Portégé® 3500/3505 Series User's Guide

If you need assistance:

❖ InTouch® 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 175.

TOSHIBA

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Model: Portégé 3500/3505 Series

Compact Disk-ReWritable

The computer system you purchased may include a Compact Disk-ReWritable (CD-RW), one of the most advanced storage technologies available. As with any new technology, you must read and follow all set-up and usage instructions in the applicable user guides and/or manuals enclosed. If you fail to do so, this product may not function properly and you may lose data or suffer other damage. **TOSHIBA AMERICA INFORMATION SYSTEMS ("TOSHIBA"), ITS AFFILIATES AND SUPPLIERS DO NOT WARRANT THAT OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE. YOU AGREE THAT TOSHIBA, ITS AFFILIATES AND SUPPLIERS SHALL HAVE NO RESPONSIBILITY FOR DAMAGE TO OR LOSS OF ANY BUSINESS, PROFITS, PROGRAMS, DATA OR REMOVABLE STORAGE MEDIA ARISING OUT OF OR RESULTING FROM THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY THEREOF.**

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

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 or expansion unit's serial port, parallel port, monitor port, USB port, PS/2 port®, i.LINK® port and microphone jack. 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.

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Contact:

Toshiba America Information Systems, Inc.
9740 Irvine Blvd.
Irvine, CA 92618-1697
(949) 583-3000

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.

FCC Requirements

The following information is pursuant to FCC CFR 47, Part 68 and refers to internal modems.

Installation

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

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

❖ The FCC registration number of the modem.

❖ The ringer equivalence number (REN) of the modem, which is 0.6B.

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

Type of Service

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

Telephone Company Procedures

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

company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If Problems Arise

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

Disconnection

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

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity or individual sending the message and the telephone number of the sending machine or such business, other entity or individual.

In order to program this information into your fax modem, you should complete the setup for your fax software before sending a message.

Instructions for IC CS-03 certified equipment

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

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be

aware that compliance with the above conditions may not prevent degradation of service in some situations.

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

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

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

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

The Ringer Equivalence Number (REN) of this device can be found on the label affixed to your computer.

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

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

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 B), as defined and approved by the Institute of Electrical and Electronics Engineers.

❖   The Wireless Fidelity (Wi-Fi™) certification as defined by the WECA Wireless Ethernet Compatibility Alliance.

Wireless LAN and your Health

Wireless LAN products, like other radio devices, emit radio frequency electromagnetic energy. The level of energy emitted by Wireless LAN devices however is far much less than the electromagnetic energy emitted by wireless devices like for example mobile phones. Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, 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 of 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.

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.

USA-Federal Communications Commission (FCC)

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

❖   This device may not cause harmful interference.

❖   This device must accept any interference that may cause undesired operation.

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Caution: Exposure to Radio Frequency Radiation

The radiated output power of the TOSHIBA Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits. Nevertheless, the TOSHIBA Wireless LAN mini PCI Card shall be used in such a manner that the potential for human contact during normal operation is minimized. The antenna(s) used in this device are located at the upper edge of the LCD screen, and this device has been tested as portable device as defined in Section 2.1093 of FCC rules when the LCD screen is rotated 180 degree and covered the keyboard area. In addition, Wireless LAN has been tested with Bluetooth transceiver (FCC ID:CJ6UPA3232BT) for co-location requirements. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

> *NOTE: 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.*

Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

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

TOSHIBA is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this TOSHIBA Wireless LAN Mini PCI Card, or the substitution or attachment of connecting cables and equipment other than specified by TOSHIBA.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

Approved Countries for use

This equipment is approved to the radio standard by the countries in Fig.1.

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Iceland	Ireland	Italy
Japan	Luxembourg	Netherlands
New Zealand	Norway	Poland
Portugal	Spain	Sweden
Switzerland	UK	USA

Fig. 1.

Caution: Do not use this equipment except in the countries in Fig.1.

Caution: Bluetooth and Exposure to Radio Frequency Radiation

The radiated output power of the Bluetooth™ Cards from Toshiba is far below the FCC radio frequency exposure limits. Nevertheless, the Bluetooth™ Cards from Toshiba shall be used in such a manner that the potential for human contact during normal operation is minimized. This device has been tested with Wireless LAN (FCC ID:CJ6PA3171WL) for co-location requirements. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE: 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.

Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

❖ Reorient or relocate the receiving antenna.

❖ Increase the distance between the equipment and the receiver.

❖ Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

❖ Consult the dealer or an experienced radio/TV technician for help.

Toshiba is not responsible for any radio or television interference caused by unauthorized modification of the devices included with this Bluetooth™ Cards from Toshiba, or the substitution or attachment of connecting cables and equipment other than specified by Toshiba.

The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

CD-ROM, DVD-ROM, DVD-ROM/CD-RW Safety Instructions

The CD-ROM, DVD-ROM, and DVD-ROM/CD-RW drives employ a laser system. To ensure proper use of this product, please read this instruction manual carefully and retain for future reference. Should the unit ever require maintenance, contact an authorized service location.

Use of controls, adjustments or the performance of procedures other than those specified may result in hazardous radiation exposure.

To prevent direct exposure to the laser beam, do not try to open the enclosure.

Location of the required label

(Sample shown below. (Location of the label and manufacturing information may vary.)

Product is certified by the manufacturer to comply with DHHS rules 21 CFR sub-chaper J applicable at the date of manufacture.

MANUFACTURED:

Toshiba Corporation
1-1, Shibaura 1-Chome
Minato-Ku, Tokyo 105-0061, Japan
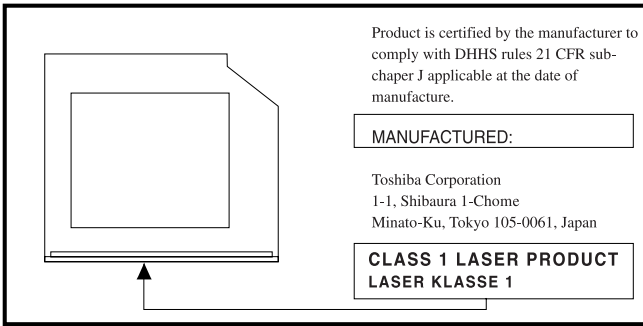
CLASS 1 LASER PRODUCT
LASER KLASSE 1

CAUTION: This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT." To use this model properly, read the instruction manual carefully and keep it for your future reference. In case of any trouble with this model, please contact your nearest "AUTHORIZED service station." To prevent direct exposure to the laser beam, do not try to open the enclosure.

CLASS 1 LASER PRODUCT
LASSER KLASSE 1

Use of controls or adjustments or performance of procedures other than those specified in the owner's manual may result in hazardous radiation exposure.

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Notice

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

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Microsoft, Windows, DirectX, and DirectShow are registered trademarks, and Windows Media is a trademark of Microsoft Corporation.

PS/2 is a registered trademark of International Business Machines Corporation.

Wi-Fi is a trademark of the Wireless Capability Ethernet Alliance.

Bluetooth is a trademark owned by its proprietor and used by Toshiba under license.

Symbol Commander is a trademark of Sensiva, inc.

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

Computer Disposal Information

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government or the Electronic Industries Alliance at www.eiae.org.

Contents

Introduction

Welcome to the world of powerful and portable multimedia computers! With your new Toshiba notebook computer, your access to information can accompany you wherever you go.

You will find that your Microsoft® Windows® XP Professional operating system is already installed on your computer. It offers exciting features and easy Internet access.

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.

If you are new to computers, or have not used a notebook computer before, read through the first couple of chapters to familiarize yourself with the components of the computer and how to turn it on. After that, seek out whatever interests you most.

Safety icons

This manual contains safety instructions that must be observed in order 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 the icons highlight these instructions as follows:

DANGER: This icon indicates the existence of a hazard that could result in death or serious bodily injury if the safety instruction is not observed.

WARNING: This icon indicates the existence of a hazard that could result in bodily injury if the safety instruction is not observed.

CAUTION: This icon indicates the existence of a hazard that could result in damage to equipment or property if the safety instruction is not observed.

NOTE: This icon indicates information that relates to the safe operation of the equipment or related items.

Other icons used

Additional icons highlight other helpful or educational information:

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

HINT: This icon denotes 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:

❖   This electronic version of the user's guide.

❖   Guides for other programs that may come preinstalled on your computer and for additional programs on your Recovery CDs.

❖   Accessories information, which lists accessories available from Toshiba and explains how to order them.

❖   The Microsoft® Windows® operating system documentation, which explains the features of the operating system.

Service options

Toshiba offers a full line of service options built around its SelectServ™ warranty programs. For more information, visit Toshiba's Web site at Toshiba.com.

If you have a problem or need to contact Toshiba, see "If Something Goes Wrong" on page 175.

Chapter 1

Finding Your Way Around

This chapter presents a "grand tour" of your computer with illustrations to guide you along your way.

It serves as a reference when you need to locate specific parts of the computer.

Making sure you have everything

Before you do anything else, consult the Quick Start Card that shipped with your computer to make sure you received everything.

If any items are missing or damaged, contact your authorized Toshiba representative or your network administrator.

Finding where everything is located

The next few pages take you on a guided tour of your computer.

Front with the display panel closed

Battery lock
indicator
Battery
lock
Volume control dial
Display release button
IR port
Battery
release

Headphone jack
System indicator panel
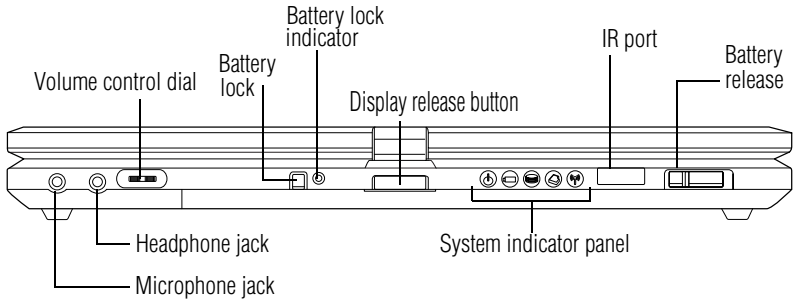
Microphone jack

🎤 **Microphone jack**—The 3.5 mm microphone jack lets you connect an external monaural microphone or other audio input device. Connecting a microphone or other device to this jack automatically disables the internal microphone.

🎧 **Headphone jack**—The 3.5 mm headphone jack lets you connect stereo headphones or other audio output devices. Connecting headphones or other devices to this jack automatically disables the internal speakers.

◢ **Volume control dial**—The volume control dial lets you adjust the volume of the system speakers.

Battery lock—Holds the battery securely in place.

Battery lock indicator—Indicator glows red when battery is locked.

Display release button—Pressing this button opens the computer display panel

System indicator panel—The system indicator panel is made up of several status lights that provide information about various system functions. See "System indicator panel" on page 34 for details.

Infrared port (IR)—Allows cable-free communication with another device, such as a computer or printer, that has a compatible infrared port.

Battery release—Releases the battery.

Back

DC-IN jack   RGB (monitor)
              port

Cooling vent   USB 2.0 ports
                                      Network port
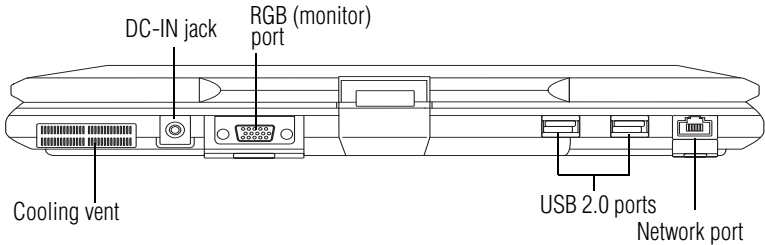
Cooling vent—Provides ventilation to keep the computer's
processor from overheating. The vent lets the processor
continue performing at its maximum speed.

*CAUTION: To prevent possible overheating of the computer's
processor, make sure you don't block the cooling vent.*

DC-IN jack—Enables you to plug in the AC adapter.

RGB (monitor) port—Lets you connect an external monitor.
For more information, see "Using external display devices"
on page 104.

USB 2.0 ports—The two USB (Universal Serial Bus) ports
provide a connection for USB peripherals.

*DEFINITION: USB 2.0 is a peripheral expansion standard that
supports a data transfer rate of up to 480 Mbps for peripherals
such as keyboards and pointing devices. USB peripherals have a
single standard for cables and connectors. The USB standard also
allows hot swapping of peripherals.*

Network port—Lets you connect the computer to an Ethernet
LAN (local area network).

Right side

Hard disk drive cover   Security lock slot
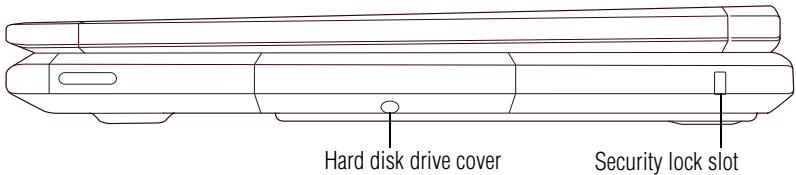
Hard disk drive cover—Covers the computer's hard disk drive.

Security lock slot—Attaching an optional PORT-Noteworthy® computer lock cable to the security lock slot lets you anchor your computer to a large, heavy object such as your desk. For more information, see .

Left side

Compact Flash eject button   Modem port   Wireless antenna on/off switch

Compact Flash (CF Type II) slot   PC card slot   SD card slot
PC Card eject button   SD indicator light
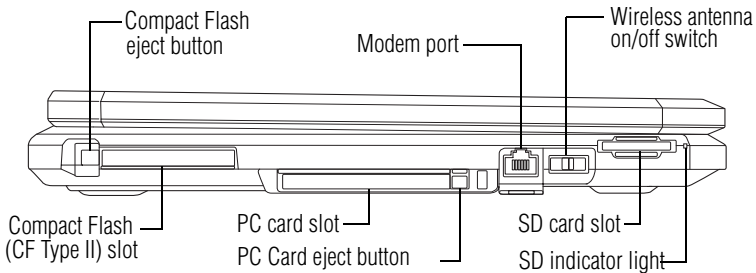
Compact Flash eject button—Allows easy removal of Compact Flash memory cards.

Compact Flash (CF Type II) slot—Compact Flash memory is available in 32, 64, and 128, and 512 MB sizes.

PC Card slot—A PC Card slot allows you to use Type II PC Cards. A shutter door protects the slot.

PC Card eject button—Allow easy removal of a PC Card.

Modem port—Lets you connect the computer's internal modem directly to a conventional telephone line.

Wireless antenna on/off switch—(available only on Wi-Fi or Bluetooth systems)— Lets you turn on a Wi-Fi or Bluetooth module on your system.

SD card slot—Lets you install and use an SD card.

SD indicator light—glows when the SD slot is in use.

Front with the display panel open

To view the front of the computer with the display panel open:

1 Locate the display release button on the front of the computer.

2 Press the button and lift the display panel.

3 Adjust the display panel to a comfortable viewing angle.

CAUTION: To avoid damaging the display panel, be careful when opening and closing it. Never force the panel beyond the point where it moves easily, and never use it to lift the computer.

For information on your computer's tablet feature, see "Using your computer in tablet mode" on page 58.

Toshiba tablet pen

Power button

Function keys

TouchPad

Primary control button

Power button lock

Windows Security button

Down button

Display release button

Screen and tablet

Enter/menu button

Up button

Keyboard indicator panel

Keyboard

Secondary control button

System indicator panel
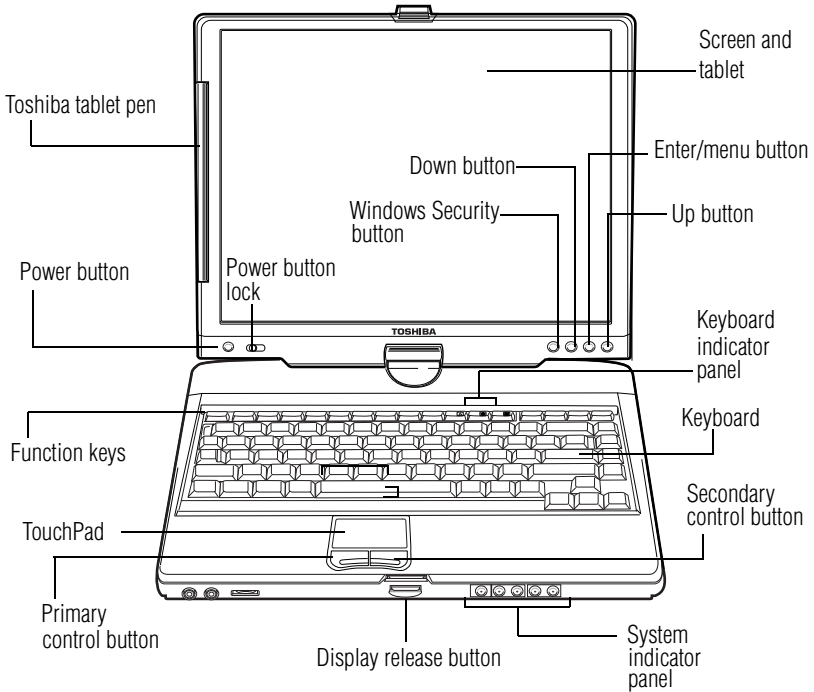
Toshiba tablet pen—The writing instrument used with the writing tablet. For more information, see "Using tablet mode" on page 106.

Power button—The power button is located above the Esc key. Press and release the power button to turn on the computer For more information, see "Turning on the power" on page 54.

Power button lock—Locks power on.

Function keys—Used with the Fn key, activate several different system functions. For more information, see "Hot Keys" on page 210.

TouchPad™—enables you to move the cursor with the stroke of a finger. For more information, see "Using the TouchPad™" on page 54.

Primary control button—Acts like the primary button on a mouse. For more information, see "Using the TouchPad™" on page 54.

Display release button—Pressing this button opens the computer display panel.

S**ystem indicator panel**— Provide information about various system functions. For a description of these lights, see "System indicator panel" on page 34.

Secondary control button—Acts like the secondary button on a mouse. For more information, see "Using the TouchPad™" on page 54.

Keyboard—The 84-key keyboard provides all the functionality of a full-size keyboard. For more information, see "Using the keyboard" on page 66.

NOTE: For environments that do not permit wireless use or instruct you to turn off all radio devices (for example, aboard commercial aircraft), you should turn the wireless antenna switch off.

Keyboard indicator panel—These lights provide information about various keyboard functions. See "Keyboard indicator panel" on page 35 for details.

Windows button—Performs the same function as pressing Ctrl, Alt, and Del simultaneously (once). For more information see "Display system buttons" on page 36.

Down button—Programmable button. For more information see "Display system buttons" on page 36.

Enter/menu button—Programmable button. For more information see "Display system buttons" on page 36.

Up button—Programmable button. For more information see "Display system buttons" on page 36.

Screen and tablet—The computer's screen is a liquid crystal display (LCD) that provides clear, sharp images. Note that the screen rotates clockwise and folds down to be used as a writing tablet. See "Using tablet mode" on page 106 for details.

Underside

Expansion memory cover
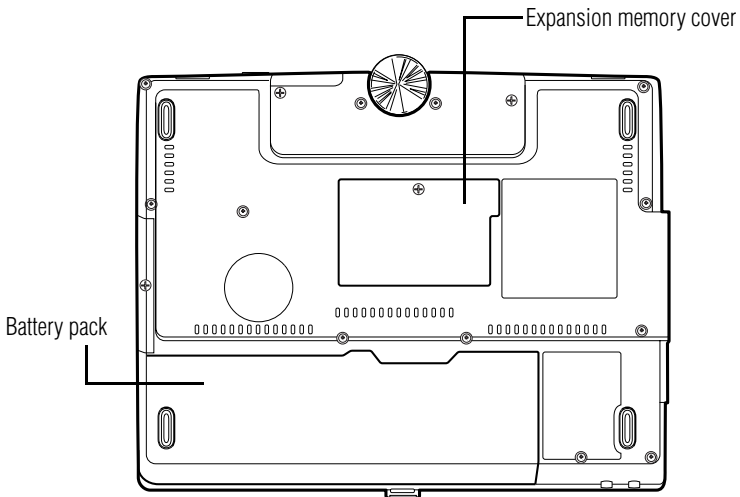
Battery pack

Battery pack—Lets you to use your computer when a standard electrical outlet is not available. For further information about using the battery, see "Mobile Computing" on page 86.

Expansion memory cover—Covers the expansion memory slot.

Indicator panels

Two sets of indicator panels, the system indicator panel and the keyboard indicator panel, display the current state of your system.

System indicator panel

This panel is located on the top leading edge of the display.

AC power light—Glows green when the computer is connected to an AC power source.

On/off light—Indicates whether the computer is on, off, or in a low power standby mode.

❖ Glows green when the computer is on.

❖ Flashes amber when you power down the computer using the Standby command.

❖ May flash amber if the computer is overheating.

Battery light—Indicates the status of the battery.

❖ Flashes amber when you are running on battery power and the battery charge is running low.

❖ Is off when you are running on battery power and the battery charge is not running low.

❖ Glows amber when you are connected to AC power and the battery is charging.

❖ Glows green when you are connected to AC power and the battery is fully charged.

For more information, see "Monitoring battery power" on page 91.

Hard disk drive light—Flashes to indicate that the hard disk is currently in use.

Wireless indicator light—If your computer is fitted with an optional wireless communication system, either 802.11b (now referred to as Wi-Fi—wireless fidelity) or Bluetooth, this indicator light glows amber when the wireless on/off antenna switch is on. For more information on connecting to a wireless local area network (LAN), see "Connecting your computer to a network" on page 81.

Keyboard indicator panel
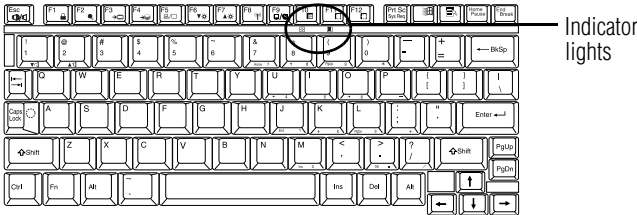
Indicator lights

The lights on the keyboard indicator panel provide information about keyboard functions.

Caps lock light—The light on the Caps lock key glows green when the Caps lock is on.

Cursor control light—Glows green when the cursor control overlay is on. When this light is on, pressing an overlay key moves the cursor as shown by the white arrow or command printed on the key instead of the letter printed on the top of the key. For more information, see "Using the cursor control overlay" on page 71.

Numlock light—Glows green when the numeric overlay is on. When this light is on, pressing an overlay key produces the white number printed on the key instead of the letter printed on the top of the key. For more information, see "Using the overlay to type numeric data" on page 70.

Display system buttons
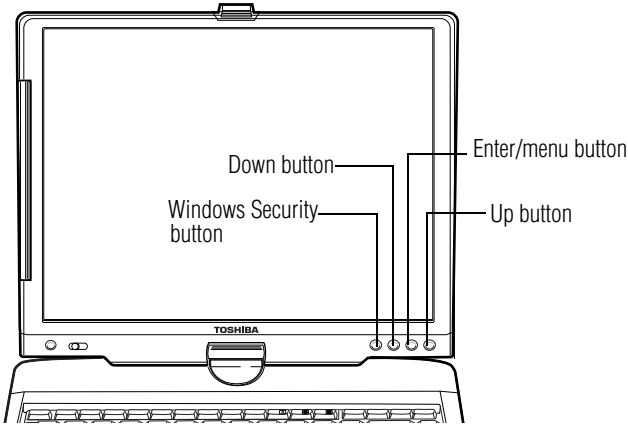
Use the four buttons below the screen on the right, to perform the following functions:

Windows Security button—Performs the same function as pressing Ctrl, Alt, and Del simultaneously (once).

