TOSHIBA

Qosmio[™]G35 Series User's Guide

If you need assistance:

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

For more information, see "If Something Goes Wrong" on page 282 in this guide.

AWARNING

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

Model: Qosmio™ G35 Series

Recordable and/or ReWritable Drive(s) and Associated Software Warranty

The computer system you purchased may include Recordable and/or ReWritable optical media drive(s) and associated software, among the most advanced data 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 or provided electronically. 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, INC. ("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, NETWORK SYSTEMS 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.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE

Only Peripherals complying with the FCC Class B limits may be attached to this equipment. Operation with noncompliant peripherals or peripherals not recommended by Toshiba is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's parallel port, monitor port, USB port, PS/2 port®, i.LINK® port and microphone jack. Changes or modifications made to this equipment not expressly approved by Toshiba or parties authorized by Toshiba could void the user's authority to operate the equipment.

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

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

Contact either:

- Toshiba's Support Web site at pcsupport.toshiba.com.
- Or call the Toshiba Global Support Centre:

Within the United States at (800) 457-7777 Outside the United States at (949) 859-4273

Industry Canada Requirement

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

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

FCC requirements

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

This equipment complies with Part 68 of the FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, the information must be provided to the telephone company.

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

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC part 68 rules and requirements adopted by the ACTA. It is designed to be connected to a compatible modular jack that is also compliant.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEO##TXXXX. The digits represented by the ## are the REN without a

decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

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 this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advanced notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

If trouble is experienced with this equipment, for repair or limited warranty information, please contact Toshiba Corporation, Toshiba America Information Systems, Inc. or an authorized representative of Toshiba, or the Toshiba Support Centre within the United States at (800) 457-7777 or Outside the United States at (949) 859-4273. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Disconnection

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

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including Fax machines, to send any message 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 or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number

provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax transmission, refer to the fax software instructions installed on this computer.

Alarm Equipment

If your home has specially wired alarm equipment connected to the telephone line, ensure the installation of this equipment does not disable your alarm equipment. If you have questions about what will disable alarm equipment, consult your telephone company or a qualified installer.

Instructions for IC CS-03 Certified Equipment

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

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

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

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

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

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

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

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

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

Wireless Interoperability

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

- The IEEE 802.11 Standard on Wireless LANs (Revision A/B/G), as defined and approved by the Institute of Electrical and Electronics Engineers.
- The Wireless Fidelity (Wi-Fi) certification as defined by the Wi-Fi Alliance. The "Wi-Fi CERTIFIED" logo is a certification mark of the Wi-Fi Alliance.

CAUTION

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

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

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

CAUTION

Radio Frequency Interference Requirements

This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. FCC requires this product to be used indoors for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

Wireless LAN and Your Health

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

Because Wireless LAN products operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes Wireless LAN is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

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

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

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

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. In normal operating configuration, the LCD in the upright position, the distance between the antenna and the user should not be less than 20 cm. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Antenna(s) used in 5.15 GHz to 5.25 GHz frequency band must be integral antenna which provide no access to the end user.

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

Regulatory Information

The TOSHIBA Wireless LAN Mini PCI Card must be installed and used in strict accordance with the manufacturer's instructions as described in the user

documentation that comes with the product. This device complies with the following radio frequency and safety standards.

Canada – Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

CAUTION

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

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes: (1) il ne doit pas produire de brouillage et (2) l'utilisateur du dispositif doit étre prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

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

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

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

CAUTION

This device is restricted to indoor use due to its operation in the 5.15 GHz to 5.25 GHz frequency range. Industry Canada requires this product to be used indoors for frequency range 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems.

High power radars are allocated as primary users of the 5.25 GHz to 5.35 GHz and 5.65 GHz to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

EU Declaration of Conformity

TOSHIBA declares, that the product: PLU10* conforms to the following Standards:



Information:

Supplementary *The product complies with the requirements of the Low Voltage Directive 72/23/EEC, the EMC Directive 89/336/ EEC and/or the R&TTE Directive 1999/ 05/EEC.

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

VCCI Class B Information

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

Modem Warning Notice

Conformity Statement

The equipment has been approved to [Commission Decision "CTR-21"] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN).

However, due to differences between the individual PSTNs provided in different countries/regions the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

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

NOTE

The above Caution information applies to products that operate with an 802.11a device.

Taiwan

Article 14	Unless approved, for any model accredited low power radio frequency electric
	machinery, any company, trader or user shall not change the frequency,
	increase the power or change the features and functions of the original design.
Article 17	Any use of low power radio frequency electric machinery shall not affect aviation safety and interfere with legal communications. In the event interference is caused, the use of such electric machinery shall be immediately discontinued. Operation of such products can be resumed only when they are modified and can no longer cause interference.

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

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

Using this Equipment in Japan

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

1. Sticker

Please put the following sticker on devices incorporating this product.

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

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

2. Indication

The indication shown below appears on this equipment.



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

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

3. TOSHIBA Direct PC

Monday - Friday: 10:00 - 17:00

Toll Free Tel: 0120-13-1100 Direct Dial: 03-3457-5916

Fax: 03-5444-9450

Device Authorization

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

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

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS EQUIPMENT

Approval Number: D01-1128JP

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

The following restrictions apply:

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

Radio Approvals for Wireless Devices

NOTE

The following information is dependent on what type of wireless device is in your computer.

Approved Countries/Regions for use for the Atheros AR5BMB-43/44 and AR5BMB5 Mini PCI Wireless Network Adapters

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

CAUTION

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

NOTE

This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

802.11b (2.4 GHz)

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

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

België/	For private usage outside buildings across public grounds over less than
Belgique:	300m no special registration with IBPT/BIPT is required. Registration to
	IBPT/BIPT is required for private usage outside buildings across public
	grounds over more than 300m. For registration and license please
	contact IBPT/BIPT.
	Voor privé-gebruik buiten gebouw over publieke groud over afstand
	kleiner dan 300m geen registratie bij BIPT/IBPT nodig; voor gebruik
	over afstand groter dan 300m is wel registratie bij BIPT/IBPT nodig.
	Voor registratie of licentie kunt u contact opnemen met BIPT.
	Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-
	dessus d'un espace public, aucun enregistrement n'est nécessaire pour
	une distance de moins de 300m. Pour une distance supérieure à 300m un
	enregistrement auprès de l'IBPT est requise. Pour les enregistrements et
	licences, veuillez contacter l'IBPT.
Deutschland:	License required for outdoor installations. Check with reseller for
	procedure to follow.
	Anmeldung im Outdoor-Bereich notwendig, aber nicht
	genehmigungspflichtig.Bitte mit Händler die Vorgehensweise
	abstimmen.
France:	Restricted frequency band: only channels 1 to 7 (2400 MHz and 2454
	MHz respectively) may be used outdoors in France. Please contact
	A.R.T. (http://www.art-telecom.fr) for applicable procedures to follow.
	Bande de fréquence restreinte: seuls les canaux 1-7 (2400 et 2454 MHz
	respectivement) doivent être utilisés endroits extérieur en France. Vous
	pouvez contacter l'Autorité de Régulation des Télécommuniations
	(http://www.art-telecom.fr) pour la procédure à suivre.
Italia:	License required for indoor use. Use with outdoor installations not
	allowed.
	E'necessaria la concessione ministeriale anche per l'uso interno.
	Verificare con i rivenditori la procedura da seguire.
Nederland:	License required for outdoor installations. Check with reseller for procedure to follow.
	Licentie verplicht voor gebruik met buitenantennes. Neem contact op
	met verkoper voor juiste procedure.

802.11a (5 GHz)

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

Turbo Mode (5 GHz)

Canada	USA	

Europe - Restrictions for use of 5 GHz Frequencies in European Community Countries

European Community	5150-5250 MHz	5250-5350 MHz	5470-5725 MHz
Countries	Channels: 36, 40, 44,	Channels: 52, 56, 60,	Channels: 100, 104, 108, 112,
	48	64	116, 120, 124, 128, 132, 136, 140
	Indoor Only	Indoor Only	Indoor/Outdoor
Austria	О	X	Х
Belgium, France,	O	O	X
Switzerland/Lichtenstein			
Denmark, Finland,	O	О	0
Germany, Greece,			
Ireland, Italy,			
Luxembourg,			
Netherlands, Norway,			
Portugal, Sweden, UK			
Iceland, Spain	0	0	0

O: allowed x: forbidden

- To remain in conformance with European spectrum usage laws for Wireless LAN operation, the above 2.4 GHz and 5 GHz channel limitations apply. The user should use the wireless LAN utility to check the current channel of operation. If operation is occurring outside of the allowable frequencies as listed above, the user must cease operating the Wireless LAN at that location and consult the local technical support staff responsible for the wireless network.
- The 5 GHz Turbo mode feature is not allowed for operation in any European Community country.

- This device must not be operated in ad-hoc mode using channels in the 5 GHz bands in the European Community. Ad-hoc mode provides a direct communication between two client devices without a Wireless LAN Access Point.
- This device must be used with Access Points that have employed and activated a radar detection feature required for European Community operation in the 5 GHz bands. This device will operate under the control of the Access Point in order to avoid operating on a channel occupied by any radar system in the area. The presence of nearby radar operation may result in temporary interruption of operation of this device. The Access Point's radar detection feature will automatically restart operation on a channel free of radar. You may consult with the local technical support staff responsible for the wireless network to ensure the Access Point device(s) are properly configured for European Community operation.

Approved Countries/Regions for use for the Atheros AR5001X Mini PCI Wireless Network Adapter

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

CAUTION

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

NOTE

This device works on passive scan only.

A peer-to-peer mode is not available in 802.11a and Turbo Mode.

802.11b (2.4 GHz)

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

802.11a (5 GHz)

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

Turbo Mode (5 GHz)

|--|

Approved Countries/Regions for use for the Intel® PRO/Wireless LAN 2100 3B Mini PCI Adapter

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

CAUTION

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

Argentina	Australia	Austria
Belgium	Brazil	Canada
Chile	Denmark	Finland
France	Germany	Greece
Iceland	Ireland	Italy
Japan	Liechtenstein	Luxembourg
Mexico	Netherlands	New Zealand
Norway	Peru	Portugal
Singapore	Spain	Sweden
Switzerland	UK	Uruguay
USA	Venezuela	

Approved Countries/Regions for use for the Toshiba Mini PCI Wireless LAN Card

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

CAUTION

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

Australia	Austria	Belgium
Canada	Denmark	Finland
France	Germany	Greece
Hong Kong	Iceland	Ireland
Italy	Japan	Liechtenstein
Luxembourg	Malaysia	Netherlands
New Zealand	Norway	Philippines
Portugal	Singapore	Spain
Sweden	Switzerland	Thailand
UK	USA	

Approved Countries/Regions for use for the INPROCOMM IPN2220 Wireless Network Adapter

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

CAUTION

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

EU	Canada	Japan
USA	Australia	New Zealand

Bluetooth® Wireless Technology Interoperability

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

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

CAUTION

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

Always use *Bluetooth* cards from TOSHIBA in order to enable wireless networks over two or more (up to a total of seven) TOSHIBA portable computers using these cards. Please contact TOSHIBA PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

When you use *Bluetooth* cards from TOSHIBA close to 2.4 GHz Wireless LAN devices, *Bluetooth* transmissions might slow down or cause errors. If you detect certain interference while you use *Bluetooth* cards from TOSHIBA, always change the frequency, move your PC to the area outside of the interference range of 2.4 GHz Wireless LAN devices (40 meters/43.74 yards or more) or stop transmitting from your PC. Please contact TOSHIBA PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information

Bluetooth and Wireless LAN devices operate within the same radio frequency range and may interfere with one another. If you use Bluetooth and Wireless LAN devices simultaneously, you may occasionally experience a less than optimal network performance or even lose your network connection. If you should experience any such problem, immediately turn off either one of your Bluetooth or Wireless LAN. Please contact Toshiba PC product support on Web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or pcsupport.toshiba.com in the United States for more information.

Bluetooth® Wireless Technology and Your Health

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

Because products with *Bluetooth* wireless technology operate within the guidelines found in radio frequency safety standards and recommendations, TOSHIBA believes *Bluetooth* wireless technology is safe for use by consumers. These standards and recommendations reflect the consensus of the scientific

community and result from deliberations of panels and committees of scientists who continually review and interpret the extensive research literature.

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

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

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

CAUTION

Exposure to Radio Frequency Radiation

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

In order to comply with FCC radio-frequency radiation exposure guidelines for an uncontrolled environment, the *Bluetooth* Card from TOSHIBA has to be operated while maintaining a minimum body to antenna distance of 20 cm.

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

The *Bluetooth* Card from TOSHIBA is far below the FCC radio frequency exposure limits.

Nevertheless, it is advised to use the *Bluetooth* Card from TOSHIBA in such a manner that human contact during normal operation is minimized.

Regulatory statements

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

European Union (EU) and EFTA

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

Canada — Industry Canada (IC)

This device complies with RSS 210 of Industry Canada.

Taiwan

Article 14	Unless approved, for any model accredited low power radio frequency electric machinery, any company, trader or user shall not change the frequency, increase the power or change the features and functions of the original design.
Article 17	Any use of low power radio frequency electric machinery shall not affect aviation safety and interfere with legal communications. In the event interference is caused, the use of such electric machinery shall be immediately discontinued. Operation of such products can be resumed only when they are modified and can no longer cause interference.

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

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

Using this Equipment in Japan

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

1. Sticker

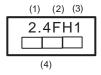
Please put the following sticker on devices incorporating this product.

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

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

2. Indication

The indication shown below appears on this equipment.



- 1 2.4: This equipment uses a frequency of 2.4 GHz.
- **2** FH: This equipment uses FH-SS modulation.
- 3 The interference range of this equipment is less than 10m.
- 4 This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz. It is impossible to avoid the band of mobile object identification systems.

3. TOSHIBA Direct PC

Monday - Friday: 10:00 - 17:00

Toll Free Tel: 0120-13-1100

Direct Dial: 03-3457-5916

Fax: 03-5444-9450

Device Authorization

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

The Name of the radio equipment: EYXF2CS

TELECOM ENGINEERING CENTER

Approval Number: 01NYDA1305

The following restrictions apply:

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

DVD-ROM, Multi-function Drive Safety Instructions

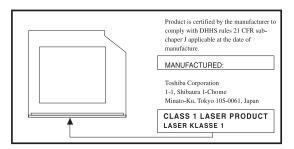
A DANGER

The DVD-ROM and multi-function drives employ a laser system. To ensure proper use of this product, please read this instruction manual carefully and retain for future reference.

Never attempt to disassemble, adjust or repair a CD/DVD drive, CD-RW drive, Multi-drive or any other optical drive. You could damage the drive. You would also be exposed to laser light or other safety hazards, resulting in serious injury. Always contact an authorized Toshiba service provider, if any repair or adjustment is required.

Location of the Required Label

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



A DANGER

This appliance contains a laser system and is classified as a CLASS 1 LASER PRODUCT. To use this model properly, read the user's guide carefully and keep it for your future reference.

Never attempt to disassemble, adjust or repair a CD/DVD drive, CD-RW drive, Multi-drive or any other optical drive. You could damage the drive. You would also be exposed to laser light or other safety hazards, resulting in serious injury. Always contact an authorized Toshiba service provider, if any repair or adjustment is required.

CLASS 1 LASER PRODUCT LASSER KLASSE 1

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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. With your Toshiba notebook computer, your work and entertainment can accompany you wherever you go.

NOTE

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

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

NOTE

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

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

This guide

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

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

Safety icons

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

A DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
AWARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
A CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in property damage.
NOTE	Provides important information.

Other icons used

Additional icons highlight other helpful or educational information:



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



HINT: This icon indicates helpful hints and tips.



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

Other documentation

Your computer comes with the following documentation:

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

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

Service options

Service options

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

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

If you have a problem or need to contact Toshiba, see "If Something Goes Wrong" on page 282.

Chapter 1

Getting Started

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

Selecting a place to work

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

Creating a computer-friendly environment

Place the computer on a flat surface that is large enough for the computer and any other items you are using, such as a printer. Leave enough space around the computer and other equipment to provide adequate ventilation. Otherwise, they may overheat. To keep your computer in prime operating condition, protect your work area from:

- Dust, moisture, and direct sunlight
- Equipment that generates a strong electromagnetic field, such as stereo speakers (other than speakers that are connected to the computer) or speakerphones
- Rapid changes in temperature or humidity and sources of temperature change such as air conditioner vents or heaters
- Extreme heat, cold, or humidity
- Liquids and corrosive chemicals

Keeping yourself comfortable

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

Precautions

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

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

AWARNING

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

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

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

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

AWARNING

If you experience discomfort while operating the computer, stop immediately and rest. Continuous operation for long periods without adequate rest may cause pain in the arms, wrists, hands, neck or other part of the body. If pain persists despite rest, consult your doctor.

ACAUTION

PC base and palm rest can become hot! Avoid prolonged contact to prevent heat injury to skin.

Read the enclosed Instruction Manual for Safety and Comfort.

A CAUTION

Your LCD display has a brightness approaching that of a TV device. We recommend that you adjust the brightness of your LCD to a comfortable level to prevent possible strain on your eyes.

Selecting a place to work

A CAUTION

Some PC Cards can become hot with prolonged use. Overheating of a PC Card can result in errors or instability in its operation.

Before you remove a PC Card, always wait for it to cool. You could get burned removing a hot PC Card.

CAUTION

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

Never turn off the computer if a drive light indicates a drive is active.

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

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

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

CAUTION

Handle discs carefully. Avoid touching the surface of the disc. Grasp it by its center hole and edge. If you handle the disc incorrectly, you could damage the disc and possibly lose data.

Scan all new files for viruses.

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

Important information on your computer's cooling fan

Your computer may have a CPU cooling fan that cools the CPU by drawing outside air into the computer. The cooling fan may be located on the bottom of the computer.

