Tecra® 9000 Series User's Guide

If you need assistance:

❖ VirtualTech™ e-support tool
Double-click the desktop icon or visit the Web site:
http://virtualtech.answerteam.com

❖ InTouch^{sm} Center

Calling within the United States (800) 457-7777

Calling from outside the United States (949) 859-4273

For more information, see Chapter 10 on page 199 of this guide.

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Model: Tecra 9000 Series

Compact Disk-Read/Write

The computer system you purchased may include a Compact Disk-Read/Write (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 "Declaration of Conformity Information"

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

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

❖ Reorient or relocate the receiving antenna.

❖ Increase the separation between the equipment and receiver.

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❖ 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 computer. Operation with non-compliant 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 serial port, parallel port, monitor port, USB port, PS/2™ 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.

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.

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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 or an authorized representative of Toshiba Corporation.

Disconnection

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

Fax branding

The Telephone Consumer Protection Act of 1991 makes it unlawful 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.

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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.

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. When using this device in combination with Wireless LAN Outdoor Antenna products, a certain separation distance between antenna and nearby persons has to be kept to ensure RF exposure compliance. The distance between the antennas and the user should not be less than 5.0 cm.

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

The Toshiba Wireless LAN Mini PCI Card is far below the FCC radio frequency exposure limits.

Nevertheless, it is advised to use the Toshiba Wireless LAN Mini PCI Card in such a manner that human contact during normal operation is minimized.

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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
Germany	Iceland	Ireland
Japan	Luxembourg	Netherlands
New Zealand	Norway	Sweden
Switzerland	UK	USA
Greece	Italy	France
Poland	Portugal	Spain

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

CD-ROM, DVD-ROM, DVD-ROM/CD-RW safety instructions

The CD-ROM,DVD-ROM, 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.

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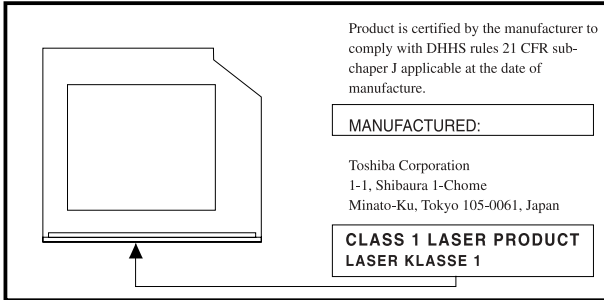
CAUTION: This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT." To use this model properly, read the instruction manual carefully and keep it for your future reference. In case of any trouble with this model, please contact your nearest "AUTHORIZED service station." To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

*CLASS 1 LASER PRODUCT
LASER 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.

Copyright

Export Administration regulation

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

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MS-DOS, Microsoft, Windows, Windows 2000, Media Player, DirectX, and DirectShow are registered trademarks of Microsoft Corporation.

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LapLink is a registered trademark of Traveling Software, Inc.

WinDVD is a trademark of InterVideo, Inc.

Sound Blaster Pro is a registered trademark of Creative Labs, Inc.

SPANWorks 2000 is a trademark of SPANWorks, U.S.A.

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

Yamaha is a registered trademark of Yamaha Corporation.

*Manufactured under license from Dolby Laboratories. "Dolby" and "Dolby Digital" are registered trademarks of Dolby Laboratories.

Energy Star is a registered trademark of the U.S. Environmental Protection Agency.

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

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

Energy Star compliance

As an Energy Star® partner, Toshiba has determined that this product is Energy Star Compliant.

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.

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Introduction

Welcome to the world of powerful, portable, multimedia computing. Your new Toshiba Tecra® 9000 Series computer is designed just for you. Because you or your company's Information Technology (IT) personnel have been given the opportunity to choose among so many options—you have a computer that truly meets your specific needs.

The Tecra® 9000 Series' modular design also lets you add, change, or update components at any time, making this computer one of the most flexible tools you've ever owned.

This guide

This user's guide contains basic information about your computer, including troubleshooting advice, detailed descriptions of your computer's hardware and how to use it, and vital notes about Microsoft® Windows® 2000 and Microsoft® Windows® 98SE.

Depending on your needs, 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. 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 or damage to your equipment. The safety instructions have been classified according to the seriousness of the risk, and are highlighted with icons 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 unit.

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 in addition to this user's guide:

❖ An electronic version of the user's guide. Look for the user's guide icon on your desktop or install it from your Toshiba Configuration Builder CD supplied with your computer.

❖ The *Toshiba Companion Diskette Guide* explains when to use the Toshiba Companion Diskette and how to use the programs on the diskette that are not discussed in this guide.

❖ The *Toshiba Configuration Builder CD Instructions* explain how to completely recover, selectively reinstall, or custom configure your system.

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

❖ Guides for other software that may come preinstalled on your computer and additional software on your Toshiba Recovery and Configuration Builder CD.

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Service options

Toshiba offers a full line of service options built around its SelectServ™ warranty programs. See the warranty and service material included with your computer for registration information.

If you have a problem or need to contact Toshiba, see .

Chapter 1

Finding Your Way Around

This chapter presents a "grand tour" of your Tecra$^{®}$ 9000 Series 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

SD Media slot indicator

Display latch

System indicator panel

Infrared port

Wireless on/off switch

Microphone jack

Volume control dial

Headphone jack
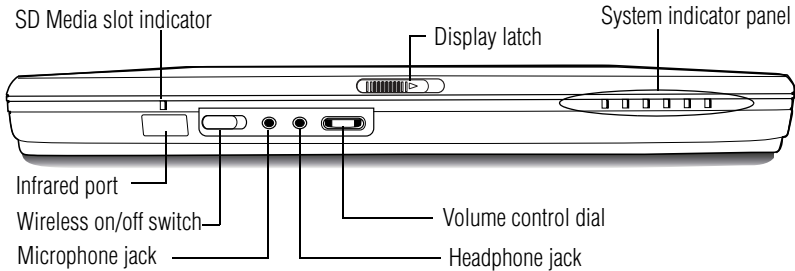
Infrared port—The fast infrared port allows cable-free communication with another device, such as a computer or printer, that has a compatible infrared port.

Wireless on/off switch—The Wireless on/off switch turns the optional wireless communication system on or off.

SD Media indicator—The SD Media slot indicator light glows when the SD Media card is being accessed. The SD Media slot is located on the left side of the computer.

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 loudness of the system speakers.

Display latch—Sliding the display latch opens the computer display panel. For more information, see "Front with the display panel open" on page 35.

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 lights" on page 38 for a description of each of the panel lights.

Back with rear panel closed

DC IN socket

USB ports

PS/2 port
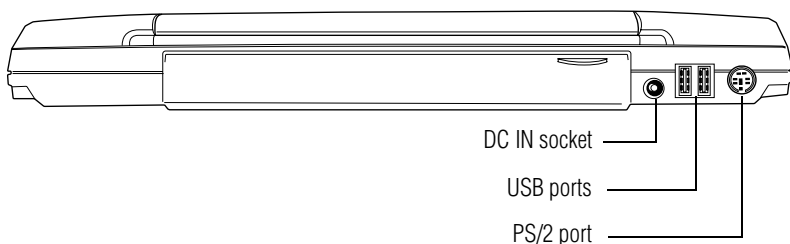
USB ports—The USB (Universal Serial Bus) ports provide a connection for USB peripherals. USB is a single-cabling and connection standard that supports a data transfer rate of up to 12 million bits per second (Mbps) for peripherals such as keyboards, pointing devices, a diskette drive and a video camera. USB allows "hot swapping" of peripherals, which means that components may be plugged and unplugged while the computer is on.

DC IN socket—Lets you plug in the AC adapter.

PS/2™ port—Lets you connect an optional PS/2-compatible mouse or keyboard. You can use an optional Y-cable to connect both a mouse and a keyboard to the port.

Back with rear panel open

RGB port

Modem port

i.Link port

Serial port

Parallel port

Network port
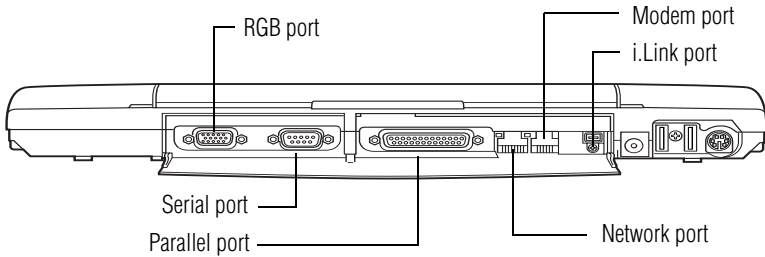
RGB port—Lets you connect an external monitor or projector. For more information, see "Using external display devices" on page 57.

Parallel port—Lets you connect a parallel printer or other parallel device. For more information, see "Connecting a local printer" on page 63.

Serial port—Lets you connect a serial mouse, serial printer, or other serial device.

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

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

i.Link® port—The i.Link® port on the rear of the computer provides very fast data transfer rates (up to 400 Mbps or 400 million bits per second). You can connect up to 63 external devices to this port. For more information on i.Link® ports, see "Using the i.Link® port" on page 83.

Right side
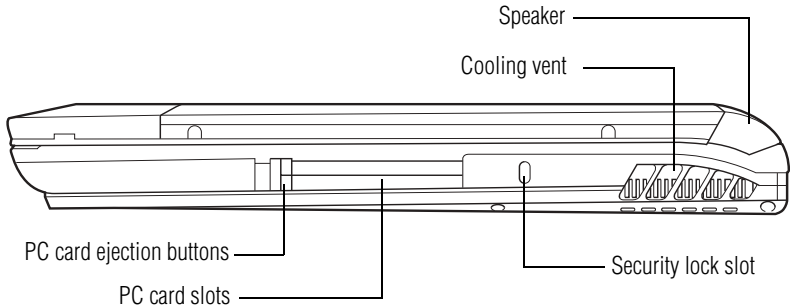
Speaker

Cooling vent

PC card ejection buttons

Security lock slot

PC card slots

Speaker—Lets you hear stereo sound from a CD or DVD in addition to system alarms and audible warnings associated with your software.

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 "Using a computer lock" on page 105.

PC Card slots—Allows you to use Type I, Type II, or Type III PC Cards.

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.

Left side
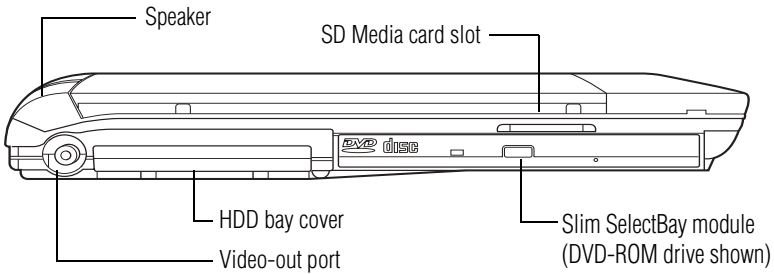
Speaker

SD Media card slot

HDD bay cover

Video-out port

Slim SelectBay module
(DVD-ROM drive shown)

Speaker—Lets you hear stereo sound from a CD or DVD in addition to system alarms and audible warnings associated with your software.

SD Media card slot—Lets you insert SD Media cards for additional RAM or data storage.

Video-out port—Lets you connect your computer to an external video device such as a standard television set.

Slim SelectBay®— Lets you use one of several possible Slim SelectBay modules. The DVD-ROM drive is shown in place. For more information on using your DVD-ROM, see "Using a compact disc drive" on page 98. For further information on Slim SelectBay devices, see "Using Slim SelectBay® modules" on page 71.

Front with the display panel open

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

1 Locate the display latch on the front of the computer.

2 Slide the display latch to the right 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.

Screen

Keyboard

Speaker

Power button

CapsLock indicator

AccuPoint II pointing device

Speaker

TOSHIBA Console button

Keyboard indicator panel

Programmable buttons

System indicator panel

AccuPoint II buttons
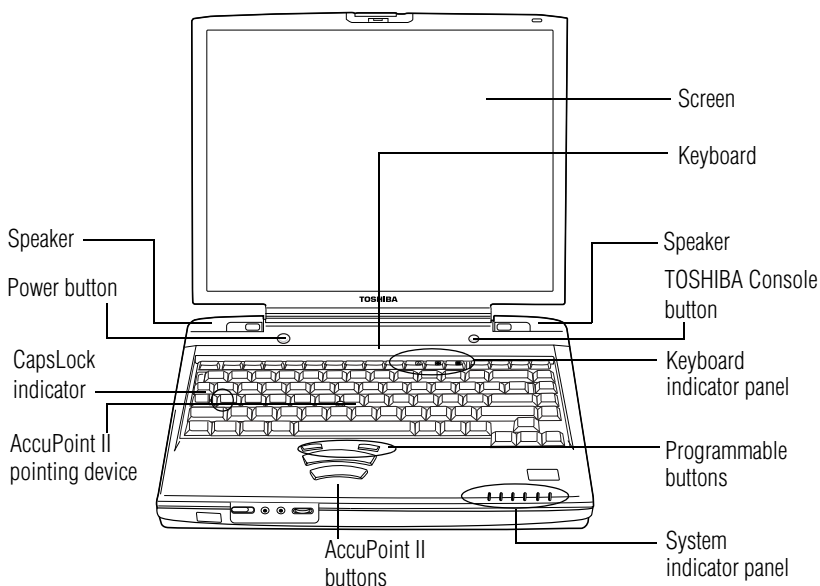
Power button —The power button is used to turn on power to the computer. For more information, see "Turning on the computer" on page 51.

Screen—The computer's screen is a liquid crystal display (LCD) that provides clear, sharp images.

Keyboard—The 85-key keyboard provides all the functionality of a full-size keyboard. For more information, see "Using the keyboard" on page 88.

Keyboard indicator panel—These lights provide information about various keyboard functions. See "Keyboard indicator panel lights" on page 40 for a description of the panel lights.

AccuPoint® **II pointing device**—This device combines the function of a mouse with the convenience of never having to remove your hands from the keyboard. See "Using the AccuPoint II" on page 93.

System indicator panel—These lights provide status information about various system functions. See "System indicator panel lights" on page 38 for a description of each panel light.

TOSHIBA Console button—This button activates the Toshiba Console. This gives you quick access to some common functions. For more information, see "Using the TOSHIBA Console button" on page 94.

Underside

Slim SelectBay release

Slim SelectBay slot

Bluetooth module*

Battery module

Memory module cover

Expansion port

PC card lock

Hard disk drive bay
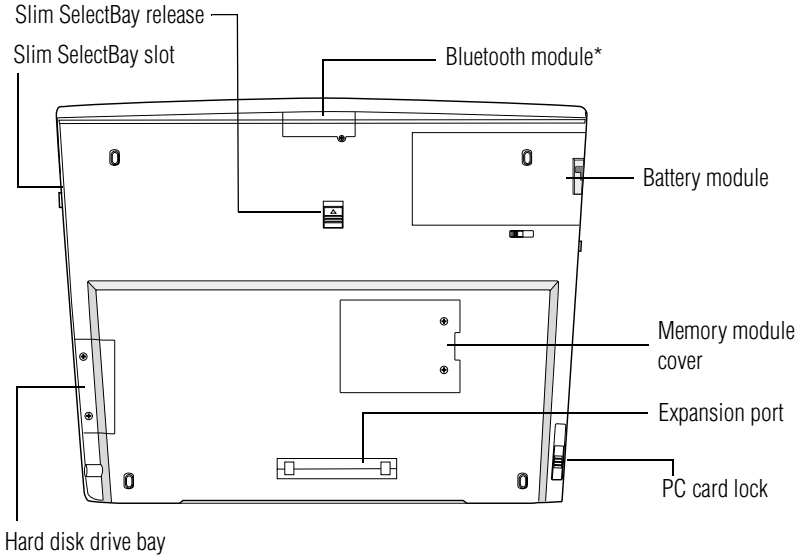
*for systems with Bluetooth installed

Battery module—Lets you to use your computer when a standard electrical outlet is not available. For further information about using the battery, see "Power Management" on page 113.

Slim SelectBay release—Keeps the Slim SelectBay module secure in its compartment.

Memory module—Lets you add more memory to your computer. For more information, see "Adding memory" on page 67.

Slim SelectBay slot—One of several interchangeable devices which offer exceptional system flexibility. For more information, see "Using Slim SelectBay® modules" on page 71.

PC Card lock—Keeps the PC Cards secure in their slots.

Expansion port—Lets you connect one of several available expansion stations. These devices provide additional expansion capability. For more information, see "Using an expansion device" on page 66.

Indicator panel lights

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

System indicator panel lights

This panel is located on the front of the computer.
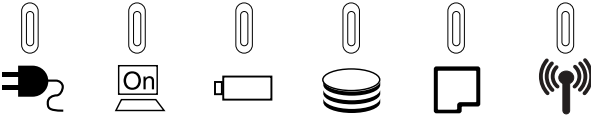
AC power light—Glows green when the computer is connected to an AC power source.

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

Main battery light—Indicates the status of the main battery.

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

❖ Does not glow 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 115.

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

Slim SelectBay indicator light—Indicates the status of a secondary battery in the Slim SelectBay, if installed.

❖ Glows amber when the battery is charging.

❖ Glows green when the battery is fully charged.

❖ Does not glow if there is no battery in the Slim SelectBay.

Wireless indicator light—Flashes to indicate that wireless device is currently in use.

Keyboard indicator panel lights

The keyboard indicator lights provide information about keyboard functions.

Caps lock light—Glows when you press the caps lock key. When this light is on, pressing a letter key on the keyboard produces an uppercase (capital) letter. The caps lock key does not affect the number and symbol keys.

Cursor control light—Glows 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 left front of the key instead of the letter printed on the top of the key. For more information, see "Using the overlay for cursor control" on page 92.

Numlock light—Glows when the numeric overlay is on. When this light is on, pressing an overlay key produces the white number printed on the right front of 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 91.

Chapter 2

Getting Started

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

Selecting a place to work

Your computer is designed to be used in a variety of locations and situations. This section provides guidelines for setting up your computing environment.

Creating a computer-friendly environment

Place the computer on a flat surface that is large enough for the computer and any other items you need to use, such as a printer. Leave enough space around the computer and other equipment to give 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 off the
computer, 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 network administrator.*

❖ Equipment that generates a strong electromagnetic field, such
as large 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. Operate the computer within
a temperature range of 41 degrees to 95 degrees Fahrenheit
(5 degrees to 35 degrees Celsius) and 20 percent to 80 percent
non-condensing humidity.

Keeping yourself comfortable

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

WARNING: Using the computer keyboard incorrectly can result in discomfort and possible injury. If your hands, wrists, and/or arms hurt 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-motion injury, and repetitive-stress syndrome.

Placement of the computer

Proper placement of the computer and external devices is important to avoid stress-related injuries. Consider the following when placing your computer.

❖ 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 use an external monitor, the top of the screen should be no higher than eye level.

❖ If you use a paper holder, set it at 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° angles

Footrest
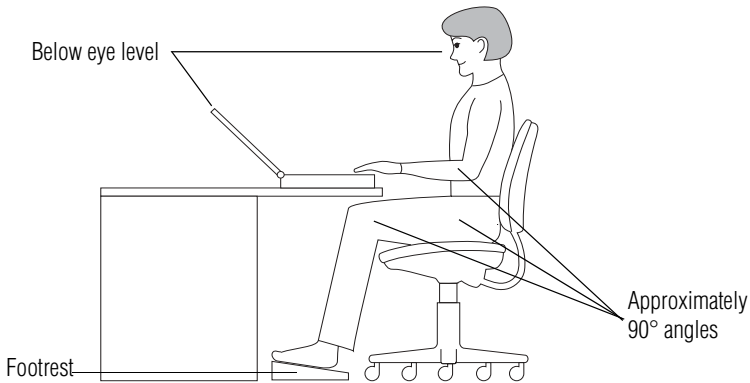
Correct posture and positioning of the computer

❖   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. Do not slump forward or lean back too far.

Lighting

Proper lighting can improve the readability 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 shines directly into 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, short 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 30 seconds.

Other precautions

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

CAUTION: Do not apply heavy pressure to the computer or subject it to sharp impacts. Excessive pressure or impact can damage computer components or cause your computer to malfunction.

CAUTION: Some PC Cards can become hot with prolonged use. If two cards are installed, both can become hot even if only one is used extensively. Overheating of a PC Card can result in errors or instability in the PC Card operation.

Be careful when you remove a PC Card that has been used for lengthy periods of time.

Setting up your computer

Your computer comes with a rechargeable battery pack that must be charged before you can use it.

To use external power or to charge the battery, you must attach the AC adapter. See "Connecting the AC adapter" on page 48.

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 to a phone line" on page 81

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

❖ Add more memory. See "Adding memory" on page 67

❖ Connect a mouse. See "Using a mouse" on page 62

❖ Connect a full-size keyboard. See "Using an external keyboard" on page 61

❖ Connect an external monitor. See "Using external display devices" on page 57

❖ Connect a local printer. See "Connecting a local printer" on page 63

❖ Install PC Cards. See "Inserting and removing PC Cards" on page 76

If you want to add any of these devices to the computer, you should do so before you turn on the computer. For more information, see "Connecting Other External Devices" on page 57.

Connecting the AC adapter

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

Power cable
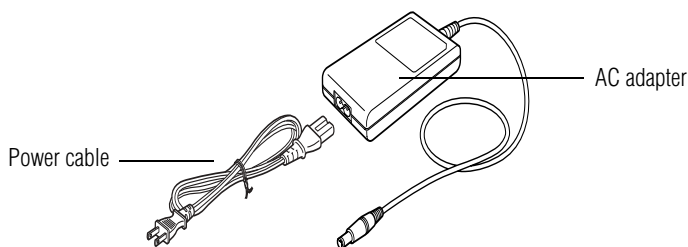
AC adapter

Power cable and AC adapter

To connect AC power to the computer:

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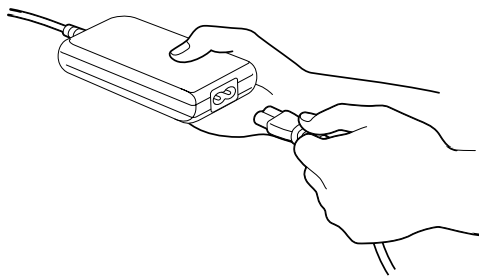
Connecting the power cable to the AC adapter

⊖–⊂–⊙ **2** Plug the AC adapter into the DC IN socket on the rear of the computer.
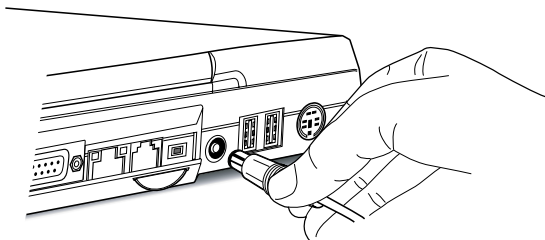
Connecting the AC adapter to the computer

3 Connect the power cable to a live electrical outlet.

If the electrical outlet is live, the system indicator panel's AC power light (⇒◗ᴄ) 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.

Charging the battery

Before you can use the battery to power the computer, you must charge it. Connect the computer to a live electrical outlet using the AC adapter and power cable. When the AC adapter is connected to a live electrical outlet, the system indicator panel's AC power light (⮑⇄) glows green and the battery light (▱) glows amber. When the battery light turns green, the battery is completely charged and ready to power the computer.

Charging time for the battery varies depending upon the demand placed on the AC adapter. If the computer is off, the battery should fully charge in about three hours. If the computer is on, the battery will charge in four to ten hours, provided the computer is *not* consuming full power. If you are also charging a secondary battery housed in the SelectBay, charging time will be longer.

> *NOTE: Once the battery is charged for the first time, avoid leaving the computer plugged in and turned off for more than a few hours at a time.*

For more information on battery use, see "Running the computer on battery power" on page 113.

Connecting other external devices

You should attach any other external devices to your computer before you turn it on. For more information about other external devices, see "Connecting Other External Devices" on page 57.

Turning on the computer

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

Opening the display panel

1 Slide the display latch to the right.

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.

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 Check to ensure that any floppy drives are empty.

