standards:



Information:

Supplementary \*The product complies with the requirements of the Low Voltage Directive 73/23/EEC, the EMC Directive 89/336/EEC and/or the R&TTE Directive 1999/5/EC.

This product is carrying the CE-Mark in accordance with the related European Directives. The party responsible for CE-Marking is TOSHIBA Europe GmbH, Hammfelddamm 8, 41460 Neuss, Germany.

## The European Union WEEE (Waste from Electrical and **Electronic Equipment) Directive Information**

The European Union WEEE (Waste from Electrical and Electronic Equipment) Directive is intended to protect the quality of the environment and human health through the responsible use of natural resources and the adoption of waste management strategies that focus on recycling and reuse. This Directive requires producers of electrical and electronic products put on the market in European Union (EU) member countries after August 2005 to mark such products with a crossed-out wheeled bin symbol.



In the European Union, this symbol indicates that when the last end user wishes to discard this product, it must be sent to appropriate facilities for recovery and recycling. This Directive applies to EU member countries only and does not apply to end users in other countries such as the United States.

Although the initial emphasis is in Europe, Toshiba is already working with design engineers, suppliers, and other partners to determine appropriate worldwide product life cycle planning and end-of-life strategies for our products. Please contact your local government for applicable laws and regulations governing the disposal of this product. For information on how to trade-in or recycle your product, visit www.reuse.toshiba.com.

## **VCCI Class B Information**

この装置は、情報処理装置等電波障害自主規制協議会(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近接して使用されると、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下さい。

## **Radio Approvals for Wireless Devices**

#### NOTE

D-1-:2/

The following information is dependent on what type of wireless device is in your computer. Not all devices are available on all models.

## Europe - Restrictions for use of 2.4 GHz Frequencies in European Community Countries

België/ Belgique:	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. For registration and license please contact IBPT/BIPT.
	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 registratie of licentie kunt u contact opnemen met BIPT.
	Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, audessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès 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 1 to 7 (2400 MHz and 2454 MHz respectively) may be used outdoors in France. Please contact A.R.T. (http://www.art-telecom.fr) for applicable procedures to follow.
	Bande de fréquence restreinte: seuls les canaux 1-7 (2400 et 2454 MHz respectivement) doivent être utilisés endroits extérieur en France. Vous pouvez contacter l'Autorité de Régulation des Télécommunications (http://www.art-telecom.fr) pour la procédure à suivre.
Italia:	License required for indoor use. Use with outdoor installations not allowed.

È necessaria la concessione ministeriale anche per l'uso interno.	
	Verificare con i rivenditori la procedura da seguire.
Nederland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Licentie verplicht voor gebruik met buitenantennes. Neem contact op met verkoper voor juiste procedure.

## Approved Countries/Regions for use for the Atheros AR5BXB63 11b/g minicard

This equipment is approved to the radio standard by the countries/regions in the following table.

**CAUTION** Do not use this equipment except in the countries/regions in the following table.

Argentina	Australia	Austria
Azerbaijan	Bahrain	Belgium
Brazil	Brunei	Canada
Chile	China (PRC)	Colombia
Costa Rica	Cyprus	Czech Republic
Denmark	Ecuador	Egypt
Finland	France	Germany
Greece	Honduras	Hong Kong
Hungary	Iceland	India
Indonesia	Ireland	Italy
Jamaica	Japan	Jordan
Latvia	Lithuania	Luxembourg
Malta	Mexico	Montenegro
Netherlands	New Zealand	Norway
Pakistan	Panama	Peru
Philippines	Poland	Portugal
Russia	Saudi Arabia	Serbia
Slovakia	Slovenia	South Korea
Spain	Sri Lanka	Sweden
Switzerland/	Taiwan (ROC)	Thailand
Liechtenstein		
UAE (United Arab	Ukraine	United Kingdom
Emirates)		
Uruguay	USA	Venezuela
Vietnam		

## Bluetooth® Wireless Technology Interoperability

Bluetooth® Cards from TOSHIBA are designed to be interoperable with any product with Bluetooth wireless technology that is based on Frequency Hopping Spread Spectrum (FHSS) radio technology, and is compliant to:

- Bluetooth Specification as defined and approved by The Bluetooth Special Interest Group.
- Logo certification with *Bluetooth* wireless technology as defined by The *Bluetooth* Special Interest Group.

#### CAUTION

Bluetooth wireless technology is a new innovative technology, and TOSHIBA has not confirmed compatibility of its Bluetooth products with all computers and/or equipment using Bluetooth wireless technology other than TOSHIBA portable computers.

Always use *Bluetooth* cards from TOSHIBA in order to enable wireless networks over two or more (up to a total of seven) TOSHIBA portable computers using these cards. Please contact TOSHIBA computer product support on Web site

http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

When you use *Bluetooth* cards from TOSHIBA close to 2.4 GHz Wireless LAN devices, *Bluetooth* transmissions might slow down or cause errors. If you detect certain interference while you use *Bluetooth* cards from TOSHIBA, always change the frequency, move your computer to the area outside of the interference range of 2.4 GHz Wireless LAN devices (40 meters/43.74 yards or more) or stop transmitting from your computer. Please contact TOSHIBA computer product support on Web site

http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

Bluetooth and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection. If you should experience any such problem, immediately turn off either one of your Bluetooth or Wireless LAN.

Please contact Toshiba computer product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

## Approved Countries/Regions for use (*Bluetooth*® wireless technology)

*Bluetooth*<sup>®</sup> Card from Toshiba equipment is approved to the radio standard by the countries/regions in the following table.

#### CAUTION

Do not use this equipment except in the countries/regions in the following table.

Argentina	Australia	Austria
Belgium	Bulgaria	Canada
Chile	China	Cyprus
Czech Republic	Denmark	Egypt
Estonia	Finland	France
Germany	Greece	Hong Kong
Hungary	Iceland	Ireland
Italy	Japan	Jordan
Korea	Kuwait	Latvia
Lebanon	Liechtenstein	Lithuania
Luxembourg	Malta	Netherlands
New Zealand	Norway	Oman
Peru	Philippines	Poland
Portugal	Singapore	Slovakia
Slovenia	Spain	Sweden
Switzerland	Thailand	UK
Uruguay	USA	Venezuela

## Bluetooth® Wireless Technology and Your Health

The products with *Bluetooth*® wireless technology, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by devices with *Bluetooth* wireless technology however is much less than the electromagnetic energy emitted by wireless devices such as mobile phones.

Because products with *Bluetooth* wireless technology operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes *Bluetooth* wireless technology 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 *Bluetooth* wireless technology may be restricted by the proprietor of the building or responsible representatives of the organization. These situations may for example include:

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

If you 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 device with *Bluetooth* wireless technology prior to turning on the equipment.

#### CAUTION

Exposure to Radio Frequency Radiation

The radiated output power of the *Bluetooth* Card from TOSHIBA is far below the FCC radio frequency exposure limits. Nevertheless, the *Bluetooth* Card from TOSHIBA shall be used in such a manner that the potential for human contact during normal operation is minimized.

## Regulatory statements

This product complies with any mandatory product specification in any country/region where the product is sold. In addition, the product complies with the following:

## **European Union (EU) and EFTA**

This equipment complies with the R&TTE directive 1999/5/EC and has been provided with the CE mark accordingly.

#### 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 low power radio frequency electric machinery shall not affect aviation safety and interfere with legal communications. In the event interference is caused, the use of such electric machinery shall be immediately discontinued. Operation of such products can be resumed only when they are modified and can no longer cause interference.

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 communications or from industrial, scientific and medical radio emission electric machinery.

## **Using this Equipment in Japan**

In Japan, the frequency bandwidth of 2,400 MHz to 2,483.5 MHz for second generation low-power data communication systems such as this equipment overlaps that of mobile object identification systems (premises radio station and specified low-power radio station).

#### 1. Sticker

Please put the following sticker on devices incorporating this product.

The frequency bandwidth of this equipment may operate within the same range as industrial devices, scientific devices, medical devices, microwave ovens, licensed radio stations and non-licensed specified low-power radio stations for mobile object identification systems (RFID) used in factory product lines (Other Radio Stations).

- Before using this equipment, ensure that it does not interfere with any of the equipment listed above.
- If this equipment causes RF interference to other radio stations, promptly change the frequency being used, change the location of use, or turn off the source of emissions.
- Contact TOSHIBA Direct PC if you have problems with interference caused by this product to Other Radio Stations.

#### 2. Indication

The indication shown below appears on this equipment.



- 1 2.4: This equipment uses a frequency of 2.4 GHz.
- 2 DS: This equipment uses DS-SS modulation.
  - OF: This equipment uses OFDM modulation.
- 3 The interference range of this equipment is less than 40m.
- This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz.

It is possible to avoid the band of mobile object identification systems.

#### 3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-15-1048

Direct Dial: 03-3457-4850

Fax: 03-3457-4868

## **Device Authorization**

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

The Name of the radio equipment: refer to the equipment label provided on the computer

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS EQUIPMENT

Approval Number: D01-1128JP

TELECOM ENGINEERING CENTER Approval Number: 03NY.A0018, 03GZDA0017

The following restrictions apply:

- Do not disassemble or modify the device.
- Do not install the embedded wireless module into other device.
- ❖ 5.17 GHz to 5.23 GHz for indoor use only.
- 2. Indication

1

The indication shown below appears on this equipment.



- 2.4: This equipment uses a frequency of 2.4 GHz.
- **2** FH: This equipment uses FH-SS modulation.
- 3 The interference range of this equipment is less than 10m.
- 4 This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz. It is impossible to avoid the band of mobile object identification systems.

#### 3. TOSHIBA Direct PC

Monday - Friday: 10:00 - 17:00

Toll Free Tel: 0120-15-1048 Direct Dial: 03-3457-4850

Fax: 03-3457-4868

#### **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.

The Name of the radio equipment: EYXF2CS

TELECOM ENGINEERING CENTER

Approval Number: 01NYDA1305

The following restrictions apply:

- Do not disassemble or modify the device.
- Do not install the embedded wireless module into other device.

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## **Notice**

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ConfigFree is a registered trademark of Toshiba Corporation.

Wi-Fi is a registered trademark of the Wi-Fi Alliance.

Intel, Intel Core, Celeron, Centrino and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

TouchPad is a trademark of Synaptics, Inc.

Memory Stick and Memory Stick DUO are trademarks or registered trademarks of Sony Corporation.

Secure Digital and SD are trademarks of SD Card Association.

MultiMediaCard and MMC are trademarks of MultiMediaCard Association.

Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Toshiba is under license. Other trademarks and trade names are those of their respective owners.

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

## **Computer Disposal Information**

Lamp contains mercury. Disposal of this product may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government or the Electronic Industries Alliance at <a href="https://www.eiae.org">www.eiae.org</a>.

As part of Toshiba's commitment to preserving the environment, Toshiba supports various trade-in and recycling programs. Visit www.ToshibaDirect.com and select Recycling & Trade-in Programs, or enter **Recycle** in the search bar.