CAUTION

To prevent possible overheating of the CPU, make sure the air intake on the cooling fan is not blocked. The fan draws in air by creating a vacuum. If the fan is blocked, it could cause the CPU to run at a lower performance level or cause the computer to shut down. Loose items such as notebook and tissue paper, plastic wrappers, or other similar materials can block the air intake, preventing air from reaching the CPU. Do not use the computer on surfaces with objects that can be drawn in by the cooling fan.

NOTE

The cooling fan location will vary depending on the computer.

Setting up your computer



TECHNICAL NOTE: You must complete all setup steps up to and including "Setting up your software" on page 46 before adding external or internal components to your computer. These components include, but are not limited to, a mouse, keyboard, printer, memory, and PC Cards.

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

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

To register your computer online or to sign up for an Internet account, you must either connect the built-in modem to a

telephone line or establish a Local Area Network (LAN) connection. See "Connecting the modem to a telephone line" on page 132 and "Connecting to a network" on page 133.

Setting up your software

NOTE

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

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

- 1 From the welcome screen click **Next** to enter the Setup Wizard.
- 2 Confirm acceptance of Microsoft's End User License Agreement and click **Next**.
- 3 Select the appropriate option from the Help protect your computer screen and click Next.
- 4 Enter the computer name and description and click **Next** or **Skip**.
- 5 Select how your computer will connect to the Internet and click **Next**.

The computer will pause for a moment while checking for an internet connection.

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

NOTE

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

6 Follow the remaining screen prompts to complete the setup process.

Once you click the final screen, your computer restarts automatically.

Registering your computer with Toshiba

Product registration is strongly recommended, and allows Toshiba to send the Customer periodic updates, announcements, and special offers applicable to the product. Product registration can be completed during the initial start up process of your computer. If you opt not to register at that time, you can either double-click the icon on your desktop or go to the Toshiba Web site at www.register.toshiba.com. Customer failure to complete Product Registration will not diminish Customer rights under this limited Warranty.

NOTE

To register online, you must be connected to the Internet via your computer's modem and a voice-grade telephone line, or by a Local Area Network.

Adding external devices

NOTE

Before adding external devices, Toshiba recommends setting up your software. See "Setting up your software" on page 46.

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

- Add more memory (see "Adding memory (optional)" on page 55)
- Connect a mouse (see "Using a mouse" on page 63)
- Connect a local printer (see "Connecting a printer" on page 64)

Connecting to a power source

- Connect an external diskette drive (see "Using the optional external USB diskette drive" on page 66)
- Connect external speakers or headphones (see "Using external speakers or headphones" on page 141)
- Connect a microphone (there is also an internal microphone) (see "Using a microphone" on page 140)
- Connect a digital or plasma TV (see "Connecting a digital or plasma television or VCR/DVD player" on page 68)
- Connect a standard TV antenna (see "Connecting a standard television, projector, or VCR/DVD player" on page 70)
- Install PC Cards (see "Inserting and removing PC Cards" on page 143)

Connecting to a power source

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

AWARNING

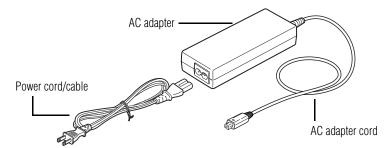
Never pull on a power cord/cable to remove a plug from a socket. Always grasp the plug directly. Failure to follow this instruction may damage the cord/cable, and/or result in a fire or electric shock, possibly resulting in serious injury.

AWARNING

When you connect the AC adapter to the computer, always follow the steps in the exact order as described in the User's Guide. Connecting the power cord/cable to a live electrical outlet should be the last step; otherwise, the adapter DC output plug could hold an electrical charge and cause an electrical shock or minor bodily injury when touched. As a general safety precaution, avoid touching any metal parts.

A CAUTION

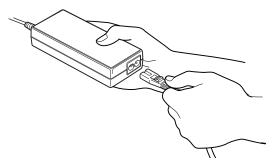
Always use the Toshiba AC adapter that was provided with your computer, or use Toshiba recommended alternate models to avoid any risk of fire or other damage to the computer. Use of an incompatible AC adapter could cause fire or damage to the computer, possibly resulting in serious injury.



Sample power cord/cable and AC adapter

To connect AC power to the computer:

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

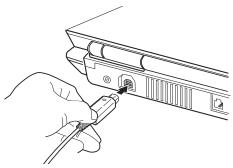


Sample connecting the power cord/cable to the AC adapter

AWARNING

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

○ Plug the AC adapter into the DC-IN on the back of the computer.



Sample connecting the AC adapter cord to the computer

3 Connect the power cord/cable to a live electrical outlet.
The AC power light on the indicator panel glows blue.



Never tamper with the cord/cable or plug; never splice or alter a cord/cable; never bend or twist a cord/cable; never place heavy objects on a cord/cable; never place a cord/cable near a heat source; never run a cord/cable through a pinch point such as a door or window; never use nails, staples or similar objects to fasten or attach cord in place; never attempt to disassemble or repair an AC adapter or a Battery Charger. Doing any of the above may damage the cables, and/or result in a fire or electric shock, possibly resulting in serious injury.

AWARNING

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

- The computer's main battery light gives you an indication of the main battery's current charge:
 - Glows amber while the main battery is being charged (AC adapter connected)

- Glows blue when the main battery is fully charged
- Is unlit when the main battery has discharged, the battery is not charging, or the AC adapter is not plugged into the computer or AC outlet
- Flashes amber when the main battery charge is low and it is time to recharge the main battery or plug in the AC adapter

NOTE

If the AC power light flashes amber during charging, either the main battery is malfunctioning, or it is not receiving correct input from the AC power supply.

Disconnect the AC power cord/cable and remove the main battery pack. See "Changing the main battery" on page 119 for information on replacing the main battery.

Using the main battery

To charge the main battery, plug the computer into a live wall outlet. It takes several hours to charge the battery with the computer off. It takes much longer to charge the battery while the computer is on. For more information on battery use, see "Running the computer on battery power" on page 107.

CAUTION

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

Using the computer for the first time



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



TECHNICAL NOTE: The RTC battery does not charge while the computer is turned off, even when AC power is attached.

The RTC battery charges when the computer is powered on.

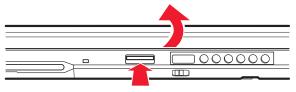
NOTE

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

Using the computer for the first time

Opening the display panel

Press the display latch and lift the display panel.



Sample opening the display panel

CAUTION

To avoid damaging the display panel, do not force it beyond the point where it moves easily.

Never lift the computer by the display panel.

Small bright dots may appear on your screen display when you turn on your PC. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology. Over a period of time, and depending on the usage of the computer, the brightness of the screen will deteriorate. This is also an intrinsic characteristic of the screen technology. When the computer is operated on battery power, the screen will dim and you may not be able to increase the brightness of the screen while on battery power.

Your computer's features and specifications

Certain notebook chassis are designed to accommodate all possible configurations for an entire product Series. Your select model may not have all the features and specifications corresponding to all of the icons or switches shown on the notebook chassis, unless you have selected all those features.

This information applies to all the features and icons described in this guide.

Below are examples of some of the many possible icons used on your computer:







Sample system icons

Using the computer for the first time

Turning on the power

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.

CAUTION

The first time you turn on the computer you should not have any accessories or third-party devices attached.

2 Check to ensure that all disc drives are empty.



3 Press and hold the power button until the power button and the on/off light on the system indicator panel glow blue—approximately one second.

An indicator light on the front of your computer lets you know the system indicator status when the display is closed.

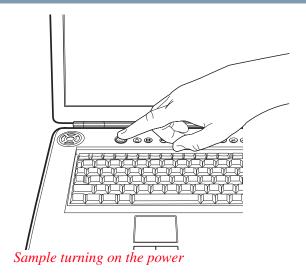
CAUTION

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

4 The preinstalled operating system loads automatically.

CAUTION

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



The preinstalled operating system loads automatically.

Adding memory (optional)



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

CAUTION

Before you install or remove a memory module, turn off the computer using the Start menu. If you install or remove a memory module while the computer is in Standby or Hibernation mode, data will be lost.

Your computer comes with enough memory to run most of today's popular applications. You may want to increase the computer's memory if you use complex software or process large amounts of data.

Getting Started

Adding memory (optional)

For more information on memory options, check the accessories information that came with your computer, or visit accessories toshiba.com.

NOTE

Before adding external devices or memory, Toshiba recommends setting up your software. See "Setting up your software" on page 46.

Installing a memory module

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

A CAUTION

If you use the computer for a long time, the memory module will become hot. If this happens, let the module cool to room temperature before you replace it.

CAUTION

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

CAUTION

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

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

CAUTION

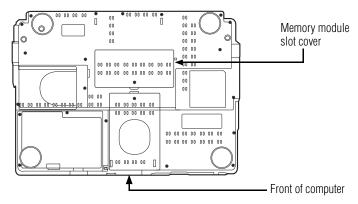
Before you install or remove a memory module, turn off the computer using the Start menu. If you install or remove a memory module while the computer is in Standby or Hibernation mode, data will be lost.

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

- If the computer is on, click Start, Turn off computer.
 The Turn off computer window appears.
- 2 Click Turn Off.

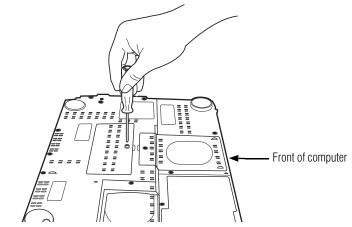
The operating system turns off the computer.

- 3 Unplug and remove any cables connected to the computer, including the AC adapter.
- 4 Remove the battery. For information on removing the battery, see "Changing the main battery" on page 119.
- 5 Close the display panel and turn the computer upside down to locate the memory module slot cover.



Sample locating the memory module slot cover

- 6 Using a standard Phillips No. 1 screwdriver, loosen the captive screw that secures the memory module slot cover.
- 7 Remove the memory slot cover.



Sample removing the memory module slot cover

8 Place the memory module slot cover in a safe place so that you can retrieve it later.

CAUTION

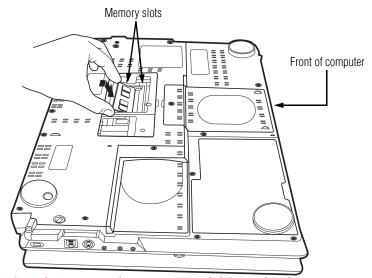
Static electricity can damage the memory module. Before you handle the module, touch a grounded metal surface to discharge any static electricity you may have built up.

To avoid damaging the memory module, be careful not to touch its pin connector on the side you insert into the computer.

9 Remove the new memory module from its antistatic packaging.

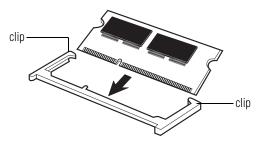
CAUTION

Avoid touching the connectors on the memory module or on the computer. Grease or dust on the connectors may cause memory access problems. 10 Insert the memory module into the socket on the underside of the computer.



Sample inserting the memory module into the slot

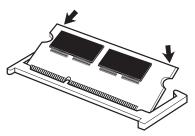
11 Hold the memory module by its edges so that the gold connector bar faces the slot, at a slight angle to the socket.



Sample inserting the memory module into the socket

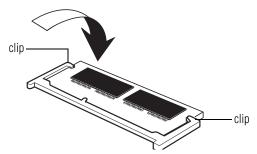
12 Check that the module is inserted completely into the socket and lined up squarely with the socket clips.

Adding memory (optional)



Sample aligning the module into the socket

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



Sample pressing down on the memory module

Do not force the memory module into position. The memory module should be completely inserted into the socket and level when secured in place.

The clips on either side of the memory module snap into place when the memory module is properly inserted.

- 14 Replace the memory module slot cover and tighten the screw.
- 15 Re-insert the battery. For more information on inserting the battery, see "Changing the main battery" on page 119.
- 16 Turn the computer right side up.
- 17 Reconnect the cables.
- **18** Restart the computer.



TECHNICAL NOTE: You must have at least one memory module installed for the computer to work.

You can now continue setting up the computer. When the operating system has loaded, you can verify that the computer has recognized the additional memory module.

If you are adding an extra memory module after setting up the computer, verify that the computer has recognized it correctly as described in "Checking total memory" on page 62.

Removing a memory module

If you need to remove a memory module:

1 Complete steps 1–8 in "Installing a memory module" on page 56 to shut down the computer and open the memory module slot cover.

CAUTION

Do not try to remove a memory module with the computer turned on. You can damage the computer and the memory module.

Do not remove the memory module while the computer is in Standby or Hibernation mode. The computer could hang up the next time you turn it on and data in memory will be lost. In either of the above cases, the Standby configuration will not be saved.

The following message appears when you turn on the power:

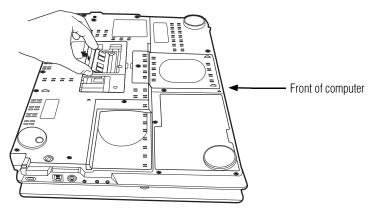
Warning: Resume Failure Press Any Key To Continue

If the computer hangs up when you turn it on, perform the following: Press the power button and hold it down for at least ten seconds, then turn the power on again.

2 Pull the clips away from the memory module.

The memory module pops up slightly.

3 Gently lift the memory module to a 45 degree angle and slide it out of the slot.



Sample removing the memory module

- 4 Replace the memory module slot cover and tighten the screw.
- 5 Re-insert the battery. For more information on inserting the battery, see "Inserting a charged battery" on page 121.
- 6 Turn the computer right side up.
- 7 Reconnect the cables.
- **8** Restart the computer.



You must have at least one memory module installed for the computer to work.

Checking total memory

When you add or remove a memory module, you can check that the computer has recognized the change. To do this:

- 1 Click Start, Control Panel, Performance and Maintenance, and then System.
- 2 The **General** tab view automatically appears and shows total memory.

If the computer does not recognize the memory configuration, turn off the computer, remove the memory slot cover, and check that the module is inserted completely into the socket and lined up squarely with the socket clips.

Using an external keyboard

If you prefer to use a full-size keyboard, you can attach one to your computer. The computer's USB ports support any USB-compatible keyboard.

Using a mouse

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

NOTE

After logging on to your system, the mouse cursor may move to the upper-right side of the screen. If this occurs, press the Esc or Windows key to return it to its original position.

Connecting a printer

Connecting a printer

NOTE

Your printer documentation may require you to install the printer software before physically connecting the printer to your computer. If you do not install the software as instructed by the printer manufacturer, the printer may not function correctly.

Read the documentation that came with your printer. Follow the manufacturer's instructions when connecting a local printer.

You can connect a USB-compatible printer to your computer through the USB ports. To determine if the printer is USB-compatible, check its documentation.

To make the connection, you need a suitable USB cable, which may come with your printer. If a USB cable was not included with your printer, you can purchase one from a computer or electronics store.

If your printer supports Plug and Play, your computer will automatically recognize the printer; the printer is then ready for use. Refer to your printer documentation for further instructions.



TECHNICAL NOTE: To determine if your printer supports Plug and Play, check its documentation.

If your printer does not support Plug and Play, you must set up the printer as described in "Setting up a printer" on page 65.

To connect a USB printer to your computer:



- 1 Connect the printer cable to the printer and then connect the other end to one of the computer's USB ports.
- 2 Plug the printer's power cable into a live electrical outlet.

Setting up a printer

NOTE

Some printers require a specific installation process. Refer to your printer installation guide for instructions before completing the following procedure.

If your printer does not support Plug and Play, follow these steps to set it up for the first time. You only need to set up the printer once.

- 1 Click Start, Printers and Faxes.
 - The Printers and Faxes window appears.
- 2 Click Add a printer.

The Add Printer Wizard appears.



Sample Add Printer Wizard

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

Using the optional external USB diskette drive

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

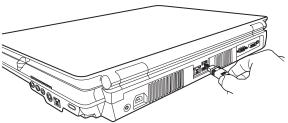
Connecting an optional external diskette drive

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



Sample optional external USB diskette drive

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



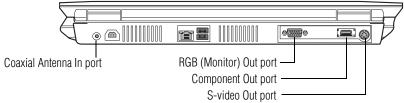
Sample connecting an optional external USB diskette drive

Connecting external display devices

Your computer comes with a built-in LCD display, but you can also connect the following types of external display devices to the video ports described below:

- ❖ A plasma or digital television or VCR/DVD player via the Component Out port
- ❖ A standard television, projector, or VCR/DVD player via the S-video Out port
- An external monitor or projector via the RGB (monitor)
 Out port

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



Sample back of system

You cannot connect both the S-video Out port and the Component Out port to the same device at the same time.

The system display default is set at the factory to S-video Out.

Connecting the display device

If you are connecting a television or other video display device to the computer's Component Out port, first refer to "Selecting video cables" on page 68 for guidelines on choosing a video cable, then refer to "Connecting a standard television, projector, or VCR/DVD player" on page 70.

If you are connecting an SVGA monitor, skip to "Connecting an external monitor or projector" on page 71.

Selecting video cables

To connect a device to the S-video port, you must purchase an S-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 a digital or plasma television or VCR/DVD player



TECHNICAL NOTE: You must have digital TV service to watch digital TV on your computer. See your TV service provider for more information.

You can watch digital television by connecting to the Component Out port on your computer.

NOTE

You cannot view digital TV on the display device if you are using it as a monitor.

To do this:

1 Connect the digital television video cable to the Component Out port on the back of your computer.

- 2 Connect the three RCA jacks on the other end of the cable to your digital television. Refer to the manual that came with the television for more information.
- 3 Turn on your computer.
- 4 While holding down Fn, press F5 repeatedly, pausing between each press, until you get the desired setting. For more information, see "Directing the display output when you turn on the computer" on page 72.