Down button—Programmable button.

Up button—Programmable button.

Enter/menu button—Programmable button. To use the Enter feature, click once. To use the Menu feature, click and hold the button down until the following Tablet menu appears.
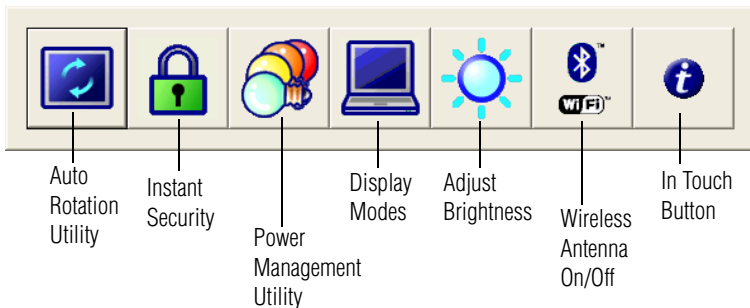
Sample Tablet menu

Use the **Up** or **Down** buttons to move to the item you would like to quickly access, and then press the **Enter/menu** button to select it.

For more information on the functions of Tablet menu items, see "Tablet and Pen Settings" on page 163.

Chapter 2

Getting Started

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

Selecting a place to work

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

Creating a computer-friendly environment

Place the computer on a flat surface 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.

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

❖ Dust, moisture, and direct sunlight.

❖ Liquids and corrosive chemicals.

CAUTION: If you spill liquid into the computer, turn it off, unplug it from the AC power source, and let it dry out completely before turning it on again.

If the computer does not operate correctly after you turn it back on, contact your Toshiba service representative or your network administrator.

❖ 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.

Keeping yourself comfortable

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

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

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

Placement of the computer

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

❖ Place the computer on a flat surface at a comfortable height and distance. You should be able to type without twisting your torso or neck, and look at the screen without slouching.

❖ If you are using an external monitor, the top of the screen should be no higher than eye level.

❖ If you use a paper holder, set it at about the same height and distance as the screen.

Seating and posture

When using your computer, maintain good posture with your body relaxed and your weight distributed evenly. Proper seating is a primary factor in reducing work strain. Some people find a backless chair more comfortable than a conventional chair. Whichever type you choose, use the following guidelines to adjust your chair for maximum computing comfort.

Below eye level

Approximately 90-degree angles

Footrest
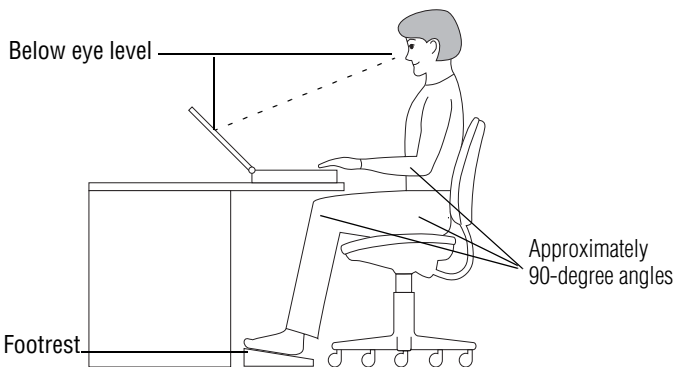
Correct posture and positioning of the computer

❖ Position your chair so that the keyboard is at or slightly below the level of your elbow. You should be able to type

comfortably with your shoulders relaxed and your forearms parallel to the floor.

If you are using a conventional chair:

❖ Your knees should be slightly higher than your hips. If necessary, use a footrest to raise the level of your knees and ease the pressure on the back of your thighs.

❖ Adjust the back of your chair so that it supports the lower curve of your spine. If necessary, use a cushion to provide extra back support. Lower-back-support cushions are available at many office supply stores.

❖ Sit with your back straight so that your knees, hips, and elbows form approximately 90-degree angles when you work. Avoid slumping forward or leaning back too far.

Lighting

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

❖ Position the display panel or external monitor so that sunlight or bright indoor lighting does not reflect off the screen. Use tinted windows or shades to reduce glare.

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

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

Arms and wrists

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

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

Work habits

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

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

❖ Avoid performing repetitive activities for long periods. Intersperse such activities with other tasks.

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

Precautions

❖ Avoid spilling liquids on the computer's keyboard.

If you do spill a liquid that gets into the keyboard, turn off the computer immediately. Leave the computer turned off overnight to give it time to dry out before you use it again.

❖ If a drive-in-use light indicates the drive is being accessed, don't turn off the computer.

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

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

Information on diskettes is stored magnetically. Getting a magnet too close to a diskette can erase important files.

❖ Scan all new files for viruses.

This precaution is especially important for files you receive via diskette or email, or download from the Internet.

Setting up your computer

Your computer contains a rechargeable 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 adapter. See "Connecting to an AC outlet" on page 51.

To register your computer online, or to sign up for an Internet account, you must connect the built-in modem to a telephone line. See "Connecting the modem" on page 49.

Before starting to use your computer, you may also want to:

❖ Add more memory

❖ Connect a mouse (see "Connecting an external USB mouse" on page 48)

❖ Connect a full-size keyboard (see "Connecting an external USB keyboard" on page 48)

❖ Connect an external monitor (see "Connecting other external devices" on page 53 and "Using external display devices" on page 104)

❖ Connect a local printer (see "Connecting a printer" on page 48)

❖ Install PC Cards (see "Using PC Cards" on page 112)

Installing a memory module

Depending on your system's configuration, the memory slot may be occupied.

You need a standard Phillips no. 1 screwdriver to install a memory module.

⚠️ *CAUTION: To avoid damaging the computer's screws, use a standard Phillips no. 1 screwdriver that is in good condition.*

⚠️ *CAUTION: Do not install or remove a memory module while the DVD-ROM drive power is on.*

⚠️ *CAUTION: Installing a memory module with the computer's power on may damage the computer, the module, or both.*

If the computer is on, begin at step 1; otherwise, skip to step 3.

1 If the computer is on, click **Start**, **Turn Off Computer**.

  The Turn off computer window appears.

2 Click **Turn Off**.

  The operating system turns off the computer.

3 Unplug and remove any cables connected to the computer.

4 Remove the battery.

5 Close the display panel and turn the computer upside down to locate the expansion memory cover to the memory slot.

Expansion memory cover
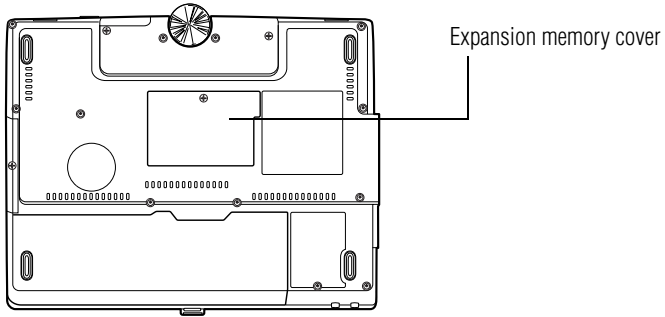
Base of the computer

6 Using a standard Phillips no. 1 screwdriver, unscrew the screw that secures the memory slot cover, then remove the memory slot cover.
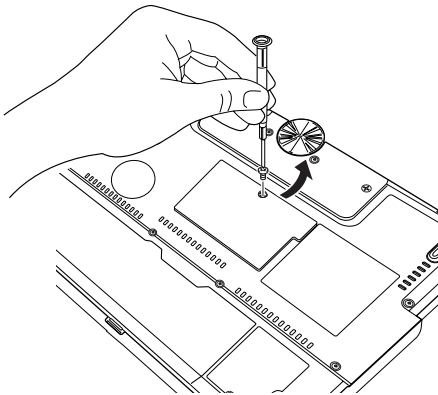
Removing the memory slot cover screws

7 Place the screw and the cover in a safe place so that you can retrieve them later.

> ⚠ *CAUTION: Static electricity can damage the memory module. Before you handle the module, touch a grounded metal surface to discharge any static electricity you may have built up.*
>
> *To avoid damaging the memory module, be careful not to touch its gold connector bar (on the side you insert into the computer).*

8 Remove the new memory module from its antistatic packaging.

9 Holding the memory module by its edges so that the gold connector bar faces the slot, fit the module into the socket.

10 Gently press down on the memory module connector until the clips snap into place.

Do not force the module into position. The memory module should be level when secured in place.
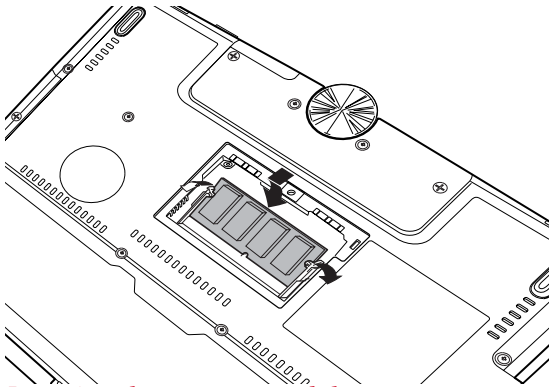
Inserting the memory module

> ⚠ *CAUTION: Avoid touching the connectors on the memory module or on the computer. Grease or dust on the connectors may cause memory access problems.*

11 Replace the memory slot cover.

12 Replace the screw and tighten it.

13 Turn the computer over and reconnect any cables you removed.

Removing a memory module

If you need to remove a memory module:

1 Complete steps 1–7 in ""Installing a memory module" on page 44" to shut down the computer and expose the memory module(s).

2 Pull the clips away from the memory module.

The memory module pops partially out of the slot.
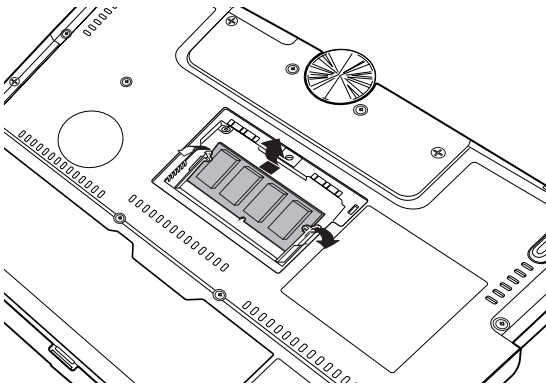
Pulling the clips away from the memory module

3 Carefully remove the module from the slot.

4 Replace the memory slot cover and the screw.

5 Restart the computer.

Connecting an external USB mouse

You may want to use a mouse instead of the TouchPad, the computer's built-in pointing device. You can attach an external mouse to one of the computer's USB ports, provided the mouse is USB-compatible.

To connect the mouse to your computer, plug its cable into one of the USB ports. You can connect it while the computer is on.

The operating system automatically detects the mouse. The mouse and TouchPad can be used at the same time.

Connecting an external USB keyboard

You can attach an external standard keyboard to a USB port on your computer, provided the keyboard is USB-compatible.

NOTE: The emulation Fn key is not supported when using a USB keyboard.

Connecting a printer

You can connect a local USB printer to your computer.

If the printer has a USB interface, you can connect it directly to the computer.

You also need a USB cable, which may come with your printer. You can purchase one from a computer or electronics store.

Connecting a USB printer

1 Connect the flat end of the USB cable to the USB port.

2 Connect the other end of the USB cable to the printer.

3 Connect the printer's power cable to a power outlet and turn on the printer.

See your printer documentation for additional configuration steps, or see "Setting up a printer" on page 60.

Connecting the modem

Your computer comes with a built-in modem that can be connected to a standard voice-grade telephone line.

The modem allows you to:

❖ Access the Internet.

❖ Communicate with your office's local area network (LAN), or a larger corporate wide area network (WAN).

   For specific information about connecting to a LAN or WAN, consult your network administrator.

❖ Send a fax directly from your computer.

For more information regarding your system's V.92 modem, visit the Toshiba web site at www.pcsupport.toshiba.com.

Connecting to a phone line

Before you can communicate using the modem, you need to connect it to a telephone line. Your computer's built-in modem provides an RJ11 jack.

1 Plug one end of the telephone cable into the modem port on the left-side of the computer.
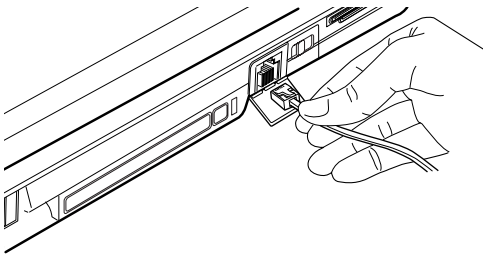
Connecting the telephone cable to the modem port

2 Connect the other end to the RJ11 wall jack.
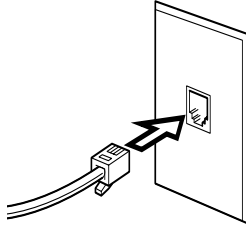
Connecting to a wall jack

CAUTION: The modem is designed for use with a standard analog telephone line. Never connect the modem to a digital telephone line. A digital line will damage the modem.

Now you're ready to send a fax or use the modem to connect to an online service or the Internet.

For more information on using a modem, see "Setting up for communications" on page 125.

HINT: If you are using a telephone line at home, disable Call Waiting before you connect through the modem. Call Waiting interrupts transmission.

Connecting to a network

To learn how to use your computer's LAN or Wi-Fi capabilities to connect to a network, see "Connecting your computer to a network" on page 81

Connecting to a power source

Your computer requires power to operate. Use the power cable and AC adapter to connect the computer to a live power outlet, or use the battery.

Connecting to an AC outlet

The AC adapter enables you to power the computer from a wall outlet and to charge the computer's battery.

DANGER: Hold the power cable by its plug when you connect/ disconnect it. Do NOT pull the cable itself. Doing so may damage the power cable and result in a short circuit or electric shock.

To connect AC power to the computer:

1 Connect the power cable to the AC adapter.
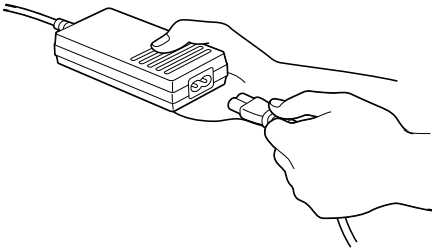
Connecting the power cable to the AC adapter

⊖-⊖-⊖   **2**   Plug the AC adapter into the DC-IN on the back of the computer.
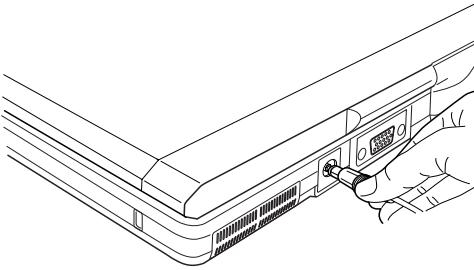
Connecting the AC adapter to the computer

3   Connect the power cable to a live electrical outlet.

     If the electrical outlet is live, the system indicator panel's AC power light (➡⊃) glows green.

DANGER: Damaged power cables can cause fire or electric shock. Never modify, forcibly bend, place heavy objects on top of, or apply heat to the power cable.

If the power cable becomes damaged or the plug overheats, discontinue use. There is a risk of electric shock.

Never remove the power plug from the outlet with wet hands. Doing so may cause an electric shock.

CAUTION: Use of the wrong AC adapter could damage your computer. Toshiba assumes no liability for any damage in such cases.

Never pull directly on the power cable to unplug it. Hold the power plug when removing the cable from the outlet.

Using the battery

Your computer came with its battery already installed. Before using the battery to power the computer, you must first charge it.

To charge the battery, leave the computer plugged in until the battery light glows green. After that, the battery will be completely charged and ready to power the computer.

For more information about installing or removing the battery, see "Changing the battery" on page 97.

Connecting other external devices

For more information on attaching other external devices, such as a keyboard and diskette drive, see "Expansion Options" on page 102.

Using the computer for the first time

For information on connecting devices, see "Setting up your computer" on page 43.

Opening the display panel

1 Press the display release button.

2 Lift 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.

To learn how to rotate the display panel or use your computer in tablet mode. see "Using your computer in tablet mode" on page 58.

Turning on the power

To turn on the computer:

1   Make sure any external devices (such as the AC adapter, if you plan to use AC power rather than battery power) are properly connected and ready.

2   If an optional external diskette drive is connected to your computer, check that the drive is empty.

3   Press and hold in the power button until the on/off light on the system indicator panel glows green—about one second.

CAUTION: Never turn off the computer while any of the drives is in use. Doing so may damage the media in use and result in loss of data.

4   The preinstalled operating system will load automatically.

CAUTION: When you turn on the computer for the first time, don't turn off the power again until the operating system has loaded completely.

Using the TouchPad™

The TouchPad, the small, smooth square cutout 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'd 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've positioned your cursor, you can double-tap the TouchPad or click the buttons to open a program or file, or to get information about an icon.

Primary and secondary control buttons

When you want to click or choose an item, use the TouchPad to move the pointer/cursor to the item. Once the pointer/cursor is positioned, you can double-tap the TouchPad or click the buttons to open a program or file, or to get information about an icon.

The control buttons are adjacent to the TouchPad and are used like the buttons on a mouse. The primary control button is the left one and corresponds to the left mouse button. To double-tap, press the primary button twice in rapid succession.

The function of the secondary button depends on the program you are using. It usually corresponds to the right mouse button. Check your program's documentation to find whether it uses the secondary mouse button.

Disabling or enabling the TouchPad

The TouchPad is enabled by default. To change the current
enable/disable TouchPad setting:

1 Click **Start**, **Control Panel**.

The Control Panel window appears.

2 Click **Printers and Other Hardware**.

3 Click **Mouse Properties**.

The Mouse Properties window appears.

4 Click the **TouchPAD ON/OFF** tab.

The TouchPAD ON/OFF tab view window appears.
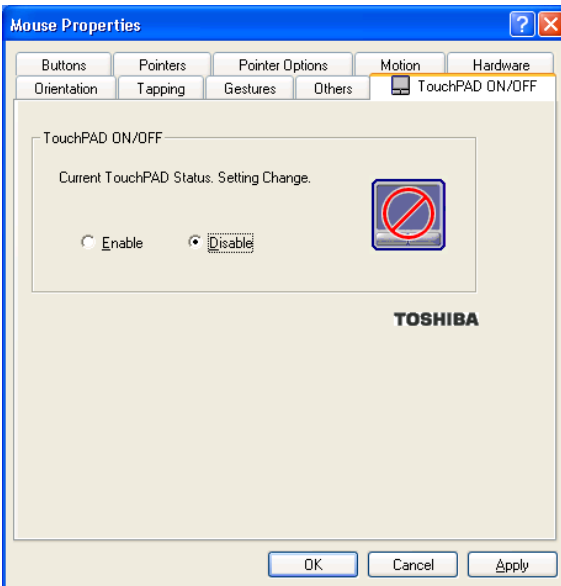
Sample Mouse Properties window

5 Select **Disable** or **Enable**, whichever is appropriate.

6 Click **Apply**.

7 Click **OK**.

The Mouse Properties window closes.

8 Close the Printers and Other Hardware window.

9 Close the Control Panel window.

You can also use a hot key to disable or enable the TouchPad. See, "Disabling or enabling the TouchPad" on page 216.

Setting up your software

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 Enter your name and the name of your company or organization and click **Next**.

4 Enter the information about your computer.

NOTE: If your computer has the Microsoft® Windows® XP Professional operating system and will be connected to a network, consult your system administrator before you choose your computer name and network settings.

5 Set the correct date, time and time zone for your computer and click **Next**.

Your computer restarts automatically.

Registering your computer with Toshiba

Registering your computer lets Toshiba keep you up-to-date with information about new products and upgrades, and also extends your Toshiba warranty worldwide at no charge to you. You can register your computer with Toshiba by double-

clicking the icon on your desktop or by mailing the registration card that may ship with your computer.

NOTE: To register online, your computer's modem must be connected to a voice-grade telephone line.

Using your computer in tablet mode

One of your computer's features is a convertible display that allows you to use the screen much as you would a writing tablet.
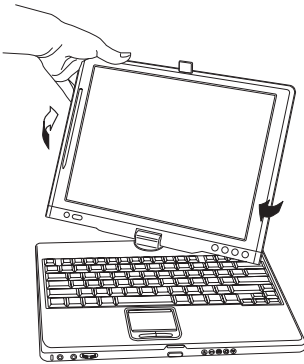
Rotating the screen

By simply rotating and folding the screen over the keyboard, your system is ready to use in tablet mode, with the included Toshiba tablet pen located at the edge of the screen.

CAUTION: When rotating LCD screen of your computer, be sure to slowly turn the screen in the proper direction, and not apply excessive force or speed.
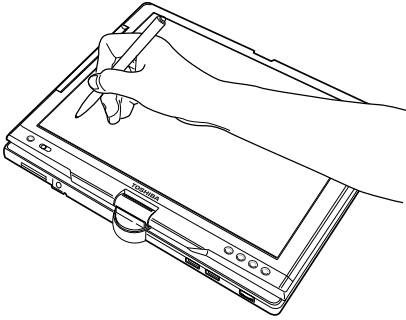
Using the computer in tablet mode

For more information on using the computer in tablet mode, see .

NOTE: Included with your computer is Sensiva's Symbol Commander™ allowing you to quickly execute commands (for example, changing the layout of the screen from landscape to portrait) by drawing a pre-assigned symbol on the screen. For details on using Symbol Commander, refer to the online help with the application.

Your computer came with applications already installed specifically designed to work with the tablet feature of the system. For more information on those applications, see the documentation provided with them.

Setting up a printer

If you have a printer, follow these steps to set it up for the first time. You only need to set up the printer once.

1 Click **Start**, **Printers and Faxes**.

The Printers and Faxes window appears.

2 Click **Add a Printer**.

The Add Printer Wizard appears
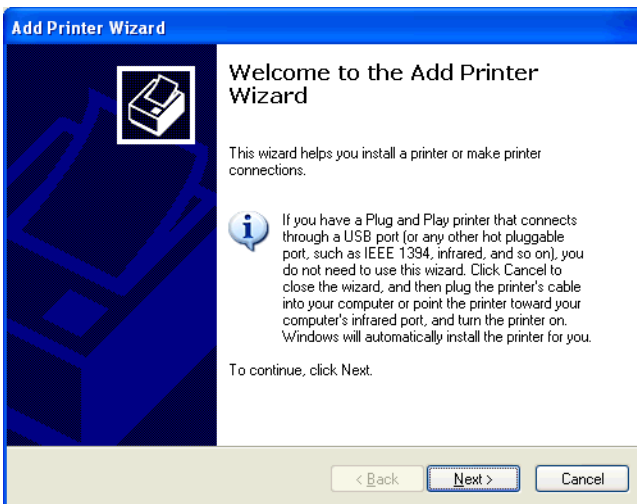
Sample Add Printer Wizard

3 Follow the on-screen instructions to set up your printer.

TECHNICAL NOTE: Some printers require a specific installation process. In this case, the Windows® XP Professional Add Printer Wizard will display an error message. If this happens, refer to your printer installation guide for further instructions.