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## Introduction

Welcome to the world of portable, multimedia computing. With your Toshiba computer, your entertainment can accompany you wherever you go. Using the installed wireless technology, you can check email, enjoy streaming music or video, makes calls with VOIP (Voice Over IP), or stay up-to-date with your favorite Web pages.



Your Computer model may be ENERGY STAR® compliant. If the model you purchased is compliant, it is labeled with the ENERGY STAR® logo on the computer and the following information applies.

Toshiba is a partner in the Environmental Protection Agency's (EPA) ENERGY STAR® Program and has designed this computer to meet the latest ENERGY STAR® guidelines for energy efficiency. Your computer ships with the power management options preset to a configuration that will provide the most stable operating environment and optimum system performance for both AC power and battery modes.

To conserve energy, your computer is set to enter the low-power Standby mode which shuts down the system and display within 15 minutes of inactivity in AC power mode. We recommend that you leave this and other energy saving features active, so that your computer will operate at its maximum energy efficiency. You can wake the computer from Standby mode by pressing the power button.

According to the EPA, a computer meeting the new ENERGY STAR® specifications will use between 20% and 50% less energy depending on how it is used. If all U.S. household and businesses replaced old computers with new ENERGY STAR® qualified models, we would save more than \$1.8 billion in energy costs over the next five years and avoid greenhouse gas emissions equivalent to more than 2.7 million cars.

If every computer purchased by businesses next year met the new ENERGY STAR® requirements, businesses would save more than \$210 million over the lifetime of those models. That is equivalent to lighting 120 million square feet of U.S. commercial building space each year.

During 2006 Americans, with the help of ENERGY STAR®, saved about \$14 billion dollars on their utility bills and avoided greenhouse gas emissions equivalent to those from 25 million vehicles.

Visit http://www.energystar.gov or http://www.energystar.gov/powermanagement for more information regarding the ENERGY STAR® Program.

#### NOTE

This computer is compatible with European Union Directive 2002/95/EC, Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS), which restricts use of lead, cadmium, mercury, hexavalent chromium, PBB, and PBDE. Toshiba requires its computer component suppliers to meet RoHS requirements and verifies its suppliers' commitment to meeting RoHS requirements by conducting component sampling inspections during the product design approval process.

#### NOTE

Certain Microsoft® software product(s) included with this computer may use technological measures for copy protection. IN SUCH EVENT, YOU WILL NOT BE ABLE TO USE THE PRODUCT IF YOU DO NOT FULLY COMPLY WITH THE PRODUCT ACTIVATION PROCEDURES. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the software product(s) or reconfigurations of the computer, and may be completed by Internet or telephone (toll charges may apply).

Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

#### **NOTE**

The product specifications and configuration information are designed for a product Series. Your particular model may not have all the features and specifications listed or illustrated. For more detailed information about the features and specifications on your particular model, please visit Toshiba's Web site at pcsupport.toshiba.com.

While Toshiba has made every effort at the time of publication to ensure the accuracy of the information provided herein, product specifications, configurations, prices, system/component/options availability are all subject to change without notice. For the most up-to-date product information about your computer, or to stay current with the various computer software or hardware options, visit Toshiba's Web site at pcsupport.toshiba.com.

## This guide

This guide introduces the computer's features. You can:

- Read the entire guide from beginning to end.
- Skim through and stop when a topic interests you.
- Use the table of contents and the index to find specific information.

## **Safety icons**

This manual contains safety instructions that must be observed to avoid potential hazards that could result in personal injuries, damage to your equipment, or loss of data. These safety cautions have been classified according to the seriousness of the risk, and icons highlight these instructions as follows:

#### **A DANGER**

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### AWARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

#### **A** CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

#### NOTE

Provides important information.

#### Other icons used

Additional icons highlight other helpful or educational information:



TECHNICAL NOTE: This icon indicates technical information about the computer.



HINT: This icon indicates helpful hints and tips.



DEFINITION: This icon indicates the definition of a term used in the text.

## Other documentation

Your computer comes with the following documentation:

- ❖ An electronic version of the user's guide (this document)
- It may also contain guides for other programs that may come with your system.

For accessory information, visit Toshiba's Web site at accessories.toshiba.com.

## **Service options**

Toshiba offers a full line of optional service programs to complement its standard limited warranty. Toshiba's standard limited warranty, extended warranty, and service upgrade terms and conditions are available at warranty.toshiba.com.

To stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at pcsupport.toshiba.com.

## **Toshiba's online resources**

Toshiba maintains a number of online sites to which you can connect. These sites provide information about Toshiba products, give help with technical questions and keep you up to date with future upgrades.

## **Before you contact Toshiba**

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 you contact Toshiba:

- Review the troubleshooting information in your operating system 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.

For the number of a Toshiba dealer near you, see "Toshiba voice contact" in this section.

## **Contacting Toshiba**

If you still need help and suspect that the problem is hardware-related, Toshiba offers a variety of resources to help you.

## **Toshiba's Technical Support Web site**

For technical support, or to stay current on the most recent software and hardware options for your computer, and for other product information, be sure to regularly check the Toshiba Web site at pcsupport.toshiba.com.

### Toshiba voice contact

Before calling Toshiba, make sure you have:

- Your computer's serial number
- ❖ The computer and any optional devices related to the problem
- Backup copies of your Windows® operating system and all other preloaded software on your choice of media
- Name and version of the program involved in the problem along with its installation media
- Information about what you were doing when the problem occurred
- Exact error messages and when they occurred

For technical support, call the Toshiba Customer Support Center:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

## Chapter 1

## **Getting Started**

This chapter provides tips for using your computer effectively, summarizes how to connect components, and explains what to do the first time you use your computer.

The "Instruction Manual for Safety and Comfort," that is shipped with your computer, contains important safety information. Please read the safety instructions carefully and make sure you fully understand the instructions before you attempt to use your computer in order to avoid potential hazards that could cause bodily injury, property damage, or damage the computer.

## **Getting comfortable with your computer**

Place the computer on a hard flat surface that is large enough for the computer and any other items you are using, such as a printer. Leave enough space around the computer and other equipment to provide adequate ventilation. Otherwise, they may overheat. Read the "Provide adequate ventilation" section in the "Instruction Manual for Safety and Comfort" that is shipped with your computer.

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

Dust, moisture, and direct sunlight.

- 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.
- Liquids and corrosive chemicals.

## **Keeping yourself comfortable**

The Toshiba Instruction Manual for Safety and Comfort, that shipped with your computer, contains helpful information for setting up your work environment and tips for working comfortably throughout the day.

NOTE

Please handle your computer carefully to avoid scratching or damaging the surface.

#### **Precautions**

Your computer is designed to provide optimum safety and ease of use, and to withstand the rigors of travel. You should observe certain precautions to further reduce the risk of personal injury or damage to the computer.

Avoid prolonged physical contact with the underside or surface of the computer.

#### AWARNING

Never allow any liquids to spill into any part of your computer, and never expose the computer to rain, water, seawater or moisture. Exposure to liquid or moisture can cause electric shock or fire, resulting in damage or serious injury. If any of these eventualities should accidentally occur, immediately:

- 1. Turn off the computer.
- Disconnect the AC adaptor from the power plug socket and computer.
- 3. Remove the battery pack.

Failure to follow these instructions could result in serious injury or permanent damage to the computer.

Do not turn on the power again until you have taken the computer to an authorized service center.

#### **A** CAUTION

- Avoid prolonged physical contact with the underside or surface of the computer.
- Computer base and palm rest can become hot! Avoid prolonged contact to prevent heat injury to skin.

Read the "Avoid extended contact between computer base/palm rest and skin" section in the "Instruction Manual for Safety and Comfort" that is shipped with your computer.

#### CAUTION

Never place a heavy object on the computer and be careful not to drop a heavy object onto the computer. It could damage the computer or cause system failure.

## Important information on your computer's cooling fan

Your computer may have a CPU cooling fan that cools the CPU by drawing outside air into the computer.

#### AWARNING

Always make sure your computer and AC adaptor have adequate ventilation and are protected from overheating when the power is turned on or when an AC adaptor is connected to a power outlet (even if your computer is in Standby mode). In this condition, observe the following:

- Never cover your computer or AC adaptor with any object.
- Never place your computer or AC adaptor near a heat source, such as an electric blanket or heater.
- Never cover or block the air vents including those located at the base of the computer.
- Always operate your computer on a hard flat surface. Using your computer on a carpet or other soft material can block the vents located at the base of the computer.

Overheating your computer or AC adaptor could cause system failure, computer or AC adaptor damage or a fire, possibly resulting in serious injury.

NOTE

The cooling fan location will vary depending on the computer.

### Connecting to a power source

Your computer requires power to operate. Use the power cord/cable and AC adaptor to connect the computer to a live electrical outlet, or to charge the computer's battery.

#### AWARNING

Never pull on a power cord/cable to remove a plug from a socket. Always grasp the plug directly. Failure to follow this instruction may damage the cord/cable, and/or result in a fire or electric shock, possibly resulting in serious injury.

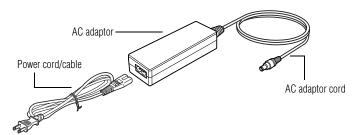
#### AWARNING

Always confirm that the power plug (and extension cable plug if used) has been fully inserted into the socket, to ensure a secure electrical connection. Failure to do so may result in a fire or electric shock, possibly resulting in serious injury.

Be careful if you use a multiple connector. An overload on one socket could cause a fire or electric shock, possibly resulting in serious injury.

#### AWARNING

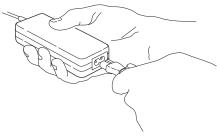
Always use the TOSHIBA AC adaptor that was provided with your computer and the TOSHIBA Battery Charger (that may have been provided with your computer), or use AC adaptors and battery chargers specified by TOSHIBA to avoid any risk of fire or other damage to the computer. Use of an incompatible AC adaptor or Battery Charger could cause fire or damage to the computer, possibly resulting in serious injury. TOSHIBA assumes no liability for any damage caused by use of an incompatible adaptor or charger.



(Sample Illustration) Power cord/cable and AC adaptor

To connect AC power to the computer:

1 Connect the power cord/cable to the AC adaptor.

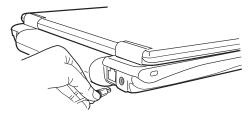


(Sample Illustration) Connecting the power cord/cable to the AC adaptor

#### AWARNING

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. **Wash hands after handling.** 

→ G-⊙ 2 Plug the AC adaptor cord into the DC-IN on the back of the computer.



(Sample Illustration) Connecting the AC adaptor cord to the computer

3 Connect the power cord/cable to a live electrical outlet.

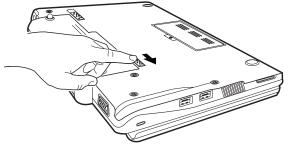
#### AWARNING

Never attempt to connect or disconnect a power plug with wet hands. Failure to follow this instruction could result in an electric shock, possibly resulting in serious injury.