Connecting the sound to a TV or stereo system

At times you may prefer to use external audio instead of the computer's built-in speakers. For example, when you use a TV or other external display device you can use that device's speakers, or when you use the computer's built-in display you can connect to external speakers or a stereo sound system for higher quality sound.

You can connect the sound to external audio devices in two ways:

- ❖ Using the headphone jack on the left side of the computer. This lets you connect directly to headphones, powered speakers, or a stereo system that supports input from a headphone output. You need a cable (not shipped with your computer) with a 1/8" (3.5mm) stereo plug on one end and a plug compatible with your sound system on the other end (typically an RCA type connector).
- Using the S/PDIF jack on the left side of the computer. This lets you connect to a sound system that can accept the digital optical signal from your computer. You need an S/PDIF cable (not shipped with your computer) with a Toslink 1/8" (3.5mm) mini plug on one end and a plug compatible with your sound system on the other end.

Connecting a standard television, projector, or VCR/DVD player

NOTE

S-video cables are not included with your computer. To connect a device to the S-video Out port, you will need to purchase an S-video cable.

To connect a standard television, projector, or VCR/DVD player:

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 S-video Out port on the back of the computer.
- 3 Turn on the external video device. Make sure the input to the device is correctly set for the S-video port. (See the device's documentation for more information.)
- 4 On your computer, press the TV Out button, or toggle the display using the Fn+ F5 hot key combination. (The TV Out button is located above and to the right of the keyboard.)

NOTE

If you do not see the image transfer from your computer screen to the external video device, modify the Display Properties as described in "Adjusting the Display Properties" on page 70.

Adjusting the Display Properties

When using the S-video display port, the desktop shown on your TV may be larger than the screen can show. As a result, you may have to adjust the Display Properties to show the entire desktop on the TV without having to pan the display.

To adjust the display properties

- 1 Right-click on the Windows Desktop and click **Properties**. The Display Properties dialog box appears.
- 2 In the Display Properties dialog box, click the **Settings** tab.



Sample Settings Tab

3 On the Settings tab, click and drag the Screen resolution slider to the left to select a lower screen resolution.



TECHNICAL NOTE: Most televisions use or support an 800 x 600 standard resolution.

4 Click Apply, then click OK to close the Display Properties window.

The screen is now displayed correctly on your TV.

For more information, see "Directing the display output when you turn on the computer" on page 72.

Connecting an external monitor or projector

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

Getting Started

Connecting external display devices

- Connect the monitor's video cable to the RGB (monitor) 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 While holding down Fn, press F5 repeatedly, pausing between each press, until you get the desired setting. See the immediately following section on directing the display output for more information.

Directing the display output when you turn on the computer

Once you connect 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.
- While holding down Fn, press F5 repeatedly, pausing between each press, 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 monitor simultaneously
- External monitor 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.

Set the option for the video controller by clicking Start, then Control Panel, and Display. Choose the Settings tab, click the Advanced button, select Display Device, select the applicable Monitor type, and click Apply or OK.

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: 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 800 X 600 or higher.

Connecting External AV Input Devices

Your computer provides ports for connecting the following AV input devices:

- A Set-top box or standard television antenna via the coaxial Antenna In port
- VCR/DVD player and game console devices via the Svideo In port or the Composite In port

Connecting a Set-top box or standard TV antenna

You can watch standard television by connecting a Set-top box or antenna to the Antenna In port on your computer. To do this:

- 1 Connect the television Set-top box or antenna to the coaxial adapter cable.
- 2 Connect the coaxial adapter cable to the coaxial Antenna In port on the back of your computer.
- 3 Turn on your computer.

Connecting to the S-video In port

You can connect an external input device such as a VCR/DVD player or game console to the S-video In port on the right side of your computer.

NOTE

S-video cables are not included with your computer. To connect a device to the S-video In port, you will need to purchase an S-video cable.

To connect the device:

- 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 Out port.
- 2 Connect the other end of the video cable to the S-video In port on the right side of the computer.
- 3 Turn on the external video device.

Connecting to the Composite In port

The Composite In port provides another way to connect a VCR/DVD player or game console to your computer. To do this:

1 Connect the external device's video cable to the Composite In port on the right side of the computer.

- 2 Connect the device's power cable to a live electrical outlet.
- 3 Turn on your computer.
- 4 Turn on the external device.

Turning off the computer

CAUTION

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

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

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

Options for turning off the computer

Depending on the operating system installed, you have up to four options when you turn off the computer: Turn Off or Shut Down, Hibernate, and Standby. Each option has its advantages.

Turn Off or Shut Down

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

Use the Turn Off command if you are using Windows® XP Home, or either Windows® XP Professional or Windows® XP Media Center Edition (MCE) and are not connected to a domain server.

Turning off the computer

- Use the Shut Down command if you are using Windows® XP Professional or Windows® XP Media Center Edition (MCE) and are connected to a domain server.
- If you have work in progress and are not connected to a network, use the Windows® Standby or Hibernate commands to save your system settings so that, when you turn on the computer again, you will automatically return to where you left off.



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

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

Hibernation mode

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

Factors to consider when choosing Hibernation:

- While in Hibernation mode, the computer uses no main battery power.
- Because the state of the system is stored on the hard disk, no data is lost if the main battery discharges.
- When starting up again, Hibernation takes less time and consumes less main battery power than does turning off the computer.
- Since information is being retrieved from the hard disk rather than from memory, restarting from Hibernation takes a little more time and consumes more main battery power to start up than when restarting from Standby.

When starting up again, the computer returns to the state in which you left it, including all open programs and files you were using.

For information on placing your computer into, and configuring your computer for Hibernation mode, see "Using and configuring Hibernation mode" on page 80.

Standby mode

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

Factors to consider when choosing Standby:

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

CAUTION

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

For information on using Standby, see "Using and configuring Standby mode" on page 82.

Using the Turn Off Computer or Shut Down commands

Depending on the operating system installed, use the following steps to turn off your computer.

Turn Off

For Windows® XP Home, or either Windows® XP Professional or Windows® XP MCE when not connected to a domain server, follow these steps to turn off the computer:

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

The Turn off computer dialog box appears.



Sample Turn off computer Windows® dialog box

2 Click **Turn Off**.

The computer shuts down completely.

Shut Down

For Windows® XP Professional or Windows® XP MCE when connected to a domain server, follow these steps to turn off the computer:

- 1 Click the Start button, then Shut down.
 The Shut Down Windows® dialog box appears.
- 2 Select **Shut down** from the drop-down list.
- 3 Click OK.

The computer shuts down completely.

Turning off the computer more quickly

You can also turn off the computer by pressing the power button.

To use this method, you first need to activate it using Toshiba's Power Saver utility.

1 Click Start, Control Panel, then click Performance and Maintenance.



- 2 Click the Toshiba Power Saver icon.
- 3 Click on the **Setup Action** tab.



Sample setup action settings screen

- 4 Select the options you want from the drop-down lists.
 - When I press the power button Set this option to Shut down if you want the computer to shut down when you press the power button.
 - When I close the lid Set this option to Shut down if you want the computer to shut down when you close the display panel.

Getting Started

Turning off the computer

- 5 Click Apply.
- 6 Click OK.

NOTE

For more information about the Power Saver utility, see "Power Management" on page 231.

Once the computer is configured, you can turn it off by either pressing the power button or closing the display panel, depending on the options set.

Restarting your computer

To start the computer up again, press the power button until the power button and the on/off light glow blue.

If you turn off the computer by closing the display panel, you can start it again by opening the display panel.

Using and configuring Hibernation mode

To turn off the computer using the Hibernation command, click **Start**, **Turn off computer**, and select **Hibernate**.



Sample Turn off computer Windows® dialog box

The computer saves the state of all open programs and files, turns off the display, and then turns off.

Turning off the computer

Configuring Hibernation mode options

You can place the computer into Hibernation mode by either pressing the power button or closing the display panel. You can also specify an amount of time after which the computer automatically goes into Hibernation mode.

To use any of these methods, you first need to enable them in Toshiba's Power Saver utility.

1 Click Start, Control Panel, then click Performance and Maintenance.



- 2 Click the Toshiba Power Saver icon.
- 3 Click the **Setup Action** tab.
- 4 Select **Hibernation** for the options you want.
 - When I press the power button Set this option to Hibernate if you want the computer to go into Hibernation mode when you press the power button.
 - When I close the lid Set this option to Hibernate if you want the computer to go into Hibernation mode when you close the display panel.
- 5 Click Apply.
- 6 Click OK.

NOTE

For more information about the Power Saver utility, see "Power Management" on page 231.

Once the computer is configured, you can place it into Hibernation mode by either pressing the power button or closing the display panel, depending on the Hibernation options set.

Starting again from Hibernation mode

To start up the computer from Hibernation mode, press the power button until the power button and the on/off light glow blue. The computer returns to the screen(s) you were using.

If you put the computer in Hibernation mode by closing the display panel, you can start it again by opening the display panel.

Using and configuring Standby mode

To turn off the computer using the Standby command, click **Start**, **Turn off computer**, and select **Stand By**.



Sample Turn off computer Windows® dialog box

The computer saves the status of all open programs and files, turns off the display, and enters into a low-power mode. The power button and on/off light blink amber indicating the computer is in Standby mode.

Configuring Standby mode options

You can place the computer into Standby mode by either pressing the power button or closing the display panel. You can also specify an amount of time after which the computer automatically goes into Standby mode.

To use any of these methods, you first need to enable them in Toshiba's Power Saver utility.

1 Click Start, Control Panel, then click Performance and Maintenance.



- 2 Click the Toshiba Power Saver icon.
- 3 Click the **Setup Action** tab.
- 4 Select **Standby** for the options you want.
 - When I press the power button Set this option to Standby if you want the computer to go into Standby mode when you press the power button.
 - When I close the lid Set this option to Standby if you want the computer to go into Standby mode when you close the display panel.
- 5 Click Apply.
- 6 Click OK.

NOTE

For more information about the Power Saver utility, see "Power Management" on page 231.

Once the computer is configured, you can place it into Standby mode by either pressing the power button or closing the display panel, depending on the Standby options set.

Starting again from Standby mode

To start up the computer from Standby mode, press the power button until the power button and the on/off light glow blue. The computer returns to the screen(s) you were using.

If you place the computer in Standby mode by closing the display panel, you can start it again by opening the display panel.

Closing the display panel

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

Caring for your 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 "Taking care of your battery" on page 122.

Cleaning the computer

CAUTION

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

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

Moving the computer

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

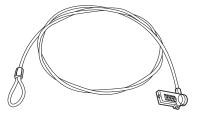
CAUTION

Do not pick up the computer by its display panel or by the back (where the ports are located). Doing so could damage the system.

Using a computer lock

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

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

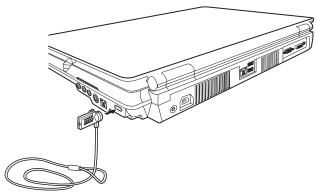


Sample computer lock cable

To secure the computer:

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

The computer is now securely locked.



Sample locking the computer

Chapter 2

Learning the Basics

This chapter gives some computing tips and provides important information about basic features.

Computing tips

Save your work frequently.

Your work temporarily stays in the computer's memory until you save it to the hard disk. You will lose all unsaved work, if, for example, a system error occurs and you must restart your computer, or your battery runs out of charge while you are working. Your computer can be configured to warn you when the battery is running low. See "Setting battery alarms" on page 115.



HINT: Some programs have an automatic save feature that you can activate. 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.
 - If your hard disk suddenly fails, you may lose all the data on it unless you have a separate backup copy.
- Use Error-checking and Disk Defragmenter regularly to conserve disk space and improve performance.
- 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.
- ❖ Do not 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.
- Before turning off the computer, use the Turn off computer command or Standby command. See "Turning off the computer" on page 75 to learn more about Standby.

CAUTION

The operating system records information, such as your desktop setup, during its shut down procedure. If you do not let the operating system shut down normally, details such as new icon positions may be lost.

Using the keyboard

Using the keyboard

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



Sample keyboard

Character keys

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

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

Making your keyboard emulate a full-size keyboard

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

NOTE

The emulation Fn key and the Wake up on Keyboard while in Standby are only functional when using the internal keyboard; they are not supported when using a USB keyboard.

Your computer's keyboard has only one Enter and one Ctrl key. Most of the time, this does not 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



Sample Ctrl, Fn, and Alt keys

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

Function keys

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



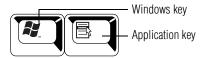
Sample function keys

Learning the Basics

Using the keyboard

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 example, Fn+F9 turns off the pointing device. For more information, see "Fn-esse" on page 222 or "Hot Keys" on page 326.

Windows® special keys

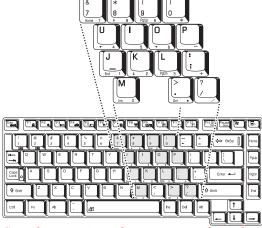


Sample Windows® special keys

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

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

Overlay keys



Sample numeric and cursor control overlay

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.

Using the overlay to type numeric data



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

To turn off the numeric keypad 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



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

Starting a program

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

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

Starting a program

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

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

- Double-click the icon for the program on your desktop
- Use the Start menu
- Use Windows Explorer to locate the program file
- Use the Run dialog box

The next three sections explain how to start a program from the Start menu, Explorer, and the Run dialog box.

Starting a program from the Start menu

When you install a program, the operating system usually puts an icon in the All Programs menu. To start a program that has an icon in the All Programs menu, follow these steps which use the Windows® WordPad program as an example:

- 1 Click **Start**, then point to **All Programs**.
 - The Windows® operating system displays the All Programs menu, which lists programs and program groups. If your program is listed, go to step 3, otherwise, continue with step 2.
- 2 Point to the program group, in this example, Accessories.
 The Accessories menu displays.

Starting a program

- 3 Click the program, in this example, **WordPad**.
- To close the program, click the **Close** button in the upper-right corner of the program's window.

Starting a program from Windows® Explorer

WordPad opens.

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

This example opens WordPad using Windows Explorer.

- 1 Click **Start**, then point to **All Programs**.
- 2 Click Accessories.
- 3 Click Windows Explorer.
- 4 In the left pane of the window, click **My Computer** to expand the window.
- 5 In the left pane of the window, click **Local Disk** (C:).
- 6 In the left pane of the window, click the folder containing the program, in this case **Program Files**.
 - Windows® Explorer shows the contents of the Program Files folder on the right side of the window. The left side of the window shows all the folders contained within the Program Files folder.
- 7 In the left pane of the window, click **Windows NT**.
- 8 In the left pane of the window, click Accessories.
 Windows® Explorer shows the contents of the Accessories folder on the right side of the window.

Starting a program

9 In the right pane of the window, double-click WordPad.exe.

WordPad opens.

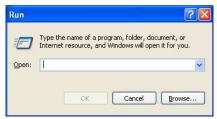
To close the program, click the **Close** button in the upper-right corner of the program's window.

Starting a program from the Run dialog box

This example uses the Run command to start WordPad.exe:

1 Click **Start**, then click **Run**.

The Run dialog box appears.



Sample Run dialog box

- 2 In the Run dialog box:
 - ❖ If the program is in the Windows® NT folder, type just the program name.
 - If you know the program's location, type the full file path.
- 3 Click OK.

If you do not know the program's location, you can search for it by returning to the **Start** menu and clicking **Search**. Follow the instructions on the Search screen.



HINT: To run the same program again, click the arrow to the right of the text box and select the command line from the drop-down list.

Saving your work

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

CAUTION

Always save your data even when you are using the Standby command. If your battery fully discharges, your information will be lost. Your computer can be configured to warn you when the battery is running low, see "Setting battery alarms" on page 115.

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

To save:

- ❖ A file you are updating, open the program's File menu and click Save
- ❖ A new file, choose **Save As** from the **File** menu, type a name for the file, and click **OK**



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

Learning the Basics

Saving your work



Sample Save As dialog box

File names

The Windows® operating system supports long file names which can contain up to 255 characters and can include spaces. Some applications do not support long file names and require file names limited to no more than eight characters.

You may use all the letters and numbers on the keyboard plus these characters: $_^ \$ \sim ! \# \% \& \{ \} () @$ and '. File names are not case-sensitive.

Using a file extension

Most programs assign an extension to the file name that identifies the file as being created in the program with a particular format. For example, Microsoft® Word saves files with a .doc extension. Any file name with an extension of ".doc" is assumed to be a Microsoft® Word file. Creating your own extension is usually unwise, since the program is unlikely to recognize a strange extension and may refuse to handle your file correctly.



TECHNICAL NOTE: By default, the Windows® operating system does not show file extensions. For information on showing or hiding file extensions, see your Windows® online help.

Printing your work

Verify that the Windows® operating system is set up for your printer as described in "Connecting a printer" on page 64.



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 need to set up the operating system to run with the additional printer(s).

To print a file:

- 1 If your printer is not on, turn it on now.
- 2 Open the File menu of your Windows® program and click Print.

The program displays a Print dialog box.



Sample Print dialog box

- 3 Specify the print parameters. For example, the range of pages and number of copies to print.
- 4 Click **Print**.

Backing up your work

Back up all the files you create in case something happens to your computer. You can back up your files to different types of media such as CDs, DVDs, diskettes, or to a network, if available.

To back up several files at one time, use the Microsoft[®] Windows[®] backup program preinstalled on the computer's hard disk. Also see "Backing up your data to CDs with Windows XP" on page 318.



HINT: Backing up all the files on your hard disk may take a considerable amount of time and multiple CDs/DVDs. You may prefer to use a high-capacity backup system, such as an external hard drive.

Small files can be backed up on diskettes if an optional external diskette drive is available.

Restoring your work

To restore information from your backup media to your hard disk, use the Restore page in the backup program. Look in the online Help for your operating system documentation for information on restoring files.



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

Using the DVD-ROM or multi-function drive

Optical storage has become the preferred medium for software, music, and video. Digital versatile discs (DVDs) provide a significant increase in data storage and support features that are not available on any other video platform. These features include wide-screen movies, multiple language tracks, digital surround sound, multiple camera angles, and interactive menus.