Customizing your computer's settings

There are several ways in which you can customize your computer to suit your particular requirements. Refer to your operating system documentation or Help and Support for details.

You may also wish to customize your power usage settings. For more information, see "Turning off the display automatically" on page 96. There are additional custom settings you can choose. See "Toshiba Utilities" on page 149.

Powering off the computer

It's a good idea to power 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 battery. When the battery light glows green, the battery is fully charged.

Guidelines for powering off the computer:

❖ If you have work in progress and if you are not connected to a network, use the Hibernate command to save your system settings to the hard disk so that, when you turn on the computer again, you automatically return to where you left off.

❖ To leave the computer off for a longer period, power down the computer. The Windows® XP Professional operating system uses the Shut down command to power down the computer if you are connected to a Windows® network server (domain server) or the Turn Off command if you are not.

❖ When the hard disk drive light on the system indicator panel is on, don't turn off the power. Doing so may damage your hard disk.

For more information, see "Powering down the computer" on page 134.

Closing the display panel

When you are finished using the computer, power off and close the display panel to keep dust and dirt out of the computer.

If you close the display panel while the computer is still on, one of these actions will occur:

❖   If you have the audible warning set, the computer will beep to notify you that it is still on. See "Toshiba Hardware Setup" on page 160.

❖   If you have an action feature set, the computer will perform that action (Nothing, Standby, Hibernate). For more information, see "Power Management" on page 157.

Different ways to turn the computer on and off

Pressing the power button isn't the only way to turn on and off the computer.

Alternatives include:

❖   Using Hot Key combinations

❖   Opening and closing the display panel

For more information, see "Using Hibernation" on page 140 and "Using Standby" on page 144.

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 "Battery safety precautions" on page 88.

Cleaning the computer

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

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

Moving the computer

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

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 PORT-Noteworthy computer lock cable.

PORT-Noteworthy computer lock cable

To secure the computer:

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

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

2 Pass the locking end through the loop.

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

The computer is now securely locked.

Chapter 3

Learning the Basics

This chapter lists computing tips and provides important information about the system's basic features.

Computing tips

❖ Save your work frequently.

Your work temporarily stays in the computer's memory until you save it to the disk. You will lose all unsaved work, if, for example, a system error occurs and you must restart your computer, or your battery runs out of charge while you are working. Your computer can be configured to warn you when the battery is running low. See "Setting battery alarms" on page 95.

HINT: Some programs have an automatic save feature which you can turn on. This feature saves your file to the hard disk at preset intervals. See your software documentation for details.

❖   Back up your files to diskettes (or other removable
      storage media) on a regular basis. Label the backup
      copies clearly and store them in a safe place.

      If your hard disk suddenly fails, you may lose all the data
      on it unless you have a separate backup copy.

❖   Use Error-Checking and Disk Defragmenter regularly to
      conserve disk space and help your computer perform at
      its optimal level. Consult your Windows® XP operating
      system documentation for more information on these and
      other utilities.

❖   Always use the proper procedure to power off the
      computer. See "Powering down the computer" on
      page 134.

*TECHNICAL NOTE: The operating system records information,
such as your desktop setup, during its shutdown procedure. If you
don't let the operating system shut down, details such as new icon
positions may be lost.*

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.
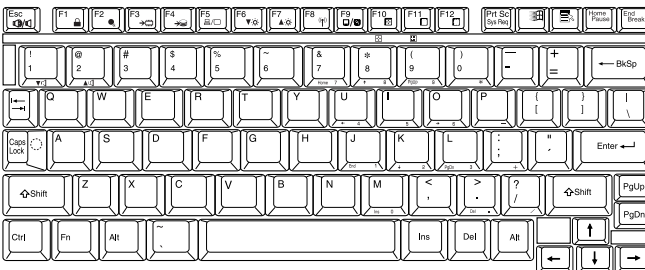
Keyboard

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 numeral 1 are not interchangeable.

❖ The uppercase letter O and the numeral 0 are not interchangeable.

❖ The Caps Lock key changes only the alphabet keys to upper case—the number and symbol keys are not affected. The light on the Caps Lock key glows when you press the Caps Lock key.

Making your keyboard emulate a full-size keyboard

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

A standard full-size keyboard has two Enter, Ctrl, and Alt keys, editing keys, cursor positioning keys, and a numeric keypad. Pressing the Fn key simultaneously in combination with one of the specially marked keys on your computer's built-in keyboard allows you to emulate a full-size keyboard.

NOTE: The emulation Fn key is not supported when using a USB keyboard.

Your computer's keyboard has only one Enter and one Ctrl key. Most of the time this doesn't matter. However, some programs assign separate functions to the right and left Ctrl and Alt keys, or to the regular and numeric pad Enter keys on the full-sized keyboard. Using the Fn key you can simulate these separate keys, as follows:

❖ Press Fn and Ctrl simultaneously to simulate the Ctrl key on the right side of the enhanced keyboard.

❖ Press Fn and Enter simultaneously to simulate the Enter key on the numeric pad of the enhanced keyboard.

Ctrl, Fn, and Alt keys
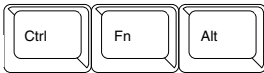
Ctrl, Fn, and Alt keys

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.

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, see "Fn-esse" on page 149, or "Hot Keys" on page 210.

Hot keys

When used in combination with the Fn key, function keys marked with icons run programmed functions specific to your computer. For more information, see "Hot Keys" on page 210.

Windows® special keys

Start key
Application key
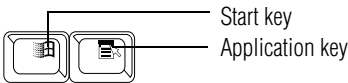
Windows® special keys

Your computer's keyboard has two keys, located at the top-right of the keyboard, that have special functions in the operating system:

❖ **Start key**—Opens the Start menu

❖ **Application key**—Has the same function as the secondary mouse (or TouchPad) button

Overlay keys

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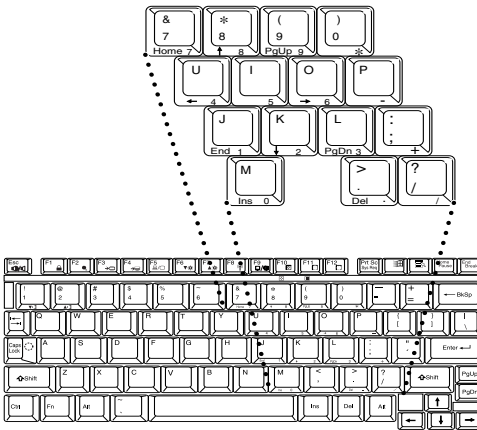
Numeric and cursor control overlay

Using the overlay to type numeric data

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

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

Once the numeric overlay is turned on:

To	*Procedure*
Type lowercase letters	Press and hold down Fn while you type the letters
Type uppercase letters	Press Fn and Shift simultaneously while you type the letters
Use the cursor control keys	Press and hold down Shift while you use the overlay keys, then release Shift to return to the numeric overlay

To turn off the numeric overlay, hold down the Fn key and press F11 again. The numeric mode light on the keyboard indicator panel goes out.

Using the cursor control overlay

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

Once the cursor control overlay is on:

To	*Procedure*
Type lowercase letters	Press and hold down Fn while you type the letters
Type uppercase letters	Press Fn and Shift simultaneously while you type the letters
Use the numeric keys	Press and hold down Shift while you use the overlay keys, then release Shift to return to the cursor control overlay

To turn off the cursor control overlay, hold down the Fn key and press F10 again. The cursor control mode light on the keyboard indicator panel goes out.

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 the following options:

❖ Double-click the icon for the program on your desktop

❖ Use the Start menu

❖ Use Windows® Explorer to locate the program file

❖ Use the Run dialog box

For more information, see Help and Support in the Start menu.

Saving your work

Before you turn off the computer, save your work to the hard disk drive or a diskette.

> *NOTE: Always save your data even when you are using the Stand by command. If your battery fully discharges, your information will be lost. Your computer can be configured to warn you when the battery is running low, see "Using battery alarms" on page 95.*

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

To save:

❖ A file you are updating, open the program's **File** menu and click **Save**.

❖ A new file, choose **Save As** from the **File** menu, type a name for the file, and click **OK**.

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

Printing your work

Verify that the Windows® XP operating system is set up for your printer as described in "Setting up a printer" on page 60.

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

To print a file:

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

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

The program displays a Print dialog box.

3   Click **OK** to print.

Using diskettes

To use diskettes, you must connect the optional external USB diskette drive to the USB port on the back of the computer. See "Using the optional external USB diskette drive" on page 103 for more information.

Inserting and removing diskettes

1   Insert a diskette into the insertion slot until it clicks in place.

A protective flap inside the drive's insertion slot automatically retracts when you insert a diskette.

The diskette-in-use light glows when the computer is accessing a diskette.

2   Push the diskette eject button to remove a diskette from the drive.

Copying documents to a diskette

Diskettes provide an easy means of transferring files from one computer to another. Copying a file to a diskette also gives you a backup copy in case something happens to the original on your hard disk. This section describes how to use the My Computer window to copy a file from the hard disk to a diskette.

To copy files to a diskette:

1 Connect the optional external USB diskette drive to the computer.

2 Insert a diskette into the drive.

3 Double-click the **My Computer** icon.

   The operating system opens the My Computer window.

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

   The operating system displays the contents of the drive.

5 Double-click the folder that contains the file, then click the file you want to copy.

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

6 On the menu bar, click **File**, then click **Send To**.

7 Click the icon for 3½ Floppy (A:).

   The operating system copies the file(s).

HINT: You can also copy a file to diskette by clicking the file (or files) you want to copy with the secondary button, then pointing to Send To and clicking 3 ½ Floppy (A:).

Taking care of diskettes

To protect the data stored on your diskettes:

❖ Store your diskettes in their boxes or other containers to protect them and keep them clean.

❖ Keep diskettes at room temperature and avoid exposing them to direct sunlight. Otherwise data may be lost.

❖ Keep your diskettes away from sources of magnetism, such as speakers and radios, since these can destroy data.

❖ Clean dirty diskettes with a soft cloth moistened in water. Do *not* use cleaning fluids.

Avoid:

❖ Sliding back the protective metal cover.

❖ Touching the magnetic surface of a diskette. Fingerprints can prevent the drive from reading the data held on a diskette.

❖ Twisting or bending a diskette.

❖ Placing heavy objects on your diskettes.

❖ Eating, smoking or using erasers near your diskettes. Foreign particles can damage the surface.

Backing up your work

To back up several files at one time, use the Backup or Restore Wizard. You can choose the files and the type of backup you want to perform.

1 Connect the backup device to your computer as shown in the manufacturer's instructions.

2 Click **Start**, **All Programs**, **Accessories**, **System Tools**, **Backup**.

The Backup or Restore Wizard window appears.
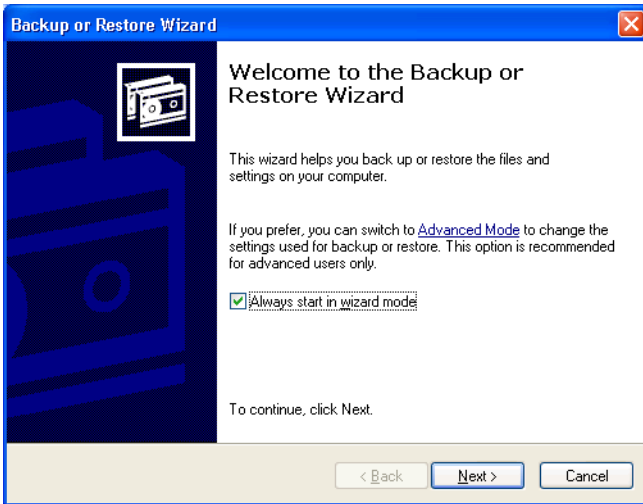
Sample Backup or Restore Wizard window

3 Follow the on-screen instructions.

Restoring your work

You can also use the Backup or Restore Wizard to restore information from your backup media to your hard disk.

TECHNICAL NOTE: When restoring files, the backup program prompts you if you try to overwrite a file that already exists on the hard disk. Make sure the backup version is the one you want before overwriting the existing file.

Using a DVD drive

Your computer may come with an external DVD-ROM drive that can read CDs and DVDs.

To attach this drive to your computer, follow the instructions in "Using an optional external DVD-ROM drive" on page 104.

Inserting discs (CD or DVD)

To insert a disc into the drive:

1 Make sure the computer is turned on.

2 Make sure the drive-in-use indicator light is off.

3 Press the drive's eject button.

The disc tray slides partially out of the drive (about 1 inch).

HINT: The drive won't open if the computer's power is off.

4 Grasp the tray and pull it fully open.
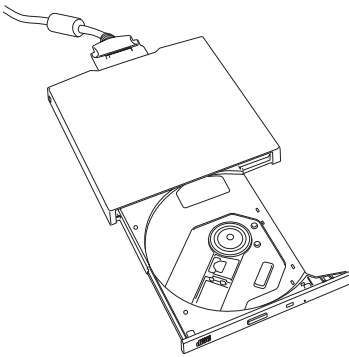
Drive tray fully extended

5 Hold the disc by its edges and check that it is free of dust.

If the disc is dusty, clean it as described in "Problems with the DVD-ROM drive" on page 192.

6 Place the disc carefully in the disc tray, label side up.

7 Gently press the disc onto the center spindle until you feel it click into place.

CAUTION: Handle DVDs and CDs carefully, making contact only with the center hole and edge. Never touch the surface of the disc. Never stack discs. If you incorrectly handle the discs, you could lose data.

8 Make sure the disc is completely on the spindle and is lying flat on the tray.

CAUTION: If you insert the disc incorrectly, it may jam the drive. If this happens, contact your network administrator for assistance.

9 Push the disc tray in by pressing gently on the center of the tray until it clicks into place.

You are ready to use the disc.

Playing a CD or DVD

For information on playing a disc, see "Using a DVD drive" on page 76.

Removing discs (CD or DVD)

To remove a disc with the computer turned on:

1 Press the eject button on the drive.

CAUTION: Never press the eject button while the drive-in-use indicator light is glowing. Doing so could damage the disc or the drive.

Also, if the disc is still spinning when you open the disc tray, wait for it to stop spinning before you remove it.

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

3 Gently push the tray in to close it.

To remove a disc with the computer turned off:

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

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

2 Gently pull the tray out until it is fully open, remove the disc, and place it in its protective cover.

3 Gently push the tray in to close it.

Caring for CDs and DVDs

❖ Store your discs in their original containers to protect them from scratches and keep them clean.

❖ Never bend a disc or place heavy objects on top of it.

❖ Never apply a label to, or otherwise mar the surface of a disc.

❖ Hold a disc by its outside edge. Fingerprints on the surface can prevent the drive from reading the data properly.

❖ Avoid exposing discs to direct sunlight or extreme heat or cold.

❖ To clean a disc that is dirty, wipe it with a clean, dry cloth. The most efficient method to clean it is to start from the center of the disc and wipe toward the outward edge (not in a circle). If necessary, moisten the cloth with water or a neutral cleaner (not benzine or rubbing alcohol). Let the disc dry completely before inserting it in the drive.

Playing audio

Your computer is equipped to play audio files, including those that run on optional media devices such as CD and DVD drives. By adjusting the controls on your operating system's Windows Media™ Player, you can control the playing of those files.

To access the Windows Media™ Player, click **Start**, then click **Windows Media Player**.
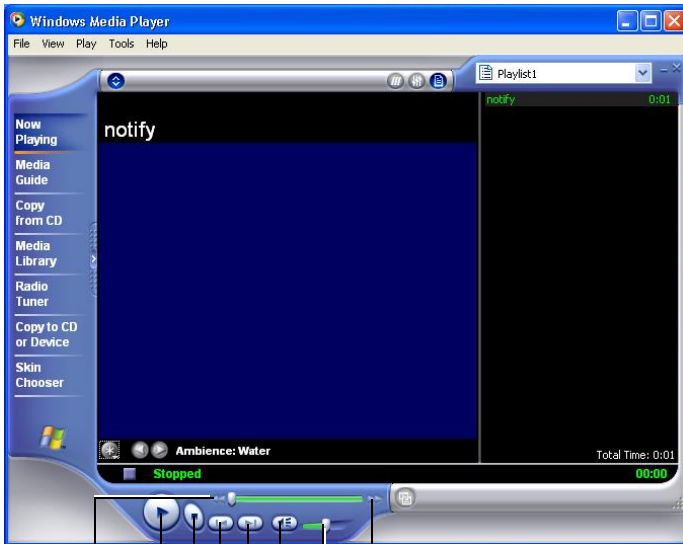
Rewind
Play
Stop
Previous track
Next track
Mute

Volume control

Fast forward

Sample Windows Media™ Player screen

With your pointing device, use the Windows Media™ Player screen as you would an audio control panel.

Setting up for communications

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

❖ A modem (supplied with your computer)

❖ A telephone line

❖ A browser or communications program

❖ An Internet Service Provider (ISP) or an online service if you plan to use the Internet

Before you can use the modem, you must connect it to a standard voice-grade telephone line. See "Connecting the modem" on page 49 for details.

Connecting your computer to a network

To access a network:

❖ At the office, connect the computer to a Local Area Network (LAN). For specific information about connecting to the LAN, consult your network administrator.

❖ Use your computer's optional Wi-Fi capability to connect to a wireless LAN.

❖ While you are at home or traveling, you need a dial-up connection. Ask your network administrator for the telephone number of the network.

To set up the connection, use the Dial-Up Networking Wizard:

1 Click **Start** and point to **All Programs**.

2 Point to **Accessories**, then to **Communications**, and click **Network Setup Wizard** or **Network Connections**.

3 Enter the phone number of your network connection and let the program dial the number.

The computer connects with the network.

An overview of using the Internet

The following sections give a quick introduction to the Internet and some of its exciting features, under these headings:

- ❖ The Internet
- ❖ The World Wide Web
- ❖ Internet Service Providers
- ❖ Connecting to the Internet
- ❖ Surfing the Internet
- ❖ Internet features
- ❖ Uploading and downloading files from the Internet

The Internet

The Internet is an association of thousands of networks and millions of computers around the world connected by communications lines. They all work together to share information.

The World Wide Web

The World Wide Web (or 'Web') is a subset of the Internet — a collection of interlinked documents (located on computers connected to the Internet) that work together using a specific Internet protocol called Hypertext Transfer Protocol (HTTP).

The World Wide Web offers information as text, images, audio, or video to be referenced from anywhere in the world. Special programs called Web browsers are specifically designed to work with HTTP. They make it easier to connect to a particular network address and send and receive information.

Internet Service Providers

To connect a computer directly to the Internet, many people and businesses use an Internet Service Provider (ISP). An ISP is a company that has the equipment and the telecommunication lines necessary to maintain an Internet connection.

You can connect to the Internet by using a telephone and modem or through other higher-speed communication methods such as Digital Subscriber Lines (DSL), cable, and satellite links.

Connecting to the Internet

To connect to the Internet, you need:

❖ A modem and telephone line, or a LAN connection

❖ A Web browser

❖ An Internet Service Provider (ISP) account

The Microsoft® Web browser Internet Explorer is automatically configured on your system so that when you first start it, it guides you through signing up for a new ISP account, or assists you in setting up your computer to work with your existing ISP.

Once you have established an ISP account, you can connect to the Internet.

1 Connect your computer's modem to a telephone line.

For more information on connecting to a modem, see "Connecting the modem" on page 49.

2 Start your Web browser. Have your modem dial the ISP's telephone number, and establish a connection with the ISP's computer.

If you are using your computer at the office, then you probably connect to the Internet through your company's network. See your network administrator about connecting to the Internet.

Surfing the Internet

Once connected to the Internet, the Web browser displays a home page, for example, your ISP's home page on the Internet or your company's Web site home page.

To visit a desired Web site, type in the Web address. The Web address, or Uniform Resource Locator (URL), is a unique identifier for that computer system linked to the Internet. Web addresses can also appear within a Web page's text, and are known as links. Clicking a link automatically displays the site on your Web browser.

You can also use a Search Engine, a Web site specifically designed to help you look for information.

Internet features

The Internet offers many types of communication tools to help you perform many tasks.

❖ Internet email

To send and receive email of your own, you need a mailbox on the Web, or an email address.

If you have an account with an ISP, you can probably set up an email address at the same time as you sign up for the service.

❖ Internet chat rooms

A chat room is a Web site that offers a place where people with similar interests and ideas can communicate in real-time, one-on-one or in groups, by typing messages which are instantly viewed by others on their computer screens.

❖ Internet news groups

A news group is similar to a chat room, but instead of using a dedicated site to converse about a specialized subject with others in real-time, it uses a Web site as a

clearinghouse where all the messages are placed, like a gigantic bulletin board.

❖ Online shopping

Many Web sites offer products and services for sale.

Uploading and downloading files from the Internet

Transferring files from one computer to another is termed uploading (transferring data from your computer to a site on the Web), or downloading (transferring data from a site on the Web to your computer).

There are several ways to upload or download data. It can be as simple as attaching a file or document to an email, or you can use the File Transfer Protocol (FTP) features of your Web browser to transfer large amounts of data.

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. For more information, see .

Chapter 4

Mobile Computing

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

Toshiba's energy-saver design

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

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

Running the computer on battery power

The computer contains a removable lithium ion (Li-ion) battery that provides power when you are away from an AC outlet. You can recharge it many times.

Battery life may vary depending on applications, power management settings and features utilized. Recharge time

varies depending on usage. The battery may not charge while the computer is consuming full power.

After a period of time, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is normal for all batteries. To purchase a new battery pack, see your accessories information that shipped with your computer or visit the Toshiba Web site at toshibaaccessories.com.

To ensure that the battery maintains its maximum capacity, operate the computer on battery power at least once a month until the battery is fully discharged. Please see "Maximizing battery life" below for procedures. If the computer is continuously operated on AC power, either through an AC adapter or a docking station (if applicable to your system), for an extended period (more than a month) the battery may fail to retain a charge. This may shorten the life of the battery, and the battery light may not indicate a low-battery condition.

The computer has an internal, lithium ion (Li-ion), real-time clock (RTC) battery.

The RTC battery powers the RTC memory that stores your system configuration settings and the current time and date information. It maintains this information for up to a month while the computer is turned off.

Maximizing battery life

To maximize the life of your battery:

❖ At least once a month, disconnect the computer from a power source and operate it on battery power until the battery fully discharges. Before doing so, follow the steps below:

   1 Turn off the computer's power.

   2 Disconnect the AC adapter 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 has at least five minutes of

operating time, continue operating until the battery is fully discharged. If the battery light flashes or there is some other warning to indicate a low battery, go to step 4.

4 Connect the AC adapter to the computer and the power cable to a power outlet. The DC-IN (if applicable to your system) or AC power light should glow green, and the battery light should glow amber to indicate that the battery is being charged. If the DC-IN or AC power light indicator does not glow, power is not being supplied. Check the connections to the AC adapter and power cable.

5 Charge the battery until the battery light glows green.

❖ If you have extra batteries, rotate their use.

❖ If you will not be using the system for an extended period (more than one month) remove the battery.

❖ Disconnect the AC adapter when the battery is fully charged. Overcharging makes the battery hot and shortens life.

❖ If you are not going to use the computer for more than eight hours, disconnect the AC adapter.

❖ Store spare batteries in a cool dry place out of direct sunlight.

Using additional batteries

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

Battery safety precautions

❖ Turn off the computer's power immediately and disconnect the power cable from the power socket, if the battery produces an odor, overheats or changes color or

shape while it is being used or charged. Carefully remove the battery from the computer.