## Removing the battery from the computer

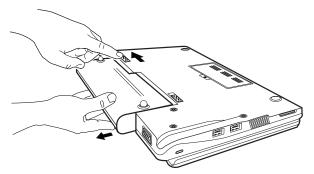
To remove the battery:

- 1 Save your work.
- 2 Turn off the computer or place it in Hibernation mode.
- **3** Unplug and remove any cables connected to the computer, including the AC adaptor.
- 4 Close the display panel and turn the computer upside down.
- 5 Slide the battery release lock to the unlocked position.



### (Sample Illustration) Unlocking the battery release lock

- 6 Slide the battery release latch to release the battery.
- 7 Pull the discharged battery out of the computer.



(Sample Illustration) Removing the battery

#### AWARNING

If the battery is leaking or its case is cracked, put on protective gloves to handle it, and discard it immediately. Always dispose of used battery packs in compliance with all applicable laws and regulations. Put insulating tape, such as cellophane tape, on the electrode during transportation to avoid a possible short circuit, fire or electric shock. Failure to do so could possibly result in serious injury.

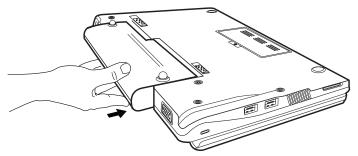
## **Inserting a charged battery**

To insert a battery:

- 1 Wipe the terminals of the charged battery with a clean cloth to ensure a good connection.
- Insert the charged battery into the slot until the latch clicks.
  The battery pack has been designed so that you cannot install it with reverse polarity.

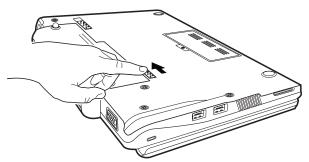
#### CAUTION

If the battery does not slide into the slot easily, move the battery release lock to the unlocked position and try again. Do not force the battery into position.



#### (Sample Illustration) Inserting the battery

3 Slide the battery release lock to the locked position.



(Sample Illustration) Locking the battery release lock

- 4 Turn the computer right side up.
- 5 Reconnect any cables that were removed in step 3 of "Removing the battery from the computer" on page 31.
- 6 Restart the computer.

## **Charging the main battery**

To charge the main battery while it is in your computer, plug the computer into a live electrical outlet. The battery charges whether the computer is on or off.



TECHNICAL NOTE: The recharging of the battery cannot occur when your computer is using all of the power provided by the AC adaptor to run applications, features, and devices. Your computer's Power Options utility can be used to select a power level setting that reduces the power required for system operation and will allow the battery to recharge.

The battery may not start charging immediately under the following conditions:

❖ The battery is extremely hot or cold.

To ensure that the battery charges to its full capacity, wait until it reaches room temperature (50 to 80 degrees Fahrenheit, 10 to 26 degrees Celsius).

The battery is almost completely discharged.

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



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

## **Charging the RTC battery**

Your computer has an internal real-time clock (RTC) battery. The RTC battery powers the System Time Clock and BIOS memory used to store your computer's configuration settings. When fully charged, it maintains this information for up to a month when the computer is powered off.

The RTC battery may have become completely discharged while your computer was shipped, resulting in a CMOS error message during startup. The error message may vary by computer model.

NOTE

Depending on your system, the RTC battery may only charge while the computer is turned on.

To recharge the RTC battery, plug the computer into a live electrical outlet and leave the computer powered on for 24 hours.

#### NOTE

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

When Hibernation mode is enabled and the RTC battery is completely discharged, a warning prompts you to reset the real-time clock.

The computer can be used while the RTC battery is being charged, although the charging status of the RTC battery cannot be monitored.

## **Monitoring main battery power**

- The computer's main battery light gives you an indication of the main battery's current charge:
  - Slowly blinks green while the main battery is being charged (AC adaptor connected).
  - Glows green when the main battery is fully charged and the AC adaptor is not connected to the computer.
  - Is unlit when the main battery is fully charged and the AC adaptor is plugged into the computer and an AC outlet.

#### NOTE

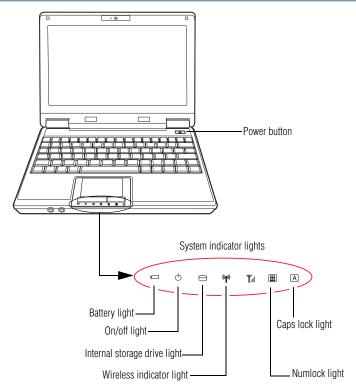
Battery life and charge time may vary, depending upon power management settings, applications and features used.

Rapidly blinks green when the main battery charge is low and it is time to recharge the main battery or plug in the AC adaptor.



HINT: Be careful not to confuse the battery light ( ) with the on/off light ( ).

When the on/off light flashes green, it indicates that the system is suspended (using the Windows® operating system Standby command).



(Sample Illustration) Power and battery light locations

With repeated discharges and recharges, the battery's capacity gradually decreases. A frequently used older battery does not power the computer for as long as a new battery, even when both are fully charged.



TECHNICAL NOTE: The computer drains the battery faster at low temperatures. Check your remaining charge frequently if you are working in temperatures below 50 degrees Fahrenheit.

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.

## What to do when the main battery runs low

When the main battery runs low you can:

- Plug the computer into an external power source and recharge the main battery
- Place the computer into Hibernation mode and replace the main battery with a charged spare (not included with your computer)
- Save your work and turn off the computer

## **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 the computer is configured
- How much you use the internal storage drive or other optional devices
- Where you are working, since operating time decreases at low temperatures

You can also conserve power and extend the operating time of your battery by enabling Standby or Hibernation mode, which saves power when you turn off the computer and turn it back on again.

## Taking care of your battery

The following sections offer tips on how to take care of your battery and prolong its life.

## **Safety precautions**

- If the battery pack produces an odor, overheats or changes color or shape while it is being used or charged, turn off the computer's power immediately and disconnect the power cord/cable from the power socket. Carefully remove the battery pack from the computer.
- Do not try to disassemble a battery pack.
- Do not overcharge or reverse charge a battery. Overcharging will shorten its life, and reverse charging could damage it.
- Avoid touching the metal terminals of the battery with another metal object. Short-circuiting the battery can cause it to overheat and may cause damage to the battery or the computer.
- Do not incinerate a spent battery, as this could cause it to explode and release caustic liquid.
- If a battery is leaking or damaged, replace it immediately. Use protective gloves when handling a damaged battery.

- To replace the main battery, use an identical battery that you can purchase through the Toshiba Web site at accessories.toshiba.com.
- A reverse polarity condition should be avoided with all batteries. The main battery is designed so that it cannot be installed in reverse polarity.
- Charge the battery only in the computer or in a battery charger designated as an approved option.
- When you install the battery pack, you should hear a click when it is seated properly.
- Do not expose the battery pack to fire. The battery pack could explode.

### **Maintaining your battery**

Fully discharging your battery pack will allow better accuracy of the battery meter.

To fully discharge your battery pack:

- Periodically, disconnect the computer from a power source and operate it on battery power until the battery pack fully discharges. Before doing so, follow the steps below:
  - 1 Turn off the computer's power.
  - 2 Disconnect the AC adaptor and turn on the computer's power. If it does not turn on, go to step 4.
  - 3 Operate the computer on battery power for five minutes. If the battery pack has at least five minutes of operating time, continue operating until the battery pack is fully discharged. If the battery light blinks rapidly, indicating a low battery, go to step 4.
  - 4 Connect the AC adaptor to the computer and the power cord/cable to a power outlet. The battery light should blink slowly to indicate that the battery pack is being charged.
  - 5 Charge the battery pack until the battery light turns off.
- ❖ If you have extra battery packs, rotate their use.
- If you will not be using the system for an extended period, more than one month, remove the battery pack.
- ❖ If you are not going to use the computer for more than eight hours, disconnect the AC adaptor.
- Store spare battery packs in a cool dry place out of direct sunlight.

# Disposing of used batteries

The life of a battery pack depends on usage. When the battery pack needs replacing, the main battery light blinks rapidly shortly after you have fully recharged the battery.

You must discard a battery if it becomes damaged.

**AWARNING** Never attempt to dispose of a battery pack by burning or by throwing it into a fire, and never allow exposure to a heating apparatus (e.g., microwave oven). Heat can cause a battery pack to explode and/or release caustic liquid, both which may possibly cause serious injury.

> Always dispose of used battery packs in compliance with all applicable laws and regulations. Put insulating tape, such as cellophane tape, on the electrode during transportation to avoid a possible short circuit, fire or electric shock. Failure to do so could possibly result in serious injury.

**AWARNING** Always use the battery pack supplied as an accessory or an equivalent battery pack specified in the User's Manual. Other battery packs have different voltage and terminal polarities. Use of nonconforming battery packs could generate smoke or cause fire or rupture, possibly resulting in serious injury.

> After repeated use, the batteries will finally lose their ability to hold a charge and you will need to replace them. Under certain applicable laws and regulations, it may be illegal to dispose of old batteries by placing them in the trash.

> Please be kind to our shared environment. Check with your local government authority for details regarding where to recycle old batteries or how to dispose of them properly. If you cannot find the information you need elsewhere, call Toshiba at: (800) 457-7777.

> In addition, Toshiba's recycling initiatives include recycling programs, events and consumer promotions. For details, visit www.ToshibaDirect.com, select Recycling & Trade-in programs, or enter **Recycle** in the search bar.

> Toshiba is dedicated to preserving the environment by sponsoring Call2Recycle<sup>TM</sup>, a program of the Rechargeable Battery Recycling Corporation. For more information and for drop-off locations, visit www.rbrc.org or call 1-800-822-8837.

Notice regarding CR coin cell batteries, applicable to California, U.S.A. only:

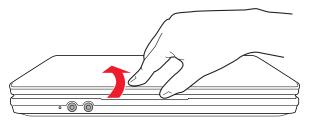
Perchlorate Material - special handling may apply. See http://www.dtsc.ca.gov/hazardouswaste/perchlorate/

# Using the computer for the first time

The computer is now ready for you to turn it on and begin using it.

## **Opening the display panel**

- 1 Facing the front of the computer, locate the center of the display panel.
- **2** Gently raise the panel.
- 3 Adjust the display to a comfortable viewing angle.



(Sample Illustration) Opening the display panel

#### NOTE

When opening or closing the display panel, place one hand on the palm rest to hold the computer in place and use the other hand to slowly open or close the display panel.

#### CAUTION

To avoid damaging the display panel, do not force it beyond the point where it moves easily and never lift the computer by the display panel.

Do not press or push on the display panel and be careful to remove any pens or other objects from the keyboard area before closing the display panel.

Small bright dots may appear on your screen display when you turn on your computer. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology. Over a period of time, and depending on the usage of the computer, the brightness of the screen will

deteriorate. This is also an intrinsic characteristic of the screen technology. When the computer is operated on battery power, the screen will dim and you may not be able to increase the brightness of the screen while on battery power.

## **Turning on the power**

To turn on the computer:

- 1 Make sure any external devices (such as the AC adaptor, if you plan to use AC power rather than battery power) are properly connected and ready.
- $\bigcirc$
- 2 Press and release the power button. The on/off light glows green.



(Sample Illustration) Turning on the power

The preinstalled operating system will load automatically.