For these reasons, your computer may come with a DVD-ROM drive or multi-function drive.



TECHNICAL NOTE: Your DVD-ROM or multi-function drive is set to play region 1 (North America) DVD-ROMs. If you play a DVD disc from another region, the drive will automatically change to play in the format of the other region. The drive will allow you to change regions four times. On the fourth change, the region will be "locked in." That is, the drive will only play DVDs from that last region. Note that changing from region 1 to region 2 and back to region 1 is counted as two changes.

NOTE

For optimum DVD performance, it is recommended that you play DVDs while running the computer on AC power.

You use CD-ROMs and DVD-ROMs to load and run software, and to access reference material such as catalogs, as well as listen to music. A special feature allows you to play audio CDs and movie DVDs even when the computer is turned off. For more information, see "Using QosmioPlayer" on page 149.

Learning the Basics

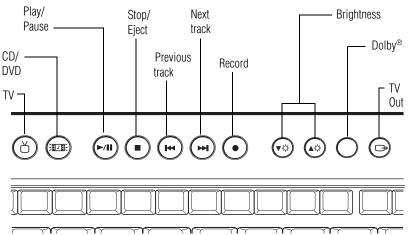
Using the DVD-ROM or multi-function drive

Drive components and control buttons

The DVD-ROM or multi-function drive is located on the front of the computer. The Media control buttons are located above the keyboard and can be accessed when the display panel is open.

Media control buttons

The control buttons above the computer keyboard let you play audio CDs when the computer is on. You can also use them to play CDs and DVDs when the computer is off using the QosmioPlayer application. For more information on playing CDs and DVDs when the computer is powered off, see "Using QosmioPlayer" on page 149.



Sample Media control buttons above the computer keyboard

The **TV** button:

- Launches Windows Media Center and activates the TV interface, when the computer is powered on and Windows is running. For more information, see "Watching Television Programs" on page 181.
- Launches the QosmioPlayer if the computer is not powered on.

The **CD/DVD** button:

- Launches Windows Media Center and plays the CD or DVD, if one is inserted into the drive, when the computer is powered on and Windows is running. For more information, see "Listening to Music" on page 193.
- Launches the QosmioPlayer if the computer is not powered on.

The **Play/pause** button starts playing the disc or makes it pause if currently playing.

The **Stop/eject** button stops a disc that is currently playing.

The **Previous track** button returns to the preceding track on the disc.

The **Next track** button skips to the following track on the disc.

The **Record** button records television programs which are currently being viewed.

The **Brightness** buttons adjust the screen brightness. These buttons do not function when QosmioPlayer is running.

The **TV Out** button directs the display to an external display device. This button does not function when QosmioPlayer is running.

Inserting a disc

To insert a disc into the drive:

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

CAUTION

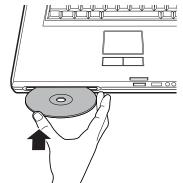
Handle DVDs and CDs carefully, making contact only with the center hole and edge. Do not touch the surface of the disc. Do not stack discs. If you incorrectly handle the discs, you could lose data.

Learning the Basics

Using the DVD-ROM or multi-function drive

If the disc is dusty, clean it as described in "Caring for CD or DVD Discs" on page 106.

With the label facing up, carefully place the disc partially into the slot until the disc stops or the drive starts pulling the disc in.



Sample positioning the disc in the drive

CAUTION

Use only standard (12 cm) CD or DVD Discs. Any other size or shape disc <u>cannot</u> be removed from this slot and may damage the system.

Playing an audio CD

If the computer is off, you can press the CD/DVD button to play the CD using QosmioPlayer (refer to "Using QosmioPlayer" on page 149) for more information.

If the computer is turned on, Windows Media[®] Player opens and the CD begins to play. You can use the Windows Media Player program to control the CD.

To access the Windows Media Player, you can open it through the Start menu or activate it from the taskbar.

NOTE

When using Windows Media Player, your system may not be able to activate Standby or Hibernation modes. To prevent this from occurring, close Windows Media Player before you select Standby or Hibernation mode.



Sample Windows Media[®] Player screen

The Windows Media Player control panel works much like an ordinary compact disc player:

❖ To play the CD or to pause, click the **Play/pause** button.

Learning the Basics

Using the DVD-ROM or multi-function drive

To stop the CD, click the Stop button.

A CAUTION

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

Playing CDs using Auto-Run

If you insert a CD into the DVD-ROM/multi-function drive and the Auto-Run feature does not automatically start your disk, try launching the CD manually. To do this, follow these steps:

- 1 Click Start, then My Computer.
- 2 Click the DVD-ROM/multi-function drive icon.

The disc drive will run the CD.

If your disk does not run using this method, try using an application that is associated with the media on the disk. For example, if it is a music CD, open Windows Media[®] Player and use it to select and then play the CD. For other types of media, use the associated software to open the files on the disk.

Creating a CD or DVD

Depending on your computer's configuration, your computer may come with a multi-function drive that allows you to:

- Play pre-recorded DVDs
- Play pre-recorded CDs
- Read and write files (depending on your system configuration) and music files to CD-Recordable (CD-R) and CD-Rewritable (CD-RW) discs; and DVD±R/±RW or DVD RAM discs.

NOTE

Due to manufacturing and quality variations in third party optical media (e.g., CD or DVD) or optical media players/recorders, in certain cases, your Toshiba optical drive may not record on certain optical media that bear the applicable logo, or playback optical media recorded by other PCs or optical media recorders. Additionally, certain optical media recorded on your optical drive may not playback or operate properly on other PCs or optical media players. These problems are not due to any defect in your Toshiba PC or optical drive. Please refer to your PC's product specification for listing of specific format compatibilities.

Copy protection technology may also prevent or limit recording or viewing of certain optical media.

For details on how to use the software, please refer to the respective Online Help menus.

Removing a disc

CAUTION

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

NOTE

The computer must be powered on to eject a disc.

- 1 Locate and press the eject button.
 - The disc partially ejects from the slot.
- 2 Grasp the disc and remove it from the computer, then place the disc in its protective cover.

Caring for CD or DVD Discs

- 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 or multifunction 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.

Toshiba's online resources

Toshiba maintains a number of online sites to which you can connect. These sites provide information about Toshiba products, give help with technical questions, and keep you up to date with future upgrades. For more information, see "Contacting Toshiba" on page 323.

Chapter 3

Mobile Computing

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

Toshiba's energy-saver design

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

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

Running the computer on battery power

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

Running the computer on battery power

Battery Notice

Battery life may vary considerably from specifications depending on product model, configuration, applications, power management settings and features utilized, as well as the natural performance variations produced by the design of individual components. Published battery life numbers are achieved on select models and configurations tested by Toshiba at the time of publication. See "Detailed Specs" for specific battery measurement test. Recharge time varies depending on usage. Battery may not charge while the computer is consuming full power.

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

To ensure that the battery maintains its maximum capacity, operate the computer on battery power at least once a month until the battery is fully discharged. Please see "Maximizing battery life" on page 123 for procedures. If the computer is continuously operated on AC power, either through an AC adapter or a docking station (if applicable to your system), for an extended period (more than a month), the battery may fail to retain a charge. This may shorten the life of the battery, and the battery light may not indicate a low-battery condition.

NOTE

For optimum DVD performance, it is recommended that you play DVDs while running the computer on AC power. In addition, your computer's Power Saver utility can be used to select a power level setting for DVD playback.

The QosmioPlayer is not a Windows-based application. Battery life will be less than when using similar applications in the Windows Operating System.

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: The RTC battery does not charge while the computer is turned off, even when AC power is attached.

The RTC battery charges when the computer is powered on.

Power management

Your computer ships with the power management options preset to a configuration that will provide the most stable operating environment and optimum system performance for both AC power and battery modes.

CAUTION

Changes to these settings may result in system performance or stability issues. Users who are not completely familiar with the power management component of the system should use the preset configuration. For assistance with setup changes, contact Toshiba's Global Support Centre.

Using additional batteries

In addition to the main battery, you may also have an optional second battery (not included with your computer). 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, or carry additional charged battery packs with you. You can then replace a discharged battery and continue working.

For more information on batteries and accessories, see accessories.toshiba.com.

Charging batteries

The battery needs to be charged before you can use it to power the computer.

CAUTION

Never leave batteries in the battery charger for more than a week at a time. Doing so may reduce the potential charge of the battery.

Use only battery chargers designed to work with your notebook computer. You can order a Toshiba battery charger from Toshiba's Web site at accessories.toshiba.com.

NOTE

Battery charge time may vary depending on the applications, power management settings, and features used.

Charging the main battery

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



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

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

The battery is extremely hot or cold.

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

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



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

Charging the RTC battery

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

The RTC battery may have become completely discharged while your computer was shipped, resulting in the following error message during startup:

BAD RTC BATTERY BAD CHECKSUM (CMOS) CHECK SYSTEM

NOTE

The above error message may vary by computer model.

The RTC battery does not charge while the computer is turned off even when the AC adapter is charging the computer. The RTC battery charges when the computer is powered on.

If the RTC battery is low, the real-time clock and calendar may display the incorrect time and date, or stop working.

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

Mobile Computing

Monitoring main battery power

NOTE

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

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

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

Monitoring main battery power

- The computer's main battery light gives you an indication of the main battery's current charge:
 - Glows amber while the main battery is being charged (AC adapter connected)
 - Glows blue when the main battery is fully charged
 - Is unlit when the battery has discharged, the battery is not charging, or the AC adapter is not plugged into the computer or AC outlet

NOTE

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

Flashes amber when the main battery charge is low and it is time to recharge the main battery or plug in the AC adapter

NOTE

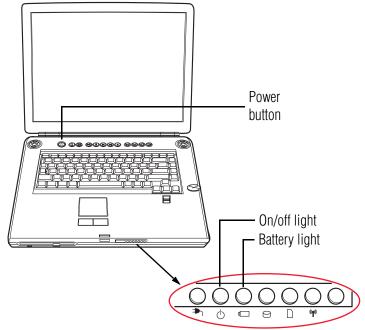
If the AC power light flashes amber during charging, either the battery pack is malfunctioning, or it is not receiving correct input from the AC power supply.

Disconnect the AC power cord/cable and remove the battery pack. See "Changing the main battery" on page 119 for information on replacing the main battery.



HINT: Be careful not to confuse the battery light (\Box) , the on/ off light (\triangle) , and the power button light (above the keyboard).

When the on/off light or power button light flashes amber, it indicates that the system is suspended (using Windows® XP Standby command).



Sample power and battery light locations

Monitoring main battery power

Determining remaining battery power

NOTE

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

1 Click Start, Control Panel, Performance and Maintenance, and then Toshiba Power Saver.

The TOSHIBA Power Saver Properties window appears.

The remaining battery charge is indicated on the left side of the dialog box.

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



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

The computer calculates the remaining battery charge based on your current rate of power use and other factors such as the age of the battery.

What to do when the main battery runs low

When the main battery runs low you can:

- Plug the computer into an external power source and recharge the main battery
- Place the computer into Hibernation mode and replace the main battery with a charged spare

- Connect the computer to an optional high capacity battery (if available for your computer)
- Save your work and turn off the computer

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

If you have Hibernation mode enabled (the default), the computer copies the details of your open programs and files to the hard disk before shutting down. For more information on using Hibernation, see "Using and configuring Hibernation mode" on page 80.

Setting battery alarms

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

To change the default alarm settings:

- 1 Click Start, Control Panel, Performance and Maintenance, and then Toshiba Power Saver.
 - The TOSHIBA Power Saver Properties window appears.
- 2 Click the **Setup Action** tab.
- 3 Configure the **Alarm settings** to suit your needs.

Conserving battery power

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

- How the computer is configured
- How much you use the hard disk, DVD-ROM or multifunction drive, 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 Profiles. Using one of these profiles 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 Profile and discuss each power-saving option.

Power Profiles

You can choose a predefined Power Profile or select your own combination of power management options. To do this:

1 Click Start, Control Panel, Performance and Maintenance, and then Toshiba Power Saver.





Sample TOSHIBA Power Saver Properties window

2 Select an appropriate profile for your work environment or create your own custom profile.

By changing the options that appear in the Power Saver Properties dialog box and clicking **OK**, you can reconfigure that function. You may choose a power-saving management strategy to best suit your computing needs. If you are running on batteries and the programs that you are using do not require a lot of system resources, you may experience longer work sessions by enabling the Normal setting. Any options that you change become the active settings when you exit the program. (You do not have to restart your system before they become active settings.)

For more information, see "Power Management" on page 231.

Using a hot key to set the Power Profile

You may use a hot key to set the Power Profile.

To set the Power Profile:

1 Press Fn and F2 simultaneously to display the Power Profile pop-up window.



Sample Power Profile mode pop-up window

- While continuing to press Fn, press F2 until you select the desired Power Profile.
 - The Power Profile options are: Full Power, High Power, Normal, DVD Playback, Presentation, and Long Life.
- 3 Release the Fn key.
 The pop-up window disappears. You are now in the selected mode.

For more information on setting the battery Power Profile, see "Power Management" on page 231.

Changing the main battery

AWARNING

Never short circuit the battery pack by either accidentally or intentionally bringing the battery terminals in contact with another conductive object. This could cause serious injury or fire, and could also damage the battery pack.

AWARNING

Never expose a battery pack to abnormal shock, vibration or pressure. The battery pack's internal protective device could fail, causing it to overheat or ignite, resulting in caustic liquid leakage, or explosion or fire, possibly resulting in death or serious injury.

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



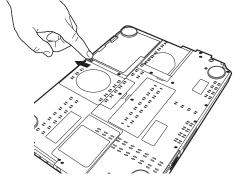
TECHNICAL NOTE: To avoid losing any data, save your files and then either completely shut down your computer, or put it into Hibernation mode before changing the main battery.

Removing the battery from the computer

To remove the battery:

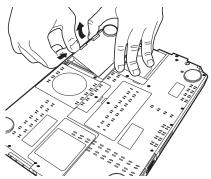
- 1 Save your work.
- 2 Power off the computer or place it in Hibernation mode according to the instructions in "Using and configuring Hibernation mode" on page 80.
- 3 Unplug and remove any cables connected to the computer, including the AC adapter.
- 4 Close the display panel and turn the computer upside down with the front of the computer facing you.

5 Slide the battery release lock to the unlocked position.



Sample sliding the battery lock to the unlocked position

6 Slide the battery release latch to release the battery while lifting up on the battery to remove it from the computer.



Sample removing the battery

AWARNING

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

Inserting a charged battery

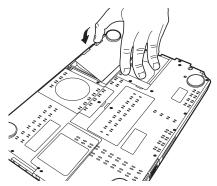
To insert a battery:

- 1 Wipe the terminals of the charged battery with a clean cloth to ensure a good connection.
- 2 Insert the charged battery into the slot until the latch clicks.

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

CAUTION

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



Sample inserting the battery

- 3 Slide the battery release lock to the locked position.
- 4 Turn the computer right side up.
- 5 Reconnect any cables that were removed in step 3 of "Removing the battery from the computer" on page 119.
- 6 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

- If the battery pack produces an odor, overheats or changes color or shape while it is being used or charged, turn off the computer's power immediately and disconnect the power cord/cable from the power socket. Carefully remove the battery pack from the computer.
- Do not try to disassemble a battery pack.
- Do not overcharge or reverse charge a battery. Overcharging will shorten its life, and reverse charging could damage it.
- Avoid touching the metal terminals of the battery with another metal object. Short-circuiting the battery can cause it to overheat and may cause damage to the battery or the computer.
- Do not incinerate a spent battery, as this could cause it to explode and release caustic liquid.
- If a battery is leaking or damaged, replace it immediately. Use protective gloves when handling a damaged battery.
- To replace the main battery, use an identical battery that you can purchase through the Toshiba Web site at accessories.toshiba.com.
- A reverse polarity condition should be avoided with all batteries. The main battery is designed so that it cannot be installed in reverse polarity.
- Charge the battery only in the computer or in a battery charger designated as an approved option.
- When you install the battery pack, you should hear a click when it is seated properly.

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

Maximizing battery life

To maximize the life of your battery pack:

- At least once a month, disconnect the computer from a power source and operate it on battery power until the battery pack fully discharges. Before doing so, follow the steps below:
 - 1 Turn off the computer's power.
 - 2 Disconnect the AC adapter and turn on the computer's power. If it does not turn on, go to step 4.
 - 3 Operate the computer on battery power for five minutes. If the battery pack has at least five minutes of operating time, continue operating until the battery pack is fully discharged. If the battery light flashes or there is some other warning to indicate a low battery, go to step 4.
 - 4 Connect the AC adapter to the computer and the power cord/cable to a power outlet. The DC-IN or AC power-light should glow blue, and the battery light should glow amber to indicate that the battery pack is being charged. If the DC-IN or AC power-light indicator does not glow, power is not being supplied. Check the connections for the AC adapter and power cord/cable.
 - 5 Charge the battery pack until the battery light glows blue.
- If you have extra battery packs, rotate their use.
- ❖ If you will not be using the system for an extended period, more than one month, remove the battery pack.
- Disconnect the AC adapter when the battery is fully charged. Overcharging makes the battery hot and shortens its life.

Mobile Computing

Disposing of used batteries

- If you are not going to use the computer for more than eight hours, disconnect the AC adapter.
- Store spare battery packs in a cool dry place out of direct sunlight.

Disposing of used batteries

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

You must discard a battery if it becomes damaged.

AWARNING

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

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

AWARNING

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

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

Please be kind to our shared environment. Check with your local government authority for details regarding where to recycle old batteries or how to dispose of them properly. If

you cannot find the information you need elsewhere, call Toshiba at: (800) 457-7777.

Traveling tips

The environmental precautions listed in "Selecting a place to work" on page 41, also apply while traveling.