❖ Never try to disassemble a battery.

❖ Never overcharge or reverse charge a battery. Overcharging will shorten its life and reverse charging could destroy it, causing the release of toxic fumes.

❖ Avoid touching the metal terminals of the battery with another metal object. Short-circuiting the battery will cause it to overheat and may cause permanent damage to the battery or the computer.

❖ Never incinerate a spent battery, as this will cause it to explode and release toxic materials.

❖ If a battery is leaking or damaged, replace it immediately. Use protective gloves when handling a damaged battery.

❖ To replace the battery, use an identical battery that you can purchase through toshibaaccessories.com.

❖ A reverse polarity condition should be avoided with all batteries. The battery is designed so that it cannot be installed to cause reverse polarity.

❖ Charge the battery only in the computer or in a battery charger designated as an approved option.

❖ When you install the battery, you should hear a click when it is seated properly.

❖ Do not expose the battery to fire. The battery could explode.

Charging batteries

The battery and replacement batteries needs to be charged before you can use them to power the computer. You can charge the battery using either your computer or an optional battery charger.

Charging the batteries

To charge the batteries in your computer, plug the computer into a live electrical outlet. The batteries charge whether the computer is on or off.

NOTE: Use only the battery charger supplied by Toshiba for use with your computer's batteries.

The battery light (⬜) glows amber while the battery is being charged, and glows green when it is fully charged.

A 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.

❖ The battery is almost completely discharged. Leave the power connected and the battery should begin charging after a few minutes.

The battery charges the RTC battery.

During normal use, the battery keeps the RTC battery adequately charged. Occasionally, the RTC battery may lose their charge completely, especially if you've had the computer turned off for a long time. To recharge the RTC battery, plug the computer in and turn it *on* for at least 24 hours.

Using a battery charger

You can purchase an optional battery charger that recharges batteries without requiring the use of your computer.

CAUTION: Avoid leaving batteries in the battery charger for more than a week at a time. Doing so may reduce the potential charge of the battery.

Use only battery chargers designed to work with your computer and its batteries. You can order a Toshiba battery charger through the accessories information sheet or Toshiba's Web site at toshibaaccessories.com.

Monitoring battery power

The computer's battery light gives you an indication of the battery's current charge:

❖ No illumination means the battery is not in use and the AC Adapter is not connected.

❖ Green means the battery is fully charged.

❖ Amber means the battery is charging (AC Adapter connected).

❖ Flashing amber means the battery charge is low and it is time to recharge the battery or plug in the AC Adapter.

HINT: Be careful not to confuse the battery light ( ) with the on/ off light ( ). When the on/off light flashes amber, it indicates that the system is suspended (using the operating system Standby command).

Determining remaining battery power

NOTE: Wait at least 16 seconds after turning on the computer before trying to monitor the remaining battery power. The computer needs this time to check the battery's remaining capacity and perform its calculations.

1 Click **Start**, then click **Control Panel**.

2 Click **Performance and Maintenance**.

3 Click the **Toshiba Power Saver** icon.

The Power Saver Properties window appears.

The current power source and battery power remaining section displays the current charge state of the battery. The value is shown as a percentage of remaining battery charge.

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 battery runs low

When the battery runs low you can:

❖ Plug the computer into an external power source and recharge the battery.

❖ Put the computer in Hibernation mode and replace the battery with a charged spare.

❖ Connect the computer to the optional high-capacity battery.

❖ Save your work and turn off the computer.

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

The computer stores information on what you were doing until the battery runs out of power. If you have Hibernation mode enabled (the default), the computer copies the details of your open programs and files to the hard disk before shutting down.

Conserving battery power

How long a fully charged battery 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 display panel instead of an external monitor.

❖ How much you use the hard disk and other drives.

❖ Whether you use any optional devices to which the battery supplies power.

❖ Where you are working—since operating time decreases at low temperatures.

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

Toshiba has combined these options into several preset power usage modes.

Setting a power usage mode

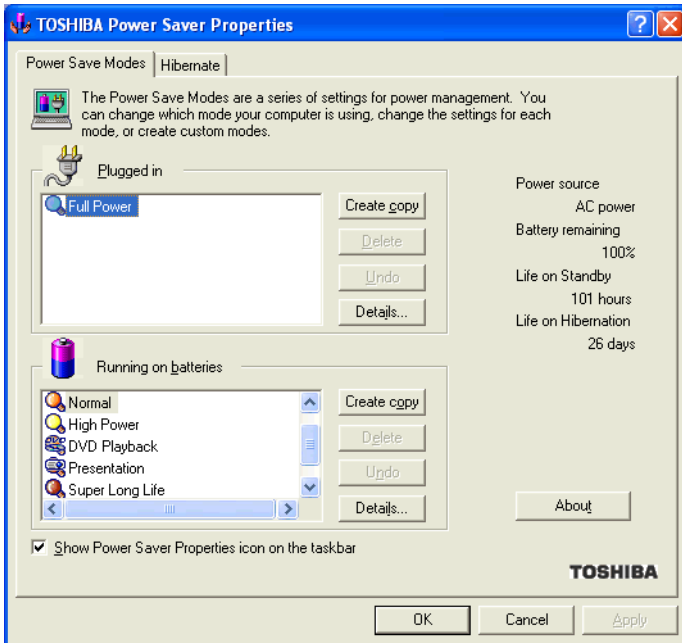*NOTE: Toshiba recommends that you use the Toshiba Power Management Utility for changing system power settings.*

1 Click **Start, Control Panel**.

The Control Panel window appears.

2 Click **Performance and Maintenance**.

3 Click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.

Sample TOSHIBA Power Saver Properties window

By changing the options that appear in the Power Saver Properties dialog box and clicking **OK**, you can reconfigure that function.

You may choose a power-saving management strategy to best suit your computing needs. If you are running on batteries and the programs that you are using do not require a lot of system resources, you may experience longer work sessions by enabling the Normal setting. Any options that you change become the active settings when you exit the program. (You do not have to restart your system before they become active settings.)

Using a hot key to select the power usage mode

1   Press Fn and F2 simultaneously to display the power usage pop-up window.

2   While continuing to press Fn, press F2 until you select the desired power usage mode.

3   Release the Fn key.

    The computer is now in the selected mode.

Using battery alarms

You can configure the computer to warn you when the battery is running low.

Setting battery alarms

You can set two alarms. Each alarm can be set to alert you when a specified percentage of remaining battery power has been reached. You can set how the warning occurs: sound an alarm, display a message, both, or none. You can also set the computer to enter Standby mode or Hibernation mode or to completely power down when the alarm goes off.

To set an alarm or alarms:

1   Click **Start**, **Control Panel**.

2   Click **Performance and Maintenance**.

3   Click the **Toshiba Power Saver** icon.

    The TOSHIBA Power Saver Properties window appears.

4   In the "Running on batteries" section, click **Details**.

The mode Properties window appears.

5   Click the Alarm tab and set the alarm(s), as desired.

Turning off the display automatically

To save power, it's a good idea to set the display to turn off automatically when you're not using the computer. You can do this in several ways:

❖   Use the Display Properties to enable the blank screen saver.

❖   Use the Power Saver Properties to turn off the LCD panel after a certain amount of time has passed.

Enabling the screen saver

1   Click **Start**, **Control Panel**.

2   Click **Appearance and Themes**.

3   Click **Display**.

The Display Properties window appears.

4   Click the **Screen Saver** tab.
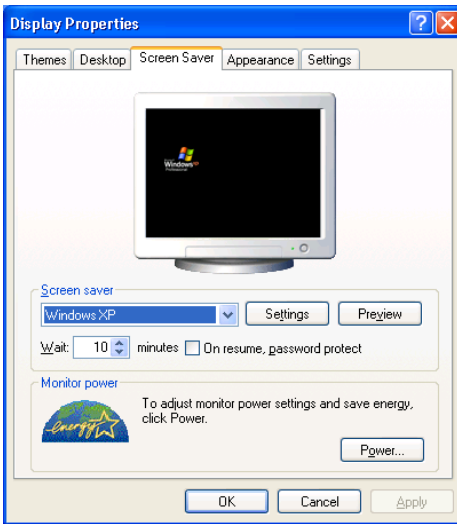
Sample Display Properties window with Screen Saver tab displayed

5 In the section labeled **Screen Saver**, select the screen saver of your choice.

6 In the Wait window, click the up and down buttons to set the number of minutes of inactivity before the display turns off automatically.

7 Click **Apply**, then **OK**.

Changing the battery

When your battery has run out of power, you have two options: plug in the AC Adapter or install a fresh battery.

TECHNICAL NOTE: To avoid losing any data, save your files and then either completely shut down your computer, or put it into Hibernation mode before changing the battery.

Removing the battery from the computer

> CAUTION: When handling batteries, don't drop or knock them. Also be careful not to damage the casing or short-circuit the terminals.

To remove the battery:

1 Save your work.

2 Shut down and turn off the computer.

3 Remove all cables connected to the computer.

4 Turn the computer over.

5 Slide the battery lock up and slide the release latch to the left.

6 Insert a fingertip in the battery pack recessed area and pull the discharged battery module out of the computer.
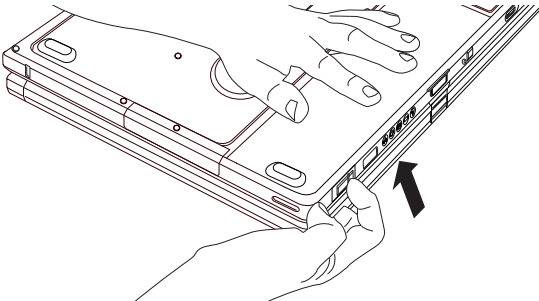
Unlocking the battery
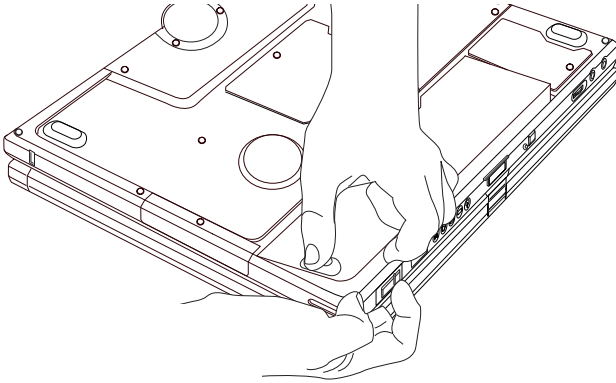
Removing the discharged battery

WARNING: If the battery is leaking or its case is cracked, put on protective gloves to handle it, and discard it immediately following the advice in *"Disposing of used batteries safely" on page 100*.

Inserting a charged battery

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

2 Insert the charged battery into the slot.

The battery has been designed so that you cannot install it with reverse polarity.

CAUTION: If the battery does not slide into the slot easily, remove the battery and try again. Avoid forcing the battery into position.

3 Turn the computer right side up and lock the battery into place using the battery lock.

4 Reconnect any cables.

5 Restart the computer.

Disposing of used batteries safely

You can recharge a battery many times, so it should last for years. When the battery needs replacing, the battery light flashes amber shortly after you have fully recharged the battery.

You must discard a battery if it becomes damaged.

CAUTION: The battery is a lithium ion (Li-ion) battery, which can explode if not properly replaced, used, handled, or disposed of. Putting spent batteries in the trash is not only irresponsible, it may be illegal. Dispose of the battery as required by local ordinances or regulations.

Use only batteries recommended by Toshiba.

The materials that came with your computer may include an insert regarding the disposal of batteries. If not, check with your local government for information on where to recycle or dispose of old batteries.

Traveling tips

The environmental precautions listed in "Selecting a place to work" on page 38 also apply while traveling.

❖ Never leave your computer on a sunny ledge or in a place where it could get splashed with moisture or covered in dust.

❖ Always travel with the computer in a carrying case. Toshiba offers a choice of carrying cases for the computer. They all provide plenty of extra space for

manuals, power cables, diskettes, etc. See your dealer for more information.

NOTE: When traveling by air, you may be required to put your notebook through airport security. The X-ray equipment used will not *harm your computer.*

Chapter 5

Expansion Options

Your computer is designed to work in your office as well as on the road. This chapter explains how to set up several optional external devices so that your notebook can provide all the convenience of a traditional desktop computer.

To order additional devices and accessories, see the accessories information provided with your computer, or visit toshibaaccessories.com.

Using your computer at the office

By connecting an external full-size keyboard, an external monitor, a mouse and a printer, you can work with your computer as if it were a standard office model. You can connect a monitor and USB-compatible devices, such as the keyboard, mouse and printer, directly to the computer.

For information on connecting a mouse and a printer, see the .

If you want to connect your computer to the office network, you can use the LAN port or your optional wireless LAN (Wi-Fi) capability.

Using the optional external USB diskette drive

The optional external USB diskette drive allows you to use diskettes and is useful for installing software on the hard disk, exchanging information with other systems, and making backup copies of the files stored on your hard disk.

Connecting the optional external USB diskette drive

You can attach the optional external USB diskette drive to a USB port on the computer.

USB connector

Eject button

Diskette slot

Diskette-in-use light
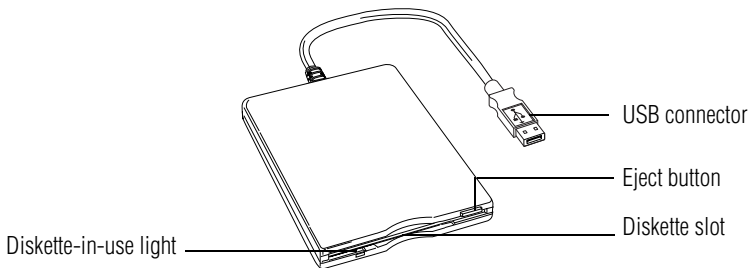
Optional external USB diskette drive and connector cable

TECHNICAL NOTE: You may attach the optional external USB diskette drive while the computer is on or off.

If you attempt to access the drive when it is not attached to the computer, you will receive an error message.

To attach the optional external USB diskette drive cable to a USB port on the computer, gently push the connector into the USB port.

The computer automatically recognizes the optional external USB diskette drive and calls it A:.

Using an optional external DVD-ROM drive

An optional external DVD drive allows you to use CDs and DVDs and is useful for installing software on the hard disk, and exchanging information with other systems.
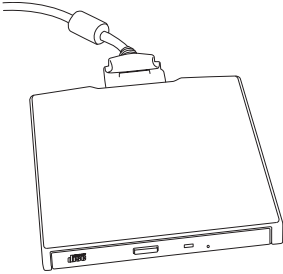
Optional external DVD-ROM drive

Connecting the optional external DVD drive

You can install the external drive in the PC Card slot on the left side of the computer. Alternatively, if you have a PC Card SCSI adapter, you can use a SCSI CD-ROM drive.

Using external display devices

Your computer comes with a built-in LCD display, but you can easily attach an external monitor to your computer if you need a larger screen. To do this:

1 Connect the monitor's video cable to the RGB (monitor) port on the back of the computer.

2 Connect the monitor's power cable to a live electrical outlet.

3 Turn on the external monitor.

4 Set the display mode by pressing Fn + F5, or by setting the Display Properties settings. For more information, see "Directing the display output when you turn on the computer" on page 105.

Directing the display output when you turn on the computer

Once you've connected an external display device, you can choose to use the internal display only, the external device only, or both simultaneously. The quickest way to change the display output settings is to use the display hot key (Fn + F5):

1 Press Fn and F5 simultaneously.

2 While holding down Fn, press F5 repeatedly until the setting you want takes effect.

This hot key cycles through the settings in the following order:

❖ Built-in display panel only

❖ Built-in display panel and external monitor simultaneously

❖ External monitor only

3 Release the Fn key.

TECHNICAL NOTE: You can also change these settings using the Display Properties Box.

Adjusting the quality of the external display

To obtain the best picture quality from your external display device, you may need to adjust the video settings. See the documentation supplied with the device for additional configuration steps.

TECHNICAL NOTE: In order to use the simultaneous mode, you must set the resolution of the internal display panel to match the resolution of the external display device. The external display device must support a resolution of 640 X 480 or higher.

Display limitations

Keep in mind that the quality of the display will be limited to the capabilities of the external video device.

❖ If the external video device, such as an SVGA monitor, is capable of displaying at a maximum resolution of 640 x 480 and your system is set for a higher resolution, only part of the desktop will appear on the screen. You can view the "lost" area by scrolling to it.

❖ If you use the display hot key (Fn + F5) to change the display output with the **LCD Display Stretch** option enabled and the Display area (resolution) set to 640 x 480 or 800 x 600, the image on the internal display panel may appear stretched.

Using tablet mode

One of your computer's features is a convertible display that allows you to use the screen much as you would a writing tablet.

Your computer came with applications already installed specifically designed to work with the tablet feature of the system. For more information on those applications, see the documentation provided with them.

Preparing to use the tablet

1 Press the display panel release button and lift the display panel.

2 Press and hold in the power button until the on/off light on the system indicator panel glows green—about one second.

3 Rotate the display panel **clockwise** 180º (degrees). When you complete this task, the screen faces away from the keyboard.

CAUTION: When rotating LCD screen of your computer, be sure to slowly turn the screen in the proper direction, and not apply excessive force or speed.
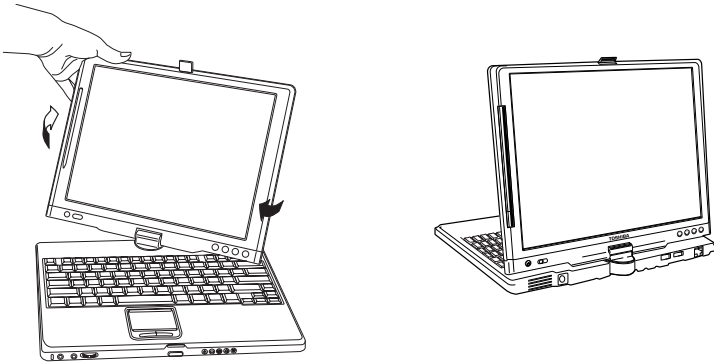
Rotating the display panel clockwise 180º

4 Flip the display latch so it points toward the back of the LCD screen.

5 Fold the display panel down flat over the keyboard.

The display latch will click and lock the screen in tablet position.

Display latch
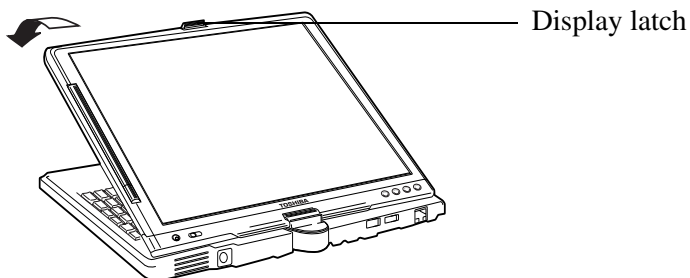
Folding the display panel down flat

By default, the computer desktop will automatically rotate to primary portrait view. For more information on changing tablet screen settings, see "The Toshiba Rotation Utility" on page 162.
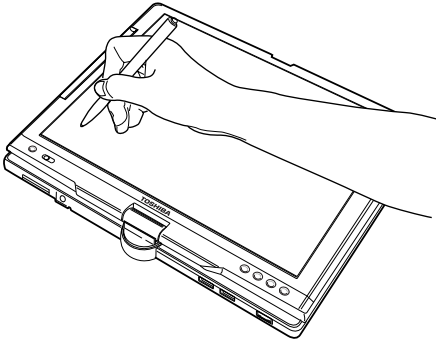
Using tablet mode

1 Press the dimple at the bottom of the Toshiba tablet pen to remove it from the slot at the edge of the display panel.
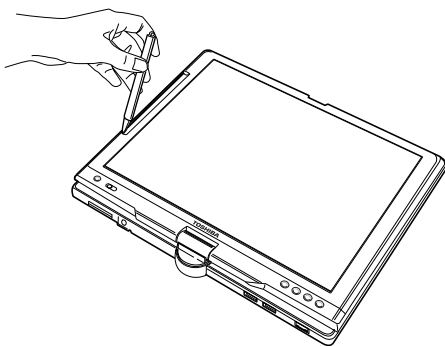
Removing the Toshiba tablet pen from the slot on the tablet

2   Use the Toshiba tablet pen on the tablet as you would any
pointing device or pen.

Writing on the tablet

After placing the screen in tablet mode, be sure to calibrate
the screen using the **Tablet and Pen Settings** screen. There
are two ways to open this screen.

To open **Tablet and Pen Settings** through the **Control
Panel**:

1   Click **Start**, and select **Control Panel**.

2   Click **Printers and Other Hardware**.

3   Click **Tablet and Pen** settings.

The **Tablet and Pen Settings** screen appears.
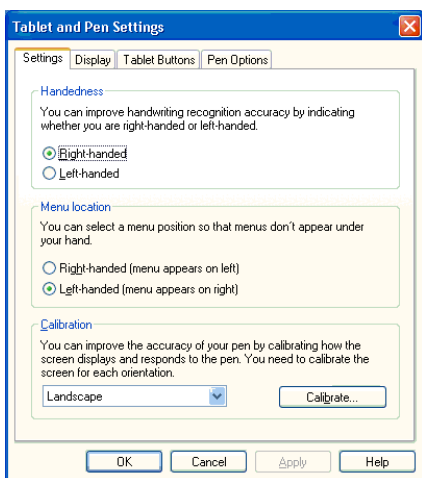
Sample Tablet and Pen Settings screen

4   Click the **Calibrate...** button on the Settings tab (the default tab displayed), and follow the on-screen instructions.

5   Click **OK**.

To open the Tablet and Pen Settings screen through the TOSHIBA Console:

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

2   Point to **TOSHIBA Console**, then click **TOSHIBA Console** selection.

The TOSHIBA Console window appears.

3   Click the **Table and Pen Settings** icon.

The **Tablet and Pen Settings** screen appears.

4   Click the **Calibrate...** button on the Settings tab (the default tab displayed), and follow the on-screen instructions.

5   Click **OK**.

To learn how to manually change the layout of the screen
from portrait to landscape, see "The Toshiba Rotation
Utility" on page 162.

*NOTE: Included with your computer is Sensiva's Symbol
Commander™ allowing you to quickly execute commands (for
example, changing the layout of the screen from landscape to
portrait) by drawing a pre-assigned symbol on the screen. For
details on using Symbol Commander, refer to the online help with
the application.*

*NOTE: You can also use tablet mode when the computer is in its
original configuration, with the screen open and facing the
keyboard.*

Using the Toshiba tablet pen

Use the Toshiba tablet pen as you would a mouse, or other
pointing device. For example, you can execute "mouse type"
commands in the same manner you normally would:

❖ To move the pointing icon (or cursor) on the tablet,
simply drag the Toshiba tablet pen across the tablet.

❖ To click a button, gently press the Toshiba tablet pen on it
(one click).

❖ To launch an application from the desktop, press the
Toshiba tablet pen on the icon (some applications may
require you to press it twice - two clicks).

❖ To drag a screen to another location on the tablet, press
the Toshiba tablet pen on the screen's Title Bar, and then
hold it while you drag it to its new location.

When working in an application, you can use the Toshiba
tablet pen like a pen and simply draw or write directly onto
the tablet's work space.