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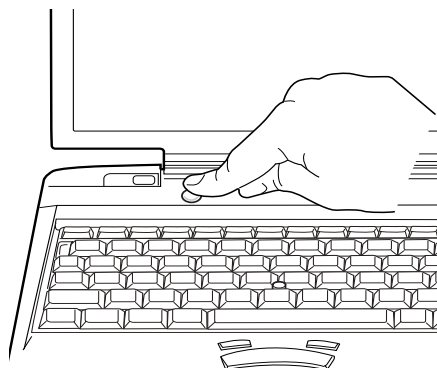
Turning on the power

For the meaning of each light on the system indicator panel, see "System indicator panel lights" on page 38.

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 computer for the first time

When you start your computer for the first time, it prompts you to:

❖   Set up your software

❖   Set date/time properties

❖   Set up your printer

❖   Complete the initial start-up procedure

❖   Register your computer

Windows automatically detects and installs the devices it finds on your computer. Follow the instructions on the screen to properly set up and register your computer.

Disabling the network port

When your computer starts, the 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 disable the network port.

Enabling or disabling the Built in LAN

To enable or disable the Built in LAN:

1 Click the **HWSetup** icon.

The Toshiba HWSetup dialog box appears.

2 Click the **LAN** tab.
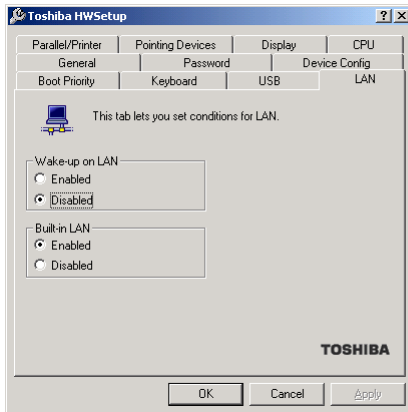
Sample Toshiba HWSetup LAN tab

3 Under Built-in LAN, select either **Enable** or **Disabl**e.

Setting up your software

The first time you turn on your computer, the operating system guides you through several essential steps to set up your software. These steps may or may not appear in the following order:

❖ Select your time zone.

Select one of the time zones listed by clicking the up and down arrow keys to highlight the appropriate time zone, then click **Next** to change the setting.

❖ Confirm acceptance of Microsoft's End User License Agreement and complete information about the operating system.

❖ 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.

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

To register your computer at a later time, select **No, I do not want to register at this tim**e. To register later, double-click the registration icon on the desktop.

❖ Read about Warranty Extensions and Upgrades.

This step provides important information from Microsoft.

❖ Sign up for Internet access.

This step guides you through signing up for a new Internet account, or assists you in setting up your computer to work with your existing Internet account.

Completing installation

Upon completion, you will be prompted to click **Finish** to restart your computer.

Shutting down the computer

It's a good idea to turn off your computer when you're not using it for a while.

The Shut down command is the normal way to turn off your computer. You may also use Standby or Hibernation modes to place the computer in a low energy state which can be quickly reactivated. For more information on Standby or Hibernation modes, see "Power down options" on page 107.

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

The Shut Down Windows dialog box appears.

Sample screen - Shut down the computer

2   Select **Shut down**, then click **OK**.

The computer turns itself off.

> NOTE: For procedures on shutting down a computer with
> Windows 98SE installed, see "Turning off the computer" on
> page 244.

Power down tips

There are a few additional things to keep in mind when you turn off the power.

❖ Never turn off the power while the hard disk drive light or the SelectBay drive light on the system indicator panel is on. Doing so may damage your hard disk, diskette drive, or DVD/CD-ROM drive.

❖ If you close the display panel while the computer is on, the Panel Close Alarm beeps loudly.

❖ You can turn off the Panel Close Alarm by using Toshiba Hardware Setup's Hardware Alarm tab.

❖ For additional information about powering down your computer so that you can start up again where you left off, see "Power down options" on page 107.

Chapter 3

Connecting Other External Devices

This chapter describes how to connect devices that can increase the capabilities of your Tecra® 9000 Series computer.

Using external display devices

Your computer comes with a built-in LCD display, but you can also connect three different types of external display devices to one of two available video ports:

❖ A television via the video-out (composite) port.

❖ A video display device, such as a video projection unit, via the video-out (composite) port.

❖ An external monitor or projector via the RGB port.

Before connecting a television, video projector, monitor or other display device, configure your computer for the type of device you're connecting. To do this, refer to the documentation for your operating system and devices.

Connecting the display device

If you're connecting a television or other video display device to the computer's video-out port, first refer to "Selecting video cables" below for guidelines on choosing a video cable, then refer to "Connecting to the video-out (composite) port" on page 58.

If you're connecting an SVGA monitor, skip to "Connecting an external monitor or projector" on page 59.

Selecting video cables

To connect a device to the video-out port, you need to purchase a composite video cable. For the best video quality, always use a properly shielded cable.

> *HINT: Toshiba recommends using a cable no longer than 20 feet (approximately 6 meters).*

Using a poor quality cable may result in a dull or fuzzy picture, poor color, ghosting, video noise, or loss of video.

Connecting to the video-out (composite) port

To connect the device:

1 Connect one end of the video cable to the external video device.

   Refer to the documentation provided with the device for the location of its video-in port.

2 Connect the other end of the video cable to the plug on the video port adapter (included with your computer), and connect the other end of the video port adapter cable to the video-out port on the left side of the computer.

3 Turn on the external video device.

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 59.

Connecting an external monitor or projector

You can easily attach an external monitor or projector to your
computer if you need a larger screen. To do this:

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

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

3   Turn on the external device.

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 59.

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 only

     ❖   Built-in display and external device simultaneously

     ❖   External device only

❖ Built-in display and TV (or other external video device) simultaneously

❖ TV (or other external video device) only

3 Release the Fn key.

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

For more information on switching the display output, see "Display modes" on page 265.

Adjusting the quality of the external display

To obtain the best picture quality from your television (or other video display device), you may need to adjust the video settings. See the video device documentation for additional configuration steps.

TECHNICAL NOTE: In order to use one of the simultaneous modes, 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.

Video 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.

❖ Since most televisions and video projectors overscan by 15 to 20 percent, some of the desktop will be outside the viewing area. You can view the edge of the desktop 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 an external keyboard

If you prefer to use a full-size keyboard, you can attach one to your computer. The computer's PS/2 port supports any PS/2-compatible keyboard.

HINT: You can only connect one PS/2 device at a time, unless you purchase an optional Y-cable. Connecting a Y-cable to the computer's PS/2 port allows you to connect a PS/2-compatible mouse and a PS/2-compatible keyboard simultaneously.

Making your external keyboard emulate the Fn key

An external keyboard does not have the Fn key contained on the Tecra® 9000 Series computer's built-in keyboard. If you use the computer's hot keys or have set up key combinations in Fn-esse®, you'll probably miss these features when using an external keyboard. Don't worry: you can use a key combination on the external keyboard to emulate the Fn key. You can set up this key combination through the Windows Control Panel Toshiba Hardware Setup option icon. For more information about Hardware Setup, see "Hardware Setup" on page 171.

Using a mouse

You may want to use a mouse instead of the computer's built-in pointing device, the AccuPoint II. You can use a serial mouse or a PS/2-compatible mouse.

A serial mouse disables the AccuPoint II. A PS/2-compatible mouse allows you to have the AccuPoint II active at the same time.

Setting up a PS/2 mouse with the AccuPoint II

When you connect a PS/2-compatible mouse to the PS/2 port, you may use the mouse, the AccuPoint II, or both.

CAUTION: When connecting any PS/2 device, Toshiba recommends turning off your computer to prevent any possible hardware damage.

To set the PS/2 mouse to work simultaneously with the AccuPoint II:

1 Click **Start**, **Settings**, then point to **Control Panel**.

2 Double-click the **Toshiba Hardware Setup** icon.

3 Select the **Pointing Devices** tab, then click **Simultaneous**.

Connecting a local printer

CAUTION: Never connect the printer cable while the computer's power is on. Doing so may damage the printer, the computer, or both.

Before you can connect a printer, you need to know whether it uses a serial or a parallel interface. Check the printer's documentation. If the printer can be switched between serial and parallel mode, choose parallel because it is faster.

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

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

These instructions assume you have a parallel printer, which is the most common type of interface.

To connect the printer:

1   If the computer is on, turn it off.

2   Connect the printer cable to the printer and to the computer's parallel port. Use the printer cable illustration as a connection guide.

To the computer   To the printer
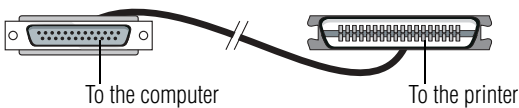
Identifying the ends of a parallel printer cable

3   Plug the printer's power cable into a live electrical outlet.

4 See your printer documentation for additional configuration
steps.

For more information on getting your printer to print, see

Connecting an external diskette drive

Some operations, such as creating a password service diskette,
require a diskette drive designed for use with 3.5-inch diskettes.
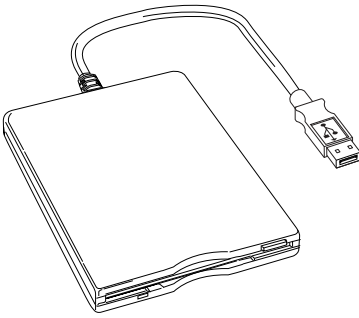
An optional external USB diskette drive

To connect an optional external USB diskette drive, connect the
cable to one of the USB ports.
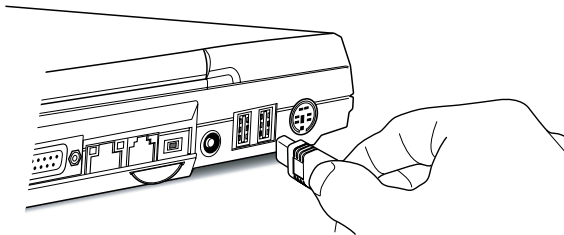
Connecting an optional external USB diskette drive

Connecting external speakers or headphones

To attach an external stereo output device:

1 Locate the headphone jack on the front of the computer.

2 Using any necessary adapters, plug the cable from the external audio device into the headphone jack. The headphone jack requires a 3.5 mm 16-ohm stereo jack.

When the headphone is inserted, the internal speakers are automatically disabled.

For more information on using headphones or external speakers, see "Playing an audio CD-ROM" on page 130, or "WinDVD" on page 143.

Connecting an external microphone

Your computer comes equipped with an internal microphone, but to record higher quality sounds, you can attach an external microphone:

1 Locate the microphone jack on the front of the computer.

2 Plug the microphone cord into the microphone jack.

3 Turn on the microphone.

The internal microphone is automatically disabled.

Once the external microphone is connected, the recording process is the same as with the built-in microphone. For more information, see "Recording sounds" on page 128.

Using an expansion device

The expansion port allows you to connect your computer to an expansion device, which is an excellent investment if you're using your computer both in and out of the office.

When you return to your desk, you probably want to connect to your network, print reports from your computer, or use a mouse instead of the AccuPoint II. Connecting cables for each of these devices every time you return to the office is time-consuming and inconvenient.

With an expansion device, you can leave external devices connected while you are using your computer away from your desk. When you return, you can quickly connect your computer and have immediate access to all the devices.

Toshiba offers the following expansion devices for the Tecra® 9000 Series:

❖ Advanced Port Replicator

For more information, see the documentation that comes with the device.

To purchase a docking solution, see the accessories information packaged with your system or visit www.toshibaaccessories.com.

Adding memory

HINT: To purchase additional memory modules, see the accessories information packaged with your system or visit www.toshibaaccessories.com.

Your Tecra® 9000 Series computer is equipped with a 133 MHz Front Side Bus (FSB) SDRAM memory module. The two memory slots in this computer provide various memory configurations. When additional memory is added, or original memory replaced, it is recommended that you use only compatible 133 MHz memory. In the event original memory is replaced with invalid memory, such as 66 MHz, the system will beep and will not boot beyond the BIOS memory check. A message may display. If this occurs, contact Toshiba's support center at (800) 457-7777.

Since your computer was built to order, it should have enough memory to run your current applications. However, if your requirements change, you can install extra memory up to a maximum of 1024 MB (1 GB).

NOTE: Windows® 98SE only supports a maximum memory capacity of 512 MB.

Memory module sizes

Additional memory is easy to install. Memory modules come in the following sizes:

❖ 128 MB PC133 SDRAM

❖ 256 MB PC133 SDRAM

❖ 512 MB PC133 SDRAM

The computer has two memory expansion slots. The following table shows the possible memory configurations:

Total Memory	Memory Module Size (slot A)	Memory Module Size (slot B)
128 MB	128 MB	none
256 MB	256 MB	none
	128 MB	128 MB
384 MB	256 MB	128 MB
	128 MB	256 MB
512 MB	256 MB	256 MB
	512	none
640 MB	512	128
	128	512
768 MB	512	256
	256	512
1024 MB (1GB)	512	512

Installing a memory module

Additional memory modules can be installed in the memory expansion slots on the base of the computer. You will need a standard Phillips no.1 screwdriver for this procedure.

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

The computer has two memory expansion slots—Slot A and Slot B. You can install one or two memory modules.

1 Shut down your computer completely using the Shut Down command. See "Shutting down the computer" on page 55.

2   Unplug the computer.

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

3   Close the display panel and remove any cables you may have connected.

4   Turn the computer upside down.

5   Locate and remove the screws that hold the cover plate in place, and lift the cover off of the memory module bay.
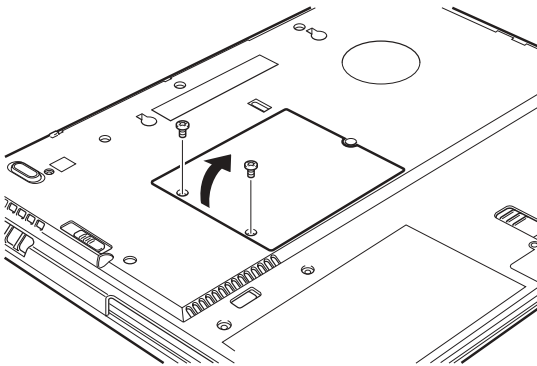
Removing the memory module cover

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 pin connector on the side you insert into the computer.

6 Remove the new memory module from its antistatic packaging.

7 Insert the memory module in the slot and gently press it down into place.

The clips on either side of the module will click to secure the module.
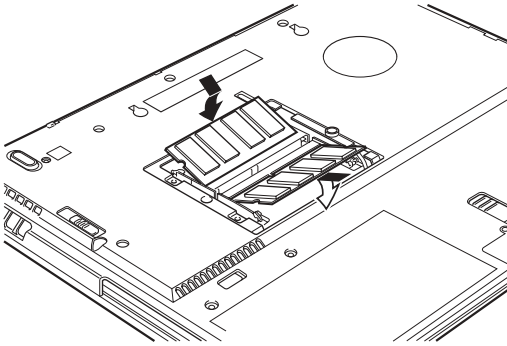
Inserting the memory module into the slot

8 Replace the cover plate and the screws.

9 Turn the computer over and restart it.

When you turn on the computer, it automatically recognizes the additional memory.

Removing a memory module

If you need to remove a memory module:

1 Complete steps 1–6 in "Installing a memory module" to shut down the computer and open the memory module cover.

2 Pull the clips away from the memory module.

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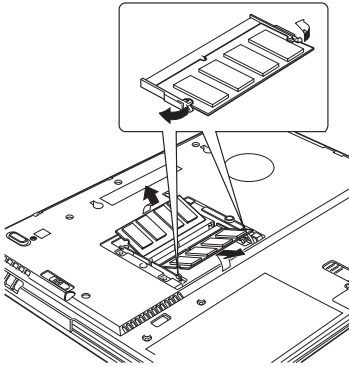
Pulling the clips away from the memory module

3 Carefully remove the module from the slot.

4 Replace the cover plate and screws.

5 Turn the computer over and restart it.

Using Slim SelectBay® modules

The Slim SelectBay® gives you additional flexibility. By inserting and removing Slim SelectBay® modules, you can configure your computer for the task at hand without having to carry unnecessary components with you when you travel. For example, any one of several modules can be used in the Slim SelectBay®:

❖ CD-ROM drive

❖ DVD-ROM drive. The DVD-ROM drive can also be used as a standard CD-ROM drive

❖ CD-RW drive. A writable/rewritable drive.

❖ CD-RW/DVD combo drive with both CD-RW and DVD drive.

❖ Weight saver insert (a "honeycomb" piece of plastic) that reinforces the Slim SelectBay® for travel. The weight saver came in your computer's accessories box

❖ Secondary battery

❖ Secondary hard disk drive (HDD)

HINT: Items from this list that did not come with your computer can be purchased separately. See the accessories information packaged with your system or visit www.toshibaaccessories.com.

Removing a module from the Slim SelectBay®

1 Slide the Slim SelectBay® ejection bar towards the front of the computer.
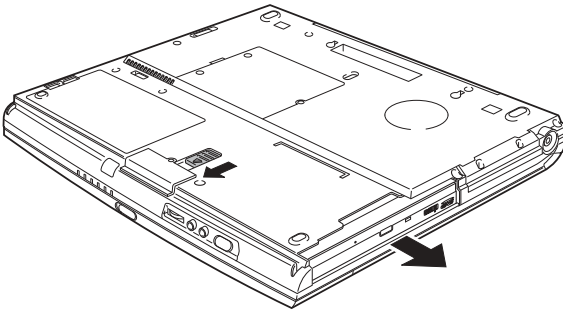
Unlatching the Slim SelectBay®

2 Slide the module out of the computer.
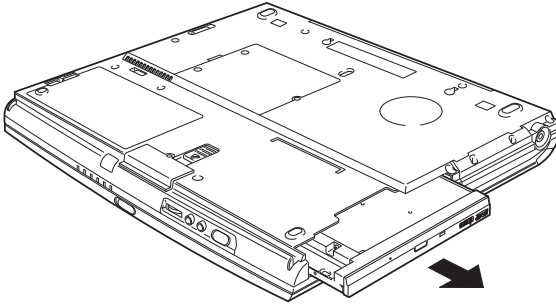
Sliding the module out

If you are removing the weight saver, retain it for transporting the computer when no other module is installed in the Slim SelectBay®.

Inserting a module into the Slim SelectBay®

To install a module into the Slim SelectBay®, simply slide the module all the way into the Slim SelectBay®.

Inserting and removing hard drives

Your Tecra® 9000 can use 10GB, 20GB, and 30GB hard drives. Depending upon the original hard drive installed in your computer, you may wish to increase storage capacity by changing the internal drive, or you can also add additional hard drive space by inserting a drive into the select bay module.

To change the internal hard drive.

1   Shut down your computer completely using the Shut Down command. See .

2   Unplug the computer.

3   Close the display panel and remove any cables you may have connected.

4   Turn the computer upside down.

5   Remove the two screws on the hard drive bay cover.
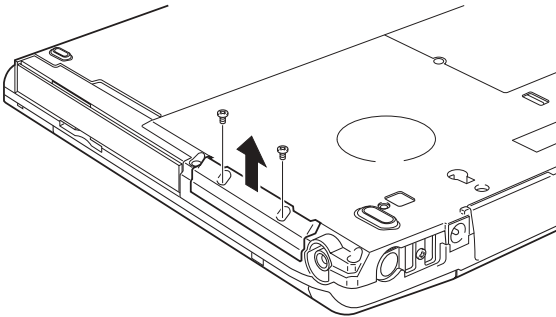
Removing the hard drive cover screws

6   Lift the hard drive bay cover to expose the hard drive.

7   Grasp the plastic tab on the exposed edge of the hard drive and pull it to remove the hard drive from the computer.
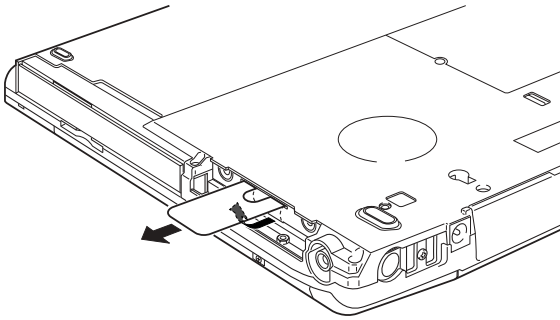
Removing the hard drive from the computer

8   Install the new hard drive by sliding it into the hard drive bay
and pressing it firmly until it locks. Do not force the drive into
the computer.
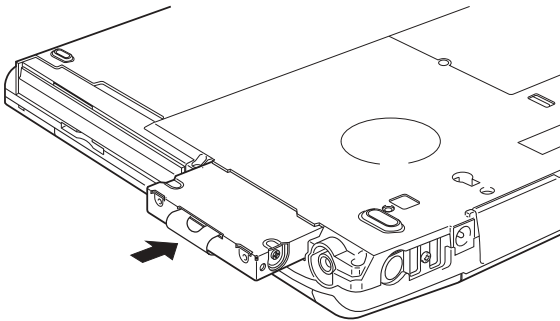
Inserting the new hard disk drive

9   Replace the hard drive bay cover and tighten the screws
removed in step 5 above.

Inserting and removing PC Cards

Your Tecra® 9000 Series computer comes with two stacked PC
Card slots and supports three types of PC Cards:

❖ Type I cards—You can install up to two of these cards, one in
   each slot.

❖ Type II cards—You can install up to two of these cards, one in
   each slot.

❖ Type III cards—You can install just one of these cards.

Inserting a PC Card

Before you insert a PC Card, refer to the documentation that
comes with the card to see if you need to do anything before you
insert it.

To insert a PC Card:

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

2 If the PC Card slots are locked, unlock them by turning the
   computer over, locating the PC Card lock, removing the
   retaining screw, sliding the lock into the unlocked position,
   and replacing the screw.

3 Insert the PC Card.

   If you have a Type III card, insert it into the lower part of the
   slot. If you have a Type I or Type II card, insert it into either
   the upper or lower part of the slot.
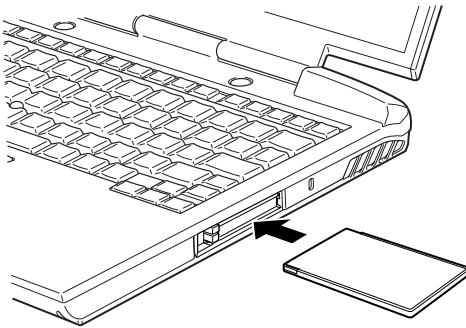
Inserting a PC Card

4 When the card is almost all the way into the slot, push firmly, but gently, to ensure a firm connection with the computer. Do not force the card into position.

5 To lock the PC Card in its slot, turn the computer over and locate the PC Card lock, remove the retaining screw, slide the lock into the locked position, and replace the screw.
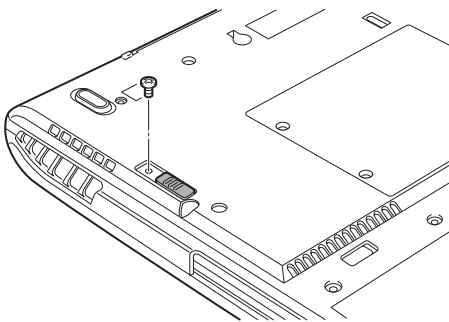
Locking the PC Card

Removing a PC Card

1 If the PC Card slots are locked, unlock them by turning the computer over, locating the PC Card lock, removing the

retaining screw, sliding the lock into the unlocked position, and replacing the screw.

2   Locate the PC Card ejection button that corresponds to the slot in which your PC Card is installed.

The top tab releases a card in the upper slot. The bottom tab releases a card in the lower slot.

3   Press the PC Card eject button once to extend it, and push it in to remove the PC Card.
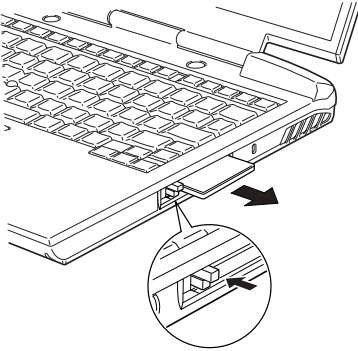
Press the PC card ejection button once to extend it

The PC Card ejects slightly from the slot.