- Never leave your computer on a sunny ledge or in a place where it could get wet or covered in dust.
- Always travel with the computer in a carrying case. Toshiba offers a choice of carrying cases for the computer. They all provide plenty of extra space for manuals, power cords, and compact discs. Contact your authorized Toshiba representative for more information.



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

NOTE

Before using your computer aboard an aircraft, make sure the Wi-Fi® antenna switch is set to the Off position if your computer has wireless LAN capability.

Chapter 4

Exploring Your Computer's Features

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

Exploring the desktop

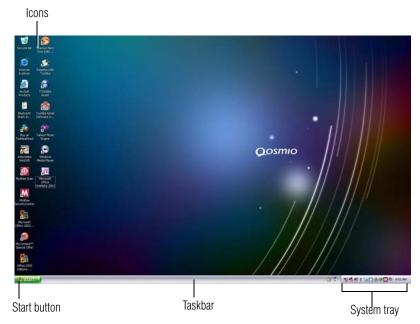
The desktop is the launching pad for everything you can do in the Windows® XP Media Center Edition 2005 operating system. You use its features to start programs, find documents, set up system components, and perform most other computing tasks.



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

Finding your way around the desktop

Your computer's desktop includes several standard features: icons, Start button, taskbar, system tray, and background pattern.



Sample Windows® XP Media Center Edition operating system desktop

Icons

An icon represents a folder, file, or program that can be quickly activated by double-clicking the icon.

You can create a new desktop icon for any folder, file, or program by dragging the element's icon from its location in a window to the desktop area.

Exploring Your Computer's Features

Exploring the desktop

The icons initially displayed on your system desktop include:



Recycle Bin—Holds files you have deleted. You may be able to retrieve these files until you empty the Recycle Bin.



TECHNICAL NOTE: If you delete a file from a diskette, it does not go into the Recycle Bin. For more information on the Recycle Bin, see Windows online Help.



Internet Explorer—The Microsoft® browser that provides access to the Internet.

NOTE

If you place the cursor over an icon, a popup description of the file contents appears.

Your desktop may contain other icons depending on your configuration. See Windows® XP Help and Support Center for more specific information on each icon and how to use it.

Start button

You use the Start button to:

- Start programs
- Access Microsoft® Windows® XP operating system update information
- Open documents
- Adjust system settings
- Find files
- Access Windows® Help
- Run programs
- Suspend system activity and turn off the computer

Exploring the desktop

Taskbar

Each time you open a program, a button associated with that program appears on the taskbar. With some programs, a button appears on the taskbar for each document or window you open. You can use these buttons to quickly switch between the programs or windows.

To make a program or window the currently active one, click the associated taskbar button.



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

System tray

The System tray displays icons of tasks or programs that run continuously in the background. To learn more about each task, position the cursor over the icon for a few moments and a short description of the task appears.

Typical tasks in the System tray are Current time, Power usage mode, Mouse properties, and speaker volume.

To activate a specific task, double-click the appropriate System tray icon.

Exploring Your Computer's Features

Setting up for communications

Setting up for communications

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).
 Exercise information about a great fine to a LAN or WAN.
 - For specific information about connecting to a LAN or WAN, consult your network administrator.
- Send a fax directly from your computer.

For more information regarding your computer's modem, visit the Toshiba Web site at pcsupport.toshiba.com.

NOTE

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

Determining the COM port

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

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

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

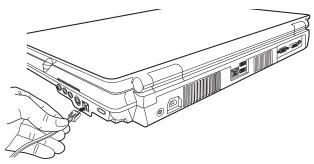
To find out which port your modem is connected to:

- 1 Click Start, then Control Panel.
- **2** Click **Printers and Other Hardware**.
- 3 Click Phone and Modem Options.
 The Phone and Modem Options Properties dialog box displays.
- 4 Fill in the **Local Information** text boxes and click **OK**.
- 5 Click the Modems tab.
 Your modem should be listed next to one of the computer's COM ports.
- 6 Make a note of the COM port number.
- 7 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.
- 8 Click the **Diagnostics** tab, and then click **Query Modem**. The Windows® operating system communicates with the modem and displays identifying information reported by the modem. If Windows cannot communicate with the modem, it displays an error message. Consult the troubleshooting sections of your modem and Windows documentation.
- 9 Click **OK** to close the properties dialog box for that specific modem.
- 10 Click **OK** to close the Modem Properties dialog box.
- 11 Close the Control Panel.

Connecting the modem to a telephone line

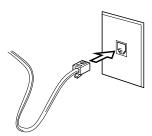
Before you can communicate using the modem, you need to connect it to a telephone line. Your computer's built-in modem port provides an RJ-11 jack, allowing you to connect the modem to a standard voice-grade telephone line.

1 Plug one end of a telephone cable (purchased separately) into the modem port on the right side of the computer.



Sample connecting the telephone cable to the modem port

2 Connect the other end to an RJ-11 wall jack.



Sample connecting to a wall jack

CAUTION

The modem is designed for use with a standard analog telephone line. Do not connect the modem to a digital telephone line. A digital line will damage the modem.

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

For more information on using a modem, see "Setting up for communications" on page 130.

Connecting 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 RJ-45 jack on your computer. For specific information about connecting to the network, consult your network administrator.
- While you are at home or traveling, you will need a dialup connection. Ask your network administrator for the telephone number to access the network.

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 New Connection Wizard:

- 1 Click **Start** and point to **All Programs**.
- 2 Point to Accessories, then to Communications, and click New Connection Wizard.
- 3 Enter the phone number of your network connection and let the program dial the number.

The computer connects to the network.

Using the Ethernet LAN Port

When your computer starts, Windows 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 reconfigure Windows to disable the LAN port.



TECHNICAL NOTE: You can also use ConfigFree to reconfigure Windows to disable the LAN port. For procedures, see "Using ConfigFree™ with your Toshiba Computer" on page 336.

To disable the LAN port:

- 1 Click Start, click Control Panel, then Performance and Maintenance.
- 2 Click the **System** icon, then click the **Hardware** tab, and then click the **Device Manager** button.
- 3 Select the appropriate network adapter.
- 4 Click Actions.
- 5 Select the **Properties** icon.
- 6 Select the **Do not use this device** (**disable**) option from the **Device usage** drop-down.
- 7 Click **OK**.

Your LAN port is now disabled.

To enable the Ethernet LAN port, repeat steps one through four. Select the **Use this device** (enable) check box, and click **OK**.

Using Wireless LAN Connectivity

NOTE

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

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

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

To use your wireless communication, slide the wireless antenna on/off switch to the On position.

NOTE

When the Wi-Fi antenna switch is on, the wireless indicator light above the keyboard will be lit.

For help with common Wi-Fi networking problems, see "Wireless networking problems" on page 309.

An overview of using the Internet

The following sections give a quick introduction to the Internet and some of its exciting features.

- The Internet
- The World Wide Web
- **♦** Internet Service Providers
- Connecting to the Internet
- Surfing the Internet
- Internet features
- Uploading to, 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 An overview of using the Internet

is a company that has the equipment and the telecommunication lines necessary to maintain an Internet connection.

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

Connecting to the Internet

To connect to the Internet, you need:

- ❖ A modem and telephone line, or a LAN connection
- A Web browser
- ❖ An Internet Service Provider (ISP) account

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

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

1 Connect your computer's modem to a telephone line. For more information on connecting a modem, see "Connecting the modem to a telephone line" on page 132.



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.

An overview of using 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 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 your own email, 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.

Exploring audio features

Online shopping

Many Web sites offer products and services for sale.

Uploading to, 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.

Exploring audio features

You can use your computer to record sounds using an external microphone or the computer's built-in microphone located near the front left corner of the computer. You can play .wav sound files or audio CDs using the built-in speakers, headphones, or external speakers.

NOTE

Dolby Digital audio enhancements are available in the Microsoft Windows operating system only.

Recording sounds

You may record sounds as .wav files by using the internal microphone located near the front left corner of the computer, or by connecting an external microphone or other sound source to the microphone jack.



DEFINITION: A .wav (pronounced "wave") file is a Windows® format for storing sound.

Exploring Your Computer's Features

Exploring audio features



TECHNICAL NOTE: If you record MP3 files, you can only play them on a device capable of playing MP3 files.

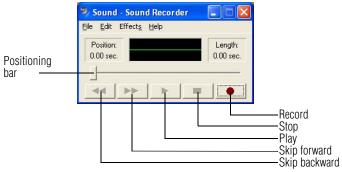
Using a microphone

To record high-quality sounds, you can use the internal microphone or attach an external microphone:



- 1 If you are using the internal microphone, which is located near the front left corner of the computer, go to step 4. Otherwise, connect an external microphone to the computer, by locating the microphone jack on the left side of the computer.
- 2 Plug the microphone cord into the microphone jack on your computer.
- **3** Turn on the microphone.
- 4 Click Start, point to All Programs, Accessories, Entertainment, then click Sound Recorder.

The Sound Recorder screen displays.



Sample Sound Recorder screen



- 5 Click the **Record** button.
- 6 Speak normally into the microphone.

Exploring audio features



7 When you have finished recording, click the Stop button. The Sound Recorder window displays the new sound file as a waveform.

NOTE

Sound Recorder can only record 60 seconds at a time.



- 8 To hear what you just recorded, click the Play button.
- **9** To save the file, select **Save** from the **File** menu.

NOTE

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

Using external speakers or headphones

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

Headphone jack

This jack lets you connect a stereo headphone (16 Ohm minimum) to your computer. The headphone jack also lets you connect an optical digital audio-out cable (optional) directly to your digital stereo receiver port.

A CAUTION

Before putting on headphones to listen to an audio CD, turn the volume down. To turn the volume down, use the Volume Control switch or access the Volume Control program (click Start, All Programs, Accessories, Entertainment, Volume Control). Do not set the volume too high when using the headphones. Continuous exposure to loud sound can harm your hearing.

Using the i.LINK® port

When you connect an optical digital audio-out cable (optional) directly to your digital stereo receiver port or stereo headphone jack, the internal speakers of your computer are disabled.



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 external speakers or headphones:



- 1 Locate the headphone jack on the left side of 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 for the speakers
- For headphones, use the computer's volume control dial

Using the i.LINK® port

The i.LINK® port on the left side of the computer provides an extremely fast data transfer rate.

In addition to high speed, the i.LINK® port also supports isochronous data transfer (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).

Inserting and removing PC Cards

Inserting and removing PC Cards

Your computer comes with one PC Card slot and supports two types of PC Cards:

- ❖ Type I cards—You can install one of these cards.
- Type II cards—You can install one of these cards.

The PC Card slot supports hot swapping, which allows you to replace one PC Card with another while the computer is on.

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.

CAUTION

You can only use PC Cards in the bottom slot or ExpressCards in the top slot. You cannot insert a PC Card into the ExpressCard slot (the upper slot), nor can you insert an ExpressCard into the PC card slot (the lower slot).

To insert a PC Card:

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



Sample inserting a PC Card

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

Inserting and removing PC Cards

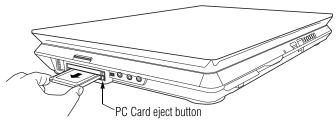
Removing a PC Card



Prepare the card for removal by right-clicking on the **Safely Remove Hardware** icon on the system tray and then selecting the card or device you want to remove. If the system is unable to prepare the card for safe removal, a message will tell you to try again later. If the card can be removed now, the system displays **Safe To Remove Hardware**.

- 1 Locate the PC Card eject button.
- 2 Press the PC Card eject button once to extend it, and push it in to remove the PC Card.

The PC Card ejects slightly from the slot.



Sample ejecting a PC card

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

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 ExpressCard™

The ExpressCard slot supports the use of ExpressCard media. The slot supports hot swapping, which allows you to replace one ExpressCard with another while the computer is on.

Inserting an ExpressCard™

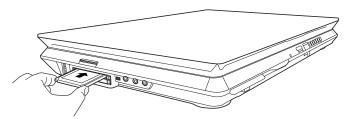
Before you insert an ExpressCard, refer to the documentation that comes with the card to see if you need to do anything before you insert it.

CAUTION

You can only use PC Cards in the bottom slot or ExpressCards in the top slot. You cannot insert a PC Card into the ExpressCard slot (the upper slot), nor can you insert an ExpressCard into the PC card slot (the lower slot).

To insert an ExpressCard:

- 1 Locate the ExpressCard slot just above the PC Card slot on the left side of the computer.
- 2 Insert the ExpressCard.



Sample inserting an ExpressCard

3 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.

Using the Bridge Media Adapter Slot

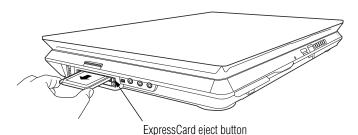
Removing an ExpressCard™



Prepare the card for removal by right-clicking on the **Safely Remove Hardware** icon on the system tray and then selecting the card or device you want to remove. If the system is unable to prepare the card for safe removal, a message will tell you to try again later. If the card can be removed now, the system displays **Safe To Remove Hardware**.

- 1 Locate the ExpressCard eject button.
- 2 Press the ExpressCard eject button once to extend it, and push it in to remove the ExpressCard.

The ExpressCard ejects slightly from the slot.



Sample removing an ExpressCard

3 Grasp the edges of the ExpressCard and slide it out of the slot.

Using the Bridge Media Adapter Slot

The Bridge Media Adapter Slot supports the use of Memory StickTM or Memory StickTM PRO media, Secure DigitalTM (SDTM) Card, MMC (MultiMedia CardTM), or xD-Picture CardTM media. These media can be used with a variety of digital products: digital music players, cellular phones, PDAs, digital cameras, digital video camcorders, etc.

Using the Bridge Media Adapter Slot

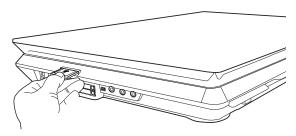
NOTE

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

Inserting memory media

The following instructions apply to all media devices.

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



Sample inserting memory media

CAUTION

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

Removing memory media

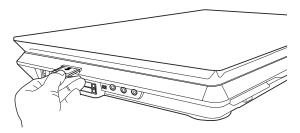


Prepare the media for removal by right-clicking on the the **Safely Remove Hardware** icon on the system tray and then selecting the media you want to remove. If the system is unable to prepare the media for safe removal, a message will tell you to try again later. If the media can be removed now, the system displays **Safe To Remove Hardware**.

Exploring Your Computer's Features

Using the Bridge Media Adapter Slot

- Gently press the card inward to release it.
 The card pops out slightly.
- 2 Grasp the card and pull it straight out.



Sample removing memory media

CAUTION

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

Your computer includes the QosmioPlayer software, allowing you to watch television (if the computer is connected to a television or video source), play audio CDs, or watch DVD-video without having to launch the operating system.

NOTE

When using QosmioPlayer, some MCE Remote Control options will not function.

NOTE

The QosmioPlayer is not a Windows-based application. When using the QosmioPlayer, the Audio / Video recording feature will not function.

To start the QosmioPlayer:

1 If the computer is on, turn it off or place it in Hibernation mode.

NOTE

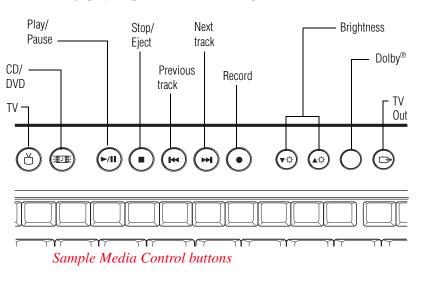
The computer must either be off or in Hibernation mode for QosmioPlayer to start. If the computer is powered on or in Standby mode, turn off the computer before trying to start QosmioPlayer.

- 2 Press the appropriate Media Control button on the system control panel:
 - To watch television, press the TV button.
 - To play audio CDs or watch DVD-video, press the CD/DVD button.

To shut down QosmioPlayer, press the Power button.

Using the Media Control Buttons

The Media Control buttons above the computer keyboard allow you to reverse to the previous song, skip to the next song, play or pause the CD, or stop the CD.



NOTE

The Record button only works when using the Windows Media Center Edition, and is not operational when using QosmioPlayer.

Playing an audio CD

Insert a supported audio CD into your DVD-ROM/multifunction drive. The QosmioPlayer automatically recognizes and plays supported CDs.

When playing a supported audio CD, you also have the following keyboard options:

0-9 Press a number on your keyboard to play a specific track on the

CD.

F1 Press this key to hide the audio CD option guide. Press again to

re-display the guide.

CTRL + S Press the CTRL+S keys to shuffle the CD currently playing.

CTRL+UP/ Press the CTRL+UP Arrow keys to increase the volume, press

DOWN Arrow the CTRL+DOWN Arrow keys to decrease the volume.

keys

D Press this key to display the CD status.

E Press this key to eject the CD from the drive.

CTRL+R Press the CTRL+R keys to repeat the current song.

SPACE Press this key to pause the song currently playing. Press the key

again to start playing the song.

CTRL+SPACE Press the CTRL+Space keys to stop the CD.

M Press this key to mute the song currently playing.

< or 0 Press this key to reverse the song 10 seconds.

> or P Press this key to forward the song 10 seconds.

L Press this key to skip to the next song.

K Press this key to reverse to the previous song.

Playing a DVD

Insert a supported DVD into your DVD-ROM/multi-function drive.

The QosmioPlayer automatically recognizes and plays all supported DVDs.

Exploring Your Computer's Features

Using QosmioPlayer

The Media Control buttons above the computer keyboard allow you to move to the previous chapter or next chapter, play or pause the movie, or stop the DVD.

NOTE

The following options must be supported by the DVD you are

playing or they will not be available for use.

When playing a DVD, you have the following options:

F1 Press this key once to display the basic DVD guide options.

Press the key twice to display the full DVD guide options. Press

the key again to hide the DVD guide options.

0-9 Press a number on your keyboard to play a specific DVD

chapter.