When you turn on the computer for the first time, do not turn off the power again until the operating system has loaded completely.

# **Using the TouchPad™**

The TouchPad<sup>™</sup>, the small, rectangular area located in front of the keyboard, is sensitive to touch and enables you to move the cursor with the stroke of a finger. Simply move your finger on the TouchPad in the direction you would like to move the cursor:

- To move the cursor to the top of the page, push your finger forward on the TouchPad.
- To move the cursor to the bottom of the page, drag your finger toward yourself.
- To move the cursor to the right side of the page, slide your finger across the TouchPad from left to right.
- To move it to the left side, slide your finger from right to left.

#### NOTE

Because the TouchPad is much smaller than the display screen, moving your cursor across the screen often means having to move your finger several times across the TouchPad in the preferred direction.

Once you have positioned your cursor, you can click it into place by either double-tapping the TouchPad or clicking the control buttons.

## Scrolling with the TouchPad™

There are two active regions on the TouchPad<sup>™</sup> that allow you to scroll as you would with any wheel device on a mouse or trackball.

To scroll vertically, run your finger up or down along the right edge of the TouchPad. To scroll horizontally, run your finger along the bottom edge of the TouchPad. This feature can be disabled or changed in the Mouse Properties dialog box.

#### **Control buttons**

When a step instructs you to click or choose an item, move the cursor to the item, then press and release the primary (left-hand) button. To double-click, press the primary button twice in rapid succession. The primary button usually corresponds to the left mouse button.

The function of the secondary (right-hand) button depends on the program you are using. It usually corresponds to the right mouse button ("right-clicking"). Check your program's documentation to determine whether it uses the right mouse button.

## Using the keyboard

Your computer's keyboard contains character keys, control keys, function keys, and special Windows® keys, providing all the functionality of a full-size keyboard.



(Sample Illustration) Keyboard

### **Character keys**

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

- The space bar creates a space character instead of just passing over an area of the page.
- The lowercase letter l (el) and the number 1 are not interchangeable.
- The uppercase letter O and the number 0 are not interchangeable.

## Making your keyboard emulate a full-size keyboard

Although your computer's keyboard layout is compatible with a standard full-size keyboard, it includes fewer keys.

A standard full-size keyboard includes two Enter, Ctrl, and Alt keys; editing keys; cursor positioning keys; and a numeric keypad.

Your computer's keyboard includes only one Enter and one Ctrl key. Most of the time, this does not matter. However, some programs assign separate functions to the regular and numeric pad Enter keys on the full-sized keyboard. Using the Fn key, you can simulate the Enter key. Press Fn and Enter simultaneously to simulate the Enter key on the numeric pad of the enhanced keyboard. Pressing the Fn key simultaneously in combination with one of the specially marked keys allows you to emulate a full-size keyboard.

## Ctrl, Fn, and Alt keys



(Sample Illustration) 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**

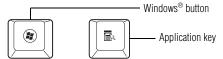
The function keys (not to be confused with the Fn key) are the 12 keys at the top of the keyboard.



#### (Sample Illustration) Function keys

F1 through F12 are called function keys because they execute programmed functions when pressed. Used in combination with the Fn key, function keys marked with icons execute specific functions on the computer. For more information on function keys, see "Keyboard hot keys" on page 60.

# Special Windows® keys



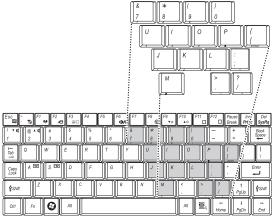
(Sample Illustration) Special Windows® keys

Your computer's keyboard has one key and one button that have special functions in Windows<sup>®</sup>:

- **❖** Windows® button—Opens the Start menu
- Application key—Has a similar function as the secondary mouse button

### **Overlay keys**

The keys with blue numbers and symbols on the front of them form the numeric overlay. This overlay lets you enter numeric data as you would using the 10-key keypad on a desktop computer's keyboard.



(Sample Illustration) Numeric overlay

## Using the overlay to type numeric data

The keys with the numbers on their left front edge are the numeric overlay keys.



To turn the numeric overlay on, press Fn and F11 simultaneously. The numeric mode light on the system indicator lights glows when the numeric overlay is on.

To disable the numeric overlay, hold down the Fn key and press F11 again. The numeric mode light on the system indicator lights goes out.

# **Setting up your computer**



TECHNICAL NOTE: You must complete all setup steps up to and including "Setting up your software" on page 44 before adding external or internal components to your computer. These components include, but are not limited to, a mouse, keyboard, or printer.

Your computer contains a rechargeable main battery that needs to be charged before you can use it.

To use external power or to charge the battery you must attach the AC adaptor. See "Connecting to a power source" on page 29.

#### NOTE

Please handle your computer carefully to avoid scratching or damaging the surface.

### **Setting up your software**

#### CAUTION

When you turn on the computer for the first time, do not turn off the power again until the operating system has loaded completely.

#### NOTE

The names of windows displayed, and the order in which windows appear, may vary according to your software setup choices.

The first time you turn on your computer, the Setup Wizard guides you through steps to set up your software.

- 1 From the Welcome screen click **Next** to enter the Setup Wizard.
- 2 Confirm acceptance of Microsoft's End User License Agreement and click Next.
- 3 Select the appropriate option from the Help Protect Your Computer screen and click **Next**.
- 4 Enter the computer name and description and click **Next** or **Skip**.
- 5 Select how your computer will connect to the Internet and click Next.
  The computer will pause for a moment while checking for an Internet connection.

If an Internet connection could not be found, a window will display the message: "An Internet connection could not be chosen." Click **Next** to continue.

#### NOTE

If you are connecting your computer to a network, consult your system administrator before you choose your computer name and network settings.

6 Follow the remaining screen prompts to complete the setup process. Once you click the final screen, your computer restarts automatically.

# **Registering your computer with Toshiba**

Product registration is strongly recommended, and allows Toshiba to send you periodic updates, announcements, and special offers applicable to your product. Product registration can be completed by either visiting the Toshiba Web site at

http://www.register.toshiba.com, or by double-clicking the **Toshiba Resources** icon on your desktop and then double-clicking **Toshiba Registration**. Failure to complete Product Registration will not diminish Customer rights under the Toshiba standard limited Warranty.

NOTE

To register online, you must be connected to the Internet.

# Adding optional external devices

NOTE

Before adding external devices or memory, Toshiba recommends setting up your software. See "Setting up your software" on page 44.

After starting your computer for the first time you may want to:

- Connect a mouse
- Connect a full-size keyboard
- Connect an external monitor
- Connect a local printer
- Connect an optional external disk drive
- Connect an optional external optical drive

Refer to the documentation included with each device for additional information.

# Internal storage drive recovery using external ODD/storage drive

#### NOTE

To purchase an optional external optical drive, visit the Toshiba Web site at accessories toshiba.com.

Your computer has been configured with a hard disk partition to allow you to recover your hard disk drive or reinstall selected applications and software features or utilities.

#### NOTE

It is strongly recommended that you create recovery DVDs before using your system. For more information on creating Recovery media see "Creating Recovery DVD Media using an external ODD drive" on page 46.

#### Using the HDD Recovery, you can:

- Create Hard Drive Recovery DVDs using an optional external writable optical drive.
- Recover your hard disk drive to the factory-set default.
- Recover just your C: drive, leaving any other partitions you may have created intact, for example, a D: drive.
- Recover your hard disk drive to the factory-set default without the HDD Recovery partition.
- Reinstall drivers and applications which were bundled with your computer.

## **Creating Recovery DVD Media using an external ODD drive**

#### NOTE

To purchase an optional external optical drive, visit the Toshiba Web site at accessories.toshiba.com.

Depending on your system configuration, you may be able to copy the hard drive recovery to DVD which gives you the ability to recover your hard disk drive and recover your system if the hard drive recovery partition has been deleted or the hard disk has been replaced on your computer.

#### NOTE

The system will prompt you to insert the appropriate number of blank DVDs to copy the hard drive recovery. If your external optical disc drive is not writable, contact Toshiba Customer Support to obtain the Recovery media for your system.

The Toshiba Customer Support Center in the United States is (800) 457-7777, outside the United States it is (949) 859-4273.

#### To create recovery DVDs:

- 1 Click Start, All Programs, Toshiba, Recovery, and then Recovery Disc Creator.
- 2 Select **DVD** (to create Recovery media on DVDs).
- 3 Select the items you want to copy by clicking the check box next to the item's Name—recovery files, applications (original bundled drivers and applications), or both the recovery files and applications.
- 4 Click Create.
- 5 Insert the first blank DVD into your optional external writable optical drive when prompted.
- 6 Follow the on-screen prompts for completing the copy process.

For more information on using the Recovery media you have created with the preceding steps see "Internal Storage Drive using the Recovery media" on page 47.

## **Internal Storage Drive using the Recovery media**

#### NOTE

To purchase an optional external optical drive, visit the Toshiba Web site at accessories.toshiba.com.

If you need to recover your computer to its default factory state, you can rebuild the system using your Hard Drive Recovery Utilities.

To recover your hard disk drive using the utilities burned to DVDs (refer to "Creating Recovery DVD Media using an external ODD drive" on page 46):

- Insert the first recovery DVD into your optical drive and power on the computer.
- When the initial screen displays, press F12.
  The boot menu appears.

3 Using the arrow keys, select the DVD option and press Enter. The system will boot up to the Toshiba Recovery Wizard screen.



(Sample Image) Toshiba HDD Recovery Utility screen

## **Checking the HDD operating status**

After restoring your hard disk drive, you can check its status as follows:

- 1 Click Start.
- 2 Right-click My Computer.
- 3 Select Manage.
- 4 Click **Disk Management**.
- 5 Highlight the hard disk drive in the Volume list to display its status in the lower portion of the screen.

# **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 "Taking care of your battery" on page 36.

NOTE

Please handle your computer carefully to avoid scratching or damaging the surface.

## **Cleaning the computer**

#### CAUTION

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

To keep your computer clean, gently wipe the display panel and exterior case with a lightly dampened cloth.

### Moving the computer

Before moving your computer, even across the room, make sure all drive activity has ended (the drive indicator light stops glowing) and all external peripheral cables are disconnected.

#### CAUTION

Do not pick up the computer by its display panel or by the back. Doing so could damage the system.

### **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 an optional computer lock cable. For more information on purchasing a cable lock, visit accessories.toshiba.com.



(Sample Illustration) Computer lock cable

#### To secure the computer:

- 1 Wrap 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.

Turning off the computer

3 Insert the cable's locking end into the security lock slot on your computer, then engage the locking device.

The computer is now securely locked.



(Sample Illustration) Attaching security lock cable

# **Turning off the computer**

#### CAUTION

Pressing the power button before shutting down the Windows® operating system could cause you to lose your work. Make sure the system indicator panel's storage drive light and the drive-in-use light are off. If you turn off the power while a disk/disc is being accessed, you may lose data or damage the disk/disc and/or drive.

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

If you are using the computer for the first time, leave the computer plugged into a power source (even though the computer is off) to fully charge the main battery.