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

Inserting and removing Bluetooth modules

If you wish to insert or remove a Bluetooth® module contact a Toshiba Wireless Authorized Service Provider.

Setting up a PC Card for your computer

Some PC Cards are ready to use as soon as you install them. Others, such as hard disk cards, network cards and SCSI adapters, may need to be set up to work with your computer. To set up your

PC Card, refer to the documentation that came with the card or refer to your operating system manual or online help.

Inserting an SD Media card

To insert an SD Media 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 Windows® does not recognize an inserted SD Media card, remove and insert it again.

To remove an SD Media card, press the card inward to release it.

The card pops out slightly.

The green LED on the front of the computer will glow when the card is being accessed.

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

Do not remove an SD Media 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 Media indicator light to go out.

Connecting your modem to a telephone line

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.

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 port provides an RJ11 jack, allowing you to connect the modem to a standard voice-grade telephone line.

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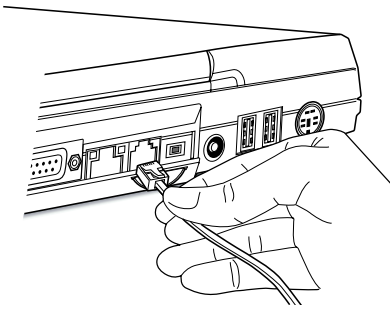
Connecting the telephone cable to the modem port

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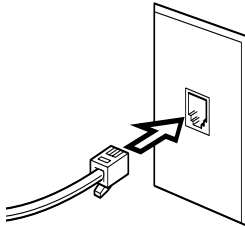
Connecting to a wall jack

CAUTION: The modem is designed for use with a standard analog telephone line. Don't 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.

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

For more information on using a modem, see "Setting up for communications" on page 132.

Using the i.Link® port

The i.Link® port on the rear of the computer provides fast extremely data transfer rate (up to 400 Mbps pr 400 million bits per second). You can connect up to 63 external devices to the i.Link® port.

In addition to high speed, the i.Link® port also supports isochronous data—the delivery of data at a guaranteed rate. This makes it ideal for devices that transfer high levels of data in real-time, such as video devices.

As with USB ports, the i.Link® port supports both Plug-and-Play (automatic configuration) and hot swapping (the ability to connect and disconnect devices while the computer is on.). The main difference between i.Link® and USB technology is that i.Link® supports faster data transfer rates.

Chapter 4

Learning the Basics

This chapter covers the basics of using your computer.

Computing tips

❖ Save your work frequently.

Your work stays in the computer's temporary memory until you save it to the disk. You will lose all the work since your last save if, for example, the network you are using goes down and you must restart your computer to reconnect, or your battery runs out of charge while you are working.

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 disks (or other removable media) on a regular basis. Label the backup copies clearly and store them in a safe place.

It's easy to put off backing up because it takes time. However, if your hard disk suddenly fails, you will lose all the data on it unless you have a separate backup copy.

❖ Use ScanDisk, Disk Defragmenter, and the Maintenance Wizard regularly to conserve disk space and help your computer perform at its optimal level. Consult your Windows® 2000 documentation for more information on these and other utilities.

❖ Scan all new files for viruses.

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

❖ Take frequent breaks to avoid repetitive-motion injuries and eyestrain.

❖ Don't turn off the computer if a drive indicator light indicates a drive is active.

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

❖ Always turn off your computer using the Shut Down or Standby command in Windows® 2000. Do not turn off the computer using the Power button.

NOTE: Windows® records information, such as your desktop setup, during its shutdown procedure. If you do not let Windows shut down normally, details such as new icon positions may be lost.

Windows basics

Windows® 2000 is your computer's operating system. If you've used Windows® 98 or 95, you'll find Windows® 2000 similar in many ways.

For information about your operating system, refer to the operating system documentation that came with your computer, or access your operating system's online Help.

To access online Help:

❖ Click **Start**, then click **Help**.

Logging on to Windows® 2000

A major difference between Windows® 2000 and other versions of Windows is that you have to log on, even when your computer is not connected to a network.

To turn on your computer and log on to Windows® 2000:

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

2 If a printer or other external device is connected to the computer, turn on the device.

3 If the battery is not charged or you are running the computer on AC power, connect the AC adapter. See "Connecting the AC adapter" on page 48.

4 Press and hold the power button until the on/off light glows green.

The Logon Information dialog box appears.

5 Enter your user name and password, then click **OK**.

The Windows® 2000 desktop appears.

NOTE: Unless you are connected to a network, there is no log on for Windows® 98SE. If you are running Windows® 98SE your system will boot right to the desktop.

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.
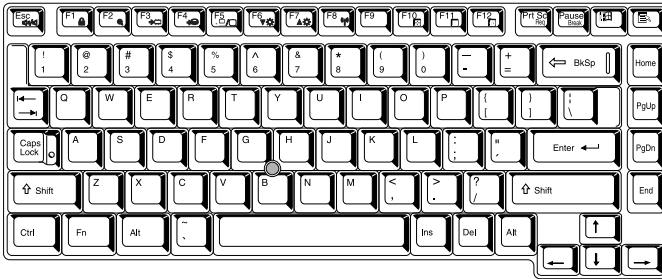
Keyboard

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 number 1 are not interchangeable.

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

| A | ❖ | The Caps Lock key changes only the alphabet keys to upper case—the number and symbol keys are not affected. The caps lock light next to 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 allows you to emulate a full-size 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 | Alt |

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.

The 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 166, or "Hot Keys" on page 261.

Windows special keys

Start key
Application key
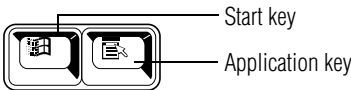
The Windows special keys

Your computer's keyboard has two keys that have special functions in Windows:

❖ **Start key**—Opens the Start menu

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

Overlay keys

The keys with gray 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.
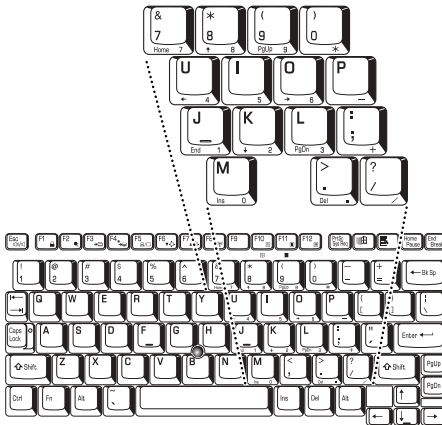
Numeric and cursor control overlay

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 on the keyboard indicator panel glows when the numeric overlay is on.

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

❖   For lowercase letters, hold down Fn while you type the letters.

❖   For uppercase letters, hold down both Fn and Shift while you type the letters.

To use the cursor control keys when the numeric overlay is on:

❖ Press and hold down Shift while you use the cursor control overlay keys.

❖ To return to the numeric overlay, release Shift.

To disable 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 overlay for cursor control

The keys with the gray arrows and symbols on their left front are the cursor control overlay keys.

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

To type alphabetic characters while the overlay is on:

❖ For lowercase letters, hold down Fn while you type the letters.

❖ For uppercase letters, hold down both Fn and Shift while you type the letters.

To use the numeric overlay keys while the cursor control overlay is on:

❖ Hold down Shift while you use the numeric overlay keys.

❖ To return to the cursor control overlay, release Shift.

To disable 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.

Using the AccuPoint II

AccuPoint II
pointing device

Programmable button
Programmable button
Primary button
Secondary button
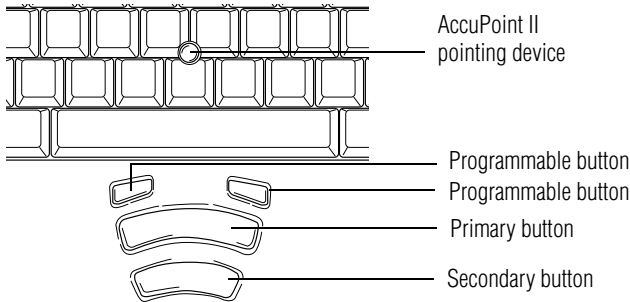
The AccuPoint II keys

Accupoint II pointing device—Enables you to move the cursor and to select items on the screen. (If you would prefer to use a mouse or trackball, you can connect one to the computer's serial port or PS/2 port. See "Using a mouse" on page 62.

To move the cursor, gently push the pointing device in the direction you want the cursor to move. Pushing harder on the pointing device moves the cursor faster.

Programmable buttons—Each button can be programmed to perform a function you select. To program these buttons:

1   Double-click the mouse icon in the task tray.

2   Select the Buttons tab.

3   Under Button Assignments, choose the button to be programmed, and select its new function from the pull-down menu.

4   Click **OK**. The button is now programmed with the function you chose.

Primary button—Performs the same function as the left button on a mouse.

When a step instructs you to click or choose an item, move the cursor to the item, then press and release the primary button. To double-click, press the primary button twice in rapid succession.

Secondary button—Performs the same function as the right button on a mouse.

Using the TOSHIBA Console button

The TOSHIBA Console button, located above the keyboard to the left of the power button, activates the Toshiba Console. This gives you quick access to some common functions.
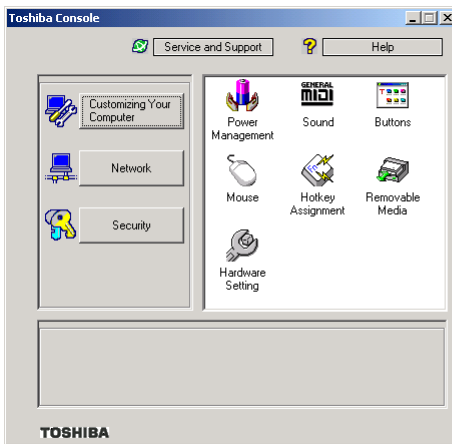
Sample Toshiba Console

To reprogram the TOSHIBA Console button:

1 Got to **Start**, **Settings**, **Control Panel**, then select **Toshiba Services**.

This displays the **Toshiba Services Properties** dialog box.

2 Check the box under the **Select a Button** section to bring up the **Select a Program** menu.

There are four options in assigning a function to the
TOSHIBA Console button:

❖ Toshiba Console

❖ Starts your Internet browser (Internet Explorer)

❖ Starts your email (Outlook Express)

❖ Starts custom program

3 Select the radio button next to the option that you wish to
assign the TOSHIBA Console button to.

To assign a custom program click the **Select** button and enter
the appropriate information for the program or select **Browse**
to find the program.

4 Click **OK** twice.

Starting a program

The easiest way to start a program is to 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 four options. You can:

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

❖ Use the Start menu

❖ Use Windows Explorer or My Computer to locate the program file

❖ Use the Run dialog box

Saving your work

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

NOTE: Save data even when you are using Standby and Hibernation. If the battery discharges before you return to work, your data will be lost unless it has been saved.

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

To save a new file:

❖ Open the **File** menu of the program you are using, click **Save As**, type a name for the file, then click **OK**.

To save a file you are updating:

❖ Open the **File** menu of the program you are using, then click
   Save.

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

File names

File names can be up to 255 characters in length. You may use all
the letters and numbers on the keyboard plus the following
characters: _,^,$,~,!,#,%,&,{,},(,),@,[,], +, -, ;, and '. File names
can include spaces.

Printing your work

Before you begin printing, make sure your computer is set up for
your printer. See "Setting up Windows to work with your
printer" on page 125

*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 Windows® 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 the program you are using, click **Print**.

The program displays a Print dialog box.
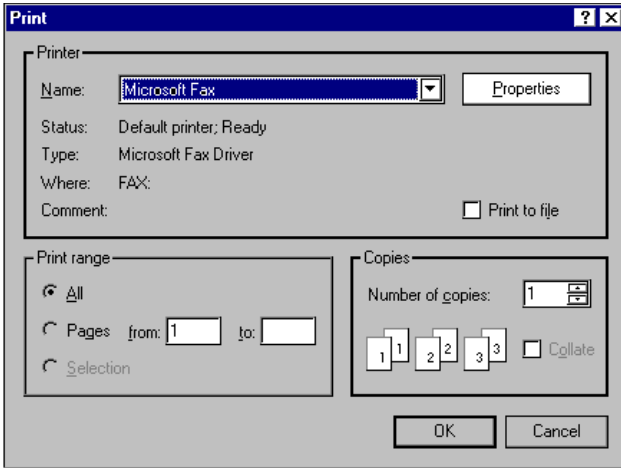
A sample Print dialog box

Using a compact disc drive

Your Tecra® 9000 Series computer may have a CD-ROM, CD-RW, DVD-ROM, or DVD/CD-RW drive.

If a CD-ROM or DVD-ROM drive is not currently installed in the Slim SelectBay, follow the instructions in "Using Slim SelectBay® modules" on page 71.

HINT: Your DVD-ROM drive is designed to play Region 1 (North America) DVD-ROMs. For more information, see "Setting general properties" on page 153.

Drive in-use indicator light
Eject button
Manual eject hole
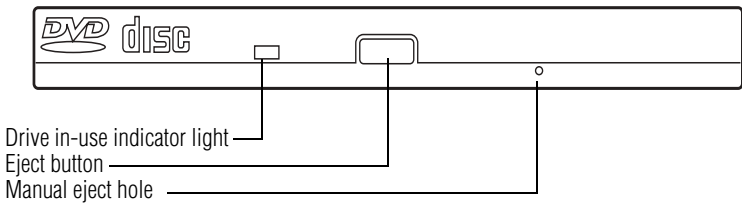
A DVD/CD-ROM drive

Drive in-use indicator light—Indicates when the CD-ROM or DVD-ROM drive is in use.

Eject button—Press to release the disc tray.

CAUTION: Do not press the eject button or turn off the computer while the Drive in-use indicator light is glowing. Doing so could damage the disc or the drive.

When the disc tray is open, be careful not to touch the lens or the area around it. Doing so could cause the drive to malfunction.

Manual eject hole—Use if you need to release the disc tray when the power is off. Use a straightened paper clip or other narrow object to press the manual eject button located inside the hole.

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

Inserting compact discs

To insert a compact disc into the DVD-ROM or CD-ROM drive:

1 Make sure the computer is turned on.

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

3 Press the DVD-ROM or CD-ROM 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.
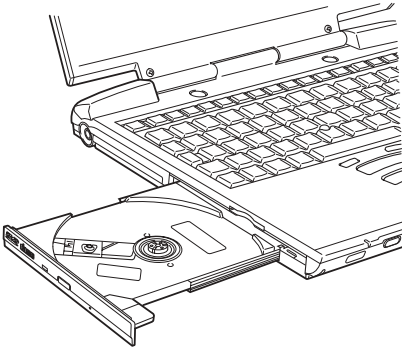
The drive tray fully extended

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 CD-ROM or DVD-ROM drive" on page 216.

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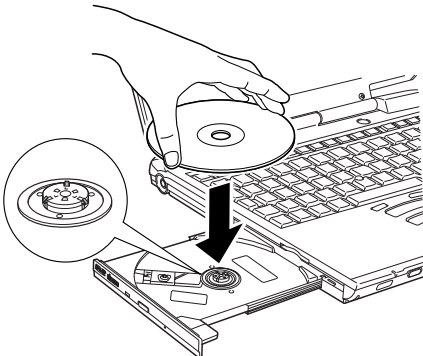
Positioning the disc in the drive

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. Don't touch the surface of the disc. Don't 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 "Playing an audio CD-ROM" on page 130, or "WinDVD" on page 143.

Removing compact discs

To remove a compact disc (CD or DVD) with the computer turned on:

1 Press the eject button on the drive.

> *CAUTION: Do not press the eject button while the 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 compact disc with the computer turned off:

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

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.

❖ Do not bend a disc or place heavy objects on top of it.

❖ Do not 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 DVD-ROM drive from reading the data properly.

❖ Do not expose 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.

Using PC Cards

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 are likely to be much more difficult to set up and use.

For information on inserting or removing a PC Card, see "Inserting and removing PC Cards" on page 76.

Hot swapping

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

Hot swapping precautions

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

❖ Do not remove a hard disk card while the system is accessing it.

❖ Do not remove a network card while you are connected to a network.

❖ Do not remove a SCSI card while any of the SCSI devices connected to it are operating.

Before removing a PC Card, stop it by clicking the PC Card (PCMCIA) icon on the task bar. After the PC Card is stopped, it is safe to remove.

Using SD Media cards

If you do not already have a SD Media card inserted in the computer, you may do so following the procedures outlined in "Inserting an SD Media card" on page 80.

Important: Do not use the **Copy Disk** function for SD Media cards. In order to copy data from one SD Media card to another, use the following procedure:

1 Format the target SD Media card in the same format as the source SD Media card.

2 Insert the source SD Media card.

3 Create a temporary folder on the hard disk drive.

4 Copy the contents of the source SD Media card into the temporary folder you created in step 3.

5 Remove the source SD Media card.

6 Insert the target SD Media card created in step 1.

7 Copy the file contents from the temporary folder to the target SD Media card.

8 Eject the target SD Media card.

Using your computer at the office

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

An external monitor or projector connects to the RGB port.

An external PS/2-compatible keyboard or a PS/2 mouse connects to the PS/2 port. An optional Y-cable lets you connect both devices to the port simultaneously.

A serial mouse connects to the serial port.

For more information on connecting these and other components, see .

Using a computer lock

For your own peace of mind, 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.
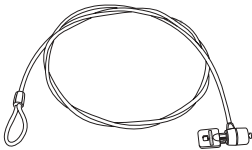
PORT-Noteworthy Computer Lock Cable

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 Slide the PC Card lock (located underneath the PC Card slots) to secure your PC Cards in place.

4 Insert the cable's locking end into the security lock slot on the computer, then give the key a quarter turn and remove it.

The computer is now securely locked.
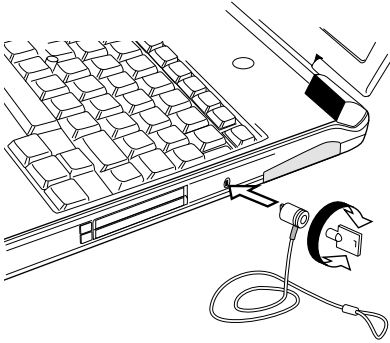
Locking the computer

Caring for your computer

This section gives tips on cleaning and moving your computer. For information about taking care of your computer's battery, see "Running the computer on battery power" on page 113.

Cleaning the computer

CAUTION: Keep liquids, including cleaning fluid, out of the computer's keyboard, speaker, and other openings. Never spray cleaner directly onto the computer. 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 Toshiba dealer 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 indicator light stops glowing) and all external peripheral cables are disconnected.

CAUTION: Do not pick up the computer by its display panel or by the back (where the ports are located).

Although your notebook computer is built to withstand reasonable shock and vibration, transport it in a carrying case for long trips. You can purchase a carrying case from your Toshiba dealer, through the accessories information packaged with your system, or visit www.toshibaaccessories.com.

Power down options

The usual method of powering down your computer is the Shut down command described in .

With your Tecra® 9000 Series computer, you have the opportunity to temporarily suspend the operation of your system without having to shutdown Windows. When you suspend the computer, it takes a "snapshot" of the current state of your programs and data and saves it. When you resume working on your computer, the information is recalled, returning the computer to its previous state. You may suspend your computer in one of the following ways:

❖ Click **Start**, then **Shut Down**, and then **Hibernate**.

Hibernation mode saves your current work to the hard disk.

TECHNICAL NOTE: Hibernation mode is the safest method. If you use Hibernation and your battery dies, you will not lose the your information.

❖ Click **Start**, **Shut down**, then **Stand by**.

Standby mode stores the current state of the computer, including all your open files and programs, in memory until you turn on the computer again. The computer uses power supplied by the backup battery to store this information.

TECHNICAL NOTE: If the battery discharges fully (which will happen if you leave the computer unplugged and in Standby mode for over eight hours), your information will be lost. So, you should save all your work before you turn off the power while in Standby mode.

Using Hibernation mode

Use Hibernation mode when you don't plan to use your computer again in the reasonably near future, or when you want to be certain of preserving the state of your programs and data.

Hibernation mode saves the state of your computer to the hard disk before shutting down completely. Hibernation mode uses no battery power to maintain the information. Information stored on hard disk does not depend on the battery being charged.

Hibernation mode is set as the default on your computer.

To put your computer into Hibernation:

1 Open the **Start** menu, and click **Shut Down**.

2 Click **Hibernate**.

The computer will go into Hibernation and turn itself off.

Enabling Hibernation mode

To enable or disable Hibernation mode:

1   Open the **Start** menu, point to **Settings**, and click **Control Panel**.

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

The Power Options Properties dialog box appears.

3   Click the **Hibernation** tab.

4   Click the **Enable hibernate support** check box to enable Hibernation (uncheck the box if you wish to disable Hibernation).

5   Click **OK**.

The setting is immediately changed without the need for a reboot.

NOTE: If Hibernation is disabled in Windows® 2000, it will not be available as a selection in the Windows shut down box.

If Hibernation is disabled in Windows® 98SE, the computer will not be able to be placed in Standby mode. A message box will appear alerting you to check the Hibernation setting in Power Management.

TECHNICAL NOTE: Toshiba recommends that you always have the Hibernate option enabled. Hibernate is the function that causes your system to save anything you have in short-term memory to the hard disk drive should your battery fail. If Hibernate is not enabled and your battery dies, you will lose data.

Other Hibernation mode settings

When Hibernation mode is enabled, you can specify it to be automatically activated when you close the lid or press the power switch. To set automatic Hibernation mode:

1   Open the **Start** menu, point to **Settings**, then click **Control Panel.**

2   In the Control Panel window, double-click the **Toshiba Power Saver** icon.

3   In the Power Save Mode tab, click the **Details** button, then select the **System Power Mode** tab.

The Long Life Properties window appears.
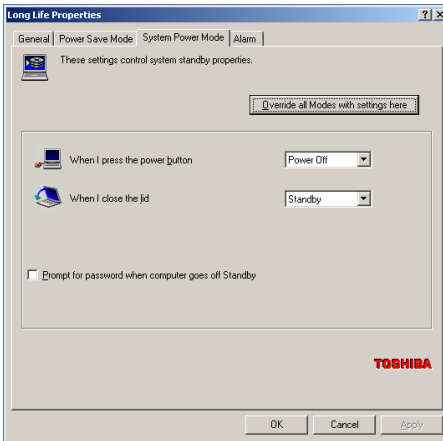
Sample system power mode settings

4   Select **Hibernate** for any or all of the applicable modes.

❖   **When I press the power button**
Select this setting if you want the computer to go into Hibernation mode when you press the power button.

❖   **When I close the lid**
Select this setting if you want the computer to go into

Hibernation mode when you close the computer's display panel.

5 Once you have made your selections, click **OK** to return to the Power Save Mode tab, and click **OK** to apply the changes and close the Life Long Properties window.

For more information about Power Saver, see "Power Saver" on page 175.

NOTE: When using Standby or Hibernation mode, save your files and make sure the disk activity lights are off before you turn off the computer. If you change your mind and decide to continue working after all, wait a few seconds before turning on the computer again.

Using Standby command

Use Standby when you know you will resume work again soon (within eight hours if you start with a fully-charged battery).

Standby stores the current state of the computer in memory until you turn on the computer again. The computer uses power supplied by the backup battery to store this information.

TECHNICAL NOTE: If the battery discharges fully (which will happen if you leave the computer in Standby mode and unplugged for over eight hours), your information will be lost. So, you should save all your work before you turn off the power with Standby command enabled.

To shut down the computer using Standby:

1 Open the **Start** menu and click **Shut Down**.

2 Select **Stand by** and Click **OK**.

The computer saves the state of all open programs, turns off the display, and goes into a low-power suspended state.

The on/off light pulsates amber indicating the machine is in Standby.

NOTE: To turn the computer completely off, press and hold the power button until the computer stops beeping (4-5 beeps).

To turn on the computer, press and hold the power button until the on/off light changes to green. The computer returns to the previous settings.

You can also configure the computer to shut down in Standby when you press the power button. For more information, see "Standby mode" on page 264.

Standby mode hot key

You can quickly select the Standby mode option by using the Standby mode hot key.

To place the computer in Standby mode:

1   Press Fn and F3 simultaneously.

2   Release the Fn and F3keys.

    Your computer will now go into Standby mode.