CTRL+UP/ Press the CTRL+UP Arrow keys to increase the volume, press

the CTRL+DOWN Arrow keys to decrease the volume.

keys

DOWN Arrow

D Press this key to view the display status.

E Press this key to eject the DVD from the disc drive.

CTRL+R Press the CTRL+R keys to repeat the DVD.

SPACE Press this key to pause the DVD. Press the key again to resume

playing the DVD.

CTRL+SPACE Press the CTRL+Space keys to stop the DVD.

< Press this key to fast reverse the DVD.

> Press this key to fast forward the DVD.

NOTE

Duplicated DVD discs may not play with QosmioPlayer. In addition, if any of the media are scratched or dirty, or not in compliance with standards, they may not play properly. In these cases, power on your computer and use the WinDVD™ software to play DVDs.



TECHNICAL NOTE: Your DVD-ROM or multi-function drive is set to play region 1 (North America) DVD-ROMs. If you cannot view the DVD because of a region error, be sure to change the region code in the Windows® operating system.

The drive will allow you to change regions four times. On the fourth change, the region will be "locked in." That is, the drive will only play DVDs from that last region. Note that changing from region 1 to region 2 and back to region 1 is counted as two changes.

You must launch the Windows operating system to change the DVD region, but once the region has been changed, you can then play the DVD using QosmioPlayer.

Watching television

Pressing the **TV** Media Control button allows you to watch television, if a TV source is connected to the computer.

The first time you watch television, use the Setup menu to scan the available channels and select other settings. To display the Setup menu, press the F2 key on the computer or the **Set Up** button on the QosmioPlayer remote control.



Sample Setup menu

Exploring Your Computer's Features

Using QosmioPlayer

When viewing television programs, you have the following options:

0-9	Press a number on your keyboard to watch a specific channel.
PAGE UP/ DOWN	Press the PAGE UP key to scroll backward through channels, press the PAGE DOWN key to scroll forward through channels.
CTRL+UP/ DOWN Arrow keys	Press the CTRL+UP Arrow keys to increase the volume, press the CTRL+DOWN Arrow keys to decrease the volume.
i	Press the i key to scroll through inputs to the TV tuner: S-video, Composite In, and Antenna In. $ \\$
F1	Press the F1 key to view the television guide.
F2	Press the F2 key to access the Setup menu.

Toshiba Qosmio Remote Control

You can use your Toshiba Qosmio Remote Control to play CDs, DVDs, and videos; to view pictures; and to watch television programs through QosmioPlayer.

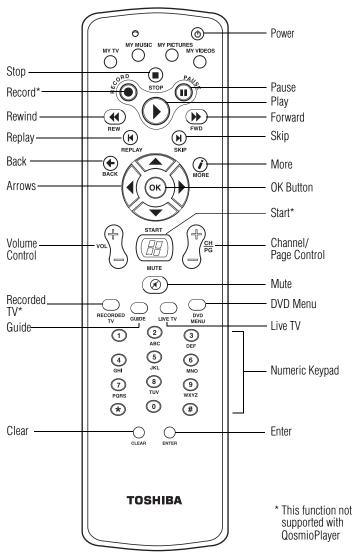
The remote control helps you navigate the QosmioPlayer windows on your computer just as a cable TV remote control navigates cable TV options or controls the playback of a movie in a VCR or DVD player.

Using the remote control, you can:

- Navigate and control all QosmioPlayer windows
- Control the video or live TV display

The remote control can send a strong signal to the remote control sensor from within a range of about 26 feet and from an angle of about 45 degrees.

Remote Control Buttons Overview



Sample Remote Control

Exploring Your Computer's Features

Using QosmioPlayer

The remote control has the following buttons/functions depending on which mode you are using:

Button	Function				
	TV Mode	DVD Mode	Audio Mode		
Power	Turns the computer's power on and off	Turns the computer's power on and off	Turns the computer's power on and off		
Play	None	Plays the current DVD	Plays the current CD		
Pause	None	Pauses the current DVD	Pauses the current CD		
Stop	None	Stops the DVD currently playing	Stops the CD currently playing		
Record	Displays the message, "This function is not supported"	None	None		
Fwd	None	Moves the DVD forward	Moves the CD forward		
		Pressing FWD up to 5 times in succession increases the fast forward speed.	Pressing FWD up to 5 times in succession increases the fast forward speed.		
Rew	None	Moves the DVD backwards	Moves the CD backwards		
		Pressing REW up to 5 times in succession increases the rewind speed.	Pressing REW up to 5 times in succession increases the rewind speed.		
Skip	None	Moves the DVD forward one chapter	Moves the CD forward one track		
Replay	None	Moves the DVD forward one chapter	Moves the CD forward one track		
More	Displays the current TV channel in the screen's upper right corner	Displays the DVD's title and chapter menu (available only when the DVD is playing)	Toggles between analog and digital		
Back	Moves the cursor back one selection within QosmioPlayer menu	Moves the cursor back one selection within QosmioPlayer menu	None		
Up arrow	Moves the cursor up one selection within QosmioPlayer menu	Moves the cursor up one selection within QosmioPlayer menu	None		
Down arrow	Moves the cursor down one selection within QosmioPlayer menu	Moves the cursor down one selection within QosmioPlayer menu	None		

Exploring Your Computer's Features

Using QosmioPlayer

Button	Function				
	TV Mode	DVD Mode	Audio Mode		
Left arrow	Moves the cursor left one selection within QosmioPlayer menu	Moves the cursor left one selection within QosmioPlayer menu	None		
Right arrow	Moves the cursor right one selection within QosmioPlayer menu	Moves the cursor right one selection within QosmioPlayer menu	None		
OK	Accepts the current selection within QosmioPlayer menu	Accepts the current selection within QosmioPlayer menu	None		
Start	Displays the message, "This function is not supported"	None	None		
Ch/Pg +	Changes the TV channel	None	None		
Ch/Pg -	Changes the TV channel	None	None		
Vol+	Increases (up arrow) the volume	Increases (up arrow) the volume	Increases (up arrow) the volume		
Vol –	Decreases (down arrow) the volume	Decreases (down arrow) the volume	Decreases (down arrow) the volume		
Mute	Disables your computer's sound	Disables your computer's sound	Disables your computer's sound		
	Click again to enable sound	Click again to enable sound	Click again to enable sound		
Recorded TV	Displays the message, "This function is not supported"	None	None		
Guide	Displays the QosmioPlayer menu	Press Guide one time to display a limited QosmioPlayer menu. Press again to display the full QosmioPlayer menu	Displays the QosmioPlayer menu		
		(Only available when a DVD is inserted into the computer's drive)			
Live TV	None	Takes you to the current point in a live TV program	Takes you to the current point in a live TV program		
DVD Menu	Displays the QosmioPlayer menu	Displays the main menu of the DVD	None		

Using the Toshiba Qosmio Remote Control

To begin using your remote control:

- Point the remote control at the remote control sensor. The remote control sensor is located on the front of your computer. Make sure there is nothing blocking the path between your remote control and the remote control sensor.
- 2 If your computer is powered on, turn it off or place it in Hibernation mode.
- **3** Perform one of the following steps:
 - To watch television, press the TV button to start QosmioPlayer in TV mode.
 - To play a DVD/CD, press the **Media** button to start QosmioPlayer in Media mode.

NOTE

Once QosmioPlayer starts, you can use the TV and Media buttons to switch between TV and Media modes.

- 4 To access the inputs to the TV tuner (S-video, Composite In, and Antenna In), press the **Input** button with QosmioPlayer in TV mode.
- 5 If you wish to watch television, press the **Set Up** button with QosmioPlayer in TV mode to display the QosmioPlayer Setup menu. Then use the arrow keys to select the desired options and press **OK** to accept them.

NOTE

The Setup menu is important when configuring television for the first time, because you can use it to scan the available channels.

Installing the QosmioPlayer Recovery media

Installing the QosmioPlayer Recovery media

To recover or repair QosmioPlayer on a computer that has the application installed:

- 1 Insert the QosmioPlayer Recovery media into the drive, close the drive tray, and restart your computer from the CD.
- 2 Press the 1 key on the computer's keyboard to recover to the initial configuration.
- **3** Follow the on-screen instructions to complete the recovery.

Chapter 5

Getting to Know the Windows® XP Media Center Edition 2005

This section introduces you to the Windows® XP Media Center Edition 2005, a complete multimedia center where you can play your entire library of audio, video, and picture media on your computer, using either your computer's keyboard, mouse, or the remote control. With the Media Center, you can:

- Watch TV or a DVD movie
- ❖ Automatically record TV shows
- Pause, rewind, and fast forward TV programs using the Media Center time shifting feature
- Watch an instant replay
- Play back your digital videos
- View your digital pictures, or play them as a slide show
- Browse, select, and play music CDs and DVD movies
- Update the Television Program Guide from the Internet

Media Center Setup

This section shows you how to set up your computer to use the Media Center. There are many different methods you can use to connect your television and computer which are covered in the following sections.

Connecting to a Television

Your computer has TV-out capability, meaning you can connect it to a television and view the computer image on the television.

Using your computer's integrated TV Tuner and the Microsoft Windows® XP Media Center Edition 2005 operating system, you can also record or view TV programs.

AWARNING

If you have to operate your computer during a thunderstorm and are connecting the TV tuner to an outside antenna, you should operate your computer using AC power mode. The AC adapter offers some protection against (but does not entirely prevent) possible electric shock caused by lightning. For complete protection, do not operate your computer during a thunderstorm.

NOTE

Transmission quality may vary by location and channel.

For best results in recording or viewing, your computer requires the use of an external Set-top box or Cable Box using a high quality signal as the main source. Failure to comply with these instructions will not produce optimum recording or viewing quality. For more information, see "Connecting a VCR/DVD player or Set-Top Box to the Computer" on page 163.

Getting to Know the Windows ® XP Media Center Edition 2005

Media Center Setup

NOTE

Some stations may not come in clearly if the signal is not strong enough. If you do not have a Set-top box, you may need to purchase a signal amplifier which may help boost and improve the cable signal. Contact your service provider for the proper hardware recommendations.

There are two different ways you can connect your computer to a TV:

- 1 Turn off the computer.
- 2 If your TV accepts component video inputs:
 - Connect the component video adapter cable (included with your computer) to the TV's component video input. Connect the adapter cable to the D-connector (Component Out port) on the back of your computer.

If your TV accepts S-video inputs:

- Connect an S-video cable (not shipped with your computer) from the TV's S-video input connection to the S-video Out connector on the back of your computer.
- 3 Connect an audio cable (not shipped with your computer or system) from the TV's audio connection to the headphone jack on the left side of your computer.
- 4 Turn on the TV, then turn on the computer.
- To send the display signal to the TV, press the "Instant TV Out" button, which is the furthest right button of the Media control buttons above the keyboard (or press FN+F5), and then toggle to the TV icon.

NOTE

This step must be taken before launching the Media Center or the InterVideo WinDVD™ Player.

Connecting the TV Signal Source When You Have an Existing Setup

This section describes how to connect the signal source from the wall to a VCR/DVD player to a TV using two coaxial cables (not shipped with your computer or system).

- 1 Remove the coaxial cable from the VCR/DVD player input, and connect it to the input of a coaxial cable signal splitter (not shipped with your computer or system).
- 2 Connect two coaxial cables to the splitter outputs.
- 3 Connect one of the coaxial cables to the VCR/DVD player input, and the other end to the coaxial adapter cable (included with your computer). Connect the adapter cable to the Antenna In port on the back of the computer.

NOTE

To connect your computer to a TV, you need an S-video cable (not included with your computer or system).

Connecting a VCR/DVD player or Set-Top Box to the Computer

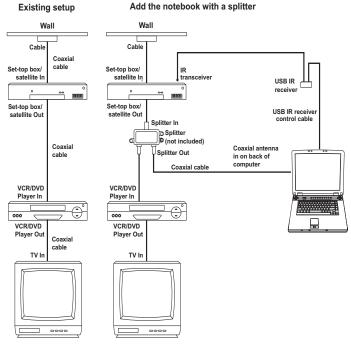
There are three different ways you can connect a VCR/DVD player or Set-Top box to the computer:

- Connect the AV Composite cable (not included) from the VCR/DVD player or Set-top box to the Composite Video/Audio Adapter cable (included with your computer). Connect the adapter cable to the Composite In port on the right side of the computer.
- Connect a coaxial cable from the VCR/DVD player or Set-top box to the coaxial adapter cable (included with your computer). Connect the adapter cable to the Antenna In port on the back of the computer.

Getting to Know the Windows® XP Media Center Edition 2005

Media Center Setup

For those VCR/DVD players or Set-top boxes that support S-video out, connect an S-video cable from the VCR/DVD player or Set-top box to the S-video In port on the right side of the computer.



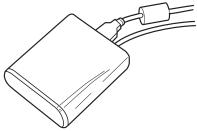
Sample wall-to-VCR/DVD player-to-TV setup

Connecting the External IR Transceiver

The external IR transceiver is a small device that connects to the computer and allows the remote control to work with the Media Center programs.

If you have a cable TV Set-top box, satellite, or other Set-top box that controls your TV signal, connect the IR transceiver cable to the IR transceiver and position the other end of the IR transceiver cable over the remote receiver on your cable box.

- 1 Connect the USB connector on the USB IR receiver cable to an available USB port on your computer.
- 2 Connect the IR transceiver cable connector (small 3.5 mm) to one of the ports on the USB IR receiver.



Sample USB IR receiver with cables attached

- 3 Position the end of the IR transceiver cable over the remote IR receiver window on your cable TV Set-top box or VCR/DVD player.
- 4 Peel off the adhesive backing on the IR transceiver and mount the transceiver within 5 inches of the Set-top box or VCR/DVD player.
- 5 Install batteries in the remote control.

Starting the Media Center

To start the Media Center:

Point the remote at the IR transceiver and press the remote control's **Start** button. You can also click **Start**, and then click **Media Center**.

Media Center opens in full screen mode.

Getting to Know the Windows ® XP Media Center Edition 2005

Starting the Media Center

NOTE

The first time you open Media Center, the program displays a setup wizard. You will use the wizard to test your remote control and configure your Internet connection, TV signal, Television Program Guide, and speakers.

To complete the setup procedure you need to:

Log on as an administrator. For more information, refer to your Microsoft Help.

Have an Internet connection to download your television service provider's program guide.

Know your ZIP Code.

Provide the name of your television service provider, if you subscribe to either cable or satellite TV.

Provide the brand of your Set-top box, if you use one.

If you have questions on using the setup wizard, click Help.

To complete the Media Center Setup, follow the wizard's onscreen prompts. For more information, see the Microsoft XP Media Center Edition Help file on your computer:

- 1 Click the help icon located at the top of each screen.
- **2** Click **Help Get help using Media Center**.
- 3 Click Set up Media Center.



Sample Media Center Setup Wizard: Welcome screen

- 1 Click **Next**. The wizard displays the Media Center Setup screen.
- 2 Click **Next**. The wizard displays the Media Center Privacy Policy screen.
- 3 Read the Media Center Privacy Policy, then click Next. The wizard displays the Get the Most from Media Center screen.
- 4 Click **About Privacy** and read the privacy notice.
- 5 Click **Yes** to allow Media Center to connect directly to the internet.
- 6 Click **Next**. The system displays the Always on Internet Connection screen.
- 7 Click **Yes** to verify that your internet connection is always on.
- 8 Click **Next**. The wizard displays the Test Your Internet Connection screen.

Starting the Media Center

- 9 Click Test to verify that your computer is connected to the Internet.
 - If the connection is not working, the wizard displays an error message. Recheck both ends of your connection and click **Test**.
 - If the connection is working, the screen displays a message to that effect and highlights the Next button.

When the connection is working correctly, click **Next**. The wizard displays the Required Components Have Been Set Up screen.

- 10 Click **Next**. The wizard displays the Optional Setup screen.
- 11 Click Configure tuners, TV signal, and Guide, then click Next. The wizard displays the Confirm Your Region screen.
- 12 Click Yes, use this region to configure TV services, then click Next. The wizard displays the Automatic TV Signal Setup screen.
- 13 Click Configure my TV signal automatically (Recommended), then click Next. The wizard displays the Prepare for Automatic Signal Configuration screen.
- 14 Make sure that your computer is connected to a TV (for instructions, see "Connecting to a Television" on page 161). Then click **Next**. The wizard displays the Examining your TV Signal Setup screen and begins to scan your system. When the scan is complete, the wizard displays the TV Signal Configuration Result screen, and displays the following message: **Signal is detected**.

NOTE

When you set up the TV Signal and identify the Set-top box remote, you may receive a "Remote Not Recognized" message.

When this occurs, you must select the Have Media Center Learn My Remote Again From Scratch option.

When you get to the Test Channel Changing option, the set up program asks you to use the remote. To change the channels, you use the numbers on your keyboard.

When the remote control set up is complete, you can change TV stations through Media Center by using the channel up or channel down buttons on the remote.

To skip from channel to channel, for example, from channel 4 to channel 52, you can select channels in Media Center's TV Guide by using the up and down arrow keys and OK button on the remote. You can also use the cable Set-top box remote to select channels.

- 15 Click **Yes**, then click **Next**. The wizard displays the Guide Privacy screen.
- 16 Click View the Guide privacy statement, read the statement, click Yes, then click Next. The wizard displays the Guide Terms of Service screen.
- 17 Read the Guide Terms of Service (use the down arrow to view the entire document), click **I agree**, then click **Next**.

NOTE

If you click I do not agree, the electronic TV Guide will not be accessible on your computer.

You can download the Guide at a later date. To do so, click Settings on the main MCE window, then click TV and Guide. Select Set Up Guide Listings to reactivate this portion of the wizard.

The wizard displays the Enter Your ZIP code screen.