### **Options for turning off the computer**

Depending on the operating system installed, you have more than one option available for turning off the computer: Turn Off or Shut Down, Hibernate, and Standby. Each option has its advantages.

### **Turn Off or Shut Down**

Factors to consider when choosing either Turn Off or Shut Down:

- Use the Turn Off command if you are not connected to a domain server.
- Use the Shut Down command if you are connected to a domain server.
- If you have work in progress and are not connected to a network, use the Windows® Standby or Hibernate commands to save your system settings so that, when you turn on the

computer again, you will automatically return to where you left off.



TECHNICAL NOTE: Before using any of these options to shut down or turn off your computer, save your files and make sure all disk/disc activity lights are off.

If you change your mind and decide to continue working after all, wait a few seconds before turning the computer on again.

#### **Hibernation mode**

Hibernation mode shuts the computer down completely, but it first saves the current state of the computer to the internal storage drive. Since Hibernation mode does not require power to maintain the saved information, system settings are retained indefinitely.

Factors to consider when choosing Hibernation:

- While in Hibernation mode, the computer uses no main battery power.
- Because the state of the system is stored on the internal storage drive, no data is lost if the main battery discharges.
- Restarting from Hibernation takes less time and consumes less main battery power than restarting from turning off the computer.
- Since information is being retrieved from the hard disk rather than from memory, restarting from Hibernation takes a little more time and consumes more main battery power to start up than when restarting from Standby.
- When starting up again, the computer returns to the state in which you left it, including all open programs and files you were using.

### Standby mode

The Standby command places the computer into a power-saving mode. Standby holds the current state of the computer in system memory (RAM) so that, when you restart the computer, you can continue working from where you left off.

Factors to consider when choosing Standby:

- While in Standby mode, the computer uses some main battery power.
- The Standby command does not store unsaved information on your hard disk. You should save your work before putting your computer on Standby.
- Restarting from Standby takes less time and consumes less main battery power than restarting from turning off the computer or using Hibernation mode.
- When starting up again, the computer returns to the mode in which you left it, including all open programs and files you were using.

#### CAUTION

If you power down using the Standby command and the main battery discharges fully, your unsaved information will be lost. Be sure to save your work first.

## Closing the display panel

After you have turned off the computer, close the display panel to keep dust and dirt out of the computer.

# **Chapter 2**

# Features of Your Computer

# **Exploring the desktop**

The desktop is the launching pad for everything you can do in the Windows® operating system. You use its features to start programs, find documents, set up system components, and perform most other computing tasks.



HINT: The illustrated examples in this guide may appear slightly different from the screens displayed by your system. The differences are not significant and do not indicate any change in the functionality of your system.

## Starting a program

The easiest way to start a program is to double-click the name of the file that contains the information you want to work on. To find the file, use My Computer or Windows® Explorer.

If you prefer to open the program first, you have two options. You can:

- Double-click the icon for the program on your desktop
- Use the Start menu

Starting a program

When you install a program, the operating system usually puts an icon in the All Programs menu.

- To start a program that has an icon in the All Programs menu, click **Start**, and then **All Programs**.
  - The Windows® operating system displays the All Programs menu, which lists programs and program groups.
- 2 Locate the program you want to work on and then click the folder to start the program.

# Use Windows® Explorer or My Computer to locate the program file

To use this method, you should know the file name and location of the program's executable file (this file ends with .exe).

- 1 Click Start, All Programs, Accessories, Windows Explorer, and in the left part of the window, click My Computer.
- 2 In the left part of the window, click the line that ends in "(C:)."
- 3 In the left part of the window, under the C: icon, double-click the folder containing the program, in this case **Program Files**.
  - Windows® Explorer shows the contents of the Program Files folder on the right side of the window. The left side of the window shows all the folders contained within the Program Files folder.
- 4 Locate the program you want to work on and then click the folder to start the program.

## **Use the Run dialog box**

- 1 To locate a program, click **Start**, and then **Run**. The Run dialog box appears.
- In the Run dialog box, type the command line. For a program in the Windows® folder, type just the program name. Otherwise, type the full file path. For example, to access WordPad, type: c:\Program Files\Windows NT\Accessories\wordpad.exe, then click OK.
- 3 If you do not know the location, you can search for it by clicking **Start**, then **Search**, and then following the on-screen instructions.

## **Setting up for communications**

To connect to the Internet, or use an online service, you need:

- ❖ A browser or communications program
- An Internet Service Provider (ISP) or online service if you plan to use the Internet
- ♦ A way to connect to the ISP (for example Wi-Fi®/LAN etc.)

## **Using Wireless LAN connectivity**

#### NOTE

Wireless connectivity and some features may require you to purchase additional software, external hardware or services. Availability of public wireless LAN access points may be limited.

Your system comes with a wireless LAN module. This is a technology that expands wireless communication beyond networking equipment, and can connect many different kinds of electronic devices without the need for cables.

For information on how to set up a wireless connection, refer to your wireless networking device documentation or your network administrator.

To use your wireless communication, make sure the wireless indicator light is lit. To enable/disable the wireless devices installed in your computer, press Fn+F1.

### Connecting your computer to a network

You can connect your computer to a network to increase its capabilities and functionality using one of its communication ports.

## **Accessing a network**

To access a network at the office, connect an Ethernet cable to the Network port (RJ45) on your computer. For specific information about connecting to the network, consult your network administrator. Many hotels, airports, and offices offer Wi-Fi® access. If your computer has Wi-Fi®, ask them for help when connecting to their Wi-Fi® network.

## Exploring audio features

# **Exploring audio features**

You can use your computer to record sounds using the computer's internal microphone or an optional external microphone. You can listen to sound files using the built-in speakers, headphones, or external speakers.

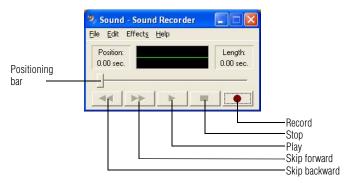
## **Recording sounds**

You may record sounds using the computer's internal microphone or by connecting an optional external microphone.

## **Using a microphone**



- 1 If you want to use an external microphone, connect it to the computer.
- 2 Click Start, All Programs, Accessories, Entertainment, and then Sound Recorder.



#### (Sample Image) Sound Recorder screen



- 3 Click the **Record** button.
- 4 Speak normally into the microphone.



5 When you have finished recording, click the **Stop** button.

The Sound Recorder window displays the new sound file as a waveform.

#### NOTE

You can only record 60 seconds at a time.



- 6 To hear what you just recorded, click the **Play** button.
- 7 To save the file, click **File**, and then **Save**.

#### NOTE

The microphone on your computer might be set to Mute. To check this, click Start, All Programs, Accessories, Entertainment, and then Volume Control.

## **Using external speakers or headphones**

Your computer is equipped with a full stereo sound system with internal speakers. Instead of using the internal speakers, you can connect headphones or a pair of external stereo speakers.

#### **A** CAUTION

Before putting on headphones to listen, turn the volume down. Do not set the volume too high when using headphones. Continuous exposure to loud sound can harm your hearing.



TECHNICAL NOTE: When using amplified speakers, use speakers that require an external power source. Other types of speakers will be inadequate to produce sound from the computer.



To play back sound files through external speakers or headphones:

- Locate the headphone jack on the computer.
- 2 Using any necessary adapters, plug the cable from the headphones or external speakers into the headphone jack.

The headphone jack requires a 16-ohm stereo mini-jack.

To adjust the volume:

- For external speakers, use the volume controls on each speaker.
- For headphones, use the computer's volume control.

## **Web Camera**

Your computer may come with a built-in Web Camera. With this Web Camera you can do the following:

- ❖ Take pictures and record videos with your computer
- Chat with others and have them see you while using instant messaging (IM) programs
- Have video conference calls

#### **NOTE**

To E-mail, instant message or video conference, you must be connected to the Internet.

Depending on your computer model, the process of sending E-mail, taking pictures or recording video messages may vary.

The Web Camera software, by default, may already be running in the System tray.

# **Using the Bridge Media Adapter Slot**

The Bridge Media Adapter slot supports the use of Memory Stick<sup>®</sup>, Memory Stick DUO<sup>™</sup>, Secure Digital<sup>™</sup> (SD<sup>™</sup>), or MMC<sup>™</sup> (MultiMediaCard<sup>™</sup>). These media can be used with a variety of digital products: digital music players, cellular phones, PDAs, digital cameras, digital video camcorders, etc.

The Bridge Media Adapter slot may also support other types of media. For a complete list of supported media, visit Toshiba's Web site at accessories.toshiba.com.

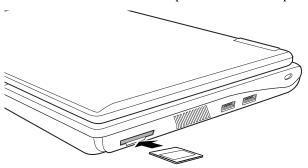
#### NOTE

Do not use the Copy Disk function for this type of media. To copy data from one media to another, use the drag-and-drop feature of the Windows® operating system.

### **Inserting memory media**

The following instructions apply to all types of supported media devices.

- 1 Turn the media so that the contacts (metal areas) are face down.
- 2 Push the media into the adapter until it locks in place.



(Sample Illustration) Inserting memory media

#### CAUTION

When inserting memory media, do not touch the metal contacts. You could expose the storage area to static electricity, which can destroy data.

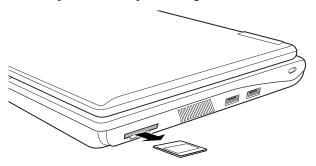
## **Removing memory media**



1 Prepare the media for removal by clicking the **Safely Remove Hardware** icon in the System tray and then selecting the card or device you want to remove.

If the system is unable to prepare the media for safe removal, a message will tell you to try again later. If the media can be removed now, the system displays **Safe to Remove Hardware**.

2 Grasp the card and pull it straight out.



(Sample Illustration) Removing memory media

#### CAUTION

Do not remove memory media while data is being written or read. Even when the Windows® message "copying..." disappears, writing to the media might still be in progress and your data could be destroyed. Wait for the indicator light to go out.

# **Chapter 3**

# Hot Keys and Utilities

## **Keyboard 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 legend on the key indicating the option or feature the key controls.



This hot key enables/disables the optional wireless devices installed in your computer.



This hot key places the computer into Hibernation mode.



This hot key cycles through the display options. The display modes are:

- LCD—Internal display only
- LCD + CRT—Internal display and external monitor simultaneously
- CRT—External monitor only



Fn + F6	This hot key enables/disables volume mute on your computer.
Fn + F8 ⊕	Silent mode on/off (CPU clock toggle).  Press the Windows® key and Pause key to view CPU clock speed.
Fn + (F9 (▼☆)	This hot key decreases the screen brightness.
Fn +	This hot key increases the screen brightness.
Fn + F11	This hot key turns the numeric overlay on and off.
Fn + F12	This hot key turns the scroll lock feature on and off.
Fn + Esc	This hot key cycles through the screen resolutions.
Fn + [! • •]	This hot key turns the volume down.
Fn + 2	This hot key turns the volume up.
Fn + A Table	This hot key allows you to zoom in.
Fn + S Tar	This hot key allows you to zoom out.