For more information about the Standby mode hot key, see "Standby mode" on page 264.

Restarting a computer in a special shutdown mode

To restart your computer once it is in Hibernation or Standby mode, press the power button, or if you suspended your system by closing the display panel, simply open the panel.

The computer restores the suspended data and you can pick up right where you left off.

Chapter 5

Power Management

Toshiba's energy-saver design

Toshiba is a partner in the Environmental Protection Agency's (EPA) Energy Star Program and has designed this product to meet the Energy Star guidelines for energy efficiency.

The computer enters a low-power, standby mode when it is not being used, thereby conserving energy.

Many of these energy-saving features have been set by Toshiba or your network administrator. We recommend you leave these features active, so that your computer will operate at its maximum energy efficiency. For more information on managing your power usage, see "Power Saver" on page 175.

This chapter covers all the aspects of using your computer on battery power.

Running the computer on battery power

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

In addition to the main battery, you may also have a second battery installed in the SelectBay. If you travel and need to work for many hours without an AC power source, you may purchase a battery module for use in the computer's SelectBay, or carry additional charged battery packs with you.

The computer also has an internal 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.

TECHNICAL NOTE: For optimum DVD performance, always play DVDs while your computer is connected to AC power.

Charging the batteries

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

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

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

❖   The battery is extremely hot or cold. To ensure that the battery charges to its full capacity, wait until it reaches room temperature.

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

The main battery charges the RTC battery.

During normal use, the main battery keeps the RTC battery adequately charged. Occasionally, the RTC battery may lose its

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.

Monitoring battery power

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

❖ Green indicates the AC adapter has fully charged the battery.

❖ Amber indicates the AC adapter is charging the battery.

❖ Off indicates that the battery is not being charged.

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

❖ Flashing amber indicates that the computer is using battery power, and the battery's charge is running low.

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 Windows® 2000 Standby command).

Displaying remaining battery power

You can monitor the battery's remaining charge. The computer calculates the remaining battery charge as it operates, based on your current rate of power use.

To show remaining power:

1 Click **Start**, point to **Settings**, then click **Control Panel**.

2 In the Control Panel window, double-click **Power Saver**.

The Power Saver Properties dialog box appears.
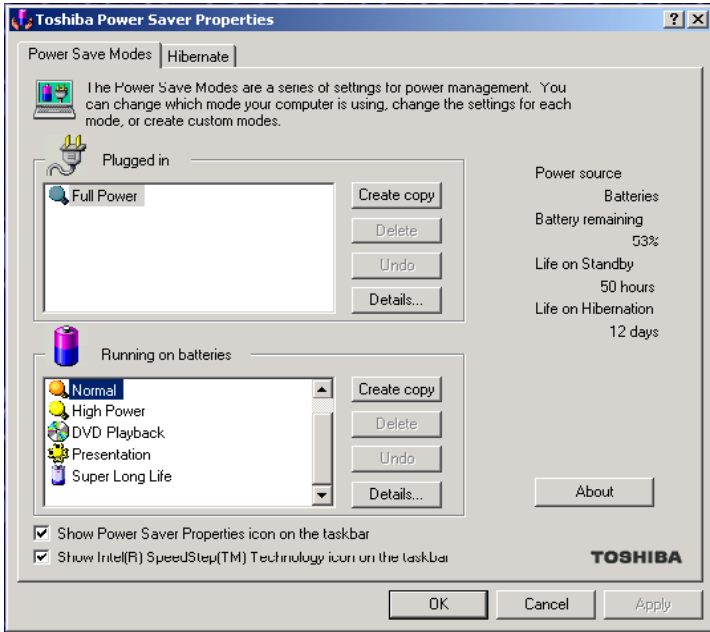
Sample Power Saver Properties Dialog Box

The Power Save Modes tab displays the remaining amount of time for each of the different power usage modes.

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

HINT: 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.

WARNING: The computer drains battery power more quickly at low temperatures. Check your remaining charge frequently if you're working in temperatures below 50 degrees Fahrenheit.

The Windows® operating system has additional power management options that can be accessed through an icon in the Control Panel. For more information, see "Power Saver" on page 175.

What to do when the battery alarm sounds

Your Tecra® 9000 Series computer can be configured to warn you of a low battery charge condition so you may take the necessary steps to save your work.

You Windows® operating system offers two alarms before your system shuts down.

To change the default alarm settings:

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

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

3   Select the appropriate **Running on Batteries** option.

4   Click the **Details...** button.

5   Select the **Alarms** tab and adjust the settings to suit your needs.

Before your computer runs out of battery power, save your data and take one of the following actions:

❖ Suspend or shut down your computer.

❖ Shut down your computer and replace the main battery with a charged one as outlined in "Changing batteries" on page 118.

❖ Install a secondary battery module in the computer's SelectBay.

❖ Connect your computer to an AC power source.

Changing batteries

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

To change 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 If the battery lock is in the locked position (towards the center of the computer), slide it towards the edge of the computer to unlock it.

6 Slide the battery release latch to release the battery.
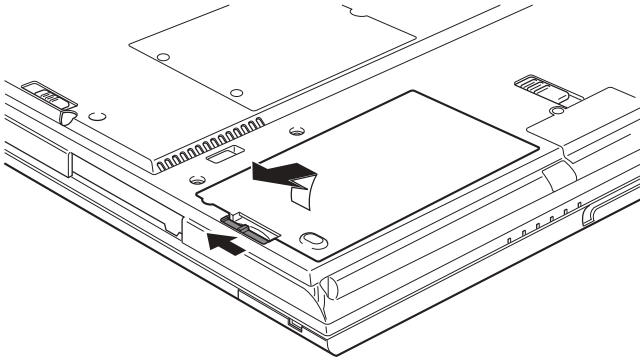
Battery release latch

7   Pull the discharged battery module out of the computer.
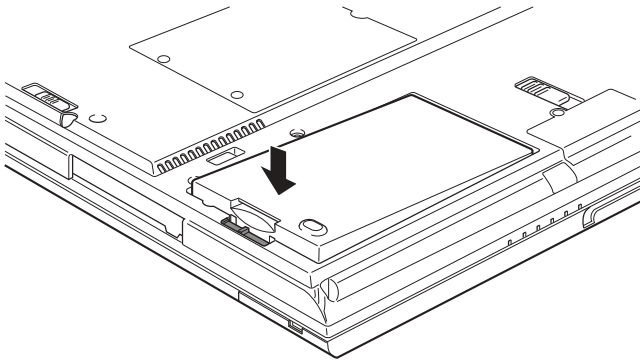
Removing the discharged battery

> 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 121.

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

9 Insert the charged battery into the slot until the latch clicks.

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

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

10 Reset the battery lock to the locked position.

11 Turn the computer right side up.

12 Reconnect any cables.

13 Restart the computer.

Taking care of your battery

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

Safety precautions

❖ Never try to disassemble a battery pack.

❖ Do not overcharge or reverse charge a battery. Overcharging will shorten its life and reverse charging could destroy it, causing the release of toxic fumes.

❖ Do not touch the metal terminals of the battery with another metal object. Short circuiting the battery will cause it to overheat and may do permanent damage.

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

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

❖ When you need to replace the main battery, use an identical battery from the same manufacturer.

Maximizing battery life

❖ If you're not going to use the computer for a long period, remove the battery pack.

❖ Alternate between battery packs if you have a spare.

❖ Make sure your computer is turned off when you're replacing the battery pack.

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

Disposing of used batteries safely

The life of a battery pack is over 1000 recharges, so it should last for years. When the battery pack needs replacing, the main battery light flashes amber shortly after you have fully recharged the battery.

You must discard a battery pack if it has become damaged.

The battery can explode if it is not disposed of properly. So don't simply throw it away. Putting spent batteries in the trash is not only irresponsible, it may also be illegal.

Your company may have a procedure for disposing of used batteries safely. Otherwise, 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.

If you cannot find the information you need, contact your network administrator for assistance.

Conserving power

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

❖   How the computer is configured.

❖   How much you use the hard disk, DVD-ROM/CD-ROM, and diskette drives, or other optional devices.

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

There are various ways in which you can conserve power and extend the operating time of your battery:

❖   Enable Standby or Hibernation, which saves power when you turn off the computer and turn it back on again.

❖   Use Toshiba's power-saving options.

These power-saving options control the way in which the computer is configured. By using them, you can greatly increase the length of time you can use the computer before you need to recharge the battery.

Toshiba has combined these options into preset power usage modes. Using one of these modes lets you choose between maximum power savings and peak system performance. You may also set individual power-saving options to suit your own needs.

The following sections describe how to choose a power usage mode and discuss each power-saving option.

Power usage modes in Windows 2000

In Windows® 2000, you can choose from predefined power usage modes or select your own combination of power management options. To do this:

1 Click **Start**, point to **Settings**, **Control Panel**, and click on the **Power Saver** icon.

2 Open the Power Save Modes tab and set your options.

3 For more information, see "Power Saver" on page 175.

Using a hot key to set the power usage mode

You may use a hot key to set the power usage mode.

To set the power usage mode:

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

Sample Power usage mode pop-up window

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

The power usage modes under battery power are:
Long Life, Normal, High Power, DVD-Playback, Presentation, and Super Long Life.

The power usage mode under AC power is Full Power only

3 Release the Fn key.

The pop-up window disappears. You're now in the selected mode.

For more information on setting the battery power usage mode, see .

Additional options for power

Depending on the amount of time you spend away from external power sources, the capacity of one battery pack may be sufficient for your needs. However, if you need more portable power, Toshiba provides these options:

❖ For Power Usage Mode information for Windows® 98SE, see .

❖ Purchase extra battery packs.

❖ Install a secondary battery module in the SelectBay. See

❖ Purchase a battery charger that charges one main battery pack and one secondary battery module at a time.

Chapter 6

Exploring Your Options

In this chapter, you will explore some of the special features of your Tecra 9000 Series notebook computer.

Setting up Windows to work with your printer

When you turned on your computer for the first time, the Windows Setup program offered you the opportunity to define a printer. Read this section if you did not do so, or if you want to set up a different printer.

Setting up a printer involves choosing a printer driver. This special program acts as a translator that turns your work into a form the printer can understand. This section describes how to select a printer driver in Windows.

If you are using any non-Windows programs, you need to set up a printer driver for each of those programs. Refer to your program's documentation for more information.

Setting up Windows 2000 to work with your printer

To set up a printer with the Windows 2000 Add Printer Wizard:

1 Click the **Start** button, then point to **Settings**, and click **Printers**.

The Printers display panel opens.

2 Double-click **Add Printer**.

The Add Printer Wizard starts.
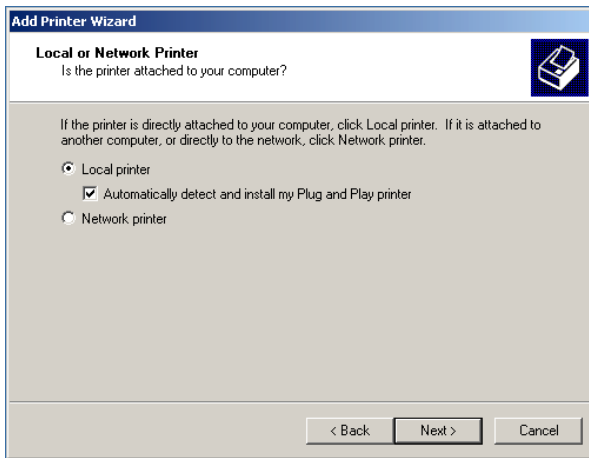
Add Printer Wizard

3 Follow the directions on the screen to add your printer.

If your printer is not found, or if you want to install the driver manually, use the printer driver that came with the printer to complete the setup process.

4 Enter a name for your printer, or use the name supplied in the Printer name text box.

5 If you want to set the printer as the default printer for Windows-based programs, click **Yes**, then click **Next**.

6 If you want to print a test page, click **Yes (recommended)**, then click **Finish**.

TECHNICAL NOTE: Some printers require a specific installation process. In this case, the Windows 2000 Add Printer Wizard will display an error message. If this happens, refer to your printer installation guide for further instructions.

NOTE: For instructions on setting up your printer with Windows 98SE, see "Setting up your printer" on page 241.

Exploring audio features

You can play.wav sound files or audio CDs using the built-in speakers, headphones, or external speakers. You can use your computer to record sounds using the built-in microphone or external microphone.

Using external speakers or headphones

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

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

You may record sounds and save them as.wav files using the
built-in microphone or an external microphone. The easiest way to
record is through the computer's built-in microphone.

*DEFINITION: A .wav (pronounced "wave") file is the format
for storing sound in files in Windows.*

To record sounds using the microphone:

1   If you want to use an external microphone, connect it to the
     external microphone jack.

2   Click **Start**, point to **Programs**, **Accessories**, and then click
     Entertainment.

3   Click **Sound Recorder**.

     The Sound Recorder screen displays.
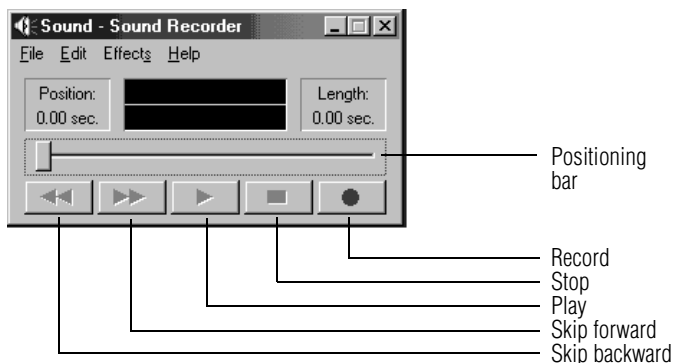
Sound Recorder screen

◯ **4** Click the **Record** button.

5 Speak normally into the microphone.

The maximum recording time is 60 seconds.

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

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

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

Adjusting recording quality

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.

2 Click **Start**, point to **Programs**, **Accessories**, **Entertainment**, and then click **Sound Recorder**.

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

4 In the Audio Properties dialog box, adjust the Recording Volume, Preferred device, and Preferred quality according to your needs.

5 Click **OK**.

Your new settings take effect the next time you record.

Playing an audio CD-ROM

If your Tecra 9000 Series computer came with a CD-ROM, CD-RW, DVD-ROM, or DVD/CD-RW drive, you can use your computer to play audio CDs.

> *CAUTION: Before playing an audio CD, turn the volume dial down. Playing the CD at maximum volume could damage the computer's speakers.*

To insert a CD in the CD-ROM drive follow the instructions in .

The computer automatically detects the compact disc in the CD-ROM drive, opens the appropriate player, and begins to play the disc.

Using Windows Media Player

To start Windows Media$^{®}$ Player manually:

1 Click **Start**, point to **Programs**, **Accessories**, and then click **Entertainment**.

2 Click **Windows Media Player**.

Using Microsoft CD Player

To start CD Player manually:

1 Click **Start**, point to **Programs**, **Accessories**, and then click **Entertainment**.

2 Click **CD Player**.

You can control various functions of CD Player by clicking the buttons on the CD Player control panel.

Play ————— Stop ————— Eject

Skip backwards ——— Next track
Skip forward ——— Previous track

Sample CD Player screen

The CD Player control panel works much like an ordinary CD player — pointing and clicking on the various buttons allows you to play, pause, fast-forward, repeat, or stop the playback.

❖ To stop the CD, click the **Stop** button.

❖ To eject a CD, press the **Eject** button on the CD Player control panel or press the eject button on the CD-ROM drive.

Exchanging data with another computer

To transfer a large amount of information between computers, you can use a specialized synchronization program and the computer's infrared port, or an optional port replicator's serial or parallel port.

To transfer files through:

❖ The serial port, you need a null modem serial cable.

❖ The parallel port, you need a LapLink®-type parallel cable.

To transfer files:

1 Connect the appropriate serial or parallel cable.

2 Load the transfer program on both computers.

3 Set any specific options.

4 Start the transfer.

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

For detailed information on ways to transfer files:

1 Click **Start**, then **Help**.

2 Choose the **Index** tab.

3 In the dialog box, type communicating.

4 Follow the online instructions.

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 Tecra 9000 Series 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 COM2.

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

> *DEFINITION: Although the terms are often used interchangeably, the serial port and COM port are really two different things. The serial port is the physical port on the back of the computer. The COM port is a unique identifier the computer uses to communicate with the serial port or other serial devices.*

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:

1 Click **Start**, point to **Settings,** and click **Control Panel**.

Windows 2000 opens the Control Panel.

2 Double-click **Phone and Modem Options**.

Windows 2000 displays the **Phone and Modem Options** Properties dialog box.

3 Click the **Modems** tab.

Your modem should be listed next to one of the computer's COM ports.

4 Make a note of the COM port number.

5 To verify that the modem is set up properly, select the modem you wish to check and then click **Properties** to bring up the dialog box with information specific to that modem.

6 Click the **Diagnostics** tab, and then click **Query Modem**.

Windows 2000 communicates with the modem and displays identifying information reported by the modem. If Windows2000 cannot communicate with the modem, it displays an error message. Consult the troubleshooting sections of your modem and Windows 2000 documentation.

7 Click **OK** to close the properties dialog box for that specific modem.

8 Click **OK** to close the Modem Properties dialog box.

9 Close the Control Panel.

Connecting the modem to a telephone line

Before you can use the modem, you must connect it to a standard voice-grade telephone line. For more information, see "Connecting your modem to a telephone line" on page 80.

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

Connecting your computer to a network

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

Accessing a network

To access a network:

❖ At the office, connect an Ethernet cable to the RJ45 jack on your computer. For specific information about connecting to the network, consult your network administrator.

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

❖ Wirelessly, you need an optional wireless networking PC Card or an optional Bluetooth® or Wi-Fi module. For more information about wireless networking, refer to your wireless network device documentation or contact your authorized Toshiba service provider.

Setting up the connection

To set up an office connection, consult your network administrator for network settings and additional considerations.

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

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

2   Point to **Accessories**, then to **Communications**, and click **Dial-Up Networking**.

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

     The computer connects to the network.

Setting up a wireless connection

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

Using Bluetooth®

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 2.45 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.

To use Bluetooth® for your wireless communication, follow these steps:

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

2 Click on **Star**t, **Program**s, **Bluetooth® Toshiba Stac**k, and select **Bluetooth® Manage**r.

Bluetooth® Manager is launched.

3 By default, the Bluetooth® module should already be powered on. If it is not, right-click on the blue antenna icon in the task bar. From the menu select **Auto power o**n.

4 Click **Star**t, **Program**s, **Bluetooth Toshiba Stac**k, and select **Quick Start Guid**e.

The Bluetooth® service center appears, with instructions on how to use Bluetooth®.

Accessing the wireless modules using your computer's system tray

The following information is for systems which have integrated wireless modules.

When using your Wi-Fi Mini PC or Bluetooth® module, your computer may display a PC Card 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.

You can use the system tray's PC Card icon to turn off your Wi-Fi Mini PCI or Bluetooth® module. However, if you do so you will need to restart the computer in order to reactivate the module.

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

Using SPANworks™ 2000

The SPANworks 2000 application offers enhanced meeting productivity between networked computers. You can do such things as transfer files between two computers, broadcast a slide presentation simultaneously to several machines, set up electronic business cards, and send text messages to a few people or to everyone in your proximity.

NOTE: Before using SPANworks, you must establish a network link between computers.

To access SPANworks 2000:

1 Double-click the **SPANworks** icon on the desktop.

2 Follow the instructions on your screen to set up a connection to the network.

Toshiba's online resources

Toshiba maintains a number of online sites to which you can connect. These sites can provide information about Toshiba products, give help with technical questions, and keep you up to date with future upgrades. For more information, see "Contacting Toshiba" on page 232.

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

❖ A Web browser

❖ A telephone line

❖ An Internet Service Provider (ISP) account

Microsoft's 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 a modem, see "Connecting the modem to a telephone line" on page 134.

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 transfers your Web browser to that site.

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 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 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.

Chapter 7

WinDVD

Playing DVDs

TECHNICAL NOTE: For optimum DVD performance, always play DVDs while your computer is connected to AC power.

If your computer has a DVD-ROM drive, you can use InterVideo WinDVD™ to play DVDs. WinDVD is an easy-to-use, full-featured multimedia control center that helps you get the most out of the exciting world of DVD technology. Your computer comes with WinDVD preinstalled.

WARNING: Before playing a DVD, turn down the volume. Playing the disc at maximum volume could damage your ears. See "Using the control panel playback buttons" on page 147 to locate the volume control buttons.

Insert a DVD into the DVD-ROM drive, following the instructions in "Inserting compact discs" on page 99. The computer automatically detects the disc in the drive and opens WinDVD.

If the autoplay feature is enabled, the DVD automatically begins to play (see "Setting general properties" on page 153 for information on enabling autoplay).

To open WinDVD manually:

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

2   Point to **InterVideo WinDVD**, then click **InterVideo WinDVD**.

Time slider

Playback speed slider

Current time slot indicator

Current chapter indicator

WinDVD video window with the control panel

Using the WinDVD toolbar

The WinDVD window contains a toolbar at the top and a status bar at the bottom. If the toolbar or status bar does not appear, you can display them by following the instructions in "Setting general properties" on page 153.

The toolbar contains basic DVD playback controls. Pause the pointer over a button to display its definition. The toolbar also contains an adjustment button (see "Adjusting the color balance" on page 163 for more information).

Using the WinDVD status bar

The time slider enables you to rapidly move forward or backward in the DVD content. Move the time slider to the left to move backward or move it to the right to move forward. The current time slot is indicated on the right side of the status bar.

The playback speed slider enables you to control the speed at which the DVD plays. Move the slider to the left to slow the playback speed or move it to the right to play the DVD faster. Placing the slider in the center plays the DVD at normal speed, and enables the audio. The audio is automatically muted at any other playback speed.

The current chapter indicator displays the DVD chapter that is currently playing.

Using the WinDVD control panel

The WinDVD control panel resembles the control panel of a standard home DVD player.

TECHNICAL NOTE: The DVD author determines what features the DVD supports. Depending on the DVD format and your computer's hardware configuration, some of the control panel features may be unavailable when playing a DVD. Unsupported features appear gray, and you cannot select them.
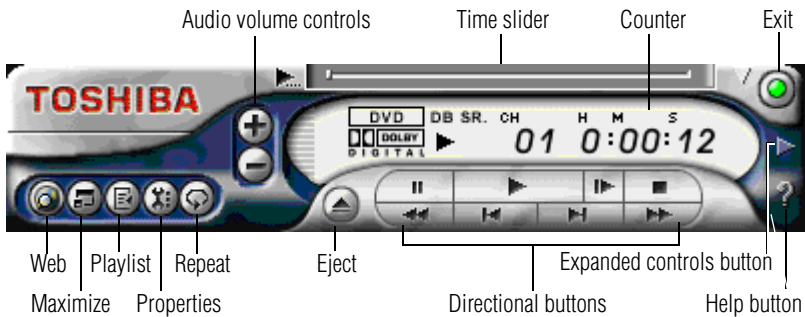
WinDVD control panel

You can open a shortcut menu, by positioning the cursor over the WinDVD window, other than over the control panel, then clicking the secondary button. The shortcut menu contains the same features as the control panel, plus the enable caption feature, which displays captions for the hearing impaired.

You can also create a playlist, to customize the order in which the DVD content plays (see "Creating playlists" on page 150). Once a DVD is playing, the counter displays the current chapter and elapsed time, in *hours:minutes:seconds* format.

From the WinDVD control panel, you can open an expanded control panel by clicking the expanded controls button. The expanded control panel contains several advanced features. See

for an
explanation of these features.

Using the control panel playback buttons

Once you have inserted a DVD and started WinDVD, you are
ready to play the disc. Using the control panel, you can play a
DVD from the beginning, or move to a desired location then begin
playing.