Returning the computer to its original configuration

When you are finished using the tablet, follow the steps below to return the computer to its original configuration:

1 Return the Toshiba tablet pen to the slot at the edge of the display panel.

2 Press the display latch release button.

3 Lift the display panel to its upright position.

4 Rotate the display panel **counter-clockwise** 180º. When you complete this task, the screen returns to its normal position facing the keyboard.

5 Flip the display latch toward the LCD screen.

Using PC Cards

You may insert a Type II card into the computer's PC Card slot.

PC Cards are credit-card sized expansion cards that greatly increase the capabilities of your computer.

Some PC Cards combine several functions. Multifunction cards allow you to get the most out of your PC Card slot.

Most PC Cards conform to the PCMCIA (Personal Computer Memory Card International Association) standard.

TECHNICAL NOTE: For PCMCIA-compatible PC Cards, check the package to make sure they conform to the PCMCIA 2.1 standard (or later). Other cards may work with your computer, but they are likely to be much more difficult to set up and use.
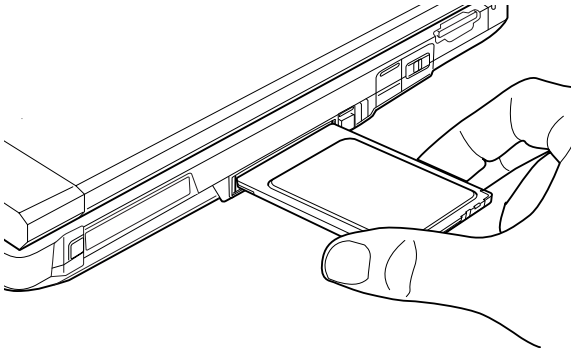
Inserting a PC Card

Before inserting a PC Card, read the documentation that came with the card to see if it has any special requirements.

> HINT: The operating system provides the Card and Socket Services software for your PC Card. Even if your PC Card comes with its own version of Card and Socket Services, you should use the files included in the operating system.

To insert a PC Card:

1   Locate the PC Card slot on the left side of the computer.

2   Insert the PC Card.

Inserting a PC Card

3   When the card is almost all the way into the slot, push firmly, but gently, to ensure a firm connection with the computer. Avoid forcing the card into position.

Removing a PC Card

1   Locate the PC Card eject tab.

2   Push the eject button.

The eject button pops out from the slot.

3 Push the eject button again so the card will pop out.

4 Grasp the edges of the PC Card and slide it out of the slot.

Hot swapping PC Cards

One of the great things about PC Cards is that you can replace one PC Card with another while the computer is on. This is called "hot swapping."

DEFINITION: Hot swapping is the ability to change PC Cards while the computer is on.

Hot swapping precautions

Although you can insert a PC Card at any time, remember not to remove a card while it is in use. Otherwise, you could lose valuable information.

For example:

❖ Never remove a hard disk card or CD-ROM drive card while the system is accessing the card.

❖ Never remove a network card while you are connected to the network.

❖ Never remove a SCSI card while any of the SCSI devices connected to it are operating.

DEFINITION: SCSI is an acronym for Small Computer Systems Interface. A single SCSI PC Card enables you to connect several SCSI devices to your computer at the same time.

Before removing a PC Card, stop it by clicking the **PC Card** (PCMCIA) icon on the taskbar.

Using an SD card

Your computer supports the use of an SD card. The card can be used with a variety of digital products: digital music players, cellular phones, PDAs, digital cameras, digital video camcorders, etc.

CAUTION: Do not touch the SD connector. You could expose the storage area to static electricity which can destroy data.

Do not remove an SD card while data is being written or read. Even when the message "copying..." in the windows disappears, the computer may be writing to the computer and your data could be destroyed. Wait for the SD indicator light to go out.

Installing SD card drivers

During installation of the SD card drivers, one or more dialog boxes may appear indicating that the driver is not digitally signed. The message may appear as "Digital Signature not found (About Secure Digital Emulation from Toshiba)." Click **Yes** to continue.

Installing the SD card in the SD slot

To insert an SD card, turn the card so that the connector (metal area) faces down then push the card in the slot until it locks in place.

If the operating system does not recognize an inserted SD card, remove and insert it again.

The green LED on the right side of the SD card slot will glow when the card is being accessed.

CAUTION: If the SD card is not inserted into the slot correctly, any data saved to the card may be lost.

Formatting an SD card

If you want to format your SD card, you may do so using
Windows® operating system formats such as FAT16, FAT32,
or NTFS. After formatting is complete, there is a possibility
that the SD card may become unusable on some devices
which have an SD card slot.

If you want to use the card on more than one device, make
sure the devices all support the format you have selected. To
verify, check with the device's documentation.

*NOTE: Multi Media Cards (MMCs) are not supported by this
product.*

Stopping or removing the SD card after formatting

If you have formatted the SD card drive with the Windows®
operating system format (see Formatting an SD Card in the
preceding section), you may be unable to stop or eject your
card. If this occurs, try restarting the computer.

Using Standby or Hibernate while using the SD card

It is recommended that you do not select Standby or
Hibernation mode while an SD card is in use. If you do so,
your system may not enter Standby or Hibernation mode,
some tasks may become unresponsive, and the operating
system may not shut down properly. If this occurs, reset your
computer by holding down the power button for four seconds.

Removing an SD card

Before removing an SD card from the SD slot, close any
applications which utilize the SD card. Use the eject utility to
ensure that the card is ready to be removed. Once the activity
indicator light has turned off, you may safely remove the
card.

To remove an SD card, press the card inward to release it. The card pops out slightly. The device name will disappear only after you have physically removed the card from your computer.

CAUTION: Removing the SD card without the eject utility may result in lost data on your SD card.

Chapter 6

Enhancing Productivity

In this chapter, you will explore other features of your notebook computer.

Windows® XP special features

The Windows® XP Professional operating system offers you several new features and enhancements, including:

❖ New system file protection

❖ A system restore function, allowing you to rollback the system to its previous mode

❖ An improved help center, support automation, and automatic Windows® operating system update

❖ Wizards to simplify setting up your home network

❖ Ability to share one Internet connection among multiple PCs

❖ An automatic discovery feature that allows your computer to detect new and intelligent devices

Personalizing your desktop

Your desktop is your virtual workspace. This section explains
how to customize its features for the way you like to work.
You can customize the following aspects of the desktop:

❖ Taskbar—which resources to display for quick access

❖ Web content interface—what information from the
Internet to always display

❖ Desktop style—how windows are displayed and how to
browse folders and files

❖ Toolbars—what information appears at the top of each
window

Customizing the taskbar

As you work, the taskbar changes to reflect what you are
doing. Its icons provide shortcuts to programs, documents,
files, folders, system features, and components. Open
applications also have Forward and Backward buttons to
allow navigation through folders, documents, and Web sites.

For example, you can personalize the taskbar to include
Quick Launch icons, and also your favorite URL addresses or
local folders and programs.

*DEFINITION: URL stands for Uniform Resource Locator, which is
the address that defines the route to a file on the Web or any other
Internet facility. Generically, it is known as the World Wide Web
site address.*

Having a list of favorite URLs handy saves time. Using it
bypasses the need for you to launch your browser first.

To customize your taskbar settings, point to an empty space
in the taskbar and click the secondary button. Then click
Properties.

Bringing the world to your desktop

With the Windows® XP operating system you can set up your desktop with complete World Wide Web integration at a single click.

Turning on the Web content interface

The first step to bring active content to your desktop is to turn on the Web content interface:

1 Point to an empty space on the desktop and click the secondary button.

2 Click **Properties.**

The Display Properties window appears.

3 Click the **Desktop** tab.

4 Click the **Customize Desktop** button.

5 Click the **Web** tab.

6 Follow the instructions to set up your desktop.

Adding components to the Web content interface

1 Point to an empty space on the desktop and click the secondary button.

2 Click on **Properties.**

The Display Properties window appear.

3 Click the **Desktop** tab.

4 Click the **Customize Desktop** button.

5 Click the **Web** tab.

The operating system displays a list of items to add to the desktop.

6 To view additional components, click **New.**

The New Desktop Item dialog box appears.

7 To browse the Gallery for more components to add, click **Visit Gallery**.

In order to browse, an active Internet connection must be established.

8 To select some other Web site, type the address of the Web site you want or click **Browse** to locate it.

You can configure the Web content interface in several other ways. For further information, see your operating system documentation or access Windows® Help by clicking **Start**, **Help and Support**.

Changing desktop and browsing style

The operating system enables you to customize the way you view your desktop and browse the files and folders on your local computer or network file server.

You can specify that:

❖ Items that normally require a double-click will open with a single click.

❖ Folders will open in their own window instead of in the same window.

❖ Folders are accompanied by a list of common tasks instead of being displayed alone.

The options you choose determine how you browse in the operating system, regardless of whether you start from the desktop, My Computer, Windows Explorer, or Internet Explorer.

For more information about changing your desktop style, enter desktop in the Help and Support Index.
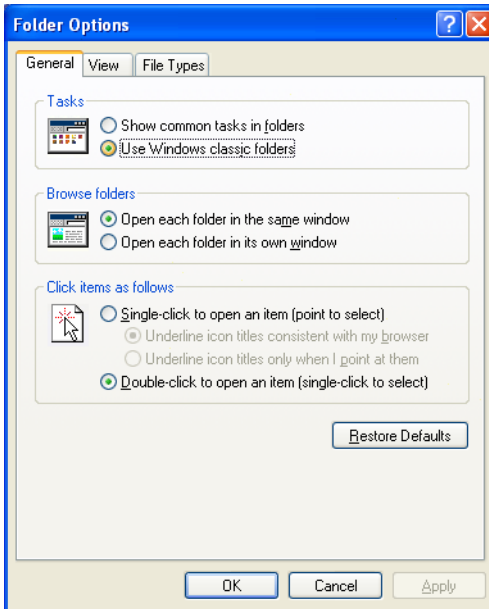
Choosing a style

To select desktop and browsing style options:

1 Click **Start**, then click **My Computer**.

The My Computer window appears.

2   Select the **Tools** menu, then click **Folder Options**.

The Folder Options dialog box appears.

Sample Folder Options dialog box

3   Click the preferred options.

**4**   Click **Apply**, then **OK**.

Personalizing individual windows

Just as you can display a Web page on your desktop, you can also display a Web page in an individual window. If you subscribe to the Web page, it can be automatically updated on a regular basis. For example, using this Web integration feature you can monitor weather, game scores, stock prices, or headlines—all in the window of your choice.

Customizing window toolbars

You can display one or more customizable toolbars at the top of a window. As you browse, the operating system detects the kind of information presented in the window and automatically displays the appropriate toolbar buttons and menus.

You can also add these toolbars to the taskbar.

Address bar   Standard buttons
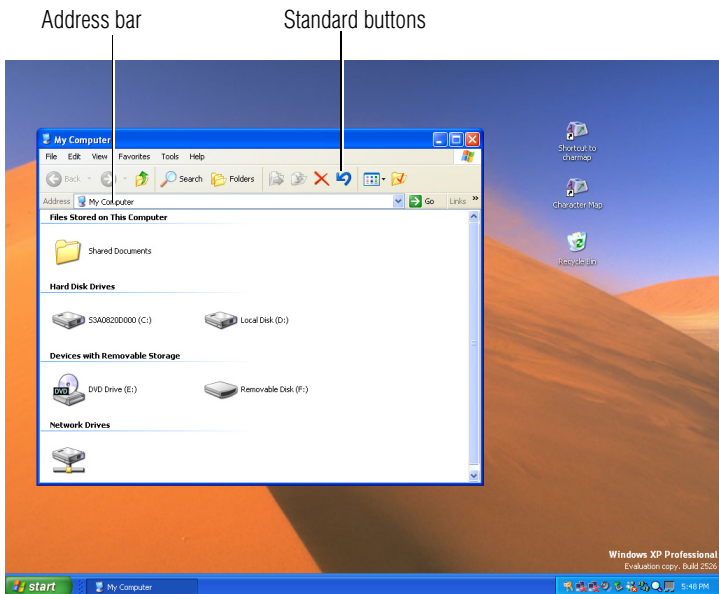
Sample toolbar locations

The elements you can add to the top of the window are:

Toolbar element   *Description*

Address Bar   Opens Web pages, programs, folders, or documents. By default, the address bar shows your current location, and whether it is a folder or a Web page. You can browse to another location by typing an address — a URL, a path, or even a program name.

If you start typing a previously typed address, the AutoComplete feature finishes the address for you.

Standard buttons   Displays buttons for commonly used commands, such as copying, pasting, deleting items, changing views, and browsing backward and forward.

Displaying a toolbar in a window

1   Click **Start**, then click **My Computer.**

The My Computer window appears.

2   On the **View** menu, point to **Toolbars**, then click the name of the toolbar you want to display.

The toolbar appears below the menu bar of the current window.

Displaying information about each folder

In addition to displaying the contents of each window, you might find it helpful to have the operating system display the name of the folder and brief information about how to use the folder. This means displaying an individual window as a Web page.

1   Click **Start**, then click **My Computer**.

The My Computer window appears.

2 Open the folder you want to view as a Web page.

3 In the **Tools** menu, select **Folder Options.**

4 In the Tasks section, click the button for **Show common tasks in folders**.

5 Click **Apply**, then **OK**.
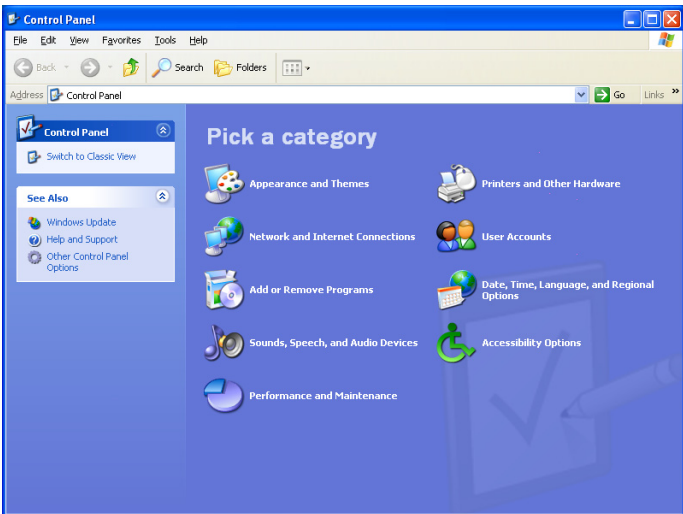
Sample Control Panel window as a Web page

The addition of the name of the folder and instructions for how to use the folder on the left give the window the appearance of a Web page.

Setting up for communications

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

❖ A modem (one comes with your computer)

❖ A telephone line

❖ A browser or communications program

❖ An Internet Service Provider (ISP) or online service if you plan to use the Internet

Determining the COM port

Your modem is connected to one of the computer's COM (communications) ports. The default setting for the modem is COM3.

The following procedure is intended to support you if you need to either upgrade your modem or reset the port to the default settings.

If you're having trouble connecting through the modem, you may need to determine the current COM port name and possibly change it.

To find out which port your modem is connected to in the operating system:

1 Click **Start**, click **Control Panel**, then **Printers and Other Hardware**.

The Control Panel opens.

2 Click **Phone and Modem options**.

The Phone and Modem options window appears.

3 Click the **Modems** tab.

A location box appears.

4 Make a note of the COM port number shown in the **Attached to** field.

5 To verify that the modem is set up properly, double-click the COM port to which your modem is connected.

The Modem AMR Properties box appears. In the device status area, the computer should indicate whether the modem is working properly.

6 If the modem isn't working properly, click **Troubleshooting** and follow the instructions.

7 Click **OK** to close the Properties box, then the Phone and Modem options box.

8 Close the Control Panel.

For more information regarding your system's V.92 modem, visit the Toshiba web site at www.pcsupport.toshiba.com.

Using the Ethernet LAN Port

If your operating system is Windows® XP Professional, you can connect your computer to a Local Area Network (LAN) at work or from a remote location.

When your computer starts, the Windows® operating system attempts to contact a Dynamic Host Configuration Protocol (DHCP) server. If the computer is not connected to a network, it may pause a few minutes as it waits for a reply. To avoid this delay, you can configure the Windows® operating system to disable the LAN port.

To disable the LAN port:

1 Click **Start** and then click **Control Panel**.

2 Click **Performance and Maintenance**.

3 Click the **System** icon and select the **Hardware** tab, then select the **Device Manager** button

4 Select **Network Adapters**, then select the specific Network Adapter.

5 Right-click the **Adapter** and click **Disable**.

6 Click **Yes** to confirm disabling the network card.

Your LAN port is now disabled.

Accessing a LAN

To access a LAN:

❖ At the office, you can connect the network Ethernet cable to the RJ45 jack on your computer.

❖ Your computer may be equipped for wireless communications. If so, see the next section on "Exchanging data with another computer."

❖ From home or while on the road you'll need a dial-up connection. Ask your network administrator for the telephone number to access the network.

Exchanging data with another computer

To transfer a large amount of information between your notebook and another computer with a compatible infrared port, you can use a special synchronization program.

1 Place the computers so that their infrared ports are aligned.

2 Load the synchronization program on both computers.

3 Set any specific options.

4 Start the transfer.

5 When you have finished transferring files, close the synchronization programs on both computers.

Transferring application files

There may be instances when you will need to transfer application files from the Recovery CD that comes with your computer. A CD-ROM drive may not be a standard feature of your computer, but you can transfer these files to your computer in the following ways:

❖ Use an external CD-ROM drive.

You can order a PC Card CD-ROM drive from Toshiba and install it in the PC Card slot on the left side of the computer. Alternatively, if you have a PC Card SCSI adapter, you can use a SCSI CD-ROM drive.

❖ Connect to a network.

You can access your Recovery CD by connecting your notebook to the office network. You then can upload the files on the CD from another computer with a CD-ROM drive onto a network server and download the files onto your notebook.

❖ Use the infrared port to connect your notebook to another computer that has a CD-ROM drive.

Setting up a direct cable connection

To establish a direct cable connection with another computer:

1 Click **Start**, **All Programs**.

2 Point to **Accessories**, **Communications**, and click **New Connection Wizard**.

3 Click **Next**.

4 Select **Set up an advanced connection**.

5 Click **Next**.

6 Select **Connect directly to another computer**.

7 Choose the appropriate role for your computer:

❖ Guest

❖ Host

8 Follow the on-screen instructions.

Setting up a wireless connection

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

Accessing the wireless modules using your system tray

The following information applies to systems with the optional Wi-Fi and Bluetooth features:

When using your Wi-Fi Mini PCI module and/or Bluetooth module, your computer may display an icon in the desktop's

system tray to indicate that it is in use. Do not confuse the system tray's icon with other removable PC Card devices you may have installed.

Your Wi-Fi Mini PCI and Bluetooth modules are integrated into your computer system. It is recommended that you do not remove the modules from your computer. For assistance, contact a Toshiba Wireless Authorized Service Partner.

Network Device Switch

The Network Device Switch enables quick and easy setup of Internet and network settings. The Network Device Switch manages profiles captured from the computer settings for each network that you use. When you select a profile, your network settings change.

To access this utility:

1 Click **Start**, point to **All Programs**, **Network Device Switch 3**.

2 Click **Network Device Switch 3**.

The Network Device Switch dialog box appears, noting that a profile has been created with your current network settings.
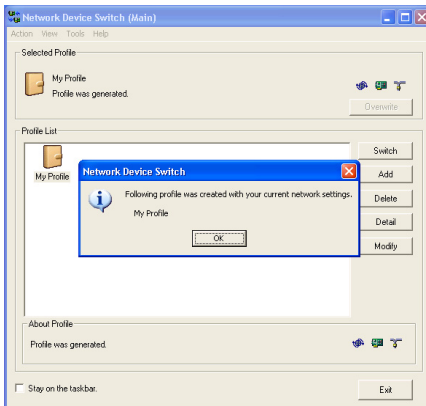
Sample network device switch screen

3 Click **OK** to close the dialog box.

Using Network Device Switch, you can add a new network profile, modify or view detailed information about a profile, delete a profile, or switch to different network profiles.

Using Bluetooth

The following information applies to those systems with the optional Bluetooth wireless feature:

Bluetooth is a technology that expands wireless communication beyond networking equipment, and can connect many different kinds of electronic devices without the need for cables. Bluetooth uses the 2.4 GHz frequency band for wireless communications.

Bluetooth can transmit at data rates up to 1 Mbit/sec. The range (through walls and floors) of the wireless transmission is up to 100 feet.

If your computer is equipped with Bluetooth, and you want to enable the Bluetooth module:

1 Flip the wireless antenna on/off switch to the on position.

The antenna is enabled.

2 Hold down the function key (Fn) and press F8 until the Bluetooth icon is highlighted.

3 Release the keys.

Bluetooth is now enabled.

NOTE: Your Bluetooth module is based on the Bluetooth specification version 1.1. Toshiba cannot confirm all compatibility with PC products and/or electronic devices using Bluetooth other than Toshiba mobile PCs.

Using audio features

Your computer is equipped with a built-in monaural speaker.

The computer plays sounds through the internal speaker. It uses the sound settings in your operating system, except for the system speaker, which is configured by the Toshiba System utility. To adjust the volume, click the speaker icon in the taskbar.

Using external speakers or headphones

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

TECHNICAL NOTE: Use amplified 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 headphones or external speakers:

1 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 dial.

Recording sounds

The external microphone may be used with other software to record monaural audio sounds and save them as digital audio.WAV files on disk.

DEFINITION: A .WAV (pronounced "wave") file is one of the formats for storing sound in files.

You may also record sounds as .WAV files by connecting an external microphone or other sound source to the microphone jack.

Using a microphone

1 Connect an external microphone to the computer.

2 Click **Start**, point to **All Programs**, **Accessories**, **Entertainment**, then click **Sound Recorder**.
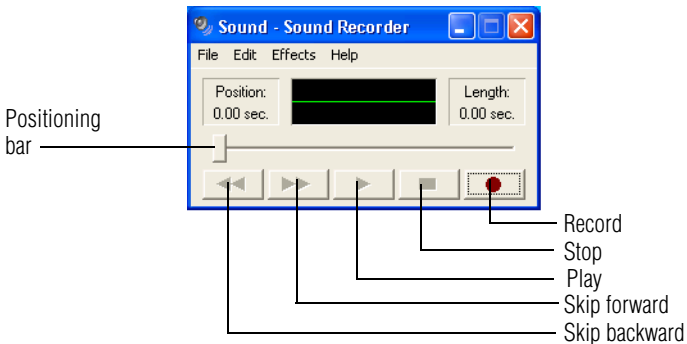
Sample Sound Recorder screen

3 Click the **Record** button and speak normally into the microphone.

NOTE: You can only record 60 seconds at a time.

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

5 To hear what you just recorded, click the **Play** button.

6 To save the file, select **Save** from the **File** menu.

Adjusting recording settings

The better the quality of the recording, the more disk space the sound file requires. Experiment to find a balance that fits your needs.

1 Open Sound Recorder, if necessary (click **Start**, point to **All Programs**, **Accessories**, **Entertainment**, then click **Sound Recorder**).

2 In the Sound Recorder window, click **Edit**, then click **Audio Properties**.

3 In the Audio Properties dialog box, adjust the Recording Volume and Preferred device.

4 Click **OK**.

Your new settings take effect the next time you record.