### **Utilities**

Your computer includes utilities designed to help you to reconfigure your system to best meet your individual needs. Together, these allow you to ascertain certain system details, set additional options, or change default options.

Refer to the online Help documentation within each application for additional information.

#### NOTE

The utilities described in this chapter, and the icons shown in the sample images are applicable only if the related utility is available on your system.

# **ConfigFree®**

#### NOTE

All references to *Bluetooth*® in this appendix are applicable only if *Bluetooth*® is available on your system.

ConfigFree<sup>®</sup> is a set of utilities that makes it easy to control communication devices and network connections. ConfigFree also lets you identify communication problems and create profiles for easy switching between locations and communication networks.

The ConfigFree utilities include the following:

- Connectivity Doctor—The Connectivity Doctor utility is used to analyze network connections and fix networking problems with your computer. For more information, see "Connectivity Doctor" on page 64.
- Search for Wireless Devices—The Search for Wireless Devices utility searches for wireless LAN and *Bluetooth*® devices used in the neighborhood, and displays information about them on a virtual map.
- Profile Settings—The Profiles utility lets you switch between network configurations. For more information, see "Profile Settings" on page 65.
- ConfigFree SUMMIT—The ConfigFree SUMMIT utility is used to connect with other ConfigFree users for file sharing.

ConfigFree also includes a screen saver that you can customize by adding identifying text to devices. Click **Options** on the Connectivity Doctor screen to access the screen saver option.

## **Getting Started**

This section contains information about the ConfigFree® main screen, and how to start and set up ConfigFree.

NOTE

For more detailed information on setting up and using ConfigFree, see the Help File included in the application.

## Starting ConfigFree®

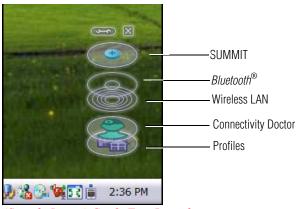
To start ConfigFree<sup>®</sup>, be sure the computer has a wired or wireless connection. Then perform any of the following steps:

- Click Start, All Programs, Toshiba, Networking, and then ConfigFree.
- ❖ Double-click the **ConfigFree** icon **ॐ** on the Taskbar.
- Press the TOSHIBA Assist button (if applicable to your system) to open the TOSHIBA Assist, and then click the ConfigFree icon.
- Click the ConfigFree icon on the Taskbar, and then click the desired utility.

**NOTE** 

If your computer is not connected to a network, the ConfigFree icon on the Taskbar is displayed with an "X."

When you start a search for wireless devices, ConfigFree Launcher displays on your computer desktop. You can then click the appropriate icon on the Launcher to start the desired ConfigFree utilities.



(Sample Image) ConfigFree Launcher

# **ConfigFree® Utilities**

## **Connectivity Doctor**

The Connectivity Doctor lets you analyze your network connections and fix network connection problems. Using Connectivity Doctor, you can view detailed network information by simply moving the mouse pointer.

The Connectivity Doctor works with the following network devices:

- Wired and wireless network devices
- Routers, hubs, and bridges
- Access points

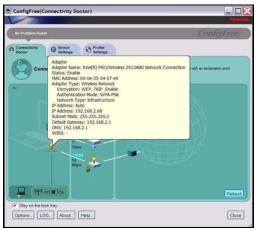
The Connectivity Doctor displays the following information:

- WEP (Used, not Used)
- Wired connection line (link speed)
- Wireless connection line (signal strength and link speed)
- Location of wireless communication switch (identified with a yellow arrow)
- Status of wireless communication switch (on or off)



(Sample Image) Connectivity Doctor screen

Moving the mouse pointer over a wired or wireless network device icon displays information about the device, such as its IP address, subnet mask, and MAC address. A wireless network device also shows information such as the network SSID and the device's Wired Equivalent Privacy (WEP) key settings.



(Sample Image) Viewing device information

## **Profile Settings**

The Profile Settings utility lets you save network settings in "profiles." ConfigFree® profiles are useful for easily switching network settings and devices. You can switch network settings simply by selecting the profile with the desired settings.

If you visit a client company occasionally, for example, you can set up a profile to match that environment and connect to the network. Similarly, users who access networks in the office and at home can set up profiles to handle these networking environments.

A profile contains the currently configured network settings on the computer, as well as information about any network devices. The following settings can be saved (or "captured") in a profile:

- Internet settings—includes LAN settings (proxy server settings) and the address of a home page that opens automatically when Internet Explorer® starts
- Devices—lets you enable or disable settings of wired and wireless network devices, infrared devices, and set the power status of Bluetooth® antennas
- ❖ TCP/IP settings—includes DHCP, IP address, subnet mask, default gateway, DNS server, and WINS server settings
- Personal firewall settings for Internet connections
- Dial-up connection settings for the default connection

#### **Hot Keys and Utilities**

### ConfigFree® Utilities

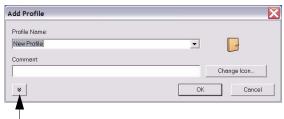
- File and printer sharing settings
- Printer settings for the default printer
- ♦ Bluetooth® Security Level (for example, high or medium)

#### To create a profile:

- 1 Click the **!** icon in the system tray.
- 2 Move the pointer to **Profile**.
- 3 Click **Add**. The Add Profile screen appears.
- 4 Select **Capture** and click **OK**. The Add Profile screen appears.
- 5 Enter the name of the profile you want to create.
- 6 Enter any optional comments, if desired.
- 7 Click **Change Icon** and select an icon for this profile.
- 8 Click the icon at the bottom of the screen to display more capture options.
- 9 Under Captured Items, select the items you want to capture for this profile.
- 10 If connecting with a wireless network, select the desired Auto Switch Settings. (These options are unavailable if wireless devices have been disabled.)
- 11 Under Execute this program after switching, click the Browse button and select the program, file, or Web site URL that is to start after switching to this profile.

For example, to have Internet Explorer® start in the Windows® operating system after switching profiles, type: C:\Program Files\Internet Explorer\IEXPLORE.EXE

#### 12 Click OK.



Press to show more capture options

(Sample Image) Add Profile screen

#### NOTE

The online Help provides real-world examples of setting up profiles for different networking environments.

After you set up one or more profiles, you can check their settings and fine-tune them as necessary. Profiles can also be imported and exported. This feature is useful when transferring profile settings to other computers. For more information about modifying, importing, and exporting profiles, refer to the online Help.

# **Chapter 4**

# If Something Goes Wrong

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

This chapter aims to help you solve many problems by yourself. It covers the problems you are most likely to encounter.

If all else fails, contact Toshiba. For more information on support and contacting Toshiba, see "Toshiba's online resources" on page 24.

## 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 adaptor and power cord/cable properly or installed a charged battery.

Press and hold the power button for at least 10 seconds.

If you are using the AC adaptor, check that the wall outlet is working by plugging in another device, such as a lamp.

Verify that the computer is on by looking at the on/off indicator. If the indicator is glowing, the computer is on. If you are using an AC adaptor, verify that the computer is receiving power from the external power source by looking at the AC power light. If the indicator is glowing, the computer is connected to a live external power source.

# The computer starts but when you press a key nothing happens.

Verify that the active program accepts text input. Try clicking your mouse on an area where you can type text and try typing again.

Your computer may be in Standby mode and have a software or resource conflict. When this happens turning the power on returns you to the problem instead of restarting the system. To clear the condition, press Ctrl, Alt, and Del simultaneously.

Clearing the condition may get the computer running, but it will not solve a resource conflict. Read the documentation that came with the conflicting device or see Help and Support in your operating system.

#### The computer is not accessing the internal storage drive or the optional external diskette drive.

Your computer normally loads the operating system from the internal storage drive. If you have an internal storage drive problem, you will not be able to start the computer. Insert a system diskette into the optional external diskette drive and press F12 when the machine starts and use the arrow keys to select the boot-up device.

## The computer displays the WARNING RESUME FAILURE message.

The computer was placed in Standby mode and the battery has discharged. Data stored in the computer's memory has been lost. Data stored in the computer's internal storage drive may not be affected.

Always save your data even when you are using Standby. If your battery fully discharges, information that has not been saved will be lost. Your computer can be configured to warn you when the battery is running low see "What to do when the main battery runs low" on page 36.

If you are running on battery power, it is recommended that you do not leave the computer in Standby mode for long periods of time.

To charge the battery, leave the computer plugged into a live wall outlet for several hours. For more information see "Charging the main battery" on page 33.

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

Make sure there is no diskette in the optional external diskette drive. If there is a diskette in the drive, remove it and press any key to continue. If pressing any key does not work, press Ctrl, Alt, and Del to restart the computer. For more information see "The computer is not accessing the internal storage drive or the optional external diskette drive." on page 69.

# The Windows® operating system is not working

Once you are familiar with the desktop and used to the way the operating system responds to your work routine, you can easily detect if the operating system is not working correctly. For example:

- The operating system fails to start after the Starting Windows XP message appears.
- The operating system takes a long time to start.
- The operating system responds differently from the normal routine.
- The screen does not look right.

Unless a hardware device has failed, problems usually occur when you change the system in some way such as installing a new program or adding a device.

If you experience any of these problems, use the options in the Startup menu to fix the problem.

## **Using Startup options to fix problems**

If the operating system fails to start properly, you may have to change your system's configuration or verify the startup procedure to fix the problem. To do this, use the options in the Startup menu.

To open the Startup menu:

- 1 Restart your computer.
- 2 Press F8 when your computer starts and before Windows® starts loading.

The Windows® Advanced Options menu displays these options:

- Safe Mode
- Safe Mode (with Networking)
- Safe Mode (with Command Prompt)

- Enable Boot Logging
- Enable VGA Mode
- Last known good configuration (your most recent settings that worked)
- Directory Services Restore Mode (Windows® domain controllers only)
- Debugging Mode
- Start Windows® normally
- Reboot
- Return to OS Choices (menu)

See your Windows® documentation for further explanation.

NOTE

If your computer is connected to a network, the Startup menu may display different versions of Safe mode.

## **Internet problems**

### My Internet connection is very slow.

Many factors contribute to the speed with which you can surf the Internet. They include: modem speed, telephone line conditions, time of day (when everyone else is surfing, your access can be slow) and popularity of the sites you are trying to access. If accessing a particular site is very slow, try later.

### My browser cannot find the URL address I typed in.

Make sure you separated the domain names of the address with the forward slash (/). Check the spelling of each name and the syntax of the address carefully. A single incorrect letter or missed character will make it impossible for your browser to locate the site.

## My browser cannot find a site I bookmarked.

The World Wide Web is constantly changing. A site you bookmarked yesterday may not be available today or its server may be down for temporary repair. Try again later.

## The Windows® operating system can help you

If the operating system has started properly but you still have a problem using your computer, the online Help can assist you in troubleshooting the problem.

To access the Windows® operating system Help and Support:

- 1 Click **Start**, then click **Help and Support**.
  - The Help and Support window appears.
- 2 Then do one or both of the following:
  - ❖ In the search field, type in the topic for which you need help and follow the on-screen instructions.
  - Click a problem you would like help with from the listings and follow the on-screen instructions.