Audio volume controls   Time slider   Counter

Repeat   Eject Pause   Play   Step Stop   Help
        Fast reverse Previous Next Fast forward
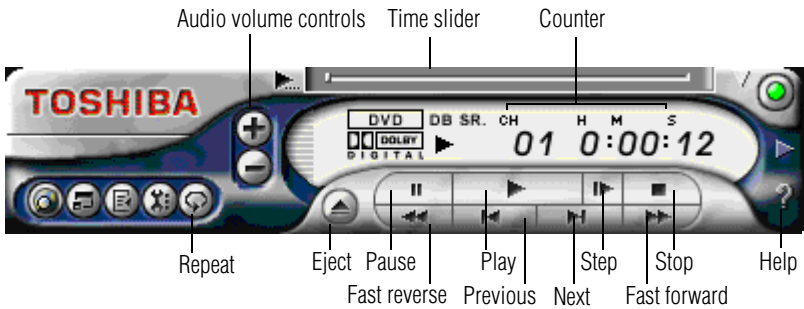
WinDVD control panel

Click this	*To do this*	*Or use keyboard shortcut*
	Repeat — repeat the current chapter, if the DVD contains chapters. Otherwise this button repeats the DVD from the beginning. When the repeat button is activated, the repeat symbol appears to the left of the chapter number on the control panel counter. The DVD continues to repeat until you click the repeat button again, and the repeat symbol no longer displays on the control panel.	None

Click this	*To do this*	*Or use keyboard shortcut*
	Eject — open the DVD-ROM drive disc tray.	E
	Pause — temporarily stop playing a DVD.	Spacebar
	Play — start playing a DVD.	Spacebar
	Step — move forward through the DVD one frame at a time. Each time you click this button the DVD moves forward one frame.	None
	Stop — cease playing a DVD. After stopping the DVD, click the play button to resume playing the DVD.	End
	Fast reverse — move quickly backward through the DVD content. When you reach the desired location, click the play button to resume playing the DVD.	R
	Previous — move to the beginning of the previous chapter and resume playing the DVD.	PgUp
	Next — move to the next chapter and resume playing the DVD.	PgDn

Click this	*To do this*	*Or use keyboard shortcut*
	Fast forward — move quickly forward through the DVD content. When you reach the desired location, click the play button to resume playing the DVD.	F
	Time — move to a specific time slot, then click the play button to play the DVD from the selected location.	None
	Audio volume controls — click the plus button to increase volume. Click the minus button to decrease volume.	Shift ↑ (increases) Shift ↓ (decreases)

Maximizing the video window

To close the WinDVD control panel and expand the video window to fill the screen, click the Maximize button.

To display the control panel again, double-click anywhere in the video window.

Using Playlists

> *TECHNICAL NOTE: The DVD author determines what features the DVD supports. Depending on the DVD format and your computer's hardware configuration, some of the control panel features may be unavailable when playing a DVD. Unsupported features appear gray, and you cannot select them.*

A Playlist is a customized list of DVD files in the order in which you want to view them. For example, you may want to create a playlist for DVDs that contain music files, so you can play the music selections you want in the order you want to hear them. You can only save one playlist at a time.

Creating playlists

1 On the WinDVD control panel, click the playlist button.

The Playlist window appears.
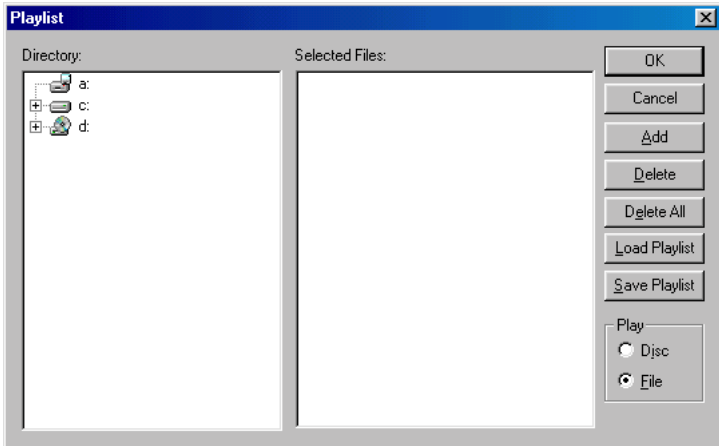
Playlist window

2 Click the File button in the lower right corner of the window, to indicate that you are creating a playlist of individual files.

3 In the **Directory** list, select the file you want to play first, and click **Add** to put it at the top of the playlist.

DVD files have an .mpg, .vob or .ac3 file name extension. After selecting a file, the file name appears in the **Selected files** list. You can also double-click a file name to add it to the playlist.

4 Add as many files as you wish to the playlist. You must add the files in the order in which you want to play them.

To delete a file from the playlist, select the file in the **Selected files** list, then click **Delete**. To delete the entire list and start over, click **Delete All**.

5 When you have finished creating your playlist, click **Save Playlist** to save it.

You do not assign a name to the saved playlist, as you can only save one playlist at a time. After saving the playlist, a confirmation dialog box appears.

6 Click **OK** to close the confirmation dialog box, then click **OK** to close the **Playlist** window.

Loading and playing Playlists

1 In the Playlist window, click **File** to display the saved playlist of files.

2 Click **Load Playlist** to load the saved playlist.

After loading the playlist, a confirmation dialog box appears.

3 Click **OK** to close the confirmation dialog box, then click **OK** to close the **Playlist** window.

The DVD begins to play the loaded playlist.

Resuming normal playback after using playlists

To resume playing the DVD files in order after using a playlist, click the eject button to open the DVD-ROM drive disc tray, then close the DVD-ROM drive again. The DVD resumes normal playback.

Customizing WinDVD

You can control several general WinDVD characteristics, such as whether the toolbar and status bar are visible, as well as numerous audio and display features.

You control these general, audio and display features from the Properties dialog box.

1 Launch WinDVD, if it is not already running.

2 On the WinDVD control panel, click the **Properties** button.

WinDVD displays the **Properties** dialog box, with the **General** tab on top.
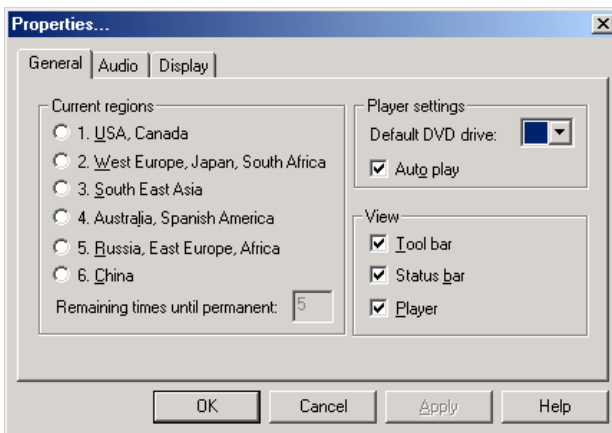
Properties dialog box with the General tab on top

Setting general properties

You use the **General** tab to select the region code, the drive letter assigned to the DVD-ROM drive, the autoplay default option, and which WinDVD toolbars are displayed by default.

Region coding is part of the protection system for DVD content. It divides the world into six regions. The intent is to enable specific content to be viewed in a specific region. The current region code of the WinDVD player installed in your computer is Region 1, comprising the United States and Canada.

> *NOTE: Most DVD-ROM drives let you change the region code, usually between one and five times. Once a drive has reached the limit, the region code cannot be changed again. Pay careful attention to the* **Remaining times until permanent** *box on the General properties tab.*

1 To change the region code, select the desired option in the **Current regions** list.

The **Remaining times until permanent** box displays the remaining number of times you can change the current region before the setting becomes permanent.

2 In the **Player settings Default DVD drive** box, select your DVD-ROM drive letter.

3 Select the **Player settings Auto play** check box to enable the auto play feature. Clear the check box to disable this feature.

When enabled, the auto play feature automatically launches a DVD-ROM when it is inserted in the DVD-ROM drive.

4 In the **View** box, select the items you want to display when WinDVD launches.

Tool bar is the bar containing basic player functions that is displayed at the top of the WinDVD video window.

Status bar is the bar that is displayed at the bottom of the WinDVD video window.

Player is the WinDVD control panel.

5 Click **OK** to save your settings.

Setting audio properties

NOTE: The DVD author determines which features the DVD supports. When playing a DVD, some of the control panel features may be unavailable. Unsupported features appear gray, and you cannot select them.

1 In the Properties dialog box, click the **Audio** tab.

The Audio tab moves to the front. The **Current audio track** box displays the format and attributes for the current audio track.
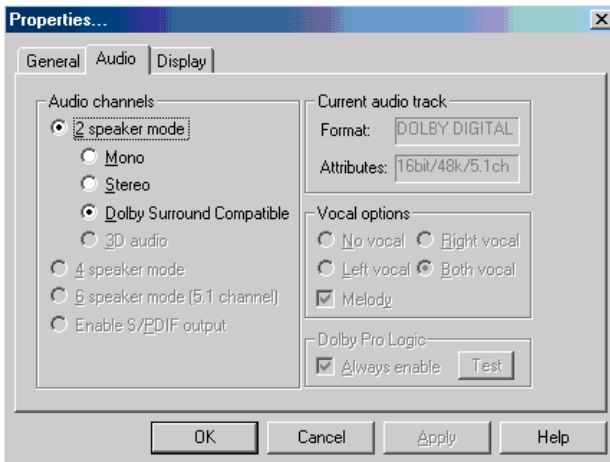
Properties dialog box with Audio tab on top.

2 In the **Audio channels** box, select the appropriate speaker mode to match your setup as follows:

❖ If you have two speakers, select one of the **2 speaker modes**. **Mono** mixes the audio channels into one channel. **Stereo** mixes the audio channels into two channels. **Dolby Surround Compatible** mixes the audio channels into two channels plus Dolby Pro Logic Surround sound. **3D audio** provides standard 3D audio sound.

❖ If you have four speakers, select **4 speaker mode**. WinDVD distributes four unique sound channels to the speakers, providing a true surround sound experience.

❖ If you have six speakers, select **6 speaker mode**. WinDVD automatically distributes 5.1 sound channels to these speakers, for enhanced surround sound.

❖ If you have an S/PDIF compliant sound card, select **Enable S/PDIF output**. This option sends the stereo output through the sound card to an external receiver.

3   In the **Vocal options** box, select the desired option for DVDs that support vocal as follows:

❖ **No vocal** does not output vocals to any speaker.

❖ **Left vocal** outputs vocals to left speakers only.

❖ **Right vocal** outputs vocals to right speakers only.

❖ **Both** outputs vocals to both left and right speakers.

4   In the **Dolby Pro Logic** box, select the **Always enable** check box to enable Dolby Pro Logic. Clear the check box to disable it.

5   To test Dolby Pro Logic, click the **Test** button.

Setting display properties

1   In the Properties dialog box, click the **Display** tab.

The **Display** tab moves to the front.
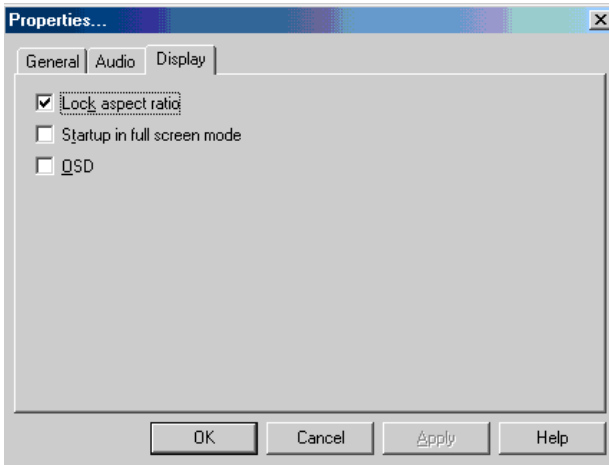
Properties dialog box with Display tab selected

2   Select the **Lock aspect ratio** check box to maintain the original aspect ratio when the video window is resized. Otherwise clear the check box.

3   Select the **Startup in full screen mode** check box to automatically start WinDVD each time with the video window maximized and the control panel hidden. Otherwise, clear the check box.

4   Select the **OSD** (On Screen Display) check box to enable OSD. Otherwise, clear the check box.

5   Click **OK** to save the settings.

Customizing the control panel

You can configure the control panel's appearance. Position the pointer over the control panel, then click the secondary button to display a shortcut menu of control panel options. You can select a new control panel background color, or select **WinDVD** to display the control panel in a different format. You can also select **About** to display copyright and version information.

Using WinDVD Advanced Features

TECHNICAL NOTE: The DVD author determines what features the DVD supports. Depending on the DVD format and your computer's hardware configuration, some of the control panel features may be unavailable when playing a DVD. Unsupported features appear gray, and you cannot select them.

The features described in this section are available on the WinDVD expanded control panel. To open the expanded control panel, click the expanded controls button on the WinDVD main control panel. See "Playing DVDs" on page 143 for help locating the expanded controls button.

WinDVD expanded control panel

Use this	*To do this*	*Or use keyboard shortcut*
	Playback speed— control the speed at which the DVD plays. Move the slider to the left to slow the playback speed or move it to the right to play the DVD faster. Placing the slider in the center plays the DVD at normal speed, and enables the audio. The audio is automatically muted at any other playback speed.	None
	Brightness — move the slider to the right to increase video brightness. Move it to the left to decrease brightness.	+ (increases) - (decreases)
	Directional buttons — use to navigate the WinDVD menus, as you would the arrow keys on the keyboard. The center button represents Enter.	$\uparrow$ (Up) $\rightarrow$ (Right) $\downarrow$ (Down) $\leftarrow$ (Left) Enter

Use this	*To do this*	*Or use keyboard shortcut*
	Numeric keypad — use these buttons to select a chapter by entering the chapter number. After you have entered a chapter number, click the enter button on the lower right corner of the numeric keypad (↵) to begin playing that chapter. You can clear an entry by clicking the clear (X) button on the lower left corner of the numeric keypad.	0 - 9
MENU	**Menu button** — displays all available menus for the current DVD. Examples of menus are: Root, Audio Language, Subtitles. Use your mouse or the control panel directional buttons to select a menu. Click **Resume** to resume DVD playback.	None
CHAPTER	**Chapter button** — displays a list of all the chapters in the current DVD. Select the chapter you want to play, or use the numeric keypad to enter the chapter number.	C

Use this	*To do this*	*Or use keyboard shortcut*
	Title button — Displays a list of all the titles on the current DVD. Click the title you want to play, then click **Enter**.	T
	Audio tracks — displays a list of all the audio track options. This feature is most commonly used with multi-language content to change the spoken/heard language. This button is enabled only when the DVD supports dynamic audio track changes.	A
	Subtitles — displays a list of all the available language subtitles. This button is enabled only for DVD content that includes subtitles and supports dynamic subtitle information changes. Select the desired language, or select **Default** to display subtitles in the DVD's default language.	S

Use this	*To do this*	*Or use keyboard shortcut*
	Camera angles — display a list of all the available camera angles. Due to differences in the DVD mastering process, some multi-angle views may not function properly.	G
	Bookmark — save an unlimited number of locations on the DVD for quick reference. On the bookmark shortcut menu, click **Add** to open the Add Bookmark dialog box. Type a bookmark name, then click **OK**. The bookmark name appears on the bookmark shortcut menu. Click the bookmark name to go to that location on the DVD. Click **Delete All** to delete all bookmarks.	None

Zooming in

You can zoom in on an area of the WinDVD video window to get a closer look.

1   Click the Zoom button, located in the upper left corner of the directional button panel.

2   Position the cursor over the top left corner of the area you want to view in close up.

3 Hold the primary button and drag the cursor to the bottom right corner of the area you want to view in close up.

A dotted rectangle appears around the area you wish to view.

4 Release the primary button.

WinDVD automatically fills the window with the selected area.

Panning

Once you are zoomed in on an area of the WinDVD video window, you can move the zoom window location using the pan feature.

1 With the video window in zoom mode, click the pan button, located in the lower right corner of the directional button panel.

2 With the pointer over the center of the window, drag the zoomed window up, down, left or right.

The close-up view changes to reflect the new zoom window location.

Zooming out

To return the video to normal size, click the zoom button. The video also returns to normal size when you reach the zoom limit.

Adjusting the color balance

You can adjust the DVD color balance. Click the adjustment button on the main DVD video window toolbar to open the Adjustment dialog box.
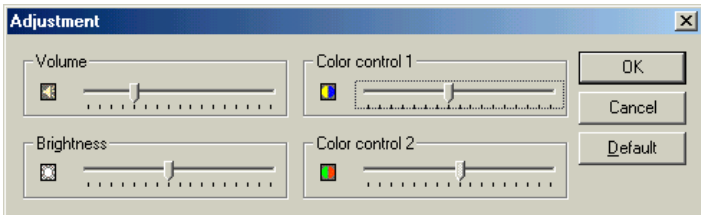
WinDVD Adjustment dialog box

The adjustment dialog box provides another set of sliders for adjusting volume and brightness. It also provides two color control sliders.

Move the **Color control 1** slider to the right to increase the blue and decrease the yellow color values. Move the slider to the left to increase the yellow and decrease the blue color values.

Move the **Color control 2** slider to the right to increase the red and decrease the green color values. Move the slider to the left to increase the green and decrease the red color values.

Launching an Internet browser from WinDVD

Some DVDs contain links to Web sites. To enable these links, click the control panel Web button to launch your Internet browser.

Getting Help

Click the control panel Help button to open the WinDVD Help system.

Exiting WinDVD

Click the control panel Exit button, or click the Close button, to exit WinDVD.

Chapter 8

Toshiba Utilities

Your notebook computer includes several utilities designed to help you reconfigure your system and best meet your individual needs. Together, these allow you to ascertain certain system details, set additional options, and change default values. The Toshiba utilities are:

❖ Fn-esse

❖ Hardware Setup

❖ System Setup

❖ Power Saver

Each of these utilities is described in this chapter.

Fn-esse

Toshiba's Fn-esse® program and Windows' shortcuts provide quick ways to open programs, documents, and folders from within any Windows program without using the Start menu. This section describes how to use the Fn-esse program to quickly access your programs and files.

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 that perform preassigned operations, known as hot keys. For more information, see "Hot Keys" on page 261.

You can assign any key that is not associated with a hot key or a keyboard overlay.

Starting Fn-esse

To start Fn-esse, click **Start**, then point to **Programs**, **Toshiba Utilities**, and then click **Fn-esse**.

The Fn-esse keyboard appears.

The Fn-esse window

The keys are color-coded as follows:

❖ Available keys are black.

❖ Assigned keys are blue.

❖ Unavailable keys are dark gray.

❖ Keys associated with a pop-up list have a small dot on the upper-left corner of the key.

Assigning a key to a program or document

There are three ways to assign a key to open a program or document:

❖ Drag-and-drop

❖ The Fn-esse Browser dialog box

❖ The Application Explorer pop-up list.

The method most often used is drag-and-drop.

Using drag-and-drop

To assign a key to a program or document:

1 Open both Fn-esse and Windows Explorer.

2 Resize the Explorer window so 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 to which you wish to assign it.

5 Release the primary button.

Fn-esse displays the Add/Edit Command dialog box completely filled in to reflect the selected program or document.

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, with Fn-esse active, move the pointing device over the desired key and press the secondary button.

The Assignment Type dialog box appears.
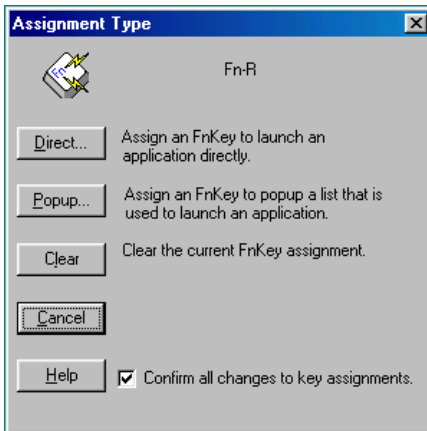
The Fn-esse assignment type dialog box

HINT: If you are making a direct key assignment, complete step 3. If you are making a pop-up assignment, complete step 4.

3 To make a direct key assignment, select **Direct**.

The Add/Edit Command dialog box appears.

❖ 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 pop-up assignment, select **Popup**.

❖ The Applications Explorer dialog box appears.

❖ Select the desired folder. The left side of the Applications 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 will appear in the pop-up list.

❖ To create a pop-up 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 Windows documentation.

❖ Click **OK** to associate the folder with the key you just selected.

❖ To open a pop-up 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 pop-up 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**.

Hardware Setup

Hardware Setup is the Toshiba configuration management tool available through Windows.

Click **Start**, point to **Settings**, **Control Panel**, and double-click the **Toshiba HWSetup** icon.

The Toshiba HWSetup dialog box appears.
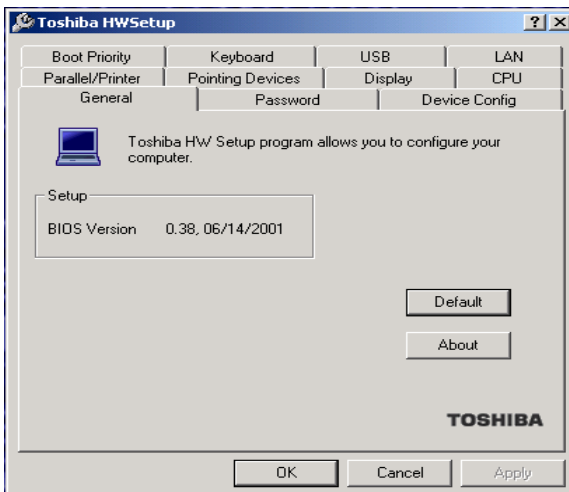
Sample Toshiba Hardware Setup (Windows 2000)

Toshiba HWSetup has the following tabs:

❖ General — Shows the BIOS version, memory configuration, and Hard Disk Drive (HDD) mode

❖ Password — Allows you to set the user password and an owner string

❖ Device Config — Shows the Device configuration options

❖ Parallel/Printer — Allows you to configure the parallel port default settings

❖ Pointing Devices — Allows you to use both the AccuPoint II and external pointing devices together or to have the system auto-select one

❖ Display — Allows you to change various default settings for the built-in LCD display

NOTE: When the computer restarts, it remembers the last configuration. If data does not appear on the display you are using after starting in Standby Mode, press Fn + F5.

❖ CPU — Allows you to enable or disable accessing the processor's serial number

For systems equipped with a Pentium® III processor with Intel® SpeedStep™ technology, so you can set the CPU Frequency Mode as:

Dynamically Switchable—This mode is the default setting for your computer, and automatically changes the processing frequency and decreases voltage depending on the power source:

❖ AC Power—If your computer is connected to the AC adapter, the CPU frequency mode is set to high for faster processing.

❖ Battery Power—If your computer is running on battery power, the CPU frequency mode is set to low, for slower

processing. Switching the CPU to low allows you to conserve power and extend the operating time of your battery.

Always High—Set the CPU speed to high when using either the battery or the AC adapter.

Always Low—Sets the CPU speed to low when using either the battery or the AC adapter.

By changing any of the options that appear in the dialog boxes and clicking **Apply**, you can reconfigure that function. Any options that you change will not take effect until after you restart your system.

❖ Boot Priority — Allows you to change the sequence in which your computer searches the various drives for the operating system

❖ Keyboard — Allows you to configure an external keyboard to emulate the Fn function key

❖ LAN—Allows you to set networking functions

❖ USB — Allows you to enable or disable USB Legacy Emulation

By changing any of the options that appear in the dialog boxes and clicking **Apply**, you can reconfigure that function. Any options that you change will become default settings when you restart your system.

System Setup

System Setup is the MS-DOS®-based, Toshiba configuration-management tool, similar to Hardware Setup available through Windows. You can access System Setup during startup or from the Companion Diskette.

HINT: System Setup doesn't run from within Windows. You must exit Windows and run System Setup while in MS-DOS mode.

To access System Setup:

1 Insert the Toshiba Companion Diskette into the diskette drive.

2 Restart your computer while pressing the ESC key.

This command instructs the computer to start from the diskette drive.

The message "Welcome to Toshiba Companion Diskette" appears on your screen.

3 Press Enter.

The Toshiba Companion Diskette Main Menu displays a list of options.

4 Choose **Exit to DOS**, and press Enter.

The MS-DOS prompt A:> appears.