Powering down the computer

When you power down the computer, you have a number of options to choose from:

❖ Turn Off or Shut down, which power off the computer

❖ Hibernation, which saves the current operating state to the hard disk and powers off the computer

❖ Standby, which saves the current operating state to memory and enters a low power mode

❖ Restart, which restarts the computer

Each option has its advantages.

TECHNICAL NOTE: Before using any of these options to power down your computer, save your files and make sure the disk 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.

Turn Off or Shut down command

The Turn Off or Shut down commands power off the computer. The Windows® XP Professional operating system uses Turn Off if you are not connected to a Windows® network server (domain server). It uses Shut down if you are connected to a Windows® network server (domain server).

Factors to consider when choosing Turn Off or Shut down:

❖ No power is used while the computer is turned off. This is the most efficient mode if you will be away from your computer for an extended time.

❖ Restarting from Turn Off or Shut down uses the most time and battery power.

❖ When starting up again, the system does not automatically open the programs and files you were previously using.

Restart command

Restart is the same as Turn Off or Shut down but automatically powers up the computer. Use it when you need to reload the operating system, for example to activate changes to system settings.

Hibernation command

The Hibernation command powers off the computer, but it first saves the current state of the computer to the hard disk. Since Hibernation does not require power to maintain the saved information, the system settings are retained indefinitely. Restoring information from the hard disk takes longer than restoring it from memory. When you start up again, the computer runs a self-test, loads the operating system, and then returns to the state in which you left it.

Factors to consider when choosing Hibernation:

❖ While in Hibernation mode, the computer uses no battery power.

❖ Because the state of the system is held on the hard disk, no data is lost if the battery discharges while the computer is in Hibernation mode.

❖ When starting up again, this choice uses less time and battery power than the Turn Off or Shut down option. But it uses a little more time and battery power to start up than the Standby option, because information is being retrieved from the hard disk instead of from memory.

❖ On restarting, the computer returns to the state in which you left it, and opens all the programs and files you were using.

Standby command

The Standby command puts the computer into a power-saving mode. Standby stores the current state of the computer in memory 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 battery power. If your computer is left in Standby mode for an extended period, your computer could lose data.

❖ When starting up again, this choice uses less time and battery power than either Turn Off, Shut down or Hibernation.

❖ On restarting, the computer returns to the state in which you left it, and opens all the programs and files you were using.

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

Using Turn Off or Shut down

If you are not connected to a Windows® network server (domain server), power off the computer as follows:

To turn off the computer.

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.
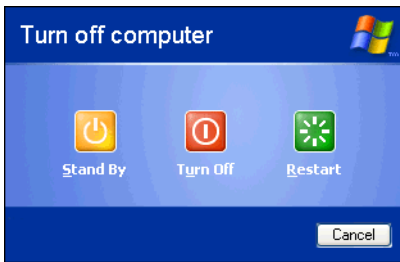
Sample Turn off computer window

2 Click **Turn Off**.

The computer turns itself off.

If you are connected to a Windows® network server (domain server), power off the computer as follows:

1   Click the **Start** button, then **Shut down**.

   The Shut Down window appears.

2   Select **Shut down** from the drop-down list.

3   Click **OK**.

   The computer shuts down completely.

Turning off more quickly

In addition to the method described above, you can turn off the computer by pressing the power button.

To use this method, you first need to turn on the feature in TOSHIBA Power Saver.

1   Click **Start**, **Control Panel.**

   The Control Panel window appears.

2   Click **Performance and Maintenance**.

3   Double-click the **Toshiba Power Saver** icon.
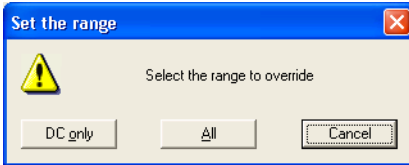
   The TOSHIBA Power Saver Properties window appears.
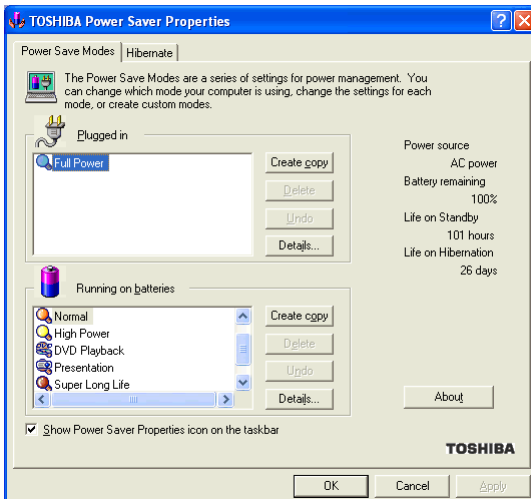
Sample TOSHIBA Power Saver Properties window

4   Click **Details** in the Plugged in section.

The Full Power Properties window appears.

5   Click the **System Power Mode** tab.
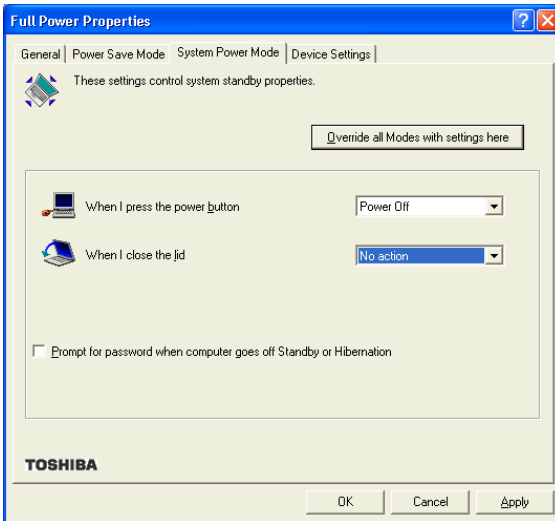
Sample Full Power Properties window

6   Select **Power Off** for the option you want.

❖   **When I press the power button**

Set this option to Power Off if you want the computer to turn off when you press the power button.

7 Click **Override all Modes with settings here**.
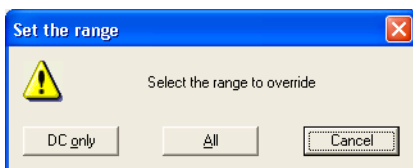
The Set the range window appears.


Sample Set the range window with DC only option

8 Do one of the following:

❖ Click **DC only** if you want the settings to apply only when you are using battery power.

❖ Click **All** for the settings to apply whether you are using battery power or outlet power.

9 Click **OK** to close the Full Power Properties window.

10 Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

Starting again after Turn Off or Shut down

To start the computer up again, press and release the power button; the on/off light changes to green.

Using Hibernation

Enabling the Hibernation command

Hibernation is a default setting. If it should become disabled, you can enable it as follows:

1 Click **Start**, **Control Panel**.

The Control Panel window appears.

2 Click **Performance and Maintenance**.

3 Double-click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.
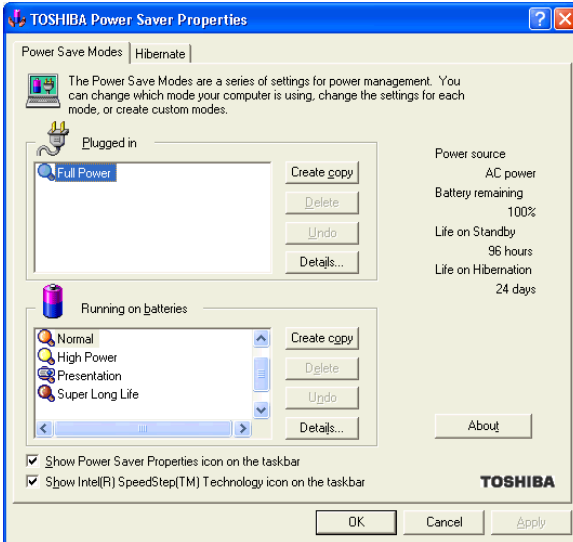
Sample TOSHIBA Power Saver Properties window

4   In the Plugged in area, click the **Details** button.

5   Click the **System Power Mode** tab.

6   Select **Hibernation** for the options you want.

❖   **When I press the power button**

Set this option to Hibernation so that the computer will go into Hibernation mode when you press the power button.

❖   **When I close the lid**

Set this option to Hibernation so that the computer will go into Hibernation mode when you close the display panel.

7   Click **Override all Modes with settings here**.

The Set the range window appears.

Sample Set the range window with DC only option

8 Do one of the following:

❖ Click **DC only** if you want the settings to apply only when you are using battery power.

❖ Click **All** for the settings to apply whether you are using battery power or outlet power.

9 Click **OK** to close the Full Power Properties window.

10 Click the **Hibernate** tab, then click the **Enable hibernate support** check box.

11 Click **OK** to close the TOSHIBA Power Saver Properties window, then close the Control Panel.

Going into Hibernation mode

If you are not connected to a Windows® network server (domain server), power off the computer using the Hibernation command as follows:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.
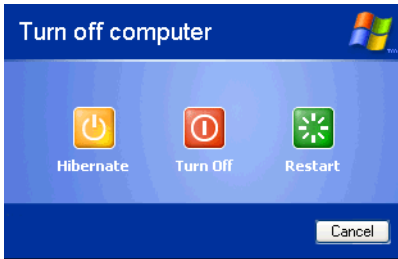
Sample Turn off computer window with shift key held down to show Hibernate option

2   Hold down the shift key and click **Hibernate**
    ("Hibernate" only appears when the shift key is pressed).

The computer saves the state of the system, including all open programs and files, to the hard disk, and then powers down completely.

If you are connected to a Windows® network server (domain server), follow these steps to power down the computer using Hibernation:

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

    The Shut Down window appears.

2   Select **Hibernate** from the drop-down list of options.

3   Click **OK**.

The computer saves the state of the system, including all open programs and files, to the hard disk, and then powers down completely.

Going into Hibernation mode more quickly

You can also put the computer into Hibernation mode in three ways:

❖   By pressing the hotkey combination Fn+F4

❖   By pressing the power button

❖ By closing the display panel

Starting again from Hibernation

To start up the computer from Hibernation mode, press and release the power button until the on/off icon glows green. The computer returns to the screen you were using.

If you went into Hibernation mode by closing the display panel, you can start the computer again by opening the display panel.

Using Standby

If you are not connected to a Windows® network server (domain server), power down the computer using the Standby command as follows:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.
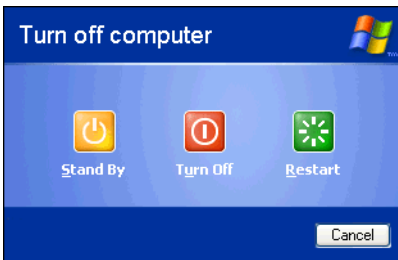
Sample Turn off computer window with Stand By option

2 Click **Stand By**.

The computer saves the state of all open programs and files to memory, turns off the display, and goes into a low-power mode. The on/off light (⏻) blinks amber indicating the machine is in Standby mode.

If you are connected to a Windows® network server (domain server), power down the computer using the Standby command as follows:

1 Click the **Start** button, then select **Shut down**.

The Shut Down window appears.

2 Select **Stand by** from the drop-down list of options.

3 Click **OK**.

The computer saves the state of all open programs and files to memory, turns off the display, and goes into a low-power mode. The on/off light blinks amber to indicate the machine is in Standby mode.

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

Going into Standby mode more quickly

You can also put the computer into Standby mode in three ways:

❖ By pressing the hot key combination Fn+F3.

❖ By pressing the power button

❖ By closing the display panel.

To put the computer into Standby mode when you press the power button or close the display panel, you must preset the mode:

1 Click **Start**, **Control Panel.**

The Control Panel window appears

2 Click **Performance and Maintenance**.

3 Double-click the **Toshiba Power Saver** icon.

The TOSHIBA Power Saver Properties window appears.
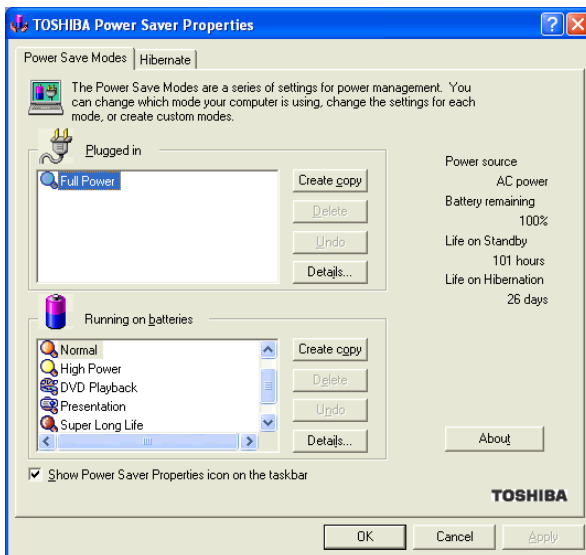
Sample TOSHIBA Power Saver Properties window

4 Click **Details** in the Plugged in section.

The Full Power Properties window appears.

5 Click the **System Power Mode** tab.
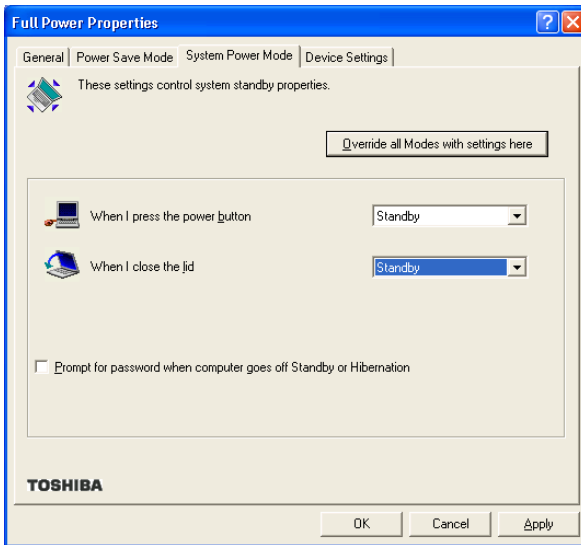
Sample Full Power Properties window

6 Select **Standby** for the options you want.

❖ **When I press the power button**

Set this option to Standby so that the computer will go into Standby mode when you press the power button.

❖ **When I close the lid**

Set this option to Standby so that the computer will go into Standby mode when you close the display panel.

❖ **When the system standby time has passed**

Set this option to Standby if you want the computer to automatically go into Standby mode when you haven't used it for a specified amount of time. You can set the System standby time on the Power Save Mode tab.

7 Click **Override all Modes with settings here**.

The Set the range window appears.
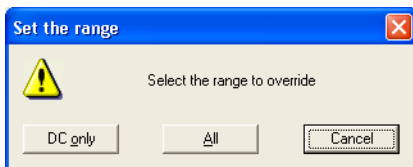
Sample Set the range window with DC only option

8   Do one of the following:

 ❖ Click **DC only** for the settings to apply only when
     you are using battery power.

 ❖ Click **All** for the settings to apply whether you are
     using battery power or outlet power.

9   Click **OK** to close the Full Power Properties window.

10   Click **OK** to close the TOSHIBA Power Saver Properties
     window, then close the Control Panel.

Starting again from Standby

To start up the computer from Standby mode, press and
release the power button until the on/off light changes to
green. The computer returns to the screen you were using.

If you put the computer in Standby mode by closing the
display panel, you can start the computer again by opening
the display panel.

Chapter 7

Toshiba Utilities

Your computer includes several 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. These utilities are described in this chapter:

❖ Fn-esse®

❖ Hotkey utility

❖ TOSHIBA Console

❖ TOSHIBA Rotation utility

Fn-esse

The operating system shortcuts and Toshiba's Fn-esse program provide quick ways to open programs, documents, and folders from within any program without using the Start menu.

This section describes how to use the Fn-esse program to quickly access your programs and files.

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With Fn-esse, you can assign an Fn key combination to:

❖ Open a Windows® program

❖ Open a file in its associated Windows® program

❖ Display a customized folder of Windows® programs and/
or files from which to choose

Fn-esse also has several keys, known as hot keys, that
perform preassigned operations. For more information, see
"Hot Keys" on page 210.

You can assign any key that is not associated with a hot key
or a keyboard overlay.

Starting Fn-esse

You can access Fn-esse in one of two ways:

❖ Click **Start**, **All Programs**, **Toshiba Utilities** and
Fn-esse.

❖ Click the Fn-esse icon.

The Fn-esse keyboard appears.
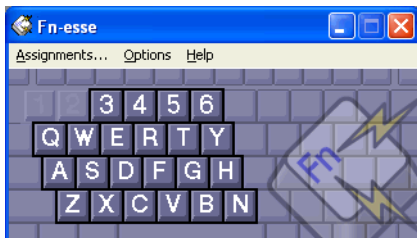
Sample Fn-esse keyboard

The keys are color-coded as follows:

❖ Available keys are white.

❖ Assigned keys and keys associated with a popup list are
shown on the Fn-esse keyboard in the selected color.

❖ Unavailable keys are not shown.

Assigning a key to a program or document

There are two ways to assign a key to open a program or document:

❖ Drag-and-drop

❖ Use the keyboard or pointing device

The method most often used is drag-and-drop.

Using drag-and-drop

To assign a key to a program or document:

1 Start both Fn-esse and Windows® Explorer (or the program supporting drag-and-drop).

2 Resize the Explorer window so that you can see both the Fn-esse keyboard and Explorer at the same time.

3 In the Explorer window, highlight the program or document file you wish to assign to a key.

4 Click and hold the primary button as you drag the highlighted item from Explorer to the key on the Fn-esse keyboard you want to assign to it.

5 Release the primary button.

Fn-esse displays the Add/Edit Command dialog box with the Description, Command Line, and Working Directory fields automatically completed.

6 Click **OK** to close the Add/Edit Command dialog box with your key assignment in place.

The program or document is now associated with the key you just selected. To open the program or document, press Fn plus the appropriate key from within any Windows® program.

Using the keyboard or pointing device

To assign a key to open a program or document:

1 Start Fn-esse.

2 Perform one of the following:

❖ Using the keyboard, press and hold the Fn key, then press the desired assignment key.

❖ Using the pointing device, move the cursor over the desired key and press the secondary button.

The Assignment Type dialog box appears.

HINT: If you are making a direct key assignment, complete step 3. If you are making a popup assignment, complete step 4.

3 To make a direct key assignment, select **Direct** to display the Add/Edit Command dialog box, then complete these steps:

❖ Enter the Description, Command Line, and Working Directory for the new Fn-esse key assignment, or click the **Browse** button to specify this information.

❖ Click **OK**.

4 To make a popup assignment, select **Popup** to display the Application Explorer dialog box, then complete these steps:

❖ Select the desired folder. The left side of the Application Explorer window displays the folders in the Programs menu. The right side lists the programs and documents in the folder. These are the items that appear in the popup list.

❖ To create a popup list with items from various folders, or to pick only a few items from a folder, create a new folder containing only the desired programs and documents. If you are unsure how to

do this, refer to your operating system
documentation.

❖ Click **OK** to associate the folder with the key you
just selected.

❖ To open a popup list showing the items in that folder,
press Fn plus the appropriate key from within any
Windows ® program.

Viewing existing key assignments

To view the existing key assignments, choose **Assignments**
from the Fn-esse keyboard. Fn-esse displays the Function
Key Assignments dialog box. This box lists all the key
assignments and the program or document to which each key
is assigned.

To view items in a popup list, click the **Expand popup lists**
check box.

Changing or removing existing key assignments

1 In the Fn-esse keyboard, click the key you wish to change
with the secondary button.

Fn-esse displays the Assignment Type dialog box.

2 To change the key assignment, click **Direct** or **Popup** and
continue as if you were creating a new assignment.

3 To remove the key assignment, click **Clear**.

Hotkey utility

The hotkey utility allows you to receive a confirmation
message when you use the hot key combination for Standby
[Fn+F3] and Hibernation [Fn+F4].

To activate the utility:

1 Click **Start**, then click **Hotkey utility**

The Hotkey window appears.
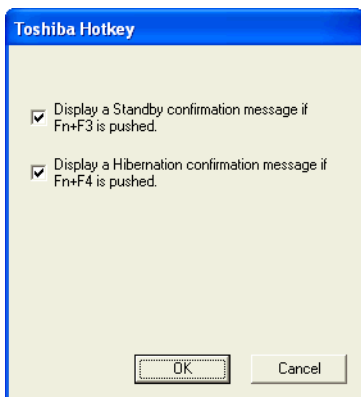
Sample Toshiba Hotkey utility window

2   Put a check mark next to the desired option.

3   Click **OK**.

TOSHIBA Console

The TOSHIBA Console provides quick access to computer functions and allows you to customize a range of computer settings.

To access this utility:

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

2   Point to **TOSHIBA Console**, then click **TOSHIBA Console** selection.

The TOSHIBA Console window appears.

Sample TOSHIBA Console window

The TOSHIBA Console offers three categories of options:

❖ Customize Your Computer

❖ Network

❖ Security

Customize Your Computer

The options available in this category are:

❖ Power Management

❖ Mouse

❖ Hotkey assignment (for detailed information, see "Fn-esse" on page 149)

❖ Toshiba Hardware Setup

❖ Tablet and Pen Settings

❖ Auto Rotation Settings

Network

The options in this category are the IR Utility, Bluetooth settings, Start Bluetooth, and Network Device Switch.

Security

The options available in this category are:

❖ Supervisor password

❖ User password

TOSHIBA Controls

The TOHSIBA Controls allows you to select either the default Internet browser, default e-mail program, TOSHIBA Console, or custom Application to launch when you click the InTouch button in the Tablet menu. For information on how to display the Tablet menu and InTouch button, see "Display system buttons" on page 36.
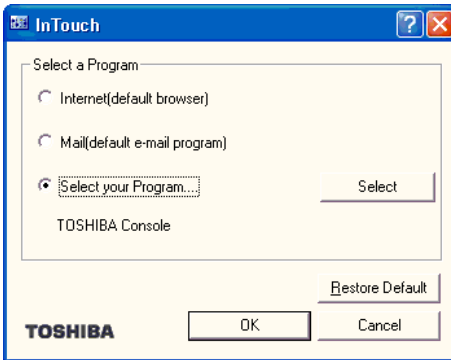
Sample InTouch dialog box

1 Click **Start**, and then **Control Panel**.

2 Click **Printers and Other Hardware**.

3 Click the **TOSHIBA Controls** icon.

4   Make the desired selection. If you choose Select your
    Program, click the **Select** button, make your application
    selection, and then click **OK**.

5   Click **OK**.

Power Management

> NOTE: Toshiba recommends that you use the Toshiba Power
> Management Utility for changing system power settings.

The Power Management feature enables you to control your
computer's power usage, regardless of the source, and use the
many preset power modes, or create one yourself.

To access Power Management through the TOSHIBA
Console, click the **Power Management** icon.

The TOSHIBA Power Saver Properties window appears.
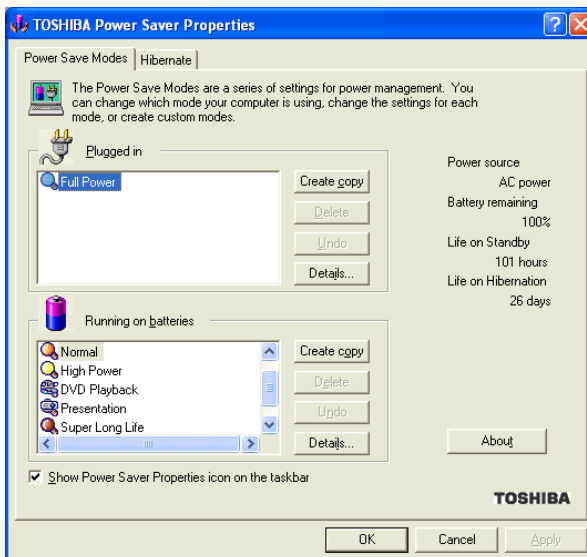
Sample TOSHIBA Power Saver Properties window

The Power Save Modes tab shows the power usage modes for both AC power ("Plugged in") and battery power (Running on batteries").