- 18 Use the numeric keys on your keyboard to enter your ZIP code, then click **Next**. The wizard displays the Download Provider Information screen.
 - The Media Center connects to the internet and begins to download information about your local TV provider.
 - The screen displays a message when the download is complete.
- 19 Click **Next**. The wizard displays the Select TV Signal Provider screen.
- 20 Select your TV signal provider from the list. If you have digital (typically used with a Set-Top converter box) select **Digital**. Otherwise, select the basic option.
- 21 Click Next. The wizard displays the Download TV Program Guide Information screen and begins to download TV guide information from your TV signal provider.
- 22 Click **Next** when the download is complete. The wizard displays the Optional Setup screen.
- 23 Select Optimize how Media Center looks on your display, then click Next. The wizard displays the Display Configuration screen.
- 24 Click **Next**. The system displays the Identify Your Display Type screen.
- 25 Select **Traditional TV/Monitor**, and click **Next**. The wizard displays the Connection Type screen.
- 26 Select Composite or S-Video (whichever one you are using), and then click Next. The wizard displays the Optimize Media Center for Your Display screen.

- 27 Click Keep my current settings and continue, then click Next. The wizard displays the Adjust Your Display Settings screen.
- **28** Click **Finish this wizard**, then click **Next**. The wizard displays the You Are Done! screen.
- 29 Click Next. The wizard displays the Optional Setup screen.
- 30 Select **Set up your speakers**, and then click **Next**. The wizard displays the Welcome to Speaker Setup screen.
- **31** Click **Next**. The wizard displays the Choose number of Speakers screen.
- 32 Select the number of speakers on your system (the system has two internal speakers), then click **Next**. The wizard displays the Test Your Speakers screen.
- 33 Click Test, and follow the instructions on the screen. Click Next. The wizard displays the You Are Done! screen.
- **34** Click **Finish**. The wizard displays the Optional Setup screen.
- 35 Click I am finished, then click Next.
- **36** Click **Finish**. The system displays the **You are done** screen.

When the wizard runs to completion, the program displays Media Center's main window. It is not necessary to restart your computer.

Using Media Center

NOTE

You can run Media Center side by side with other Windows software programs. It is possible to browse through your pictures, watch videos, play music, and even record TV while using other Windows programs. Simply resize the Media Center window as you would any other window. For more information, refer to the online Help.



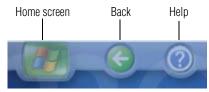
Sample Media Center main window

The Media Center main window is the central point for controlling all Media Center features. With a quick click of the mouse or using your remote control, you can:

- Watch or record TV programs
- Listen to music
- Display your digital photos
- Watch your own digital movies

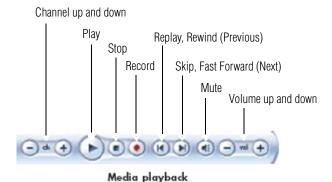
- Watch a DVD movie
- Change your Media Center Settings

When enjoying the Media Center, use the icons on the Title Bar to return to the Media Center main screen, go back to the previous screen, or to display the Media Center's online help.



Sample Title Bar Icons

Use the Media Playback controls at the bottom of the screen to control your movies, music, and photo displays.



Media Playback controls

Navigating Media Center

In the Media Center windows, a selected item, such as a folder, file, or menu item is outlined with a green border.

To select items, use the arrow buttons on the remote control, and then the \mathbf{OK} button to enter your selection.

If you have media playing, such as music or a television program, it displays in an inset window in the lower left corner. To switch from watching your media in the inset window to watching it in full screen mode, use the arrows on the remote control to select it and then press **OK**.

Using the Toshiba Qosmio Remote Control with Media Center

You can use your remote control with Media Center to play CDs, DVDs, and videos; to view pictures; and to watch and record television programs.

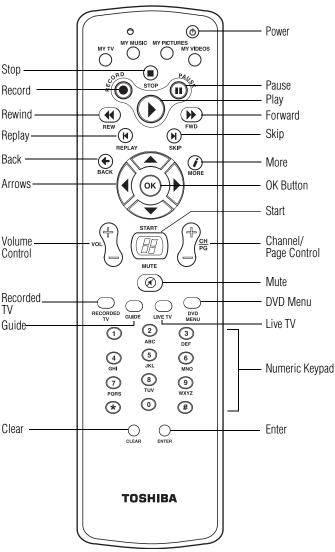
The remote control helps you navigate the Media Center windows on your screen, just as a cable TV remote control navigates cable TV options or controls the playback of a movie in a VCR or DVD player.

Using the remote control, you can:

- Navigate and control all Media Center windows
- Control the video or live TV display
- Place the computer in and out of Standby mode (for more information on Standby mode, see "Using and configuring Standby mode" on page 82)

The remote control can send a strong signal to the IR transceiver from within a range of about 26 feet and from an angle of about 45 degrees.

Remote Control Buttons Overview



Sample Remote Control

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The remote control has the following buttons/functions:

Power — Turns the computer on and starts Windows if the computer is off or in Hibernation mode. If the computer is running Windows or Media Center, pressing **Power** turns off the computer.

Stop — Stops the media currently playing.

Record — Records the selected television program and stores it on your hard disk.

Rewind — Moves the media (video, DVD, music, and so on) backwards.

Replay — Moves media (video, DVD, Music, and so on) backwards.

Back — Displays the previous window.

Arrows — Moves the cursor to navigate within Media Center windows.

Volume Control — Increases (up arrow) or decreases (down arrow) the volume.

Recorded TV — View recorded TV.

Guide — Opens the Television Program guide to display available TV channels and programs to watch and record.

Pause — Pauses an audio or video track, and live or recorded TV programs.

Play — Plays the media.

Forward — Moves media (video, DVD, music, and so on) forward. To stop forward progress of the media, press **Play**.

Skip — Moves media (video, DVD, music, and so on) forward.

More — Provides more details on a TV program than is listed in the Guide.

OK — Selects the desired action or window option. It acts like the Enter key. If you are watching TV, press **OK** to switch back to the previously viewed channel. Press again to toggle back. OK acts the same way as a Jump button on some TV remote controls.

Start — Opens Media Center to the main window.

Channel/Page Control — Changes the TV channel or moves a page up and down, depending on the available options.

Mute — Disables your computer's sound. Press again to enable sound.

DVD Menu — Opens the main menu on a DVD movie, if available.

Live TV — Takes you to the current point in a live TV program after pausing live TV.

Remote Control Button Groups

Use your remote control to navigate all the Media Center windows. Your remote control includes four major groups of controls.

- Media record and playback The media record and playback buttons control the recording and playback of music, DVD movies, videos, live TV programs, and picture slide shows.
- Navigation and direct access The navigation buttons move the cursor around to select desired action or window options. much like a mouse does.
 - The other direct access buttons open specific windows within Media Center such as recorded TV programs, the Television Program Guide, a DVD main menu, and live TV.
- Audio and Video The audio and video buttons control sound and channel selection.

Direct Access Buttons

The direct access buttons place Media Center in Recorded TV, live TV, TV program guide, or the DVD menu mode.

- Recorded TV launches Media Center into Recorded TV mode when the computer is powered off or in Hibernation mode. Use this mode to watch recorded TV. When the computer is powered on, use this button to launch Media Center.
- Guide launches Media Center into the TV program guide mode when the computer is powered off or in Hibernation mode. Use this mode to display a list of TV programs available for viewing. When the computer is powered on, use this button to launch Media Center.
- ❖ Live TV launches Media Center into TV mode when the computer is powered off or in Hibernation mode. Use this mode to watch television, so long as a TV source is connected to the computer. When the computer is powered on, use this button to launch Media Center.
- ❖ DVD Menu launches Media Center in DVD Menu mode when the computer is turned off or in Hibernation mode. Use this mode to view the menu for the current DVD or CD. When the computer is powered on, use this button to launch Media Center.

Media Playback Buttons

These buttons allow you to play back picture slide shows, music files, playlists, music CDs, DVD movies, home videos, and live TV (so long as a TV source is connected to the computer) from within Media Center.

Use **Pause** to pause selected media. Press **Pause** and then **Forward** repeatedly to play media frame by frame in slow motion. To continue slow motion, you must press the **Forward** button more than once.

Press Play to play selected media.

Use **Forward** to move selected video or picture media forward. Press **Forward** up to three times to increase the fast forwarding speed. Pressing the **Forward** button:

- Moves pictures forward to the next picture
- Moves a video forward
- Moves a TV program (that has been paused or stopped) forward to the current moment in live TV, and then begins playing

To stop forward progress of the media, press Play.

Use **Record** to record TV programs. This button is inactive when other media is playing.

- While watching live TV or in the Guide, you can press the **Record** button once to record a TV show.
- In the Guide, you can press **Record** twice to record a TV series.
- In the Guide, press **Record** three times to cancel recording.

Use **Rewind** to rewind selected video or picture media. Press **Rewind** again to increase the rewinding speed. Pressing the **Rewind** button:

- Moves the picture slide show backward to the previous picture
- Moves the video backward
- Moves live TV program to the beginning of the 30-minute pause buffer

Use **Stop** to stop selected media from playing. When this is pressed while you are watching TV, the Media Center pause buffer continues to record in the background.

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Using Media Center

Use **Next** to move forward in the selected audio or video file.

- For music, Next moves to the next track.
- For DVDs, Next moves to the next chapter.
- For videos and live TV and videos, Next moves ahead 30 seconds.

Use **Previous** to move backward in the selected audio or video file.

- For music, Previous moves to the previous track.
- For DVDs, **Previous** moves to the previous chapter.
- For videos and live TV and videos, Previous moves back seven seconds.

Using the Remote Control

To begin using your remote control:

- 1 Point the remote control at the IR transceiver. The IR transceiver should be located near your monitor or in a convenient place. Make sure there is nothing blocking the path between your remote control and the IR transceiver.
- 2 Press the **Start** button to start the Media Center and to open the Media Center main window.
 - Use the arrow keys on the remote control to select an item, and then press **OK** to select an option and begin using the Media Center.
- 3 Press **Back** to return to the previous screen.

Watching Television Programs

NOTE

Before you can watch TV using Media Center, make sure your computer is set up correctly for your TV signal source and that you have completed the Media Center setup wizard.

NOTE

The TV Tuner will function only in the country where the computer was purchased.



Sample Media Center main window, My TV

In My TV you can:

- Search for TV shows to watch or record using the Television Program Guide
- Watch your favorite television programs in full screen mode or in an inset window
- Pause, stop, rewind, and fast forward live TV, similar to the way you would control a DVD from a DVD player

Getting to Know the Windows ® XP Media Center Edition 2005

Watching Television Programs

- Record a single TV show or an entire series (my TV will manage the recordings for you and give advanced warning if there are any recording conflicts)
- Create a recorded TV library
- Quickly check which TV shows you have scheduled to record
- View and record movies
- Search for TV shows by title, keyword, or category

NOTE

If your computer enters Standby mode while you are viewing television, and you resume the computer, the live TV screen will be blank. Press the OK button to return to live TV.

To watch a television program:

- 1 Press Live TV on the remote control.
 - The last channel selected or the first channel available begins to play in full screen mode.
- 2 Select a channel by using the Channel/Page (+ or -) buttons or by using the numeric keys on your keyboard.
 - The channel number displays in the window.
- 3 Press **Back** on the remote control to exit full screen mode and view the Media Center main menu.

Selecting a Program from the TV Guide

To select a program from the TV Guide:

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Guide.

- 4 Use the arrows on the remote to scroll through the list of current television programs and channels available from your television service provider. The TV Guide displays the channel and network, as well as the show title and scheduled time block. The number of days displayed depends on your television service provider.
 - To view a program, double-click it, or select it with the remote control and click **OK**.
- 5 Press **OK** on the remote to select the program that you want to view. Media Center displays a detailed description of the program at the bottom of the screen.
 - ❖ If the program is live, press **Watch** to view the program.
 - If the program is not currently playing, press **Record** to record the program.
- You can have Media Center automatically connect to the Internet and update your Guide.

NOTE

Not all Internet Service Providers support this feature. Check with your service provider for more information.

- You can manually update the TV Guide in the Media Center Settings window at any time, even if you have automatic updates set up.
- ❖ If the TV Guide has not been downloaded from the Internet because there is no Internet connection, the message "No data available" displays next to each channel.
- The number of channels and calendar days of TV listings depends on your television service provider.
- The TV Guide does not display past TV listings.

Watching Television Programs

Watching a Recorded TV Program

Recorded TV is the storage place for all your recorded programs. In the Recorded TV window, you can sort your shows by name, date, or status. You can also delete a recorded program or series of programs and check for any recording errors.

To watch a previously recorded TV program:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Recorded TV.

All of your recorded TV programs display on the Recorded TV screen.

NOTE

You can sort your programs by Date or Title by clicking the desired sort option.

- 4 Use the arrow buttons to select the recorded program you want to watch. Click the program to view details and additional options.
- 5 Press **OK** on the remote control to begin watching the program, or click Play on the Media Center screen.

Changing a scheduled recording

To change a scheduled recording:

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV,
- 3 Select Recorded TV.

4 Select **Scheduled** to view a list of all programs scheduled to be recorded. Use the Sort by Date and Title options to sort the scheduled programs, if needed.

Use the arrow buttons to move through the list, select a program, and then press **OK** on the remote control. Select the option, and make the required changes.

5 Press **OK**.

NOTE

You can resolve recording conflicts on the Scheduled screen.

NOTE

To return to the previous menu, press Back on the remote, or click the back arrow at the top of the screen.

Searching for a TV Program to Watch

You can search the TV Guide to find a TV program that you want to watch by entering a title, keyword, or by selecting a category using your remote control.

To search for a TV show:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Search.
- 4 Select Category, Title, or Keyword.
 - Select Category. Select a category, for example, News, and drill down the programs listing.
 - Select Title. Use the keys on your keyboard to enter a program title word, and then press OK on the remote control. Media Center displays the search results.

- Select Keyword. Use the keys on your keyboard to enter a descriptive word that would appear in a program title or program description, and then press OK on the remote control. Media Center displays the search results.
- 5 Use the arrow buttons to scroll through the search results, select a show, and then press **OK**. If the show appears multiple times, select a time and press **OK**.
 - If the show is not currently playing, select **Record Show** or **Record Series**, and then press **OK**.

Recording TV

The Media Center allows you to record TV programs for later viewing. You can record the show you are watching, or you can record another or future show or series from the Guide, the Search, or the Settings window in My TV.

To record a TV show you are currently watching, just press the **Record** button on the remote control once. The Record icon (a red dot) appears in the Guide next to the program being recorded or to be recorded at a later time.



Record Icon

Sample My TV screen with recorded notation

If a show is currently being recorded, the Record icon also appears in the taskbar on the desktop. If you move your mouse over the icon, the Media Center displays which show is currently being recorded. You can right-click the icon to open Media Center and stop recording.

Media Center automatically records until the show is scheduled to be over as listed in the TV Guide. To make sure your show is being recorded, you can select **TV Guide** from the My TV screen. The Record icon should appear next to the show in the TV Guide while you are recording. The Record icon disappears when the recording is complete.

If there is a recording conflict or error, the Record Conflict icon appears next to the show in the TV Guide. This means the show will not be recorded unless the conflict is resolved.

Recording TV

Recording TV tips

- If you are watching live TV during a scheduled recording time, you can watch only the show being recorded. If you change channels, the recording stops.
- ❖ If you go to another area in the Media Center, the TV channel you last selected will be displayed in the inset window at the bottom of the window.
- When scheduling a recording in the TV Guide, you can press the **Record** button once to record a show, twice to record a series, or three times to cancel a scheduled recording you just selected.
- Multiple record icons (red dots) next to a show indicates that Media Center is set to record the series.
- When you press the **Record** button to record a show you are watching, the recording automatically stops at the end of the show's regularly scheduled end time.
- Some channels can be shared by two or more networks, depending on the time of day. The Guide may display only one network's programming. This may cause recording options to be unavailable. You may need to manually update the Guide before scheduling a recording.

NOTE

If you turn off your computer, the Media Center will not record a scheduled program. Your computer must be turned on or in Standby mode to record a TV program. The computer will not automatically go into Standby mode if the Media Center is open.

Recording from the Guide

To record a current or future show or series from the Guide:

- Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Guide.
- 4 Use the arrow buttons on the remote control to find the show you want to record.
- 5 Select **Record** on your remote to record the show. The Record icon appears next to the show in the Guide.
 - To record the series, press record twice. The Record Series icon is displayed to indicate a series.
- 6 Press **Back** on the remote control to return to the previous window.
 - If there is a recording conflict, Media Center displays a message and allows you to select which show you want to record.

Recording from Search

To record a current or future show or series using Search:

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Search.
- 4 Select Title, Keyword, or Categories. For Title and Keyword searches, enter your descriptive search words. The Media Center starts searching from the first letter you type into the text box.
 - For a Categories search, select the category you want and press **OK**. Drill down to the programs listing.

Recording TV

- 5 Use the arrow buttons to scroll through the search results to select the show you want to record, select the show, and then press **OK**.
- 6 Select Record or Record Series in the window, and then press OK. The recording icon for a single program or the recording icon for a series appears next to the show in the Guide.
- 7 Press **Back** on the remote control to return to the previous window.

If there is a recording conflict, the Media Center displays a message and allows you to select which show you want to record.

Recording Manually

Recording a program manually allows you to select a specific date, channel, and recording time period. For some programs, you may want to begin recording before the scheduled beginning and after the scheduled ending of the program.

To manually record a show or series:

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Recorded TV.
- 4 Select Add Recording.
- 5 Select the channel using the Channel/Page button on the remote.

- 6 Under the Create a custom recording with area, select Channel and Time. If the channel is incorrect, enter the correct channel with the numeric keys on your keyboard. Use the arrow buttons on the remote and +/- buttons on the screen to select the correct settings.
- 7 Select Change Title if you would like to name the manual recording. Enter letters by using the keys on your keyboard to name the recording, and then select Save.
- 8 Select **Record** to schedule the manual TV recording and return to the Recorded TV menu.