5 Type System Setup and press Enter.

The first page of System Setup appears.

```
                    SYSTEM SETUP(1/2)              BIOSversion=x.xx
  ┌MEMORY─────────────────┐      ┌BOOTPRIORITY─────────────────┐
  │ Total=65536KB         │      │ BootPriority=FDD      →HDD→CD-ROM
  └───────────────────────┘      │ HDDPriority=
  ┌PASSWORD───────────────┐      │            Built-inHDD →SecondHDD
  │ NotRegistered         │      └─────────────────────────────┘
  └───────────────────────┘      ┌DISPLAY──────────────────────┐
  ┌BATTERY────────────────┐      │ PowerOnDisplay=Auto-Selected
  │ BatterySaveMode=FullPower    │ LCDDisplayStretch=Disabled
  └───────────────────────┘      │ MultiDisplayAdapt.=SingleAdapt.
  ┌PERIPHERAL─────────────┐      │ TVConfig.
  │ OperatingSystem=Non-ACPI     └─────────────────────────────┘
  │ PointingDevices=Auto-Selected ┌OTHERS──────────────────────┐
  │ ExtKeyboard"Fn"=Disabled     │ Power-upMode=Boot
  │ USBLegacyEmulation=Disabled  │ CPUCache=Enabled
  │ ParallelPortMode=ECP         │ Level 2Cache=Enabled
  │ HardDiskMode=EnhancedIDE(Normal) AutoPowerOn=Disabled
  └───────────────────────┘      │ AlarmVolume=High
                                 │ SystemBeep=Enabled
                                 └─────────────────────────────┘

  ↑↓←→: SelectItems      Space, BkSp: Changevalues     PgDn, PgUp: Changepages
  Esc: Exitwithoutsaving    Home: Setdefaultvalues      End: SavechangesandExit
```

A sample System Setup screen

There are two screens, each of which is a table displaying default settings. To change (or view) the options available for any particular setting, use the arrow keys to move to the setting and press the spacebar to scroll through the options. Once you exit MS-DOS, any changes made to System Setup become the default settings when you restart your system.

Power Saver

Toshiba Power Saver enhances your computer's power management capabilities. Power Save Modes is a series of settings for power management. You can change which mode your computer uses, change settings for each mode, or create your own mode.

To access Toshiba Power Saver:

1 Open the **Start** menu, point to **Settings**, then click **Control Panel.**

2 In the Control Panel window, double-click the **Toshiba Power Saver** icon.

The Power Saver Properties dialog box appears.
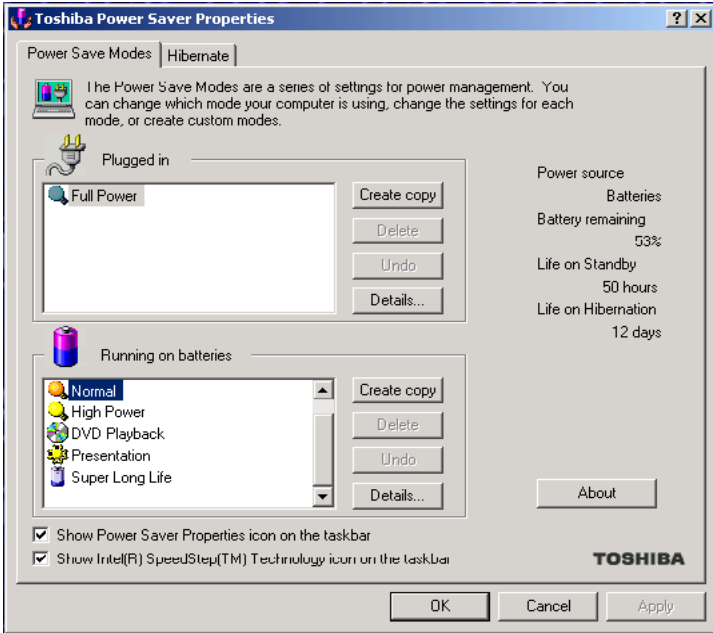
Sample Toshiba Power Saver Properties dialog box

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 default settings when you exit the program. (You do not have to restart your system before they become default settings.)

Power Save Modes tab

There are several modes from which to choose. You can use different Power Save modes for battery operation and for AC adapter operation.

❖ Full Power mode—Does not perform power saving. This mode is the default for AC adapter operation.

❖ Normal mode—Saves power with a moderate sacrifice of performance.

❖ High Power mode—Saves power with a minimum sacrifice of performance.

❖ DVD Playback mode—Performance has a higher priority than power savings.

❖ Presentation mode—Optimizes settings for presentations.

❖ Super Long Life mode—Saves maximum power. Power saving has a higher priority than performance.

To change the Power Save settings:

1 Select the Power Save mode you desire (under Plugged in or Running on batteries).

2 Click the **Details...** button.

The Power Save Mode Setup dialog appears. It has the following tabs:

❖ Processor Speed—Offers CPU power management options

❖ Monitor Brightness—Offers display power management options

❖ Turn Off Monitor—Offers display power management options

❖ Turn Off Hard Disks—Offers hard disk drive power management options

❖ System Standby—Offers options to set the time the computer can be idle before going into Standby mode

❖ System Hibernate—Offers options to set the time the computer can be idle before going into Hibernation mode

3 Select a tab, make any changes you require, and click **OK**.

Your power mode changes take effect.

Selecting the "Show Power Saver Properties icon on the taskbar" check box displays the power-saving icon on the taskbar. This icon shows the current power-saving mode.

Auto Power On tab

To configure your computer to automatically turn itself on at a specific date and time, enter the date and time you wish the computer to turn on.

Mobile Extension

To adjust the settings for docking or using the Slim SelectBay, use the TOSHIBA Mobile Extension Service Configuration.

To use the TOSHIBA Mobile Extension ServiceConfiguration:

1 Open the **Start** menu, point to **Setting**s, then click **Control Panel, TOSHIBA Mobile Extension.**

The TOSHIBA Mobile Extension Service Configuration dialog box appears.

2   Under the **Mobile Extension Service** tab, you can select
behaviors to enable or disable, like Warm Undock Service
and Parallel Port Check, by checking or unchecking the
appropriate box.
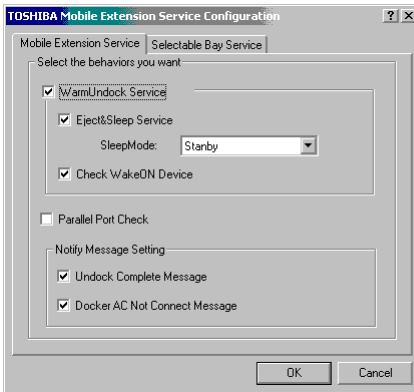
Sample Mobile Extention Service tab options

3   Under the **SelectBay Service** tab, you can select behaviors
like Hot Dock and Warm Dock for your Slim SelectBay.
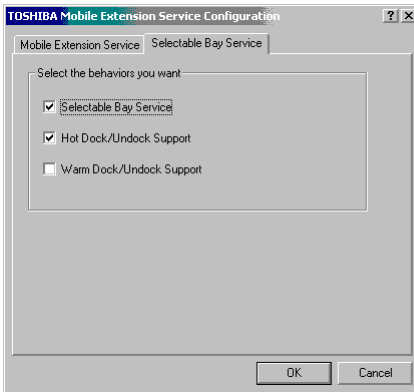
Sample Selectable Bay Service tab options

For more information about expansion devices, see "Using an expansion device" on page 66.

Chapter 9

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 Windows

Setting a 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 the Tecra 9000 Series computer:

❖ A power-on (user-level) password that requires you to enter the password whenever you start the computer.

❖ An instant (user-level) password that secures your open programs and files when you need to leave the computer temporarily.

❖ A supervisor-level password that protects system settings by restricting who can make changes in Toshiba Utilities and System Setup. This is useful if more than one person is using the computer.

❖ A hard disk drive password that protects your data by requiring a password when you try to access the hard disk, whether it's in your computer or in another system. 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.

You can set (register) a user-level password in either Toshiba Hardware Setup or System Setup. If you use System Setup however, you can also create a password service diskette which can be used to bypass the password function when starting your computer. Once you have used the diskette, you must reset your password and create another password service diskette.

CAUTION: Make sure you use a password you can remember easily. If you ever forget your password, contact your network administrator.

A good way to prevent forgetting your password is to create a password service diskette. Refer to "Setting a user-level password in System Setup" on page 183 *for instructions.*

Setting a user-level password

You can set a user-level password in Hardware Setup or in System Setup.

Setting a user-level password in Toshiba Hardware Setup

To set (register) a user-level password:

1 Click **Start**, point to **Settings**, **Control Panel**, and double-click the **Toshiba HWSetup** icon.

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 Hardware Setup window.

Your user password is now in effect. Use it when you start the computer (power-on password), or when you use the hot key Fn + F1 (instant password).

Setting a user-level password in System Setup

HINT: If you forget your password and have lost your password service diskette, contact the Toshiba InTouch Center (US telephone number (800) 457-7777).

To register a user-level password in System Setup and create a password service diskette:

1 Click **Start**, then **Shut Down**. Select **Shut down** and click **OK**.

The computer shuts down and turns itself off.

2 Connect your diskette drive. For instructions, see "Connecting an external diskette drive" on page 64 or

"Inserting a module into the Slim SelectBay®" on page 73, depending upon the type of diskette drive you have.

3   Insert a write-enabled diskette into the diskette drive.

HINT: Run System Setup outside Windows, at a system prompt. If you try to run System Setup from an MS-DOS session under Windows, results can be unpredictable.

4   Hold down the Esc key and press and hold the power button in until the on/off light on the system indicator panel turns on (green)—about one second. When you receive the following message: "Check system. Then press [F1] key," press F1.

System Setup displays a setup screen.

```
                    SYSTEM SETUP(1/2)              BIOSversion=x.xx
  ┌─MEMORY──────────────────┐   ┌─BOOTPRIORITY─────────────┐
  │ Total=65536KB           │   │ BootPriority=FDD   →HDD→CD-ROM
  └─────────────────────────┘   │ HDDPriority=
  ┌─PASSWORD────────────────┐   │           Built-inHDD →SecondHDD
  │ NotRegistered           │   └──────────────────────────┘
  └─────────────────────────┘   ┌─DISPLAY──────────────────┐
  ┌─BATTERY─────────────────┐   │ PowerOnDisplay=Auto-Selected
  │ BatterySaveMode=FullPower   │ LCDDisplayStretch=Disabled
  └─────────────────────────┘   │ MultiDisplayAdapt.=SingleAdapt.
  ┌─PERIPHERAL──────────────┐   │ TVConfig.
  │ OperatingSystem=Non-ACPI    └──────────────────────────┘
  │ PointingDevices=Auto-Selected ┌─OTHERS─────────────────┐
  │ ExtKeyboard"Fn"=Disabled    │ Power-upMode=Boot
  │ USBLegacyEmulation=Disabled │ CPUCache=Enabled
  │ ParallelPortMode=ECP        │ Level2Cache=Enabled
  │ HardDiskMode=EnhancedIDE(Normal) │ AutoPowerOn=Disabled
  └─────────────────────────┘   │ AlarmVolume=High
                                │ SystemBeep=Enabled
                                └──────────────────────────┘
 ↑↓←→: SelectItems    Space, BkSp: Changevalues    PgDn, PgUp: Changepages
 Esc: Exitwithoutsaving    Home: Setdefaultvalues    End: SavechangesandExit
```

A Sample System Setup screen

5   Press P to move to the **PASSWORD** section of the screen.

6   Press the spacebar.

System Setup asks you to enter a new password.

7 Type a password of 1 to 16 characters and press Enter.

You may use any combination of letters and numbers in your password.

8 When System Setup prompts you to do so, verify the password by typing it again and pressing Enter.

If the two passwords match, System Setup displays: Registered.

If the two passwords don't match System Setup displays an error message. Repeat steps 7 and 8 to enter the password again.

9 Press End to save your change.

System Setup asks you to confirm your choice.

10 Press Y to confirm you want to quit.

System Setup prompts you to select the type of diskette you inserted.

CAUTION: The System Setup process overwrites all existing information on the password service diskette. Make sure the diskette you use does not contain any important information.

11 Press 1 if you're using a 1.44 MB diskette or press 2 if you're using a 720 KB diskette.

System Setup creates the password service diskette and displays a message when it's finished.

12 Remove the diskette and press any key to continue.

System Setup closes, returning you to the system prompt. The next time you start the computer your password will be in effect.

13 Store your password service diskette in a safe place, away from the computer.

CAUTION: Don't use your password service diskette for any other purpose. If you try to access the diskette, you'll receive an error message, and will have to reset your password and create a new password service diskette.

Disabling the user-level password

You can disable a user-level password in either Hardware Setup or in System Setup.

Disabling a user-level password in Toshiba Hardware Setup

To delete a user-level password:

1 Click **Start**, point to **Settings**, **Control Panel**, and double-click the **Toshiba HWSetup** icon.

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 Hardware Setup window.

The user password is disabled.

Disabling a user-level password in System Setup

To register a user-level password in System Setup and create a password service diskette:

1 Click **Start**, then **Shut Down**. Select **Shut down** and click **OK**.

The computer shuts down and turns itself off.

HINT: Run System Setup outside Windows, at a system prompt. If you try to run System Setup from an MS-DOS session under Windows, results can be unpredictable.

2 Hold down the Esc key and press and hold the power button in until the on/off light on the system indicator panel turns on (green)—about one second. When you receive the following message: "Check system. Then press [F1] key," press **F1**.

System Setup displays a setup screen.

3 Press P to move to the **PASSWORD** section of the screen.

4 Press the spacebar.

System Setup asks you to enter a new password.

5 Press Enter.

6 When System Setup prompts you to do so, verify the password by pressing Enter.

7 Press End to save your change.

System Setup asks you to confirm your choice.

8 Press Y to confirm you want to quit.

System Setup closes, returning you to the system prompt. The next time you start the computer your password will be 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.

If you've forgotten your password and you have a password service diskette:

1 Connect your diskette drive. For instructions, see "Connecting an external diskette drive" on page 64 or "Inserting a module into the Slim SelectBay®" on page 73, depending upon the type of diskette drive you have.

2 Turn on the computer.

The system prompts you for your password.

3 Insert the password service diskette into the diskette drive and press Enter.

The system prompts you, "Set Password Again (Y/N)?"

CAUTION: The password service diskette is not reusable. Once you use it, you must create a new diskette, even if you set the same password.

4 To enter System Setup and reset your password, press Y. Follow the instructions in "Setting a user-level password in System Setup" on page 183 to reset your password.

To remove your password, press N. It will no longer be registered.

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 AccuPoint II 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, 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.

Supervisor-level passwords

A supervisor-level password protects system settings by restricting who can make changes in Toshiba Utilities and System Setup. This is useful if more than one person is using the computer.

Setting a supervisor-level password

When a supervisor-level password is set, you must enter the supervisor password to make changes using Toshiba Utilities or System Setup.

There are two ways to set a supervisor-level password in Windows® 2000.

NOTE: For setting a supervisor-level password in Windows® 98SE, see "Supervisor-level passwords" on page 246.

To set a supervisor-level password using the Toshiba Console:

1 Launch the Toshiba Console by pressing the TOSHIBA Console button.

2 Click the **Security** button.

3 Double-click on the supervisor password and enter the necessary information for the password.

If the Toshiba Console is not available, follow the steps below:

1   Click on **Start**, then **Run**.

2   Click the **Browse** button.

3   Click **Program Files**, **Toshiba**, and then the **Windows Utilities** folder.

4   Click on the SVPWTool folder, and then double-click the SVPW32 icon.

5   Click **OK**.

6   Enter the password information and then click **OK**.

Hard disk drive passwords - Windows 2000

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 must 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.

To set a hard disk drive master password:

1   Connect your diskette drive. For instructions, see "Connecting an external diskette drive" on page 64 or "Inserting a module into the Slim SelectBay®" on page 73, depending upon the type of diskette drive you have.

2   Click **Start**, then click **Run**.

3   In the Run box, type:
    c:\toshiba\hddpwd32 and press Enter.

    The Hard Disk Drive Password program HDDPWD32 displays a warning screen.

4   To set a hard disk drive master password, type 2 and press Enter.

To quit without setting a password, type 3 and press Enter.

HDDPWD32 displays another warning and asks you to confirm that you want to set a hard disk drive master password.

5   To set a hard disk drive master password, type Y.

To exit without setting a password, type N.

If you choose Y, HDDPWD32 prompts you to enter your password.

6   Type a password of up to 10 characters and press Enter.

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.

HDDPWD32 prompts you to enter the password again.

7   Type the password again and press Enter.

If the passwords match, HDDPWD32 prompts you to create a password diskette.

8   To create a password diskette, type Y.

To continue without creating a password diskette, type N.

9   If you are creating a password diskette, when prompted insert a blank formatted write-enabled diskette in the diskette drive and press any key to continue.

HDDPWD32 saves the password on the diskette 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.

HDDPWD32 displays a warning screen and asks if you want to finish setting the hard disk drive master password.

10 To finish setting the hard disk drive master password, type Y.

To exit without setting a password, type N.

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.

Deleting a hard disk drive master 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 master password:

1 Connect your diskette drive. For instructions, see or , depending upon the type of diskette drive you have.

2 Click **Start**, then click **Run**.

3 In the Run box, type:
c:\toshiba\hddpwd32 and press Enter.

HDDPWD32 displays a warning screen.

4 To delete the hard disk drive master password, type 2 and press Enter.

To quit without deleting the password, type 3 and press Enter.

HINT: If a hard disk drive user password is set, HDDPWD32 displays a warning and does not delete your hard disk drive master password.

If there is no hard disk drive user password set, HDDPWD32 displays a warning and asks you whether you want to delete the hard disk drive master password.

5 To delete the hard disk drive master password, type Y.

To exit without deleting the password, type N.

If you choose Y, HDDPWD32 prompts you to enter your password.

6 Type your password and press Enter.

If the password you typed matches the registered hard disk drive master password, the password is deleted.

7 Shut down and restart the computer for your changes to take effect.

Setting a hard disk drive user password

To set a hard disk drive password:

1 If you want to create a password diskette, connect your diskette drive. For instructions, see "Connecting an external diskette drive" on page 64 or "Inserting a module into the Slim SelectBay®" on page 73, depending upon the type of diskette drive you have.

2 Click **Start**, then click **Run**.

3 In the Run box, type:
c:\toshiba\hddpwd32 and press Enter.

The Hard Disk Drive Password program, HDDPWD32, displays a warning screen.

4 To set a hard disk drive user password, type 1 and press Enter.

To quit without setting a password, type 3 and press Enter.

HDDPWD32 displays another warning and asks you whether you want to set a hard disk drive user password.

5 To set a hard disk drive user password, type Y.

To exit without setting a password, type N.

HDDPWD32 displays another warning and asks you whether you want to set a hard disk drive user password.

6 To set a hard disk drive user password, type Y.

To exit without setting a password, type N.

If you choose Y, HDDPWD32 prompts you to enter your password.

CAUTION: Make sure you choose a hard disk drive user password you can easily remember. If you set a password and later forget the password or lose your password diskette, and have not set a master password, YOU WILL NEVER BE ABLE TO ACCESS YOUR HARD DISK AGAIN.

Toshiba will not be held responsible for any loss of data, any loss of use or access to your hard disk drive, or for any other losses to you or any other person or organization that results from the loss of access to your hard disk drive.

7 Type a password of up to 10 characters and press Enter.

HDDPWD32 prompts you to enter the password again.

8 Type the password again and press Enter.

If the passwords match, HDDPWD32 prompts you to create a password diskette.

9 To create a password diskette, type Y.

To continue without creating a password diskette, type N.

Creating a user password service diskette

To create a password service diskette, first perform the steps for setting a user password, and type Y at step 9.

1 If you are creating a password diskette, insert a blank
formatted write-enabled diskette in the diskette drive and
press any key to continue.

HDDPWD32 saves the password on the diskette 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.

HDDPWD32 displays a warning screen and asks if you want
to finish setting the hard disk drive user password.

2 To finish setting the hard disk drive user password, type Y.

To exit without setting a password, type N.

The hard disk drive user password will be registered the next
time you restart the computer. Each time you start the
computer from the hard disk, the system will prompt you to
enter your password. When prompted, type your hard disk
drive user password and press Enter.

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   Connect your diskette drive. For instructions, see "Connecting an external diskette drive" on page 64 or "Inserting a module into the Slim SelectBay®" on page 73, depending upon the type of diskette drive you have.

2   Click **Start**, then click **Run**.

3   In the Run box, type:
c:\toshiba\hddpwd32 and press Enter.

The Hard Disk Drive Password program, HDDPWD32, displays a warning screen.

4   To delete the hard disk drive user password, type 1 and press Enter.

To quit without deleting the password, type 3 and press Enter.

HDDPWD32 displays another warning and asks you whether you want to delete the hard disk drive user password.

5   To delete the hard disk drive user password, type Y.

To exit without deleting the password, type N.

If you choose Y, HDDPWD32 prompts you to enter your password.

6   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.

7   Shut down and restart the computer for your changes to take effect.

Chapter 10

Troubleshooting Guide

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

This chapter aims to help you solve many problems yourself without needing additional help. It covers the problems you are most likely to encounter. For further assistance and solutions, use Toshiba's support tool, VirtualTech™, to help diagnose and solve possible problems.

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

Occasionally, as you work with your computer, you may encounter one or more of the following problems. Usually, you can solve them relatively easily.

If your computer or one of the devices connected to it isn't working properly, try this procedure first:

1 Turn off the computer and any peripheral devices connected to it. This includes a local printer and any other external devices.

2 Check that the electrical outlet is working by plugging in another appliance such as a lamp.

3 Check that the power cables are firmly plugged in.

4 Check that all cables connecting peripheral devices to the computer are correctly and firmly attached. Loose cables can cause signal errors.

5 Turn on the peripheral devices.

6 Turn on the computer.

7 If you are running the computer on battery power, check that the battery charge isn't low.

If the equipment still isn't working properly, refer to the device-specific sections of this chapter.

Problems when you turn on the computer

These problems may occur when you turn on the power.

The computer won't start.

If you did not follow the steps in the previous section, make sure you attached the power cable properly or installed a charged battery.

Press and hold the power button for a few seconds.

The computer starts, but then shuts down and the on/off light glows amber and blinks.

The computer has become too hot, so it has automatically shut down. Leave the computer turned off until its interior has reached room temperature (88 degrees Fahrenheit/30 degrees Celsius or less).

If the computer will not start after it has been turned off for a while, remove the battery and reinsert it. For instructions on removing the battery, see "Changing batteries" on page 118.

The computer starts but, when you press a key on the keyboard or touch the AccuPoint II, nothing happens.

To clear the condition, press Ctrl, Alt, and Del simultaneously.

Clearing the condition may get you 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 203.

The message "Boot system has changed" appears.

Wait for the setting change to be completed. This may take several minutes.

The message "Bad XXXX XXXX" appears after the Toshiba logo is displayed.

Press F1 to enter the setup screen. Then press Home to make sure the computer settings are at their default values.

The message "Warning: XXXX" appears after the Toshiba logo is displayed.

Press Enter several times.

The message "Password=" appears after the Toshiba logo is displayed.

This message is displayed when the password has been set. If this message appears, enter the password and then press Enter. Three consecutive mistakes in entering the password turns off the computer.

You press the power button and hear the system start, but you receive a hard disk drive (HDD) error message.

There may be a problem starting Windows from your hard disk. Follow these steps:

> *CAUTION: Before using the Toshiba Companion Diskette, make sure that your computer has the same operating system as that which is stored on the Toshiba Companion Diskette or additional problems may result.*

1 Connect the external diskette drive. See "Connecting an external diskette drive" on page 64 for more information.

2 Insert the Toshiba Companion Diskette into the diskette drive.

3 Restart your computer and press F when the system starts.

   This command instructs the computer to start from the diskette drive.

   The message "Welcome to Toshiba Companion Diskette" appears on your screen.

4 Press Enter.

   The Toshiba Companion Diskette Main Menu displays a list of options.

5 Choose **Exit to DOS**, and press Enter.

   The MS-DOS prompt A:> appears.

6   Type sys c:, then press Enter.

The computer processes the command and displays the
message "system transferred" when complete.