You can connect to Support Online by clicking **Support** from the menu or by going to pcsupport.toshiba.com.

## Wireless networking problems

#### NOTE

This section provides general troubleshooting tips for networking problems, specifically wireless (Wi-Fi®) networking.

The terms and concepts used assume a basic understanding of networks, and may be for more advanced users. If you need assistance or if you are not familiar with the terminology, please see Windows® Help and Support or contact your computer technician.

- ♦ Make sure the wireless indicator light is lit. To enable/disable the wireless devices installed in your computer, press Fn+F1.
- Verify that your computer can detect access points or routers. If it can detect a Wi-Fi<sup>®</sup> access point or router then it may be a configuration issue.

#### **NOTE**

To determine if your computer has an internal Wi-Fi® adapter, check the device list in Device Manager (part of the Windows® Control Panel). Some Toshiba models may have a Wireless antenna ON/OFF switch even though they do not have an internal Wi-Fi® adapter.

Verify that signal strength is good using the utility provided with the Wi-Fi<sup>®</sup> adapter.

- If another computer is on the same network, verify that it has network access, and can connect to the Internet. If, for example, the other computer cannot browse to a public Web site, the ISP's (Internet Service Provider) service may be disrupted.
- Verify that the Service Set Identifier (SSID), or network name, is correct—i.e., that it matches the SSID assigned to the access point you are attempting to connect through. SSIDs are casesensitive. Toshiba provides a Client Manager utility for setting and managing SSIDs.
- Check the Control Panel's Device Manager to verify that the Wi-Fi® adapter is recognized by the Windows® operating system, and that the driver is loaded. Carefully note any error messages—these will be very helpful if you should confer with a support technician at a later time.
- Verify that the network connection is configured to obtain its Internet Protocol (IP) address dynamically:
  - 1 Click Start, Control Panel.
  - 2 Double-click Network and Internet Connections.
  - 3 Right-click the name of your wireless network connection, then click **Properties**.
  - 4 Select Internet Protocol (TCP/IP), then click Properties.
  - 5 Select Obtain an IP address automatically.
  - 6 Click **OK**, then click **Close**.
- Use IPCONFIG to verify that the computer has a useful IP address—one other than the private address of 169.254.xxx.xxx assigned by Windows<sup>®</sup>.
  - 1 Click **Start**, then click **Run...**
  - 2 Enter Cmd and press Enter.
  - 3 Enter IPCONFIG /ALL and press Enter.

The IP address for each active network adapter will be displayed.

Connect your computer directly to your router or broadband modem, by plugging a standard CAT5 Ethernet patch cable (sold separately) into your computer's RJ45 Ethernet port. If your connection problem disappears, the problem lies in the Wi-Fi® part of your network. The Windows® operating system is not working

- Use the PING command to verify a connection to the gateway at 192.168.1.1 (a default gateway for most wireless routers).
  - 1 Click **Start**, then click **Run...**
  - 2 Enter Cmd and press Enter.
  - 3 Enter PING 192.168.1.1 at the command prompt, and press

If "Request Timed Out" or another error message appears in response, then the problem is probably Wi-Fi®-related.

If you have enabled any security provisions (closed system, MAC address filtering, Wired Equivalent Privacy [WEP], etc.), check the access point vendor's Web site for recent firmware upgrades. Problems with WEP keys, in particular, are frequently addressed in new firmware releases.

### The Windows® operating system wireless management facility does not work.

If you are using an external Wi-Fi® adapter (USB adapter or other variety), check if the adapter comes with its own management utility. If it does, the utility may be disabling the Windows® operating system wireless management facility, in which case you must use the adapter's management utility. If the documentation that accompanies the adapter does not provide enough information to determine if this is the case, contact that vendor's support group for further advice.

# Glossary



TECHNICAL NOTE: Some features defined in this glossary may not be available on your computer.

### **Acronyms**

The following acronyms may appear in this user's guide.

**AC** alternating current

BIOS basic input/output system

bps bits per secondCD compact disc

CD-ROM compact disc read-only memory
CD-RW compact disc rewrite memory

CMOS complementary metal-oxide semiconductor

COM1 communications port 1 (serial port)COM2 communications port 2 (serial port)

**CPU** central processing unit

DC direct current

**DMA** direct memory access

**DIMM** dual inline memory module

**DOS** disk operating system

**DPI** dots per inch

**DSTN** dual supertwist nematic

**DVD** digital versatile (or video) disc

**DVD-ROM** digital versatile (or video) disc read-only memory

**ECP** enhanced capabilities port

**EPROM** erasable programmable read-only memory

**FAT** file allocation table

FCC Federal Communications Commission

GB gigabyte

**HDD** hard disk drive

**HTML** Hypertext Markup Language

**IEEE** Institute of Electrical and Electronics Engineers

I/O input/output

**IRQ** interrupt request

**ISP** Internet service provider

**KB** kilobyte

LAN local area network
LCD liquid crystal display

**LPT1** line printer port 1 (parallel port)

LSI large-scale integration

MB megabyte

MIDI Musical Instrument Digital Interface

PC personal computer

**PCI** Peripheral Component Interconnect

**PCMCIA** Personal Computer Memory Card International

Association

**RAM** random access memory

**RFI** radio frequency interference

**ROM** read-only memory

**RTC** real-time clock

**SCSI** small computer system interface

**SDRAM** synchronous dynamic random access memory

**SRAM** static random access memory

**SSD** solid state drive

**SVGA** super video graphics adapter

TFT thin film transistor
USB universal serial bus

**URL** uniform resource locator

WAN wide area network
www World Wide Web

#### **Terms**

The following terms may appear in this user's guide.

- active-matrix display A liquid crystal display (LCD) made from an array of liquid crystal cells using active-matrix technology. Also known as a "TFT display," in its simplest form there is one thin film transistor (TFT) for each cell. This type of display works well with computers because of its shallow depth and high-quality color. Active-matrix displays are viewable from wider angles than most passive-matrix displays.
  - adapter A device that provides a compatible connection between two units. For example, the computer's internal display adapter receives information from the software and translates it into images on the screen. An adapter can take a number of forms, from a microprocessor to a simple connector. An intelligent adapter (one that is capable of doing some processing) may also be called a controller.
  - **alternating current** (**AC**) The type of power usually supplied to residential and commercial wall outlets. AC reverses its direction at regular intervals. Compare *direct current* (*DC*).
  - **application** A computer program that you use to perform tasks of a specific type. Applications include word processors, spreadsheets, and database management systems. See also *program*.
- **B** backup A copy of a file, usually on a removable disk, kept in case the original file is lost or damaged.

basic input/output system (BIOS) — See BIOS.

C

- baud rate The speed at which a communication device, such as a printer or modem, transmits information. Baud rate is the number of signal changes per second (not necessarily the same as bits per second). See also bits per second.
- BIOS (basic input/output system) Basic instructions, stored in readonly memory (ROM), containing the information the computer needs to check hardware and load the operating system when you start up the computer.
- bits per second (bps) A way of measuring the speed at which information is passed between two devices. This is the basic unit of measure used in modem communications, and is similar, but not identical, to the baud rate. See also baud rate.
- **boot** To start the computer. The term "boot" originates from bootstrap program (as in "pulling itself up by its bootstraps"), a program that loads and initializes the operating system. See also *reboot*.
- **boot disk** See *system disk*.
- **boot priority** (**startup sequence**) The order in which the computer accesses its internal storage drives to locate the startup files. Under the default startup sequence, the computer looks for the startup files in the diskette drive before checking the internal storage drive.
- bus An electrical circuit that connects the central processing unit (CPU) with other parts of the computer, such as the video adapter, disk drives, and ports. It is the pathway through which data flows from one device to another. See also bus speed, frontside bus.
- **bus speed** The speed at which the central processing unit (CPU) communicates with the other parts of the computer.
- cache A section of very fast memory in which frequently used information is duplicated for quick access. Accessing data from cache is faster than accessing it from the computer's main memory. See also CPU cache, L1 cache, L2 cache.
- **CD** An individual compact disc. See also *CD-ROM*.
- **CD-ROM** (compact disc read-only memory) A form of high-capacity storage that uses laser optics instead of magnetic means for reading data. See also *CD*. Compare *DVD-ROM*.

- central processing unit (CPU) The chip that functions as the "brain" of the computer. It takes information from outside sources, such as memory or keyboard input, processes the information, and sends the results to another device that uses the information.
- character Any letter, number, or symbol you can use on the computer. Some characters are non-printing characters, such as a paragraph break in a word-processing program. A character occupies one byte of computer storage.
- chip A small piece of silicon containing computer logic and circuits for processing, memory, input/output, and/or control functions. Chips are mounted on printed circuit boards.
- click To press and release the pointing device's primary button without moving the pointing device. In the Windows® operating system, this refers to the pointing device's left button, unless otherwise stated. See also double-click.
- color palette A set of specified colors that establishes the colors that can be displayed on the screen at a particular time.
- compatibility The extent to which computers, programs, or devices can work together harmoniously, using the same commands, formats, or language as another.
- configuration (1) The collection of components that make up a single computer system. (2) How parts of the system are set up (that is, configured).
- controller A device that controls the transfer of data from a computer to a peripheral device and vice versa. For example, disk drives, monitors, keyboards, and printers all require controllers.
- **CPU** See *central processing unit (CPU)*.
- CPU cache A section of very fast memory residing between the CPU and the computer's main memory that temporarily stores data and instructions the CPU will need to execute commands and programs. See also cache, L1 cache, L2 cache.
- cursor A symbol that indicates the current position on the screen. The shape of the cursor varies, depending on the program you are using and what you are doing.

- **default** The setting selected by a program when the user does not specify an alternative setting.
  - device A component attached to the computer. Devices may be external (outside the computer's case) or internal (inside the computer's case). Printers, disk drives, and modems are examples of devices.
  - **device driver** A program (called a "driver") that permits a computer to communicate with a device.
  - **dialog box** An on-screen window displayed by the operating system or a program giving a direction or requesting input from the user.
  - **direct current (DC)** The type of power usually supplied by batteries. DC flows in one direction. Compare *alternating current (AC)*.
  - **direct memory access (DMA)** A dedicated channel, bypassing the CPU, that enables direct data transfer between memory and a device.
  - directory See folder.
  - **disable** To turn a computer option off. See also *enable*.
  - disc A round, flat piece of material, designed to be read from and written to by optical (laser) technology, and used in the production of optical discs, such as CDs and DVDs. Compare disk.
  - disk A round, flat piece of material that can be magnetically influenced to hold information in digital form, and used in the production of magnetic disks, such as diskettes and hard disks. Compare disc. See also diskette, hard disk.
  - disk drive The device that reads and writes information and programs on a diskette or hard disk. It rotates the disk at high speed past one or more read/write heads.
  - diskette A thin, flexible disk in a protective jacket that stores magnetically encoded data. Diskettes can be removed from the computer and come in two sizes: 5.25-inch and 3.5-inch. Your computer uses 3.5-inch diskettes. See also double-density diskette, high-density diskette.
  - **document** Any file created with an application and, if saved to disk, given a name by which it can be retrieved. See also *file*.