You can either use one of the preset modes or create and use your own customized mode. The preset modes cannot be deleted.

By changing the options that appear in the Toshiba Power Saver Properties window and clicking **OK**, you can reconfigure that function. Any options that you change become effective when you click either **OK** or **Apply**.

Plugged in section

This section has a single preset power usage mode — Full Power. You can create other AC power modes, but Toshiba recommends use of the preset Full Power mode.

The windows and settings for creating and customizing AC power modes are described below.

Running on batteries section

This section lists the preset modes along with the estimated battery life for each mode. The preset modes are:

- ❖ Long Life
- ❖ Normal
- ❖ High Power
- ❖ DVD Playback
- ❖ Presentation
- ❖ Super Long Life

Although you can change the properties for any of these modes, this is not recommended. If you need a customized mode, create a new mode with the properties you require.

Creating a new power mode

1   Highlight one of the preset modes.

2   Click **Create copy**.

3   A new mode appears with the title "Copy *Name*" where
    Name is the title of the mode you copied. Delete this title,
    type in the name for your new power mode, then press
    Enter.

Customizing a power mode

1   Highlight the mode on the Power Save Modes window.

2   Click **Details...**.

The Properties window for the selected mode opens with the
General tab displayed.

This tab enables you to choose an icon for your power usage
mode, describe the mode's characteristics and, optionally,
associate it with a program.

The Name field displays the name assigned to the mode in the
Power Saver Properties window. You can change the name
here if you wish.

Toshiba Hardware Setup

Toshiba Hardware Setup is the Toshiba configuration management tool. To access it:

In the **TOSHIBA Console**, click the **Toshiba Hardware Settings** icon.
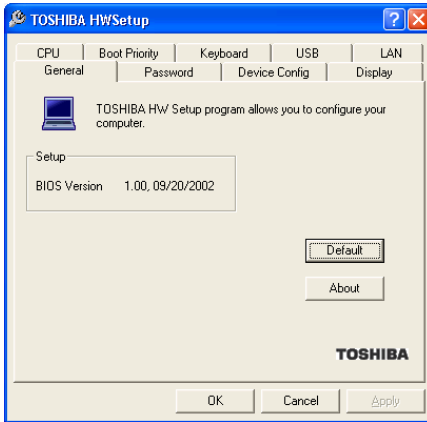
Sample TOSHIBA HWSetup window

The TOSHIBA HWSetup window appears with tabs for the following:

❖   Boot Priority — Allows you to set the order of priority by which the machine searches for a device to boot from; in addition to changing the network boot protocol.

You can also manually choose the boot-up sequence by pressing the power button, then quickly pressing the right or left arrow keys.

Select the boot device by pressing the right or left arrow keys, then pressing the Enter key.

NOTE: Since the system is a quick-booting system, you must press the arrow keys immediately after pressing the power button.

❖ Keyboard—Allows you to enable or disable Wake up from the keyboard. This function only applies to the built-in keyboard from Standby mode.

❖ USB—Allows you to enable or disable USB Legacy Emulation.

❖ LAN — Lets you enable or disable the Wake-up on LAN feature and enable or disable the built-in LAN.

❖ Display—Allows you to change various default settings for the built-in LCD display and external video displays.

❖ CPU—Allows you to set the "CPU Frequency Mode" to one of "Dynamically Switchable," "Always High," or "Always Low."

❖ General — Allows you to view the current BIOS.

❖ Password — Allows you to set user passwords.

❖ Device Config—Shows the Device configuration options.

The Toshiba Rotation Utility

This utility allows you to change the default setting of the display format (primary portrait) to three other display formats:

❖ Primary landscape

❖ Secondary portrait

❖ Secondary landscape

To change the display format:

1 Click **Start**, select **All Programs**, select the **TOSHIBA Rotation Utility** program group**,** and then click **TOSHIBA Rotation Utility**.

The Toshiba Rotation Utility screen appears:
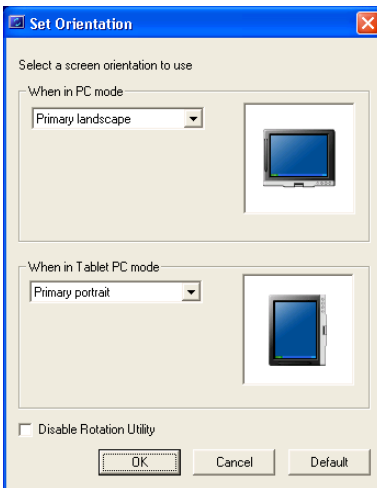
Sample Toshiba Rotation Utility screen

2 Select a new display format for either PC mode or Tablet PC mode.

3 Click **OK**.

Tablet and Pen Settings

NOTE: Toshiba recommends that you use the Toshiba Rotation Utility to change screen rotation options and settings for the tablet feature.

The Tablet and Pen Settings window allows you to set various options for using the tablet and pen.

To access Tablet and Pen Settings:

From the **TOSHIBA Console**, click the **Tablet and Pen Settings** icon.
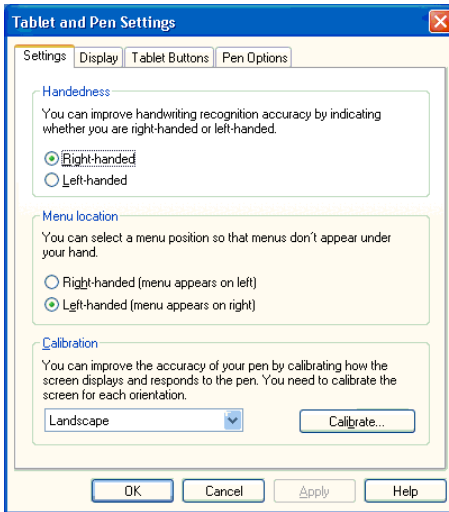
Tablet and Pen Settings window

❖ The **Settings** tab allows you to specify whether you are left handed or right handed, the menu location, and to calibrate the screen after changing its orientation.

NOTE: You should calibrate your screen each time you rotate it by clicking the Calibrate button on the Tablet and Pen Settings window.

❖ While the **Display** tab can be used to change the screen's orientation and adjust screen brightness, it is recommended that you use the Toshiba Rotation Utility (see page 162) to change the screen's orientation, and the Toshiba Power Saver Utility (click it's icon in the System Tray) to adjust screen brightness.

❖ The **Tablet Buttons** tab allows you to specify an action when a display system button is pressed. After making your selections, click **Change**, chose an **Action**, and then click **OK**.
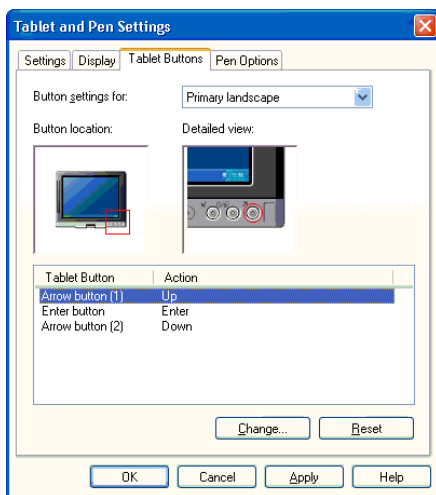
Tablet and Pen Settings Tablet Buttons tab

❖ The **Pen Options** tab allows you to set various pen options.

After making your selections on the Tablet and Pen Settings window, click **OK**.

Chapter 8

Keeping Your Files Safe

You may have files on your computer that you want to keep private. Your computer comes with several options that can help you keep your computer and files safe from unwanted intrusion.

This chapter describes the security options for your notebook computer.

Using passwords in the Windows® operating system

Setting password lets you leave your computer, secure in the knowledge that nobody can access your files. When you set a password, you must enter the password before you can work on your computer again.

Toshiba supports the following types of passwords on your computer:

❖ A power-on password—Prevents unauthorized users from starting or restarting the computer.

❖ An instant password—Secures your open programs and files when you need to leave the computer temporarily.

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❖ A hard disk drive password—Protects your data by preventing access to the hard disk, even if it is removed and installed in another computer. You can set a hard disk drive user password and/or a hard disk drive master password.

User-level passwords

The user-level password is the basic level of password security. You can use it as both a power-on password and an instant password. For most users, this is all the password security you'll need.

CAUTION: Make sure you use a password you can remember easily. If you ever forget your password, contact your network administrator.

Setting a user-level password

To set (register) a user-level password:

1 Click **Start**, **Control Panel**, and click **Toshiba HWSetup**.

2 Open the **Password** tab.

3 Click **Registered**.

A Password dialog box appears.

4 Type in the password and click **OK**.

5 Reenter the password and click **OK**.

6 Click **OK** at the bottom of the HWSetup window.

Your user password is now in effect. Use it when you start the computer (power-on password).

Disabling the user-level password

To delete a user-level password:

1 Click **Start**, **Control Panel**, and click **Toshiba HWSetup**.

2 Open the **Password** tab.

3 Click **Not Registered**.

A Password dialog box appears.

4 Type in the password and click **OK**.

5 Click **OK** at the bottom of the HWSetup window.

The user password is disabled.

Using the power-on (user-level) password

Whenever you start your computer with a power-on (user-level) password in effect, the computer prompts you to enter the password before it goes through its normal startup procedure.

When your computer prompts you to enter your password, type it in and press Enter. If you enter the password correctly, the computer continues with its normal startup procedure. If you enter an incorrect password, the computer beeps. After three incorrect attempts, the system turns off automatically.

Using the instant (user-level) password

An instant password secures your system with a single keystroke. Use this feature when you need to leave your desk for a few minutes and don't want to turn off the computer.

To use an instant password, press Fn and F1 simultaneously. Pressing this hot key freezes the keyboard and TouchPad and blanks the screen. An instant password has no effect on an optional serial mouse or trackball.

If you have not registered a user-level password, press Enter to unlock your system.

If you have registered a user-level password, press Enter, type your password and press Enter. If you enter the password

correctly, the computer returns to where it was when you pressed the hot key.

Hard disk drive passwords

Your computer comes with a program preinstalled that lets you set two types of hard disk drive passwords, user and master. These passwords protect your primary and secondary hard disks as follows:

❖ Setting a hard disk drive user password prevents an unauthorized user from accessing your hard disk, even if it is removed and installed on another computer. This password does not encrypt data on the hard disk.

❖ Setting a hard disk drive master password lets you bypass the hard disk drive user password and access your hard disk, in case you forget the hard disk drive user password. If you choose to set a hard disk drive master password, you should set it before you set a hard disk drive user password.

HINT: The hard disk drive shipped with your computer may not support the master password feature. When you attempt to set master password protection, your computer may alert you that this feature is not supported by your drive. If this happens and you want to establish a master password for your hard disk, contact your network administrator for instructions.

Setting a hard disk drive master password

CAUTION: If you choose to set a hard disk drive user password, we strongly recommend that you set a hard disk drive master password as well.

If you set a hard disk drive user password and later forget the password or lose your password diskette, YOU WILL NEVER BE ABLE TO ACCESS YOUR HARD DISK AGAIN, unless you've set a hard disk drive master password.

NOTE: If you want to set a master password and your system already has a user password, you must first remove the user password.

To set a hard disk drive master password:

1   Click **Start**, then click **Run**.

2   In the Run box, type:

c:\Program Files\toshiba\Windows Utilities\HDDPWM\HDDPWM and press **Enter**.

The Hard Disk Drive Password program HDDPWM displays a warning screen.

3   To set a hard disk drive master password, read the warning and click **OK**.

To quit without setting a password, click **Cancel**.

4   To set a hard disk drive master password, click **Register/ Update**, then **Update**.

A master password warning will appear.

5   Read the warning and click **Yes** to continue setting the password, or **No** to cancel.

6 Type a password of up to 10 characters under New Password, and type it again to confirm.

7 Click **OK**.

CAUTION: Make sure you choose a hard disk drive master password you can remember easily. If you set a hard disk drive user password and later forget the password or lose your password diskette, you will need to enter the hard disk drive master password in order to access your hard disk.

A confirmation screen appears to verify you want to register the password.

8 Click **Yes**.

9 If you want to store the password on a removable media click **Yes**; otherwise click **No** to continue without storing the password on a removable media.

10 If you are storing the password on a removable media, insert the media of you choice and type the drive and file name you want to save it as, or click **Browse** to search for the drive. Press **OK** to continue.

HDDPWM saves the password on the media as a text file. If you forget your password, you can open the text file on another computer and find out what the password is.

HDDPWM displays a warning screen notifying you that the computer must be turned off and restarted in order for the change to take place.

11 To finish setting the hard disk drive master password, click **OK**.

NOTE: Once it is set, the master password can be changed but not deleted.

The hard disk drive master password will be registered the next time you restart your computer. When you need to use the hard disk drive master password, type the password when prompted and press the tab key.

Setting a hard disk drive user password

To set a hard disk drive user password:

1 Click **Start**, then click **Run**.

2 In the Run box, type:

c:\Program Files\toshiba\Windows Utilities\HDDPW\HDDPW and press **Enter**.

The Hard Disk Drive Password program HDDPW displays a warning screen.

3 To set a hard disk drive user password, read the warning and click **OK**.

4 To quit without setting a password, click **Cancel**.

5 To set a hard disk drive user password, click **Register/Update**, then **Update**.

A user password warning will appear.

6 Read the warning and click **Yes** to continue setting the password, or **No** to cancel.

7 Type a password of up to 10 characters under New Password, and type it again to confirm.

8 Click **OK**.

CAUTION: Make sure you choose a hard disk drive user password you can remember easily. If you set a hard disk drive user password and later forget the password or lose your password diskette, you will need to enter the hard disk drive user password in order to access your hard disk.

A confirmation screen appears to verify you want to register the password.

9 Click **Yes**.

10 If you want to store the password on a removable media click **Yes**; otherwise click **No** to continue without storing the password on a removable media.

11 If you are storing the password on a removable media, insert the media of you choice and type the drive and file name you want to save it as, or click **Browse** to search for the drive.

12 Press **OK** to continue.

HDDPW saves the password on the media as a text file. If you forget your password, you can open the text file on another computer and find out what the password is.

HDDPW displays a warning screen notifying you that the computer must be turned off and restarted in order for the change to take place.

13 To finish setting the hard disk drive user password, click **OK**.

The hard disk drive user password will be registered the next time you restart your computer.

14 When you need to use the hard disk drive user password, type the password when prompted and press the tab key.

Deleting the hard disk drive user password

HINT: You must delete the hard disk drive user password before you can delete the hard disk drive master password.

To delete a hard disk drive user password:

1 **1** Click **Start**, then click **Run**.

2 In the Run box, type:

c:\Program Files\toshiba\Windows Utilities\HDDPW\HDDPW and press **Enter**.

The Hard Disk Drive Password program, HDDPW, displays a warning screen.

3 To delete the hard disk drive user password, click **Delete**.

HDDPW displays another warning and asks you whether you want to delete the hard disk drive user password.

4 Type your password and press **Enter**.

If the password you typed matches the registered hard disk drive user password, the password is deleted. Any password service diskette made with the password is now no longer valid.

5 Shut down and restart the computer for your changes to take effect.

Chapter 9

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 a 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. You will find information on Toshiba's support services at the end of this chapter.

Problems that are easy to fix

Your program stops responding.

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

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To close a program that has stopped responding:

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

The Windows Task Manager window appears.

2 Click the **Applications** tab.

If a program has stopped responding, the words "not responding" appear beside its name in the list.

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

Closing the failed program should allow you to continue working. If it does not, continue with step 5.

4 Close the remaining programs one by one by selecting the program name, then **End Task**.

To power off your computer, do one of the following:

If you are not connected to a domain server:

1 Click **Start**, **Turn off computer**.

The Turn off computer window appears.

2 Click **Turn Off**.

The computer turns off.

If you are connected to a domain server:

1 Click the **Start** button, then **Shut down**.

The Shut Down window appears.

2 Select **Shut down** from the drop-down list.

3 Click **OK**.

The computer shuts down completely.

Your program performs an illegal operation.

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

To record the details:

1   Click the **Details** button and select the text the operating system displays.

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

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

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

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

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

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

Problems when you turn on the computer

These problems may occur when you turn on the power.

The computer will not start.

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

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

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

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

You are probably 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 won't solve a resource conflict. Read the documentation that came with the conflicting device and "Resolving a hardware conflict" on page 181.

The computer is not accessing the hard disk or the optional external diskette drive.

Your computer normally loads the operating system from the hard disk. If you have a hard disk problem, you will not be able to start the computer. Insert a system diskette into the 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 Stand By mode and the battery has discharged. Data stored in the computer's memory has been lost.

To charge the battery, leave the computer plugged into a live wall outlet for several hours. For more information, see "Power and the batteries" on page 186.

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 one, remove it and press any key to continue. If pressing any key does not work, press Ctrl, Alt, and Del to restart the computer.

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. This section describes each option and when to use the procedure.

To open the Startup menu:

1 Restart your computer.

2 Press F8 when your computer starts.

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.

TECHNICAL 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, time of day (when everyone else is surfing, your access can be slow) and popularity of the site. If accessing a particular site is very slow, try later.

My browser can't 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, comma instead of period ("dot") or other mistake makes it impossible for your browser to locate the site.

My browser can't 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® XP 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 Windows® XP 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 on 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.

Resolving a hardware conflict

If you receive an error message telling you there is a device driver conflict or a general hardware problem, try using Windows® Help and Support to troubleshoot the problem first.

For help on hardware conflicts:

1   Click Start, then click **Help and Support**.

2   Click the **Hardware** link in the window's left pane.

A list of category links appear.

3   Click the **Fixing a hardware problem**.

4   Choose from specific topics and follow the steps.

If there is still a problem, the operating system should display a message that explains what the conflict is.

A plan of action

The smooth operation of the system depends on the interaction of all devices, programs, and features. If the system or one of its attached devices isn't working, resolving the problem can be time-consuming and frustrating.

The recommended procedure for getting multiple devices to work together is to add and set up one device at a time. After you add each device, test it to make sure it and all previously connected devices work.

The device most recently connected to the system is the one most likely to be causing a hardware conflict.

Resolving hardware conflicts on your own

Computer components need resources to accomplish a task. A device, such as a disk drive or a modem, needs a channel to the computer's Central Processing Unit (CPU). It also needs a direct channel to the computer's memory to store information as it works. These channels of communication are commonly referred to as system resources.

Interrupt Request Channel

The channel to the CPU is called an Interrupt Request (IRQ) because it interrupts what the processor is doing and requests some of the processor's time. If two or more devices use the same IRQ, the processor does not know which device is asking for attention. This causes a hardware conflict.

Direct Memory Access

Similarly, the data required by the device is stored in a specific place or address in memory called the Direct Memory Access (DMA). The DMA provides a dedicated channel for adapter cards to bypass the microprocessor and access memory directly. If two or more devices use the same DMA, the data required by one device overwrites the data required by the other, causing a hardware conflict.

Plug and Play

With Plug and Play and the operating system, avoiding hardware conflicts is easy. Plug and Play is a computer standard that helps the system BIOS (basic input/output system) and the operating system to automatically assign system resources to Plug and Play-compliant devices. In theory, if every device connected to the computer is Plug and Play-compliant, no two devices will compete for the same system resources. Plug in the device and turn on your computer. The operating system is automatically set up to accommodate the new device.

If you install an older (legacy) device that the operating system cannot recognize, the operating system may have difficulty assigning resources to it. As a result, a hardware conflict can occur.

Resolving conflicts

There are three things you can do to resolve hardware conflicts:

❖ Disable the device.

For an older device, remove it from the computer.

❖ Disable another system component and use its resources for the new device, see "Fixing a problem with Device Manager" on page 184.

❖ Reconfigure the device so that its requirements do not conflict. Refer to the device's documentation for instructions about changing settings on the device.

Fixing a problem with Device Manager

Device Manager provides a way to check and change the configuration of a device.

CAUTION: Changing the default settings using Device Manager can cause other conflicts that make one or more devices unusable. Device Manager is a configuration tool for advanced users who understand configuration parameters and the ramifications of changing them.

Disabling a device

1 Click **Start, Control Panel, Administrative Tools**.

2 Click the **Computer Management** icon.

3 Select the specific device from the device category.

4 In the toolbar, look to the far right for an icon of a monitor with a strike mark through a circle on the front. This is the disable feature.

5 Click the icon.

You are given the option of disabling the device.

6 Click **yes** or **no**, whichever is appropriate.

Checking device properties

Device Manager provides a way to view the properties of a device. Properties include the name of the manufacturer, the type of device, the drivers installed, and the system resources assigned to the device.

To check a device's properties:

1   Click **Start, Control Panel, Administrative Tools**.

2   Click the **Computer Management** icon.

3   Click the **Device Manager** button.

4   To view the device(s) installed, double-click the device type.

5   To view the properties, double-click the device.

The operating system displays the Device Properties dialog box, which provides an array of tabs. They include:

❖   The **General** tab, which provides basic information about the device.

❖   The **Resource** tab, which lists resources assigned to the monitor, optional external diskette disk drive, and other power-using functions.

❖   The **Drivers** tab, which displays the drivers being used by the device.

A Troubleshooting button is also present.

6   Click **troubleshooting.**

A Help and Support window for that device appears.

For more information about Device Manager, refer to Windows® XP online help.

Memory card problems

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

1   Click **Start**, **Turn off computer**.

2   Click **Turn Off**.

The operating system shuts down and turns off the computer automatically.

3 Remove the memory module, following the instructions in "Removing a memory module" on page 47.

4 Reinstall the memory module, following the instructions in "Installing a memory module" on page 44, and making sure the module is seated properly.

5 Check for the error again.

6 If the error recurs, remove the memory module entirely and check for the error again.

If removing the memory module eliminates the error, the memory module may be faulty. If the error recurs without the memory module installed, the error is not caused by the memory module.

TECHNICAL NOTE: You must have at least one memory module installed for the computer to work.

Power and the batteries

Your computer receives its power through the AC adapter and power cable or from the system batteries (battery, optional high-capacity battery and real-time clock (RTC) battery). Power problems are interrelated. For example, a faulty AC adapter or power cable will neither power the computer nor recharge the batteries.

Here are some typical problems and how to solve them:

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

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

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

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

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

The battery may not be inserted correctly in the computer. Turn off the computer, remove the battery, clean the contacts with a soft dry cloth (if necessary) and replace the battery. See "Removing the battery from the computer" on page 98.

The battery may be too hot or too cold to charge properly. If you think this is the probable cause, let the battery reach room temperature and try again.

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

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

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

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

If you frequently recharge a partially charged battery, it may not charge fully. Let the battery discharge completely, then try charging it again.

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

For more information on maximizing battery power, see "Charging batteries" on page 89.

Keyboard problems

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

The keyboard produces unexpected characters.

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

If the problem occurs when both the keypad overlays are off, make sure the software you are using is not remapping the keyboard. Refer to the software documentation and check that the program does not assign different meanings to any of the keys.