7   Remove the diskette from the diskette drive.

8   Restart your computer.

Your system should start Windows from the hard drive.

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

If the Boot Priority option in Hardware Setup is set to
HDD→FDD and you have a hard disk problem, you won't be able
to start the computer. Insert a system diskette into the diskette drive
and press   while you turn on the power.

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

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

If the problem persists, try restarting the computer with the
Toshiba Companion Diskette or another reliable system diskette in
the diskette drive.

Resolving a hardware conflict

Using the Windows 2000 troubleshooting feature

If you receive an error message telling you there is a device driver
conflict or a general hardware problem, try using Windows Help
to troubleshoot the problem first.

1   From the Windows **Help** menu, click the **Contents** tab and
select **Troubleshooting**.

2   Click **If you have a hardware conflict** and follow the steps.

If there is still a problem, Windows 2000 should display a message that explains what the conflict is. For further assistance, contact your system administrator.

A plan of action

The smooth operation of the system depends on the interaction of all devices, programs and features.

The recommended procedure for getting multiple devices to work together is to add and configure 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 CD-ROM 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 doesn't 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 Windows 2000, avoiding hardware conflicts is easy. Plug and Play is a computer standard that helps the system BIOS (basic input/output system) and Windows 2000 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. You simply plug in the device and turn on your computer. Your operating system automatically configures your system to accommodate the new device.

However, if you install an older (legacy) device that Windows cannot detect, Windows may have difficulty assigning system resources to it. As a result, a hardware conflict can occur. To find out what resources Windows has assigned to the legacy device, refer to the section "Checking device properties."

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**, then point to **Settings**, and click **Control Panel**.

2 Double-click the **System** icon.

    Windows 2000 displays the System Properties dialog box.

3 Click the **Hardware** tab.

4 Click the **Device Manager** button.

5 Double-click the device type.

6 To view the properties, double-click the device.

    Windows 2000 displays the Device Properties dialog box, which provides various tabs to choose from. Some of the common ones are:

    ❖ The General tab, which provides basic information about the device.

> ❖ The Resources tab, which lists the resources assigned to the device. If you have a device conflict, it is shown in the Conflicting device list.
>
> ❖ The Drivers tab, which displays the drivers being used by the device.

For further information about Device Manager, refer to Windows 2000 online help.

Memory card problems

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

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

Windows displays the Shut Down Windows dialog box.

2 Select **Shut down**, then click **OK**.

Windows shuts down and turns off the computer automatically.

3 Remove the memory card following the instructions in "Removing a memory module" on page 70.

4 Reinstall the memory card following the instructions in "Installing a memory module" on page 68, and make sure it's seated properly.

5 Replace the memory expansion slot cover.

6 Check for the error again.

7 If the error recurs, remove the memory card entirely and check for the error again.

NOTE: This procedure can only be followed if there is more than one memory card in the computer. If there is only one memory card, removing will prevent the computer from booting up.

If removing the memory card eliminates the error, the memory card may be faulty. If the error recurs without the memory card installed, the error is not caused by the memory card.

Power and the batteries

Your computer receives its power through the AC adapter and power cable or from the system batteries (main battery, real-time clock (RTC) battery and backup battery). Power problems are interrelated. For example, a faulty 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 doesn't come on when you plug in the AC adapter.

Make sure the AC adapter is firmly connected to both the power cable and the computer, and that the power cable is plugged into the electrical outlet.

If the AC power light still doesn't come on, check that the electrical outlet is working properly by plugging in a lamp or other appliance.

The power cable and AC adapter work correctly, but the battery won't charge.

The main battery may not be making a good electrical connection. Turn off the computer, remove the battery and confirm that its

contacts are clean. If they are dirty, clean the contacts with a soft, dry cloth and replace the battery.

The battery may be too hot or too cold to charge properly. Its temperature needs to be in the range 5 degrees to 35 degrees Celsius. 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 connected, wait 20 minutes and see whether the battery is charging.

If the battery icon 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 icon doesn't 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-saving features in Power Saver. 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? Is the battery fully charged to begin with? All these conditions affect how long the charge lasts.

For more information on maximizing battery power, refer to "Taking care of your battery" on page 120 and "Conserving power" on page 122.

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 Windows 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,** and **Restart the computer** using the AccuPoint II on the internal keyboard. The computer will restart and recognize the device.
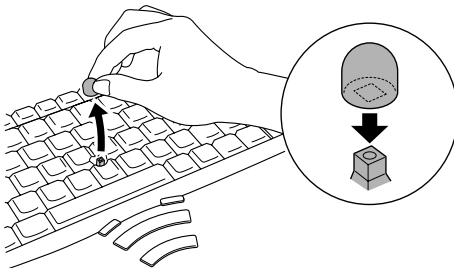
AccuPoint II problems

Some of the keyboard problems already listed may affect the
AccuPoint II. In addition:

Your finger slides off the AccuPoint II easily.

If the AccuPoint II cap is oily, remove the cap and clean it with a
cotton swab dipped in rubbing alcohol.

To remove the cap:

1   Firmly grasp the cap and pull it straight up.

Removing the AccuPoint II cap

2   After cleaning the cap, position it on the peg and press it into
place.

*NOTE: The peg is square, so be careful to align the cap's
hole with the peg.*

Display problems

The screen is blank.

Display Auto Off may have taken effect. Press any key to
reactivate the screen.

You may have activated the instant password feature by pressing
Fn and F1 simultaneously. If you have registered a user-level
password, press the Enter key, type the password, and press Enter to
return to work.

If you are using the built-in screen, try changing the display
priority to make sure it is not set for an external monitor. To do
this, press Fn and F5 simultaneously.

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 electrical 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 that the display
priority is not set for the built-in LCD screen.

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.

**Windows displays a message that there is a problem with
your display settings and that the adapter type is incorrect or
the current settings don't work with your hardware.**

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

**The display is set to a simultaneous display mode (LCD/CRT
or LCD/TV) and the external display device doesn't work.**

Make sure the resolution of the external display device and the
internal display match. For example, if the external device is only

capable of displaying resolutions up to 800 x 600, you'll need to change the resolution of the internal display to 800 x 600.

You are using an external display device and part of the desktop isn't visible.

If the desktop area is set to a resolution greater than 640 x 480, the external device goes into "virtual" display mode. This means that part of the desktop will not display on the screen. You can view the "lost" area by scrolling to it.

Even if your desktop area is set to 640 x 480, some of the desktop will be outside of the viewing area. This is because most televisions and video projectors overscan by 15 to 20 percent. You can view the edge of the desktop by scrolling to it.

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 some of the data appears to be missing.

Make sure you're identifying the drive by its correct name (A for the diskette drive or C for the primary hard disk).

Run Windows 2000 Check Disk, which analyzes the directories, files and File Allocation Table (FAT) on the disk and repairs any damage it finds.

To run Check Disk:

1   Open **My Computer** and right-click on the drive you wish to check.

2   Click **Properties**.

3   Click the **Tools** tab.

4   Click **Check Now**.

Windows opens the Check Disk window.

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 in Windows 2000:

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

2   Point to **Accessories**, then point to **System Tools**.

3   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 by using utility software, which is available from your network administrator.

Some programs run correctly but others do not.

This is probably a configuration problem. When a program doesn't run properly, refer to its documentation and check that the hardware configuration meets its needs.

A diskette won't go into the diskette drive.

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

You may be inserting the diskette incorrectly. Hold the diskette by its label 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 loose labels 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're starting the computer from the hard disk, make sure there's no diskette in the diskette drive.

If you're starting the computer from a diskette, the diskette in the drive doesn't have the files necessary to start the computer. Replace it with a bootable diskette.

The drive can't read a diskette.

Try another diskette. If you can access the second diskette, the first diskette (not the diskette drive) is probably causing the problem. Run Check Disk on the faulty diskette.

If you're using the diskette drive externally, unplug the cable and plug it back in to make sure the connection between the diskette drive cable and the port is secure.

Modem problems

The modem dials the line but doesn't connect, or cannot maintain the connection.

You may be connected to a noisy telephone line. To check this, connect an ordinary telephone to the telephone line and try placing a phone call. If you hear an unusual amount of noise or static, try connecting the modem to a different telephone line or connecting at a later time.

There may be an incorrect setting in the communications software. Refer to the communications software documentation to customize the modem settings.

The modem won't receive or transmit properly.

Make sure the RJ11 cable (the one that goes from the modem to the telephone line) is firmly connected to the modem's RJ11 jack and the telephone line socket.

Check the serial port settings to make sure the hardware and software are referring to the same COM port.

Check the communications parameters (baud rate, parity, data bits, and stop bits) specified in the communications program.

The modem is on, configured properly, and still won't 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.

Problems with the CD-ROM or 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 CD-ROM or DVD-ROM eject button, but the CD-ROM or DVD-ROM tray doesn't slide out.

Make sure the computer is connected to a power source and turned on. The CD-ROM or 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 CD-ROM or DVD-ROM eject button on the face of the CD-ROM/DVD-ROM tray.

Some discs run correctly but others do not.

Check the type of disc you are using. The DVD-ROM and DVD-ROM/CD-RW drive supports the Digital Versatile Disc (DVD) formats DVD-ROM, DVD-R (read-only), and DVD-RW (read-only) plus CD-ROM, CD-R (read-only), and CD-RW (read-only). The CD-ROM drive supports CD-ROM, CD-R (read-only), and CD-RW (read-only).

HINT: The DVD-ROM drive is initially set for Region 1 (North America) DVDs. You can change this setting (refer to "Setting general properties" on page 153), but only a very limited number of times.

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 CD-ROM or DVD-ROM drive itself.

Sound system problems

You don't hear any sound from the computer.

Adjust the volume control. There is a volume control dial on the computer, a volume control feature in the Windows Control Panel ("Sounds"), or it might be muted. There may also be a volume control on your speakers or headphones or in your audio application.

If you are using an external microphone 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.

If you have changed the settings for the Record Monitor feature in the Recording Control Utility (default Off) or the Mute feature in the Mixer Utility (default Enabled), these may cause feedback. Revert to the default settings.

Optional devices

Optional devices can include a printer, PC Cards, an external monitor, or any other device you connect to your computer to expand its capabilities.

For an external monitor, see "Display problems" on page 211.

PC Card problems

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. Refer to "Resolving a hardware conflict" on page 203.

Card information structure (CIS)

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 CIS. Sometimes the CIS contains enough information for you to use the card immediately. Other cards must be configured before you can use them.

Some card manufacturers use special software called enablers to support their cards. Enablers result in nonstandard configurations that can cause problems when installing another PC Card.

If Windows doesn't have built-in drivers for your PC Card and the card didn't come with a Windows driver, it may not work under Windows. Contact the manufacturer of the PC Card for information about operating the card under your version of Windows.

PC Card checklist

❖ Make sure the card is compatible with your operating system.

❖ Make sure the card is inserted properly into the slot. Refer to "Inserting and removing PC Cards" on page 76 for how to insert PC Cards, and to the documentation that came with the PC Card.

❖ Make sure all cables are securely connected.

❖ Make sure the computer has only one version of Card and Socket Services loaded.

❖ Occasionally a defective PC Card slips through quality control. If another PCMCIA-equipped computer is available, try the card in that machine. If the card malfunctions again, it may be defective.

Resolving PC Card problems

Here are some common problems and their solutions:

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

To view the PC Card status:

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

Windows displays the System Properties dialog box.

2 Click the **Hardware** tab.

3 Click the **Device Manager** button.

4 Double-click **PC Card (PCMCIA)**.

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

Windows displays your PC Card's Properties dialog box. This dialog box 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. Make sure each device has its own I/O base address.

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

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

Follow this procedure before you remove a PC Card:

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

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

Windows 2000 displays a message saying you may safely remove the card.

3 Remove the card from the slot.

There is still a yellow exclamation point (⚠) over the PCMCIA controller icon in Device Manager (Windows 2000).

You've installed the PC Card as described in "Using PC Cards" on page 103, but the system still reports the controller with a yellow exclamation point (⚠).

The PCMCIA.INI file may not be installed on your computer. Install it, referring to the *Toshiba Configuration Builder CD Instructions* for the installation procedure.

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 doesn't print.

Check that the printer is connected to a working electrical outlet and is turned on.

Check that the printer has plenty of paper. Some printers won't 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 both the computer and the printer.

Make sure the Parallel Port Mode option in Hardware Setup is set correctly for your printer. If your printer is ECP-compatible, this option should be set to ECP. If your printer is not ECP-compatible, this option should be set to Std. Bi-Direct.

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

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

Make sure you installed the proper printer drivers.

You may have connected the printer while the computer was turned on. Turn off the computer, and turn off the printer. Turn the printer back on, make sure it's ready (on line), then turn the computer back on.

The printer doesn't print what I 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.

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–Windows 2000

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, DVD-R, or DVD-RW).

2   Ensure that the drive is properly installed in the SelectBay. It must be inserted completely.

3   Ensure that the DVD-ROM disk is properly inserted in the drive tray.

4   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**, **Settings**, **Control Panel**, and double-click **Display**.

   ❖   Click on the **Settings tab** and check the **Colors** drop-down. It should be set to **High Color** (**16 bit**).

   ❖   If it is not set to High Color, change the settings to **High Color** (**16 bit**) and click **OK**.

5   Clean the DVD 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.

6 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.

7 See "Checking device properties" on page 206 for instructions on using Device Manager to view the DVD-ROM properties.

8 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 Toshiba Power Saver Properties using the following steps:

1 Click **Start**, point to **Settings**, then click **Control Panel**.

The Control Panel window appears.

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

3 Click the **Details** button (for the mode you are using).

4 Click the **Power Save Mode** tab.

5 Set the **Turn off Monitor** slider to **Never**.

6 Click **OK** to close the **Details** window.

7 Click **OK** to close the **Toshiba Power Saver** window**.**

Jumping video lines appear around the DVD-ROM video window.

To change the screen's display resolution:

1 Click **Start**, point to **Settings**, then click **Control Panel**.

The Control Panel window appears.

2 Double-click the **Display** icon.

The Display Properties dialog box appears.

3 Click the **Settings** tab.

4 Next to the words **Screen 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, go into Hardware Setup and disable it. For more information, see "Hardware Setup" on page 171.

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**, point to **Settings**, then click **Control Panel**.

The Control Panel window appears.

2 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**.

WinDVD problems

WinDVD has been configured to provide optimum performance and quality based upon your system's available resources. Changes made to the system or its configuration may impact the playback performance of the WinDVD player.

General issues

WinDVD controls are disabled.

Controls may be grayed out by commands on the DVD. For example, it is common for DVD movie titles to disable fast-forward and rewind during the legal notices at the beginning of a movie.

Playback performance is poor.

The use of DMA dramatically increases the DVD playback performance of your system.

To make sure DMA is turned on and check its settings:

The "Root" or "Title" menu does not open.

Most DVD titles have one or both of the "Root" and "Title" menus. If one menu button appears to do nothing, try the other menu button.

WinDVD performance decreases after making a system change.

DVD playback performance is dependent upon several system resources. Some software changes may also impact playback performance (for example, downloading new drivers from the Web).

Before installing a new hardware or software component on your system, check for any potential conflicts between its resource requirements and your current system configuration. Also, if you change your operating system, check with your PC manufacturer

to ensure that you have the appropriate drivers for both your hardware (for example, the graphics card) and software (drivers must support the operating system and DVD with WinDVD).

Slow playback performance.

DVD playback is a resource intensive application. Other applications and/or changes to your system hardware, software or configuration can impact playback performance. If playback is slower than normal, try the following:

1 Close any other open applications to improve the performance of the DVD playback.

2 Make sure that your display driver resolution, color depth, and refresh rate are optimal for DVD playback. (Some systems do not support video overlays if these parameters are not optimal.) Try lowering these settings to improve performance.

3 Make sure DMA is turned on:

   1 Open the **Start** menu, point to **Settings,** then click **Control Panel**.

   2 Double-click the **System** icon, then select the **Device Manager** tab.

   3 Open the **CDROM** device folder, select your DVD-ROM device driver, then click **Properties**.

   4 Select the **Settings** tab, click the **DMA** check box, then click **OK**.

   The system must be restarted for this setting to take effect.

4 Check the CPU speed if running on battery power.

Content issues

Movies exhibit poor performance of "Director's Commentary" or other similar optional content versions.

Some movies may exhibit poor performance of these features. In particular, the video portion of the movie may become jerky or show pauses. The normal version of the movie will not show this problem.

WinDVD will not function properly with "debug" software installed.

The WinDVD application will not function properly if it detects that debug software is present on the system. Remove the debug software to restore functionality of WinDVD.

Minimum system requirements

WinDVD performs best when the following recommended components are present in your system:

❖ DirectX® Foundation 6.0 or higher (Source: Microsoft)

❖ DirectShow® 6.0 (Source: Microsoft)

❖ 2x DVD-ROM Drive with DMA enabled installed in the SelectBay

Developing good computing habits

This section suggests some good habits to develop so you are prepared if things go wrong.

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 shouldn't rely solely on this feature. Save your work! It only takes a few moments, and it could save you many hours of work to recreate files.

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

Files held in your network partition will be backed up for you, but you need to back up any important files that reside only on the Tecra's hard disk.

Here are a few ways you can do this:

❖   Use Windows to copy files to diskettes.

❖   Connect a storage device to the system and use specialized software to copy all your data from hard disk to a tape.

❖   Connect the system to a LAN and copy files to some other location on the network.

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've added software to your system, you should back up the software as well as the data. If something goes wrong that requires you to format your hard disk and start again, reloading all your software and data from a backup will save time.

Read the manuals.

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 manuals provided with your computer, as well as the manuals that come with the programs and devices you purchase.

Look in your local computer store or bookstore for self-help books you can use to supplement the information in the manuals.

Use VirtualTech

VirtualTech™ is a suite of innovative support resources and tools installed on your computer. VirtualTech will make your computing experience easier and more fulfilling by assisting you when you have questions, run into problems, or need help with your computer or programs.

To access VirtualTech, double-click the VirtualTech icon located on your computer's desktop.

Following is a summary of the kinds of resources and tools VirtualTech has to offer:

❖ A library of solutions to common computer problems. These are arranged into easy-to-navigate topics like software, hardware and the Internet.

❖ A set of powerful support tools that can:

    ❖ Retrieve hardware and software details whenever you need system configuration information.

❖ Provide a real time view of your machine's condition and running applications. VirtualTech can take up to 10 "snapshots" of your applications to ensure you can restore your configuration and replace or repair damaged files.

❖ Check and inform you of any updates whenever you go online. To load an update, click **yes**.

❖ Run a detailed system report that harvests and compiles your system's hardware and software information. This report is also accessible to Toshiba's InTouch Center technicians to reference when you place a call or send a question electronically.

❖ Direct you to Ask IRIS Online™, Toshiba's instant response information service where you can ask questions and receive answers.

❖ Send a message electronically with your questions directly to our InTouch Center. A representative will address your situation and contact you.

If you need further assistance

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

Before you call

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

Try the following before contacting Toshiba:

❖ Review the troubleshooting information in your Windows 2000 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:
www.pcsupport.toshiba.com

2 Next, try one of Toshiba's online services. The Toshiba Forum can be accessed through CompuServe®.

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

❖   Name and version of the program involved in the problem along with its installation diskettes or CD

❖   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

www.toshiba.com	Worldwide Toshiba corporate site
www.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

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20156 Milano
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The Rest of Europe
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Germany

United Kingdom
Toshiba Information Systems
(U.K) Ltd.
Toshiba Court
Weybridge Business Park
Addlestone Road
Weybridge KT15 2UL
United Kingdom

Venezuela
InterPC de Venezuela
Esquina Calle 4 y Calle 8
Edificio Tepal - Piso 3
La Urbina
Caracas 1073 - Venezuela

Appendix A

Windows® 98SE Supplemental Information

The following information is specific to systems with Windows® 98SE installed, and details only the functions and procedures which differ from Windows® 2000. For functions and procedures not described in this appendix, the information is the same in Windows® 2000 as it is for Windows® 98SE and is detailed in the appropriate sections in the main chapters of this guide.

NOTE: If you upgrade your computer's operating system to Windows® 2000, you will need to download additional utilities and drivers - known as operating system components - from Toshiba's web site at: pcsuppport.toshiba.com

Set up steps

Once you turn on the computer, follow the instructions provided by the Setup Wizard on the screen.

❖ Read and accept the Microsoft Windows® 98 Second Edition License Agreement. After reading the agreement, click the button labeled **I accept the agreement**, then click **Next** to continue.

❖ Personalize your copy of Windows® 98 Second Edition by typing your name and company in the appropriate boxes, then click **Next**.

❖ Name your computer. You can either type in a name of your choice or accept the default name that is provided.

❖ Assign an Administrator password. The Administrator password is optional. If you assign a password, you will have to type it in each time you turn on the computer. You can assign one later, if needed.

❖ Set the computer's time and date.

When the Setup Wizard finishes, click **Finish** to restart Windows® 98 Second Edition.

Setting up your printer

Set up a printer using the Windows® 98 Second Edition Add Printer Wizard:

1   Click the **Start** button, then point to **Settings**, and click **Printers**.

The Printers display panel opens.
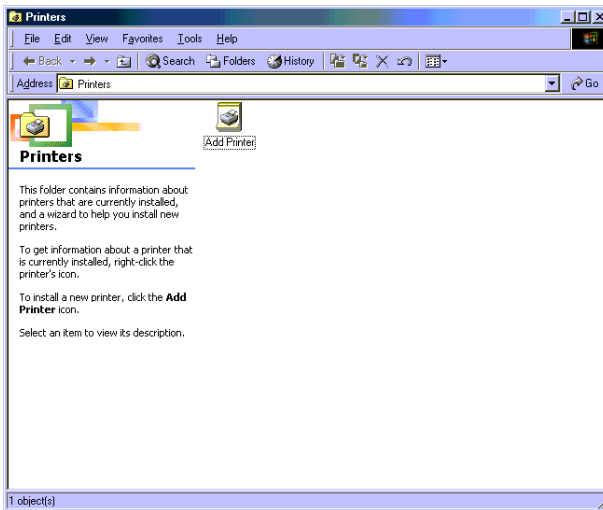
Printers panel

2   Double-click **Add Printer**.

The Add Printer Wizard starts.

Add Printer Wizard

This wizard will help you to install your printer quickly and easily.

To begin installing your printer, click Next.

[< Back] [Next >] [Cancel]
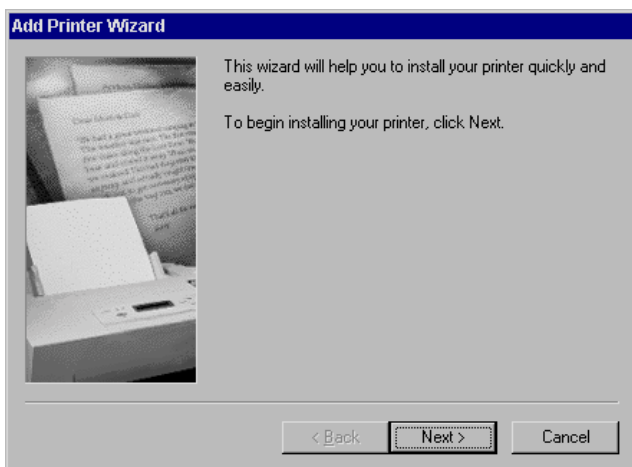
Add Printer Wizard

3 Click **Next**.

The Add Printer Wizard asks you to select your printer.

![wrench icon] *TECHNICAL NOTE: If your printer is Plug and Play, Windows® 98 Second Edition recognizes it automatically. You can ignore the remainder of this section.*

4 If the printer you are setting up:

❖ Is not connected to a network, select **Local printer**.

❖ Is connected to a network, select **Network printer**.

5 Click **Next**.

The Add Printer Wizard prompts you to select your printer.

6 Select your printer from the list of manufacturers and printers, then click **Next**.

The Add Printer Wizard prompts for the printer port.

7 Select the port settings according to the instructions in your printer's documentation and the port to which your printer is connected, then click **Next**.

The Add Printer Wizard prompts you to enter a "friendly" printer name.