- double-click To press and release the pointing device's primary button rapidly twice without moving the pointing device. In the Windows® operating system, this refers to the pointing device's left button, unless otherwise stated.
- **double-density diskette** A 3.5-inch diskette that can hold up to 720 KB of information (half the capacity of a high-density diskette). See also *diskette*, *high-density diskette*.
- **download** (1) In communications, to receive a file from another computer through a modem or network. (2) To send font data from the computer to a printer. See also *upload*.
- drag To hold down the mouse button while moving the cursor to drag a selected object. In the Windows® operating system, this refers to the left mouse button, unless otherwise stated.
- driver See device driver.
- **DVD** An individual digital versatile (or video) disc. See also *DVD-ROM*.
- **DVD-ROM** (digital versatile [or video] disc read-only memory) A very high-capacity storage medium that uses laser optics for reading data. Each DVD-ROM can hold as much data as several CD-ROMs. Compare *CD-ROM*.
- **E emulation** A technique in which a device or program imitates another device or program.
  - enable To turn on a computer option. See also disable.
  - executable file A computer program that is ready to run. Application programs and batch files are examples of executable files. Names of executable files usually end with a .bat or .exe extension.
  - expansion device A device that connects to a computer to expand its capabilities. Other names for an expansion device are port expander, port replicator, docking station, or network adapter.
  - **extension** See file extension.
  - external device See device.

- F file A collection of related information, saved on disk with a unique name. A file may be a program, information used by a program, or a document. See also document.
  - **file allocation table (FAT)** The section of a storage drive that keeps track of the location of stored files.
  - **file name** A set of characters that uniquely identifies a file within a particular folder. It consists of two parts: the actual name and the file name extension. See also *file extension*.
  - file extension The three characters following the period (pronounced "dot") at the end of a file name. The extension indicates the type of file. Examples are .exe for program files and .hlp for help files. See also *file name*.
  - **folder** Also called directory. A container for organizing files saved to a disk. A folder is symbolized on screen by a graphical image (icon) of a file folder. A folder can contain files and other folders.
  - format (verb) To prepare a blank disk for use with the computer's operating system. Formatting creates a structure on the disk so the operating system can write information to the disk or read information from it.
  - **frontside bus** The primary pathway (bus) between the CPU and the computer's main memory. Also called "system bus." See also *bus*.
  - **function keys** The keys labeled F1 through F12, typically located on the keyboard. Their function is determined by the operating system and/or individual programs.
- **G ground** A conductor to which all components of an electric circuit are connected. It has a potential of zero (0) volts, is connected to the earth, and is the point of reference for voltages in the circuit.
- hard disk A storage device composed of a rigid platter or platters that can be magnetically coded with data. Hard disks hold much more information than diskettes and are used for long-term storage of programs and data. The primary (or only) hard disk in a computer is usually fixed, but some computers have secondary hard disks that are removable.
  - **hardware** The physical components of a computer system. Compare *software*.

- Hibernation A feature of many Toshiba computers that saves to the internal storage drive the current state of your work, including all open files and programs, when you turn the computer off. When you turn on the computer again, your work is returned to the same state it was when the computer was turned off. See also Standby, Suspend.
- **high-density diskette** A 3.5-inch diskette that holds 1.44 MB of data. See also *diskette*.
- hot key (1) A feature in which certain keys in combination with the Fn key can set system options or control system parameters, such as the battery save mode. (2) A key or combination of keys that activates a memory resident program.
- hot swapping The ability to add or remove devices from a computer while the computer is running and have the operating system automatically recognize the change.
- icon A small image displayed on the screen that represents a function, file, or program.
  - interlaced A method of refreshing a computer screen, in which only every other line of pixels is refreshed. Interlaced monitors take two passes to create a complete screen image. Compare non-interlaced.
  - internal device See device.
  - Internet The decentralized, world-wide network of computers that provides electronic mail, the World Wide Web, and other services. See also World Wide Web.
- **keyboard shortcut** A key or combination of keys that you use to perform a task instead of using a pointing device such as a mouse.
- L1 (level one) cache Memory cache built into the processor to help improve processing speed. See also *cache*, *CPU cache*, *L2 cache*.
  - **L2** (**level two**) **cache** Memory cache installed on the motherboard to help improve processing speed. It is slower than L1 cache and faster than main memory. See also *cache*, *CPU cache*, *L1 cache*.
  - LAN (local area network) A group of computers or other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network.

M

- liquid crystal display (LCD) A type of display that uses a liquid substance between two transparent electrode panels. When an electric current passes through the electrodes, the molecules in the liquid form a crystalline pattern that polarizes the light passing through it. A filter over the electrodes permits only non-polarized light to pass to the surface of the display, creating light and dark pixels.
- **load** To move information from a storage device (such as a hard disk) into memory for processing.
- local area network See LAN.
- logical drive A section of a disk that is recognized by the operating system as a separate disk drive. A system's logical drives may differ from its physical drives. For example, a single hard disk drive may be partitioned into two or more logical drives.
- memory Typically refers to the computer's main memory, where programs are run and data is temporarily stored and processed. Memory can be volatile and hold data temporarily, such as RAM, or it can be nonvolatile and hold data permanently, such as ROM. A computer's main memory is RAM. See RAM, ROM.
- **microprocessor** See *central processing unit (CPU)*.
- MIDI (Musical Instrument Digital Interface) A standard for connecting musical instruments, synthesizers, and computers. The MIDI standard provides a way of translating music into a form computers can use, and vice versa.
- modem Short for "modulator/demodulator." A device that converts information from digital to analog, and back to digital, enabling information to pass back and forth between digital computers and analog telephone lines.
- **motherboard** The computer's main circuit board that contains the processor, memory, and other primary components.
- MS-DOS prompt See system prompt.
- multi-function drive A DVD drive that can read and write to CD and DVD media.
- **multimedia** A combination of two or more media, such as sound, animation, and video in a computer program or presentation.
- Musical Instrument Digital Interface See MIDI.

- network A collection of computers and associated devices that are connected by communications facilities. A network allows you to share data and peripheral devices, such as printers, with other users and to exchange electronic mail.
  - non-interlaced A method of refreshing a computer screen, in which each pixel of every line is refreshed as the electron beam scans across and down the screen. Compare interlaced.
  - **non-system disk** A disk for storing programs and data that cannot be used to start the computer. Compare *system disk*.
- Online Available through the computer. Online may refer to information being read from your own computer's internal storage drive, such as online documentation or online Help, or to information coming from another company on a company network or the Internet.
  - **operating system** A set of programs that controls how the computer works. Examples of operating systems are the Windows® XP Tablet PC Edition and Windows® XP Home operating systems.
  - optical drive A drive which reads plastic coated discs on which information is recorded digitally, and uses a laser to read data, music, or videos.
- P palette See color palette.
  - parallel Processes that occur simultaneously. In communications, it means the transmission of more than one bit of information at a time. On your computer, the parallel port provides a parallel communications interface between the computer and an appropriate device. Most modern printers are parallel. Compare *serial*.
  - **password** A unique string of characters entered by a user to verify his or her identity to the computer or the network.
  - **peripheral** Any device, such as a printer or joystick, that is attached to the computer and controlled by the computer's CPU.
  - **pixel** Short for "picture element." The smallest dot that can be produced on a screen or printer.

- Plug and Play Generally, refers to the computer's ability to automatically configure itself to work with peripheral devices. When capitalized, refers to a standard that, when followed by a device manufacturer, allows a computer to configure itself automatically to work with the device.
- **pointing device** Any device, such as the TouchPad or a mouse, that enables you to move the cursor on the screen.
- **port** A socket on the computer where you plug in a cable for connection to a network or a peripheral device.
- **processor** See *central processing unit (CPU)*.
- **program** A set of instructions that can be executed by a computer. The general classes of programs (also called software) are operating system, application, and utility. See also *operating system*, application, utility.
- **properties** The attributes of an object or device. For example, the properties of a file include the file's type, size, and creation date.
- RAM (random access memory) Volatile memory that can be written to as well as read. Volatile here means that information in RAM is lost when you turn off your computer. This type of memory is used for your computer's main memory. See also memory. Compare ROM.

random access memory — See RAM.

read-only memory — See ROM.

**reboot** — See *boot*, *restart*.

- **removable disk** A disk that can be removed from a disk drive. A diskette is one example of a removable disk.
- resolution A measure of the sharpness of the images that can be produced by a printer or displayed on a screen. For a printer, resolution is expressed in dots per inch (dpi). For a screen, it is expressed as the number of pixels available horizontally and vertically.
- **restart** Synonymous with reboot. To reset the computer by reloading the operating system without turning the computer off. See also *boot*.

- RJ11 A modular connector used on most U.S. telephone systems and direct-connect modems. The RJ11 connector is a 6-wire connector.
- **ROM** (read-only memory) Non-volatile memory that can be read but not written to. *Non-volatile* here means that information in ROM remains whether or not the computer is receiving power. This type of memory is used to store your computer's BIOS, which is essential instructions the computer reads when you start it up. See also *BIOS*, *memory*. Compare *RAM*.
- **S** select To highlight or otherwise specify text, data, or graphics with the intent to perform some operation on it.
  - serial Processes that occur one at a time. In communications, it means the transmission of one bit at a time sequentially over a single channel. On your computer, the serial port provides a serial interface between the computer and an appropriate device. Compare *parallel*.
  - **shortcut** See *keyboard shortcut*.
  - **software** See *program*. Compare *hardware*.
  - solid state drive A data storage device that utilizes solid-state memory as opposed to a hard disk (see hard disk). Much like hard disks, solid state drives hold much more information than diskettes and are used for storage of programs and data.
  - **Standby** A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.
  - **Suspend** A feature of some Windows® operating systems that allows you to turn off the computer without exiting your open applications and to continue from where you left off when you turn the computer on again.
  - system disk A diskette that contains the operating system files needed to start the computer. Any diskette can be formatted as a system disk. A system disk is also called a "bootable disk" or a "startup disk." Compare non-system disk.
  - system prompt The symbol (in the MS-DOS® operating system, generally a drive letter followed by a "greater than" sign) indicating where users are to enter commands.
- **TFT display** See active-matrix display.

- U
- universal serial bus (USB) USB is a serial bus that supports a data transfer rate of up to 480 Mbps (480 million bits per second). USB can connect up to 127 peripheral devices through a single all-purpose USB port. USB allows hot swapping of peripherals. See also bus, hot swapping, serial.
- **upload** To send a file to another computer through a modem or network. See also *download*.
- **USB** See *universal serial bus (USB)*.
- utility A computer program designed to perform a narrowly focused operation or solve a specific problem. Utilities are often related to computer system management.
- **Web** See World Wide Web.
  - Wi-Fi® A registered trademark term of the Wi-Fi Alliance that stands for Wireless Fidelity, and is another term for the communication protocol to permit an Ethernet connection using wireless communication components.
  - World Wide Web (www) The worldwide network of Web sites linked together over the Internet. A user of the Web can jump from site to site regardless of the location of the computer hosting the site. See also *Internet*.

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