You've connected an external keyboard and the operating system displays one or more keyboard error messages.

The keyboard you connected may be defective or incompatible with the computer. Try using a different make of keyboard.

Nothing happens when you press the keys on the external keyboard.

You may have plugged the external PS/2 keyboard in while the computer was turned on. Click **Start**, **Shut Down** or **Turn off computer,** and **Restart the computer** using the TouchPad on the internal keyboard. The computer will restart and recognize the device.

Display problems

Here are some typical display problems and their solutions:

The screen is blank.

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

You may have activated the instant password feature by pressing Fn and F1 simultaneously. If you have registered a password, press any key, type the password and press Enter. If no password is registered, press any key. The screen reactivates and allows you to continue working.

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

If you are using an external monitor:

❖ Check that the monitor is turned on.

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

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

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

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

The screen does not look right.

You can change the display settings by clicking a blank area of the desktop with the secondary control button, then clicking Properties. This opens the Display Properties dialog box. The Appearance tab of this dialog box allows you to choose the colors for the screen. The Settings tab allows you to choose the screen resolution.

The built-in screen flickers.

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

To change the number of colors displayed:

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

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

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

For more information, see Windows® Help.

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

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

To change the display properties:

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

The Display Properties window appears.

2 Click **Properties**, then click the **Settings** tab.

3 Adjust the screen resolution and/or color quality.

4 Click **OK**.

The display mode is set to Simultaneous and the external display device does not work.

Make sure the external monitor is capable of displaying at resolutions of 800 x 600 or higher. Devices that do not support this resolution will only work in External monitor only mode.

Disk drive problems

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

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

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

Error-checking

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

To run Error-checking:

1   Click **Start**, then click **My Computer**.

2   Right-click the drive you want to check.

    The drive's Properties box appears.

3   Click the **Tools** tab.

4   Click the **Check now** button.

    The Check Disk All Apps box appears.

5   You can choose one or both options:

    ❖   Automatically fix file system errors

    ❖   Scan for and attempt recovery of bad sectors

6   Click **Start**.

    Error-checking tests and repairs the disk.

Your hard disk seems very slow.

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

Your data files are damaged or corrupted.

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

You may also be able to recover lost data using utility software. Consult your network administrator.

Some programs run correctly but others do not.

This is probably a configuration problem. If a program does not run properly, refer to its documentation and check that the hardware configuration meets its needs.

A diskette will not go into the optional external diskette drive.

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

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

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

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

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

The drive cannot read a diskette.

Try another diskette. If you can access the second diskette, the first diskette (not the drive) is probably causing the problem. Run Error-checking on the faulty diskette (for instructions, see "Disk drive problems" on page 190).

Problems with the DVD-ROM drive

You cannot access a disc in the drive.

Make sure the tray which holds the CD-ROM or DVD-ROM is closed properly. Press gently until it clicks into place.

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

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

Replace the disc in the tray. Make sure that the disc is lying flat, label side uppermost. Close the tray carefully, making sure it has shut completely.

You press the DVD-ROM eject button, but the DVD-ROM tray doesn't slide out.

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

If you need to remove a disc and cannot turn on the computer (for example, if the battery is completely discharged), use a narrow object, such as a straightened paper clip, to press the manual eject button. This button is in the small hole next to the DVD-ROM eject button on the face of the DVD-ROM tray.

Some discs run correctly but others do not.

Check the type of disc you are using. The DVD-ROM drive supports the Digital Versatile Disc (DVD) formats DVD-ROM, DVD-R (read-only), plus CD-ROM, CD-R (read-only), and CD-RW (read-only).

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

The disc will not come out of the drive when you click the eject button on the screen.

Press the button on the DVD-ROM drive itself.

Sound system problems

You do not hear any sound from the computer.

Adjust the volume control.

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

The computer emits a loud, high-pitched noise.

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

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

PC Card problems

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

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

Resource conflicts can cause problems when using PC Cards. See "Resolving a hardware conflict" on page 181.

Card Information Structure

When you insert a PC Card into a slot, the computer attempts to determine the type of card and the resources it requires by reading its Card Information Structure (CIS). Sometimes the CIS contains enough information for you to use the card immediately.

Other cards must be set up before you can use them. Use the Windows® XP PC Card (PCMCIA) Wizard to set up the card. Refer to your Microsoft® documentation for more information, or refer to the documentation that came with the PC Card.

Some card manufacturers use special software called *enablers* to support their cards. Enablers result in nonstandard configurations that can cause problems when installing the PC Card.

If your system does not have built-in drivers for your PC Card and the card did not come with an operating system driver, it may not work under the operating system. Contact the manufacturer of the PC Card for information about using the card under the operating system.

PC Card checklist

❖ Make sure the card is inserted properly into the slot.

❖ Make sure all cables are securely connected.

❖ Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is available, try the card in that machine. If the card malfunctions again, it may be defective.

Resolving PC Card problems

Here are some common problems and their solutions:

The slot appears to be dead. PC Cards that used to work no longer work.

Check the PC Card status:

1   Click **Start**.

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

The System Properties dialog box appears.

3   Click the **Hardware** tab.

4   Click the **Device Manager** button.

5   Double-click the **PCMCIA adapter**.

6   Double-click the appropriate PC Card.

The operating system displays your PC Card's Properties dialog box, which contains information about your PC Card configuration and status.

The computer stops working (hangs) when you insert a PC Card.

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address. See "Fixing a problem with Device Manager" on page 184 for more information.

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

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

Follow this procedure before you remove a PC Card:

1   Double-click the **PC Card** icon on the taskbar.

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

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

3   Remove the card from the slot.

The system does not recognize your PC Card.

Refer to the PC Card documentation.

Removing a malfunctioning card and reinstalling it can correct many problems.

A PC Card error occurs.

Reinsert the card to make sure it is properly connected.

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

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

Printer problems

This section lists some of the most common printer problems:

The printer will not print.

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

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

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

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

Make sure you installed the proper printer drivers, as shown in "Setting up a printer" on page 60.

You may have connected the printer while the computer is on. Disable Standby mode, turn off the computer, and turn off the printer. Turn the printer back on, make sure it is on line, then turn the computer back on.

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

If you cannot resolve the problem, contact the printer's manufacturer.

The printer will not print what you see on the screen.

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

will print. Contact the software manufacturer for more information.

Modem problems

This section lists common modem problems:

The modem will not receive or transmit properly.

Make sure the cable from the modem to the telephone line is firmly connected to the computer's modem port and the telephone line jack.

Check the port settings to make sure the hardware and software are referring to the same COM port. See "Determining the COM port" on page 126.

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

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

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

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

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

For more information regarding your system's V.92 modem, visit the Toshiba web site at www.pcsupport.toshiba.com.

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, time of day (when everyone else is surfing, your access can be slow), and popularity of the site. If accessing a particular site is very slow, try later.

My browser can't 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, missed period ("dot") or other mistake makes it impossible for your browser to locate the site.

My browser can't 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 to temporary repair. Try again later.

DVD operating problems

If you experience a problem playing DVDs, you may be able to fix the problem yourself.

For general problems playing a DVD title, try the following steps:

1 Check that the disc is in a format that the drive supports DVD-ROM.

2 Ensure that the disc is properly inserted in the drive tray.

3 Ensure that the Display properties are not True Color (24-bit). If it is set to 24-bit color, there will be a video format error. To verify your display settings:

   ❖ Click **Start**, **Control Panel**, **Appearance and Themes**, and double-click **Display**.

❖ Click on the **Settings tab** and check the **Color Palette**. It should be set to **High Color** (16-bit).

❖ If it is not set to High Color, change the settings to **16-bit color** and click **OK**.

4 Clean the disc and try again.

A dirty drive can also cause audio problems. If you have tried several discs and all fail, consider sending your drive to an authorized service provider to get it cleaned.

5 Verify that your computer recognizes your DVD-ROM drive. To do this:

Double-click the **My Computer** icon on the desktop. The DVD-ROM drive should appear in the list.

6 See "Checking device properties" on page 184 for instructions on using Device Manager to view the DVD-ROM properties.

7 Check the Toshiba Web site for new information on DVD-ROM drives and their operation.

A blank screen appears while watching a DVD-ROM movie or title.

Disable the Shut off Monitor feature in the Display Properties using the following steps:

1 Click the secondary mouse button on a blank area of the desktop.

2 Click **Properties**.

3 Click the **Screen Saver** tab.

4 Deselect **Shut off Monitor**.

Jumping video lines appear around the DVD-ROM video window.

To change the screen's display resolution:

1 Click **Start**, **Control Panel**.

The Control Panel window appears.

2 Click **Appearance and Themes**, and double-click the **Display** icon.

The Display Properties dialog box appears.

3 Click the **Settings** tab.

4 Next to the words **Desktop Area**, move the slider to a lower setting, such as 800 x 600 or 640 x 480.

5 Click **OK**.

DVD titles, games, or applications appear distorted.

Having Stretch enabled when your video resolution is set to 640 x 480 or 800 x 600 can cause distortion. To disable Stretch, follow the instructions below:

1 Right-click the **Desktop**, select **Properties**.

2 Select the **Settings** tab.

3 Select the **Advanced Flat Panel** tab.

4 Click **Disable Display Stretch Feature**.

5 Click **OK**.

The screen saver runs while you are watching a movie or title.

If the screen saver is enabled, it runs on top of any movie or title you are watching. To disable the screen saver:

1 Click **Start**, **Control Panel**.

The Control Panel window appears.

2 Click **Appearance and Themes**, and double-click the **Display** icon.

The Display Properties dialog box appears.

3 Click the **Screen Saver** tab.

In the Screen Saver list, the current screen saver is highlighted.

4 Click the down arrow at the right of the current screen saver name.

A list of screen savers displays.

5 Click and hold the up arrow by the list or move the slide to the top.

6 Click **None**.

7 Click **OK**.

Develop good computing habits

Make sure you are prepared.

Save your work frequently.

You can never predict when your computer will lock, forcing you to close a program and lose unsaved changes. Many software programs build in an automatic backup, but you should not rely solely on this feature. Save your work! See "Computing tips" on page 65 for instructions.

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

Here are some ways you can do this:

❖ Copy files to diskette.

❖ Connect a tape drive to the system and use specialized software to copy everything on the hard disk to a tape.

❖ Connect your computer to the office network and copy files to your network partition.

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

If you have installed your own programs, you should back up these programs as well as your data files. If something goes wrong that requires you to reformat your hard disk and start

again, reloading all your programs and data files from a backup source will save time.

Read the user's guides.

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

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

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

If you need further assistance

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

Before you call

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

Before contacting 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.

❖ Consult your network administrator.

❖ Consult your authorized Toshiba representative, who is your best source for current information.

Contacting Toshiba

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

1 Start with accessing Toshiba on the Internet using any Internet browser by typing:
pcsupport.toshiba.com

2 Next, try one of Toshiba's online services. The Toshiba Forum can be accessed through CompuServe® by typing:
go toshiba.

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 diskettes or CD-ROM.

❖ Name and version of the program involved in the problem along with its installation diskettes or CD-ROM.

❖ Information about what you were doing when the problem occurred.

❖ Exact error messages and when they occurred.

For technical support, call the Toshiba InTouch Center:

Within the United States at (800) 457-7777

Outside the United States at (949) 859-4273

Other Toshiba Internet Web sites

toshiba.com	Worldwide Toshiba corporate site
computers.toshiba.com	Marketing and product information in the USA
www.toshiba.ca	Canada
www.toshiba-Europe.com	Europe
www.toshiba.co.jp/index.htm	Japan
http://servicio.toshiba.com	Mexico and all of Latin America

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Excelsiorlaan 40
B-1930 Zaventem
Belgium

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Toshiba Canada Ltd.
191 McNabb Street
Markham, Ontario
L3R - 8H2
Canada

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CHG Toshiba, s.r.o.
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61700 Brno

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Scribona Danmark A/S
Naverland 27
DK2600 Glostrup
Denmark

Finland
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Sinimäentie 14
P.O. Box 83
02630 ESPOO
Finland

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Toshiba Systèmes (France)
S.A.
7, Rue Ampère
92804 Puteaux Cédex
France

Germany
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Leibnizstraße 2
D-93055 Regensburg
Germany

Greece
Ideal Electronics S.A.
109 Syngrou Avenue
176 71 Kalithea
Athens
Greece

Hungary
Technotrade Kft.
Szerencs utca 202
1147 Budapest
Hungary

Ireland
Toshiba Information Systems
(U.K) Ltd.
Toshiba Court
Weybridge Business Park
Addlestone Road
Weybridge KT15 2UL
United Kingdom

Italy
Progetto Elettronica 92 s.r.l.
Viale Certosa 138,
20156 Milano
Italy

Japan
Toshiba Corporation, PCO-IO
1-1, Shibaura 1-Chome
Minato-Ku, Tokyo, 105-8001
Japan

Luxembourg
Toshiba Information Systems
Benelux B.V.
Rivium Boulevard 41
2909 LK, Capelle a/d IJssel
The Netherlands

Mexico and all of Latin America
Toshiba de México S.A.
Sierra Candela No.111, 6to. Piso
Col. Lomas de Chapultepec.
CP 11000 Mexico, DF.

800-457-7777 (within the US)

949-859-4276 (outside of the US - this call may incur long distance charges)

Morocco
C.B.I.
22 Rue de Béthune
Casablanca
Morocco

The Netherlands
Toshiba Information Systems
Benelux B.V.
Rivium Boulevard 41
2909 LK, Capelle a/d IJssel
The Netherlands

Norway
Scribona Norge A/S
Toshiba PC Service
Stalfjaera 20
P.O. Box 51
Kalbakken
0901 OSLO 9
Norway

Poland
TECHMEX S.A.
ul. Partyzantów 71,
43-316 Bielsko-Biala
01-059 Warszawa
Poland

Singapore
Toshiba Singapore Pte. Ltd.
438B Alexandra Rd. # 06-01
Alexandra Technopark
Singapore 119968

Slovenia
Inea d.o.o.
Ljubljanska 80
61230 Domzale
Slovenia

Sweden
Scribona PC AB
Sundbybergsväegen 1
Box 1374
171 27 Solna
Sweden

Papua New Guinea
Fujitsu (PNG) Pty. Ltd.
P.O. Box 4952 Boroko
NCD, Papua
New Guinea

Portugal
Quinta Grande Assisténcia
Técnica Informática, Lda.
Av. Moinhos no. 15A
Ur. Quinta Grande
2720 Alfragide
Portugal

Slovakia
HTC a.s.
Dobrovicova 8
81109 Bratislava
Slovakia

Spain
Toshiba Information Systems
(España) S.A.
Parque Empresarial San
Fernando
Edificio Europa, 1a Planta
Escalera A
28831 (Madrid) San
Fernando de Henares
Spain

Switzerland
Ozalid AG
Herostrasse 7
8048 Zürich
Switzerland

United Kingdom
Toshiba Information Systems
(U.K) Ltd.
Toshiba Court
Weybridge Business Park
Addlestone Road
Weybridge KT15 2UL
United Kingdom

The Rest of Europe
Toshiba Europe (I.E.) GmbH
Hammfelddamm 8
D-4-1460 Neuss
Germany

United States
Toshiba America Information
Systems, Inc.
9740 Irvine Boulevard
Irvine, California 92618
United States

Appendix A

Hot Keys

Hot keys are keys that, when pressed in combination with the Fn key, turn system functions on and off. Hot keys have a

legend on the key indicating the option or feature the key controls.

Volume Mute

Fn + ⌨ This hot key enables/disables volume mute on your computer.

When volume mute is enabled, no sound will come from the speakers or headphones.

Password security

Fn + ⌨ This hot key blanks the display.

Without a password

The Fn + F1 key combination turns off the display and activates instant security. Using the pointing device or any key will make the display reappear.

With a password

The Fn + F1 key combination turns off the display and activates instant security. Type either a user or supervisor password and press Enter.

If you set a blank screen saver, pressing the Fn + F1 key combination to activate instant security will cause the screen to go blank. Moving the pointing device or pressing a key turns the screen back on. An "Unlock Computer" window appears, prompting you for a password. After typing in the password, press Enter.

> *NOTE: To activate the password feature, you must first enable it by using Toshiba Hardware Setup. Refer to "Toshiba Hardware Setup" on page 160.*

To activate the password feature:

1 Click **Start**, **Control Panel**.

2 Click **Appearances and Themes**

3 Click one of the following:

❖ **Choose a screen saver** in the **Pick a task** section

❖ **Display** in the **or pick a Control Panel icon** section

The Display Properties window appears.

4 If you clicked **Choose a screen saver**, the Screen Saver tab has already been selected. If it isn't selected, click the **Screen Saver** tab.

5 Click the **On resume, password protected** check box.

6 Click **OK**.

Power usage mode

Fn + ⌨ [F2 •]   This hot key displays the power usage pop-up win-
dow and cycles through the battery save modes.

Long Life

Sample power usage modes

The properties of each mode are set in the Toshiba
Power Management utility. For more information,
see "Power Management" on page 157.

Standby Mode
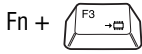
Fn + [F3 key image]   This hot key puts the computer into Standby
mode.

> ❖   A message box is displayed by default
> to confirm that the computer is going
> into Standby mode. You can choose
> not to display this message box.

THotkey
Do you wish to switch the machine to standby?
☐ Do not show this message in the future.
[Yes]   [No]
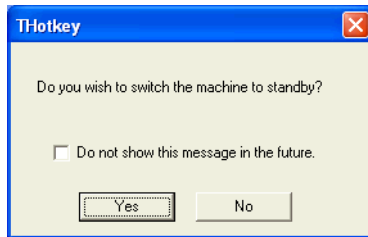
Sample Standby confirmation box

> ❖   For more information about Standby
> mode, please see "Using Standby" on
> page 144.

Hibernation mode

Fn + ⌨[F4]   This hot key puts the computer into Hibernation mode.

> ❖ If Hibernation mode is enabled (the default) a message box is displayed by default to confirm the computer is going into Hibernation mode. You can choose not to display this message box.
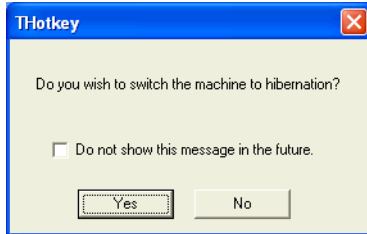
Sample Hibernation confirmation box

> ❖ If Hibernation mode is disabled, this hot key will not respond. For more information on Hibernation mode, see "Using Hibernation" on page 140.

Display modes
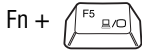
Fn + ⌨ This hot key cycles through the power-on display options.

The display modes are:

> ❖ Built-in display panel only
>
> ❖ Built-in display panel and external monitor simultaneously
>
> ❖ External monitor only
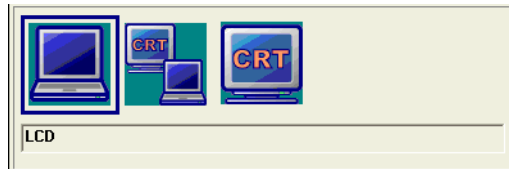
Sample display options window

Display brightness

Fn + ⌨ This hot key decreases the screen brightness.
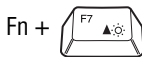
Fn + ⌨ This hot key increases the screen brightness.

Wireless device enable/disable
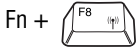
Fn + This hot key enables and disables the optional wireless devices installed in your computer.

The wireless modes are:

❖ All disabled—This disables both the Bluetooth and Wi-Fi modules.

❖ Wi-Fi enabled—This enables just the Wi-Fi module.

❖ Bluetooth enabled—This enables just the Bluetooth module (see "Using Bluetooth" on page 131).

❖ All enabled—This enables both Bluetooth and Wi-Fi.

Disabling or enabling the TouchPad
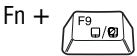
Fn + This hot key disables or enables the TouchPad.

To use the TouchPad, see "Using the TouchPad™" on page 54.

Sample disable and enable TouchPad window

Keyboard hot keys
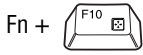
Fn + ⌨ This hot key turns the cursor control overlay on and off.
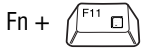
Fn + ⌨ This hot key turns the numeric overlay on and off.
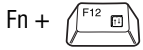
Fn + ⌨ This hot key turns the scroll lock feature on and off.

Appendix B

Power Cable Connectors

Your notebook computer features a universal power supply you can use worldwide. This appendix shows the shapes of the typical AC power cable connectors for various parts of the world.

USA and Canada

UL approved
CSA approved

Australia

AS approved

United Kingdom
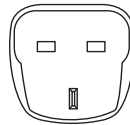
BS approved

Europe

VDA approved
NEMKO approved

Glossary

Acronyms

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

AC	alternating current
BIOS	basic input/output system
bps	bits per second
CD	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
FIR	fast infrared
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
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.

A
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 notebook 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*.

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 read-only memory (ROM), containing the information the computer needs in order to check hardware and load the operating system when you start up the computer.

bit: — Short for "binary digit." A bit is the smallest unit of information used by a computer. A group of eight bits is a byte. See also *byte*.

bits per second (bps) — A way of measuring the speed at which information is passed between two devices. The basic measure used in modem communications, bps 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 disk 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 hard disk.

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.

byte — A sequence of eight bits. A byte is the smallest addressable unit of data. See also *bit, gigabyte, kilobyte*, *megabyte*.

C

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 primary control button adjacent to the TouchPad or the mouse button without moving the TouchPad or mouse. In the Windows® operating system, this refers to the TouchPad left control button or the left mouse 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're using and what you're doing.

D **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 metal, 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 primary control button adjacent to the TouchPad or the mouse button rapidly twice without moving the TouchPad or mouse. In the Windows® operating system, this refers to the TouchPad left control button or the left mouse 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 disk that keeps track of the location of files stored on the disk.

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 **gigabyte (GB)** — A unit of data equal to 1,073,741,824 bytes (1024 x 1024 x 1024 bytes). See also *byte.*

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.

H **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. By default, the hard disk is referred to as drive C.

hardware — The physical components of a computer system. Compare *software.*

Hibernation — A feature of many Toshiba notebook computers that saves to the hard disk 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.

kilobyte (KB) — A unit of data equal to 1024 bytes. See also *byte*.

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.

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.

M **megabyte (MB)** — A unit of data equal to 1,048,576 bytes (1024 x 1024 bytes). See also *bytes.*

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 main circuit board in the computer. It contains the processor, memory, and other primary components.

MS-DOS prompt — See *system prompt.*

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.

N **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*.

O **online** — Available through the computer. Online may refer to information being read from your own computer's hard disk, 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 Professional and Windows® XP Home operating systems.

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.

PC Card — A credit-card-sized expansion card designed to increase the capabilities of notebook computers. PC Cards provide functions such as modem, fax/modem, hard disk drive, network adapter, sound card, or SCSI adapter.

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 PC 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.

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R **RAM (random access memory)** — Volatile memory that can be written to as well as read. By volatile, we mean 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. By non-volatile, we mean 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.*

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.

T   **Toshiba tablet pen** — The writing instrument used with the tablet. It is stored to the left of the screen.

TFT display — See *active-matrix display.*

U   **universal serial bus (USB)** — A serial bus that supports a data transfer rate of up to 12 Mbps (12 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.

W

Web — See *World Wide Web.*

Wi-Fi — A trademarked term by the Wireless Capability Ethernet Alliance which stands for Wireless Fidelity. Wi-Fi is another term for the IEEE 2.11b 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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