8 Enter a name for your printer, then click **Next**.

HINT: If you are using more than one printer, make sure the printer name is descriptive enough for you to identify each one.

9 If you want this printer to be:

❖ The default printer for Windows® 98 Second Edition, click **Yes**.

❖ Available when specifically requested, click **No**.

10 Click **Next**.

Windows® 98 Second Edition prompts you to print a test page.

11 If your printer is connected and turned on, click **Finish** to print a test page.

To complete the setup procedure without printing a test page, click **No**, then click **Finish**.

You are now ready to print.

12 Click **OK** to print.

Depending on your program, you may see various messages indicating the status of your print job.

Turning off the computer

The Shut down command is the usual way to turn off your computer.

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

The Shut Down Windows dialog box displays.
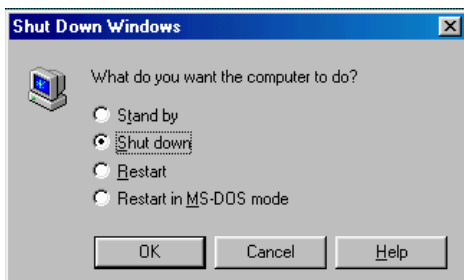
Shut down the computer

2   Select **Shut down**, then click **OK**.

The computer turns off.

File systems

A file system is the logical structure used to store files on a computer. Windows® 98 Second Edition supports File Allocation Table (FAT). The computer can access files in a FAT primary partition or logical drive.

Be sure to use the proper file system when using removable media (such as diskettes or Zip disks) if you are transferring them to computers with other operating systems.

Power Usage modes in Windows 98SE

To access the Toshiba Power Saver utility:

1 Click **Start**, point to **Settings**, **Control Panel**, then double-click the **Toshiba Power Saver** icon.

2 The Power Saver Properties window appears, with the Power Save Modes tab displayed.
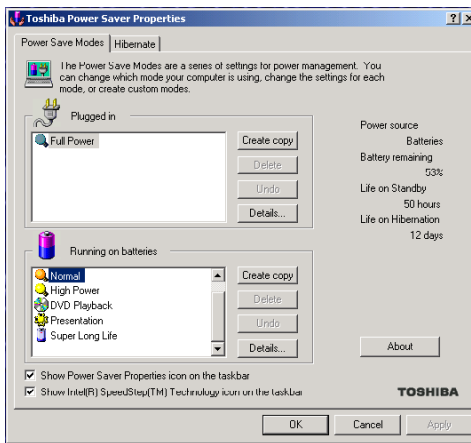
Power Save Modes tab

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.

For more information on power modes and options, see the Windows® 98SE information in the *Managing Your Computer's Power Usage Through Toshiba's Hardware Setup and Power Saver Utilities* guide that came with your computer.

Supervisor-level passwords

A supervisor-level password protects system settings by restricting who can make changes in Toshiba Utilities. This is useful if more than one person is using the computer.

To set the supervisor-level password:

1   Click on **Start**, then **Run**.

2   Click the **Browse** button.

3   Double-click on the My Computer icon, and then double-click on the **C** drive.

4   Click Program Files, Toshiba, and then the Windows Utilities folder.

5   Click on the SVPWTool folder, and then double-click the SVPW32 icon.

6   Click **OK**.

7   Enter the password information and then click **OK**.

Windows® 98 Troubleshooting

This section explains how to solve problems in instances when Windows® 98 Second Edition differs from Windows® 2000 Professional.

If you don't find the solution to a problem in this section, refer to "If Something Goes Wrong" on page 191.

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

Windows® 98 Second Edition operating system or closing other programs.

To close a program that has stopped responding:

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

The Windows® 98 Second Edition operating system displays the Close Program dialog box. This box lists all the programs and processes currently in operation. If a program has stopped responding, the words "not responding" appear beside its name on the list.

2   Select the program you want to close, the click **End Tas**k.

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

3   Close the remaining programs one by one by selecting the program name, then **End Tas**k.

4   Click **Shut Dow**n.

The Shut Down Windows dialog box appears.

5   Select **Restar**t, then click **Yes** .

Your computer shuts down and restarts the Windows® 98 Second Edition operating system.

CAUTION: Typing Ctrl, Alt and Del simultaneously twice to restart your computer is not recommended. By closing all open programs prior to shutting down the Windows ® 98 Second Edition operating system you ensure that all data is saved.

Your program performs an illegal operation.

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

To record the details:

1 Click the **Details** button and select the text displayed.

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 **Program**s, then point to **Accessories** and click **Notepad**).

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

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

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

You open a program that immediately stops responding.

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

To close the program:

1 Press Ctrl, Alt, and Del simultaneously.

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

2 Click **End Tas**k, the click **Cancel**.

To disable Sleep mode:

1 Turn off the computer.

2 Hold down the Esc key and turn on the computer.

This message displays: Check system. Then press [F1] key

3 Press F1.

The computer displays a setup screen.

4 Using the arrow keys, highlight **Battery Save Mod**e, then choose **User Settings** from the drop-down list.

> *HINT: This is the only way you can access the CPU Sleep mode function.*

5 Set CPU Sleep mode to **Disable**d.

6 Press End, then enter Y to save your changes and exit.

7 Restart your computer.

If the problem continues, contact the manufacturer of the program.

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 main battery.

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

The computer starts but, when you press a key on the keyboard or touch the AccuPoint II, nothing happens.

To clear the condition, press Ctrl, Alt, and Del simultaneously.

Clearing the condition may get you running, but it won't solve a resource conflict. Read the documentation that came with the conflicting device.

The computer is not accessing the hard disk drive.

Your computer normally loads the Windows® 98 Second Edition 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 diskette drive and press F10 while you turn on the power.

The computer displays the WARNING RESUME FAILURE message.

The computer was placed in Standby and the main battery has discharged. Data stored in the computer's memory has been lost.

To charge the main battery, see "Charging the battery" on page 43.

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

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

The Windows® 98 Second Edition operating system is not working

Once you are familiar with the desktop and used to the way the Windows® 98 Second Edition 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 98 message appears.

❖ Takes a long time to start.

❖ Responds differently from the normal routine.

❖ 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 Windows® 98 Second Edition operating system Startup menu to fix the problem.

Using Startup options to fix problems

If the Windows® 98 Second Edition 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 Startup menu displays these options:

❖ Normal

❖ Logged (\BOOTLOG.TXT)

- ❖ Safe mode
- ❖ Step-by-step confirmation
- ❖ Command prompt only
- ❖ Safe mode command prompt only

TECHNICAL NOTE: If your computer is connected to a network, the Start up menu may display different versions of Safe mode.

Normal

Selecting Normal starts the operating system under normal conditions. Start the computer in Normal mode when there are no apparent problems with the system.

Logged (Bootlog.txt)

Selecting Logged starts the operating system under normal conditions and creates a hidden startup log file named c:\Bootlog.txt. This file records every step of the system's startup process.

You or a qualified expert can use this log file to check the loading and initializing of device drivers.

DEFINITION: A device driver is a file that contains information to help the computer's BIOS (Basic Input/Output System) control the operation of devices connected to the system.

Safe mode

Selecting Safe mode bypasses basic startup files and starts the operating system, enabling only the mouse, keyboard, and standard VGA display drivers.

Running Safe mode allows you to undo any changes you made to the system configuration that may have caused the Windows ® 98 Second Edition operating system or a device to fail. For example, if you choose a resolution that is not supported by the display, the operating system will have a problem starting correctly. Safe mode bypasses the setting and allows you to change the resolution to one supported by the display. Once you have done this, the Windows ® 98 Second Edition operating system will start correctly.

TECHNICAL NOTE: The Windows® 98 Second Edition operating system automatically starts in Safe mode if it detects that system startup failed or the Registry (the file that defines how the Windows® 98 Second Edition operating system is set up) is corrupted.

Step-by-step confirmation

When you turn on your computer, the Windows® 98 Second Edition operating system processes the startup files. With Step-by-step confirmation, the system asks you to confirm each line of the startup process once it appears.

Use this option to:

❖ Startup when the startup process fails while loading files

❖ Verify all drivers are being loaded

❖ Temporarily disable one or more specific driver(s)

❖ Check for errors in the startup files

The Windows® 98 Second Edition operating system uses a file called IO.SYS, which contains all the information needed to start

the computer. Although your computer does not need the Config.Sys and Autoexec.Bat files to start, it does process these files to support backward compatibility with some programs and device drivers. The same holds true for the System.ini and Win.ini files.

TECHNICAL NOTE: Programs and devices that are backward compatible are designed to work with older operating systems and other programs. For example, many features of the Windows® 98 Second Edition operating system are backward compatible with earlier versions of the Windows ® operating system; this lets you use older programs.

Most of the information contained in these files is now stored in the Registry; they are still processed during system start. Bootlog.Txt file contains a record of all the components and drivers loaded during startup and the status of each. When you select Step-by-step confirmation, you can view all these files one line at a time to help diagnose the cause of a problem.

Command prompt only

Selecting Command prompt only starts the basic operating system with all the startup files and device drivers.

Use this option when you want to run MS-DOS® or Windows® 98 Second Edition operating system commands. This option is for advanced users who are familiar with MS-DOS® and know what these commands do.

Safe mode command prompt only

Selecting Safe mode command prompt only bypasses the system start-up files and displays the command prompt.

Use this option under these conditions:

❖ The Windows® 98 Second Edition operating system fails to start even in Safe mode

❖ You want to run MS-DOS ® commands such as Edit to make changes to your startup files

❖ You want to avoid loading Himem.sys (extended memory manager) or Ifshlp.sys (file system manager)

The Windows® 98 Second Edition operating system can help you

If the Windows® 98 Second Edition 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 Help:

1 Click the **Start** button and click **Hel**p.

2 Click the **Contents** tab, then double-click **Troubleshootin**g.

3 Double-click a problem you would like help with, and follow the steps on the screen.

Working with troubleshooters

The Windows® 98 Second Edition operating system includes a wide range of helpful troubleshooters that can assist you with many common computer problems. For instance, if you are having difficulty setting up a new printer, the Print troubleshooting can walk you through the setup process step by step.

Troubleshooters are available through Windows® Help, and they are constantly updated and supplemented on the Microsoft ® Support Online Web site.

You can connect to Support Online by clicking the **Web Help** button in Windows® Help or by connecting to: support.microsoft.com/ support/

Resolving a hardware conflict

This section contains information where Windows® 98 Second Edition differs from Windows® 2000 operating system. If you do not find a solution to your hardware problem in this section, refer to "Troubleshooting Guide" on page 199.

If you receive an error message telling you there is a device driver conflict or a general hardware problem, try using Windows® 98 Second Edition Help to troubleshoot the problem first.

For help on hardware conflicts:

1   From the Windows® Help menu, click the **Contents** tab, then double-click **Troubleshootin**g.

2   Click **hardware conflict** and follow the steps.

If there is still a problem, a message should display that explains what the conflict is. If this happens, you may need to solve the problem on your own.

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 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 CD-ROM 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 is it works. These channels of communication are commonly known as system resources. For more information on system resources, refer to .

Disabling a device in the Windows® 98 Second Edition operating system

1 Click the **My Comput**er icon with the secondary button, then click **Propertie**s.

The System Properties dialog box appears.

2 Click the **Device Manager** tab.

3 Select the device and click **Propertie**s.

A dialog box displays the device's properties.

4 In the General section of the dialog box, check the box next to **Disable in this hardware profil**e.

5 Click **OK**.

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

The System Properties dialog box appears.

2 Click the **Device Manager** tab.

3 To view the device(s) installed, double-click the device type.

4 To view the properties, double-click the device.

The Device Properties dialog box appears, which provides various tabs from which to choose. Some common ones are:

❖ The **General** tab, which provides basic information about the device.

❖ The **Resources** tab, which lists the resources assigned to the device. If you have a device conflict, it is shown in the Conflicting device list.

❖ The **Drivers** tab, which displays the drivers being used by the device.

For more information about Device Manager, refer to the Windows® 98 Second Edition operating system online help.

DVD-ROM drive problems

This section describes DVD-ROM drive problems where the problem-solving steps differ from Windows® 2000 Professional operating system.

Playback performance is poor.

The use of DMA dramatically increases the DVD playback performance of your system.

To make sure DMA is turned on and check its settings:

1   Open the **Start** menu, point to **Setting**s, then click **Control Pane**l.

2   Double-click the **System** icon, then select the **Device Manager** tab.

3   Open the **CDROM** device folder, select your CD-ROM device driver, then click **Propertie**s.

Slow playback performance.

DVD playback is a resource intensive application. Other applications and/or changes to your system hardware, software or configuration can impact playback performance. If playback is slower than normal:

1   Close any other open applications to improve the performance of the DVD playback.

2   Ensure DMA is turned on. For instructions, see"Playback performance is poor." on page 253.

3   If you have installed new hardware (such as a new graphics card or audio card), ensure the component's drivers support Microsoft® DirectX® 5.2b or higher. Contact the manufacturer of the component.

4   Check that your display driver resolution, color depth and refresh rate are optimal for DVD playback. (Some systems do

not support video overlays if these parameters are not optimal.) Try lowering these settings to improve performance.

Movies exhibit poor performance of "Director's Commentary" or other similar optional content versions.

Some movies may exhibit poor performance of these features. In particular, the video portion of the movie may become jerky or show pauses. The normal version of the movie will not show this problem.

Appendix B

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 or above the key indicating the option or feature the key controls.

Volume Mute
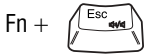
Fn + ⌨[Esc]   This hot key enables/disables volume mute on your computer.

When volume mute is enabled, no sound will come from the speakers or headphones.

Instant password security

Fn + ⌨ This hot key blanks the display.

For more information about the instant password, see "Using the instant (user-level) password" on page 188.

Without a password

The Fn + F1 key combination turns off the display and activates the instant security. Using the mouse or any key will make the display reappear.

With a password

The Fn + F1 key combination turns off the display and activates the instant security. Using the mouse or any key will make the screen saver password dialog box appear; you can then type in the screen saver password.

For the Windows® 2000 Professional operating system, type the password into the Windows® security screen dialog box.

To activate the password feature in the Windows® 2000 Professional operating system:

1 Click **Start**, point to **Settings**, then click **Control Panel**.

2 Double-click **Display**.

3 Select the **Screen Saver** tab.

4 Click the **Password Protected** check box.

5 Click **OK**.

To activate the password feature in the Windows® 98 Second Edition operating system:

1 Click **Start**, point to **Settings**, then click **Control Panel**.

2 Double-click **Display**.

3   Select the **Screen Saver** tab.

4   Click the **Password Protected** check box.

5   Click the **Change** button.

6   Type the desired password.

7   Retype the password to confirm it and click **OK**.

8   Click **OK**.

Power usage mode

Fn +   This hot key displays the power usage pop-up window and cycles through the battery save modes.

The power usage modes in the Windows® operating system under battery power are:

Long Life

Normal

High Power

DVD Playback

Presentation

Super Long Life

The power usage mode in Windows 2000 under AC power is Full Power only.

The properties of each mode are set in the Toshiba Power Saver utility. For more information, see "Power Saver" on page 175.

Standby mode
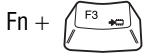
Fn + ⌨ This hot key places the computer into Standby mode.

A message box is displayed to confirm the computer is going into Standby mode. This message box can be set to not display in the future.

For more information on Standby mode, see "Using Standby command" on page 111.

Hibernation mode
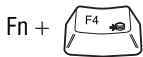
Fn + ⌨ This hot key places the computer in Hibernation mode

If Hibernation mode is enabled, a message box is displayed to confirm the computer is going into Hibernation mode. This message box can be set to not display in the future so that FN + F4 will immediately place the computer in Hibernation mode.

If Hibernation mode is disabled, this hot key will not function.

For more information on Hibernation mode, see "Using Hibernation mode" on page 108.

Display modes

Fn + 〔F5 ⊟/□〕   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

Built in display panel and TV (or other external video device) simultaneously

TV (or other external video device) only.

In order to use a simultaneous mode, you must set the resolution of the internal display panel to match the resolution of the external display device.

Display brightness
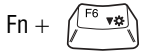
Fn + 〔F6 ▼☼〕   This hot key decreases the screen brightness.

Fn + 〔F7 ▲☼〕   This hot key increases the screen brightness.

Wireless device enable/disable
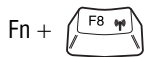
Fn + [F8]   This hot key enables and disables the optional wireless devices installed in your computer.

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 136).

All enabled—This enables both Bluetooth and Wi-Fi for simultaneous use of both wireless technologies.

Keyboard hot keys
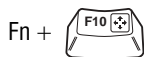
Fn + [F10]   This hot key turns the cursor control overlay on and off.
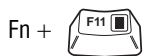
Fn + [F11]   This hot key turns the numeric overlay on and off.
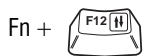
Fn + [F12]   This hot key turns the scroll lock feature on and off.

Appendix C

Power Cable Connectors

The 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

United Kingdom
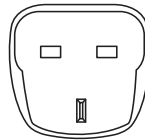
BS approved

Australia

AS approved

Europe

VDA approved
NEMKO approved

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Appendix D

Video Modes

This appendix lists the video modes supported by the display adapter, and identifies the characteristics of each mode.

The tables have these columns:

Mode is the mode number in hexadecimal; it is generally used by programmers to specify video modes in programs.

Type identifies the display adapter that first supported the mode, and specifies whether the mode is text or graphics.

Resolution is the measure of the screen's dimensions in terms of horizontal and vertical pixels (in graphics modes), or rows and columns of characters (in text modes).

Grid is the default number of pels per character.

LCD Colors is the maximum number of simultaneous colors, or shades of gray, that the mode can display on the built-in screen.

CRT Colors is the maximum number of simultaneous colors, or shades of gray, that the mode can display on an external monitor.

Scan Freq hor/vert is the horizontal and vertical scanning frequency in Hertz. This is for external monitors only.

This table lists the video modes for the Tecra 9000 Series computer:

Mode (hex)	Type	Resolution	Internal LCD Grid (pelxpel)	Colors	External Monitor Grid (pelxpel)	Colors	Scan Freq. hor.	vert.
0, 1	VGA Text	40x25 char	8x8	16/256K	8x8	16/256K	31.5kHz	70Hz
2, 3	VGA Text	80x25 char	8x8	16/256K	8x8	16/256K	31.5kHz	70Hz
0*, 1*	VGA Text	40x25 char	8x14	16/256K	8x14	16/256K	31.5kHz	70Hz
2*, 3*	VGA Text	80x25 char	8x14	16/256K	8x14	16/256K	31.5kHz	70Hz
0+, 1+	VGA Text	40x25 char	8x16	16/256K	9x16	16/256K	31.5kHz	70Hz
2+, 3+	VGA Text	80x25 char	8x16	16/256K	9x16	16/256K	31.5kHz	70Hz
4, 5	VGA Grph	320x200 pels	8x8	4/256K	8x8	4/256K	31.5kHz	70Hz
6	VGA Grph	640x200 pels	8x8	2/256K	8x8	2/256K	31.5kHz	70Hz
7	VGA Text	80x25 char	8x14	Mono	9x14	Mono	31.5kHz	70Hz
7+	VGA Text	80x25 char	8x16	Mono	9x16	Mono	31.5kHz	70Hz
D	VGA Grph	320x200 pels	8x8	16/256K	8x8	16/256K	31.5kHz	70Hz
E	VGA Grph	640x200 pels	8x8	16/256K	8x8	16/256K	31.5kHz	70Hz
F	VGA Grph	640x350 pels	8x14	Mono	8x14	Mono	31.5kHz	70Hz
10	VGA Grph	640x350 pels	8x14	16/256K	8x14	16/256K	31.5kHz	70Hz
11	VGA Grph	640x480 pels	8x16	2/256K	8x16	2/256K	31.5kHz	60Hz
12	VGA Grph	640x480 pels	8x16	16/256K	8x16	16/256K	31.5kHz	60Hz
13	VGA Grph	320x200 pels	8x8	256/256K	8x8	256/256K	31.5kHz	70Hz
30	SVGA Grph	640x480 pels	8x16	256/256K	8x16	256/256K	31.5kHz 37.6kHz 43.2kHz	60Hz 75Hz 85Hz
32	SVGA Grph	800x600 pels	8x16	256/256K	8x16	256/256K	37.9kHz 46.9kHz 53.7kHz	60Hz 75Hz 85Hz
34	SVGA Grph	1024x768pels	8x16	256/256K	8x16	256/256K	35.5kHz 48.5kHz 60.0kHz 68.8kHz	87Hz[*] 60Hz 75Hz 85Hz

Mode (hex)	Type	Resolution	Internal LCD Grid (pelxpel)	Colors	External Monitor Grid (pelxpel)	Colors	Scan Freq. hor.	vert.
38	SVGA Grph	1280x1024 pels	8x16	256/256K (virtual)	8x16	256/256K	35.5kHz 35.5kHz	87Hz* 60Hz
	SVGA Grph	1600x1200 pels	8x16	256/256K (virtual)	8x16	256/256K	35.5kHz	87Hz*
40	SVGA Grph	640x480 pels	8x16	32K/32K	8x16	32K/32K	31.5kHz 37.6kHz 43.2kHz	60Hz 75Hz 85Hz
41	SVGA Grph	640x480 pels	8x16	64K/64K	8x16	64K/64K	31.5kHz 37.6kHz 43.2kHz	60Hz 75Hz 85Hz
42	SVGA Grph	800x600 pels	8x16	32K/32K	8x16	32K/32K	37.9kHz 46.9kHz 53.7kHz	60Hz 75Hz 85Hz
43	SVGA Grph	800x600 pels	8x16	64K/64K	8x16	64K/64K	37.9kHz 46.9kHz 53.7kHz	60Hz 75Hz 85Hz
44	SVGA Grph	1024x768 pels	8x16	32K/32K	8x16	32K/32K	35.5kHz 48.5kHz 60.0kHz 68.8kHz	87Hz* 60Hz 75Hz 85Hz
45	SVGA Grph	1024x768 pels	8x16	64K/64K	8x16	64K/64K	35.5kHz 48.5kHz 60.0kHz 68.8kHz	87Hz* 60Hz 75Hz 85Hz
	SVGA Grph	1280x1024 pels	8x16	32K/32K (virtual)	8x16	32K/32K	35.5kHz 35.5kHz	87Hz* 60Hz
	SVGA Grph	1280x1024 pels	8x16	64K/64K (virtual)	8x16	64K/64K	35.5kHz 35.5kHz	87Hz* 60Hz
50	SVGA Grph	640x480 pels	8x16	16M/16M	8x16	16M/16M	31.5kHz 37.6kHz 43.2kHz	60Hz 75Hz 85Hz
52	SVGA Grph	800x600 pels	8x16	16M/16M	8x16	16M/16M	37.9kHz 46.9kHz 53.7kHz	60Hz 75Hz 85Hz
	SVGA Grph	1024x768 pels	8x16	16M/16M	8x16	16M/16M	35.5kHz 48.5kHz 60.0kHz 68.8kHz	87Hz* 60Hz 75Hz 85Hz

*These modes are interlaced. All others are non-interlaced.

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NOTE: Virtual color applies to the 1400 x 1050 size monitor only when it is set to 1600 x 1200 resolution; otherwise virtual color applies to the 1024 x 768 size monitor for the resolutions indicated in the above table.

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
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

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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
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	universal 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.*

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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 AccuPoint control button or mouse button without moving the AccuPoint or mouse. In Windows, this refers to the left mouse button or primary AccuPoint control 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 the AccuPoint control button or mouse button rapidly twice without moving the AccuPoint or mouse. In Windows, this refers to the primary AccuPoint control button or 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 AccuPoint control button or mouse button while moving the cursor to drag a selected object. In Windows, this refers to the primary AccuPoint control button or 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.

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.

I

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.*

K

keyboard shortcut—A key or combination of keys that you use to perform a task instead of using a pointing device such as the AccuPoint.

kilobyte (KB)—A unit of data equal to 1024 bytes. See also *byte*.

L

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 Windows 2000 and Windows NT.

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 AccuPoint 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.

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 MS-DOS, generally a drive letter followed by a "greater than" sign) indicating where users are to enter commands.

T
U

TFT display—See *active-matrix display.*

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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