Changing Your Settings

The Media Center Settings option allows you to:

- Change settings for your television service provider
- Change settings for your Internet Service Provider
- Manually update the My TV Television Program Guide
- Check your remote control
- Change your ZIP Code to receive the correct Television Program Guide for your area

To change settings, on the My TV screen, click **Settings**.

This window allows you to change several settings that control how Media Center plays and records TV programs, as well as how it plays DVDs. In particular, you can change settings for:

- Recording a TV program, including manually recording
- The TV Guide
- The TV Signal
- Adjust display settings
- Audio settings

To make a change, click on the desired setting.

Changing recording priorities

If Media Center encounters a recording conflict between two series, then Media Center uses the series priorities list to decide which show to record. You can place the series you most want recorded high on the series priorities list to help ensure it is successfully recorded in the case of conflicts. When you schedule a new series it is added to the bottom of the list and has the lowest priority.

- Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My TV.
- 3 Select Recorded TV.
- 4 Select Scheduled.
- 5 Select Series.
- **6** Select Change priorities.
- 7 Use the up or down arrow on the screen to move a scheduled series up or down in the list of series priorities.
- 8 Select **Done** to save changes and return to the Schedule Series page.

Watching and Recording Movies

To watch or record a movie:

- Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window
- 2 Select the movie that you want to watch or record.
- 3 Click OK.
 - If the movie is playing now, click Watch or Record TV movie on now.
 - ❖ If the movie is playing later, click **Record**.

Listening to Music

The My Music window in the Media Center works with Windows Media[®] Player to find and play your music files and CDs. You can use Windows Media Player to create your music library and then use Media Center to find and play your music using your remote control.

You can store your music files in the My Music folder or in other folders on your hard drive, however, you need to add those files to the Windows Media Player Library for Media Center to be able to find and play them.

In My Music, you can:

- Play music CDs you can skip, shuffle, or repeat songs or albums
- Play digital music files from a music library you create and organize using Windows Media Player
- Search for music files by the following categories: album, artist, playlist, song, or genre
- View music CD details such as artist name, song title, length of song, and album cover art
- Play a music playlist with a slide show

Creating Your Music Library Using Windows Media® Player

Each time you add music files outside of Windows Media Player, you must use the Tools menu to add music files to your Windows Media Player Library. This will ensure that Media Center can find them.

To add music files:

1 Click **Start** on the taskbar, and then click **Windows Media Player**.

Listening to Music

- 2 Click the Library tab at the top of the window. The first time you select the media Library, a message tells you that Windows Media Player needs to search your computer for your music files.
- 3 Click Yes. Windows Media Player searches for all available audio media and places them in the Media Library.
- 4 To add files from a CD to your Media Library, insert the CD, select **Copy from CD**, and then select **Copy Music** in the toolbar. You can select to copy your music files as MPEG Audio Layer 3 (.mp3) or Windows Media Audio (.wma) files.
- 5 Click the Library tab to see where your new audio files have been placed. You can rename files by selecting the file and typing a new name or genre over the old one. The way you label your music files determines the category in which they are placed.

Your added music files can now be found and played back using My Music in Media Center. You may need to close and open Media Center for the added music files to appear in My Music.

For more information about adding music files to the Media Library, use the Windows Media Player Help menu.

Deleting Music Files

To delete a file from the Windows Media Player Library, select the music file, right-click the mouse, and then select **Delete**.

Adding Music from Your Hard Drive to Windows Media Player Library

You can place all your music files into the My Music folder or into other folders on your hard drive, however, you need to add those files to the Windows Media Player Library for Media Center to be able to find and play them.

You may have already copied and organized your music files on your hard drive. If so, you need to add them to the Windows Media Player Library to access them with the Media Center.

To add music files that are stored in your My Music or Shared Music folder on your hard drive:

- 1 Click Start on the taskbar, and then click Windows Media Player.
- 2 Select Search for Media Files from the Library tab's Tools menu.



Sample Add to Library by Searching Computer screen

- 3 Select an option from the **Search on** drop-down menu.
- 4 Select **Search** to search all drives or select **Browse** to search through a specific drive.
- 5 Click Search. Windows Media Player searches the selected drives for all supported audio files and adds them to the Media Library.
 - If Windows Media Player does not recognize all of your audio files, try copying the files directly into Windows Media Player. Refer to Windows Media Player Help for more information.

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Listening to Music

Your music files can now be found and played in the My Music window in the Media Center. You may need to close and open Media Center for the added music files to appear in My Music.

Playing Digital Music Files

When you first open the Media Center and open the My Music window, you may not find any music files listed unless there is a music CD in your CD drive or unless you have already added audio files to your Windows Media Player Library.

If you do not have any music files listed, you need to add music files to the Windows Media Player Library, and then restart Media Center to play your music files in Media Center.

When you copy music files using Windows Media Player and your computer is connected to the Internet, the CD information is copied and displayed in Media Center and in the Windows Media Player Library.

To play a music CD using Media Center:

- 1 If you insert a CD when Media Center is not open, a message appears asking what you want to do. You can select **Windows Media Player** as your default audio player. If you have another program set as the default audio player, Windows opens this program and begins playing the CD.
- 2 Press the **Start** button on the remote control.
- 3 Insert a CD into the CD drive the CD plays automatically in Media Center. If you have other media such as live TV already playing when you insert the CD,

Listening to Music

Media Center asks you if you want to play the CD. Select **Yes** to begin playing the CD.

NOTE

Media Center cannot be used to record music files. Use Windows Media Player to record music files.

Finding Music Files in My Music

After you have added and organized files in Windows Media Player Library, you can browse through your music files in the My Music window. You can search for music files by album title, artist, playlist, song title, or music genre. You can also use the search feature to quickly find a specific song, album, or artist.

To find a music file:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Music.
- 3 Select Albums, Artists, Playlists, View Songs, or Genres to display a list of all items in that category. In these windows, you will have other options, depending on the category you select.

or

Select **Search**. Use the keys on your keyboard to enter a descriptive word, song title, or artist name. Media Center displays a list of all the titles that match your entry.

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Listening to Music

4 Use the arrow keys to select a music file, press OK on the remote, and then press **Play** on the remote control to begin playing that music file.

NOTE

If you back up music files from a CD using Windows Media Player, you must log the files into the Media Player's play list before you can play them using the Media Center. To log the files into the play list, open Windows Media Player, press F3 and log the files in the Add to Library by Searching Computer dialog box. For more information, see "Adding Music from Your Hard Drive to Windows Media Player Library" on page 194.

Playing a Song

You can play a song from anywhere in My Music. You can select it from the View Song list, or from the Album, Artist, and Genre lists.

You can also play a single song from a playlist as follows:

- Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Music.
- 3 Select **Songs**. The program displays all the songs in your media library.
- 4 Use the arrow buttons to select a song, and then press **OK** or **Play** on the remote control to play it.
- 5 Use the controls at the bottom of the screen to stop or pause the song, advance to another song, or increase or decrease the volume.

Setting Up an Automatic Disc Jockey

You can select to have Media Center randomly play all the available songs in one genre:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Music.
- 3 Select Genres.

The list displays all the genres available in your Media Library.

- 4 Use the arrow buttons to select a genre, and then press **OK** on the remote control.
- 5 Use the arrow buttons to select **Shuffle**, and then press **OK** on the remote control.

All songs in that genre are randomly played.

Finding and Playing an Album

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Music.
- 3 Select Albums.
- 4 Use the arrow buttons to select an album, and then press **OK** on the remote control. Media Center begins to play the album and displays the Now Playing screen.

Use the options on this screen to perform the following tasks:

- View Cover (this is the default option)
- **♦ View Queue** (view a list of all tracks on the album)
- Shuffle (rearrange the play order of the music tracks on the album)

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Listening to Music

- * Repeat (play the album again)
- Play (play the selected album)

When you select Play, the Now Playing window opens, and the album starts playing.

Buy Music (connect to the Internet, find CD information, and buy music CDs)

To go back to Media Center, press **Start** on the remote control.

- Visualize (view an image)
- **Edit Queue** (edit the songs in the queue)
- 5 Press **Back** on the remote control to return to the previous window.

NOTE

In the Albums window, select View by list or View by cover to organize your albums.

Creating a Playlist

A playlist is a customized list of digital music files. Using playlists, you can group various digital music files together and determine the order in which you want the files to play. You can create a playlist that includes several tracks from various CDs or even a playlist that contains background music for a slide show.

Use Windows Media Player to create playlists and then play them back using Media Center.

To create a playlist:

- 1 Click **Start** on the taskbar and select **Windows Media Player**.
- 2 Click the **Library** tab.

- 3 Left click the **Now Playing list** menu on the right side of the screen.
- 4 Select New List, then Playlist.
- 5 Drag the music files to the right side of the Media Player window. You can also select the music file and click the **Add selection to the current list** icon.
- 6 Left click the Now Playing list menu and select Save Playlist As. Enter the name of the Playlist in the Save as window, and click Save.
- 7 Select your playlist to view the music files that you have added.
- 8 Close Media Center, if open, and then press the **Start** button on the remote control. Your playlist will not appear in My Music unless you close and open Media Center.

You can now play your playlist in Media Center.

Displaying Your Pictures



Sample Media Center main screen

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Displaying Your Pictures

In **My Pictures**, you can:

- View pictures individually or as a slide show
- Change transition time and display order of the pictures in your slide show
- Sort pictures by name or date
- View and scroll through pictures that are in the My Pictures folder by using your remote control or your keyboard and mouse



Sample My Pictures screen

After you organize your pictures in the My Pictures folder in Windows Explorer, open Media Center to view your pictures:

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select **My Pictures**. The right side of the window shows a small picture image (thumbnail) and, if you have organized your pictures into folders, folder icons.
 - Your pictures are displayed just as you organized them in the My Pictures folder in Windows Explorer.

- 3 Use the arrow buttons on the remote control to move through your picture files and folder files and select a picture.
- 4 Press **OK** to select a picture or folder to view. The selected picture opens in full screen mode.

Viewing a Slide Show

To view pictures as a slide show:

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Pictures.
- 3 Use the arrow buttons on the remote control to select the folder of pictures you want to view as a slide show, and then press **OK**.
- 4 Use the left and right arrow buttons on the remote control to go to the next or the previous picture manually or use the arrow buttons to select **Play Slide Show**, and then press **OK** to display your pictures automatically.

If you do not select the pictures you want to view as a slide show, Media Center uses the first folder listed. If you have picture files that are not stored in folders you created, Media Center plays all files stored in the My Pictures folder.

Sorting your Pictures

To organize your pictures by date or by name:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window
- 2 Select My Pictures.
- 3 Select **Sort by Date** or select **Sort by Name**.

Watching Your Digital Movies

Watching Your Digital Movies

The My Videos window in the Media Center makes it easy to play home video files you created or video files you downloaded from the Internet.



Sample Media Center main screen

In My Videos you can:

- Browse through and play back all of your digital video files using the remote control or the keyboard and mouse
- Sort videos by name or date
- View your videos in full screen mode or from an inset window in Media Center

Organizing Your Videos

When you attach a digital video camera to your computer, Windows asks you how you want to capture your video. You can choose from various software programs to capture and then edit your video file. Most programs automatically save your file to the My Videos folder in Windows Explorer.

If not, move your videos into the My Videos or Shared Videos folder in Windows Explorer for Media Center to be able to find and play them.

Once you have placed all your videos into the My Videos or Shared Videos folder, you can rename, add, delete, and organize them into folders.

To organize and store your videos, click **Start** on the taskbar, click **My Documents**, and then double-click the **My Videos** folder.

If you want to share your videos with others, place them in the Shared Video folder. To do this, click **Start** on the taskbar, click **My Documents**, click the **Shared Documents** folder under Other Places, and then double-click the **Shared Video** folder.

You can add, delete, edit, rename, and organize your video files into folders you create in the Shared Video folder.

Your videos can now be played in Media Center.

Playing Digital Videos

After you organize your videos in the My Videos or Shared Videos folder in Windows Explorer, open Media Center to watch your videos.

- Press the Start button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Videos. The right side of the window shows small images of your video files and folder icons, if you have organized your videos into folders.
- 3 Use the arrow buttons on the remote control to move through and select your video or video folder.

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Watching Your Digital Movies

- 4 Press the **OK** button on the remote control.
 - The selected video plays in full screen mode, or the folder opens displaying a list of video files. Use the mouse to resize the window if you want to watch your video while doing something else on your desktop.
- When the video is finished, select **Restart** and then press **OK** to replay the video. You can also select **Done** and press **OK** to close the file and return to the My Videos window.

Playing a Video in Full Screen Mode

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Videos.
- 3 Select My Videos or Shared Video.
- 4 Use the arrow buttons to select the folder you want, and then press **OK**. Select the video file and press **OK** again. Your video plays in full screen mode.
- 5 Press **Back** on the remote control to exit full screen mode and return to the previous window.

Sorting Videos

To organize your videos by date or by name:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select My Videos.
- 3 Select My Videos or Shared Video.
- 4 If your videos are organized within other folders, use the arrow buttons to select the folder you want to sort, and then press **OK**. If you do not select a folder, the Media Center sorts all the files and folders.
- 5 Select **Sort by date** or **Sort by name**.

Watching a DVD

Watching DVDs in the Media Center allows you to control the playback with your remote control. If you select to play your DVD in another program, the use of some of the remote control buttons is not supported.



Sample Media Center main menu

To play a DVD movie in Media Center:

- Insert the DVD into the drive. If you have other media playing, Media Center asks if you want to play the DVD. Select Yes or No. If you do not select an option, the DVD automatically plays in full screen mode after a few seconds. If no media is playing, click Play DVD.
- 2 If a DVD menu appears, use the remote control or the mouse to select the DVD menu items and control the DVD movie playback.
- 3 Press **Stop** on the remote control to stop playing the DVD.
- 4 To change the window size, move the mouse and click the **Resize** button on the taskbar of the DVD window.

Stopping a DVD Movie

- 1 Press the **Stop** button on the remote control to stop the movie.
- 2 Use the arrow buttons on the remote control to select an item on the Stopped menu, and then press **OK**.
- Select **Resume** to begin playing the DVD where you left off.
- Select **Restart** to begin playing the DVD at the beginning.
- Select **Title Menu** to go to the DVD main menu, if available.
- Select DVD Languages to change the language for the DVD soundtrack, subtitles, and menu.
- Select **Eject** to eject a disc.

Playing a DVD movie already in your drive

If you already have a DVD movie in your drive, but you have been doing other things in Media Center or in other programs from your desktop, you can play the DVD by:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select Play DVD. The DVD movie begins playing in full screen mode.

Changing the Media Center Settings

Changing the Media Center Settings

In the Media Center Settings window, you can change settings for watching television, for viewing your pictures and slide shows, and for controlling sound and the display of all the Media Center windows.



Sample Media Center Settings screen

The following section describes some of the more common settings that a user might want to change. For specific information about settings not covered in this section, please see Windows Media Center Help, available at the top of any Media Center screen.

Changing General Settings

General settings affect each user's experience in Media Center and can be changed only by the administrator of the computer.

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select **Settings**.

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Changing the Media Center Settings

3 Select **General**.

The General Settings screen includes the following options:

- Select Startup and Window Behavior to change Media Centers startup and window behavior, for example, you can elect to start Media Center when Windows starts.
- Select Visual and Sound Effects to turn transition animations or navigation sounds on or off. Use the arrow buttons to select the item to change, and then press OK on the remote control. Select OK in the window, and then press OK again.
- Select More Program Options to allow applications in More Programs to control the media experience in Media Center or access media information from Media Center.
- Select Media Center Setup to run the Media Center Setup wizard again, or perform specific tasks performed by the wizard, such as set up your internet connection, tv signal, speakers, and so on. You can also join a wireless network and restore start page defaults from this screen.
- Select Parental Control to set passwords, movie ratings, and other controls.
- Select Automatic Download Options to change your download settings (Download when connected, or Manual download).
- Select About Media Center to view information about the Media Center's software version, terms of service, and data provider credits.
- Select Privacy to change settings for how the computer retrieves and stores media information.
- 4 Press the **Back** button on the remote control to return to the main Settings window.

Changing TV Recorder Settings

The TV Recorder settings allow you to control your recording priorities and options in Media Center.

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select **Settings**.
- 3 Select TV.
- 4 Select Recorder.
 - Select History to check a list of scheduled recordings, delete scheduled recordings, resolve recording conflicts, and to change recording priorities for the programs you scheduled to record.
 - Select Recorder Storage to check the amount of recording space on your hard disk. Also, you can change the settings that affect the recording storage space.
 - Select Recording Defaults to change the general recording default settings that affect how and when your programs are recorded.
- 5 To change the TV/DVD settings on Recorded Storage or Recording Default screens, use the arrow buttons to select an option, and then press **OK** on the remote control. Use the arrows to select **Save** on the screen. Then press **OK** on the remote control again to enter the changes.
- 6 Press the **Back** button on the remote control to return to the main Settings menu.

Changing the Media Center Settings

About Recorded TV Storage Space Settings

The space available for recording TV programs depends on your hard disk allocation, drive size, and default recording quality selections. Your computer requires a certain amount of space to run your Windows operating system, run software programs, and store data files. If your hard disk becomes full, it may affect your computer's speed and performance. You may need to free up storage space to record more programs or to optimize your computer's performance.

To increase disk space, you can:

- Delete recorded shows from the Recorded TV window. For more information, refer to "Recording TV tips" on page 188.
- Increase the percentage of hard disk space available for recorded TV shows in Default Settings. Select between 5 percent and 90 percent. The default is set at 75 percent.
- Record TV programs to the largest drive. Media Center does not support removable drives, network drives, or drives with less than 5 MB of disk space.
- Archive TV programs to a DVD if your computer has a DVD writer drive. You can play archived programs recorded on DVDs only from the computer that you recorded the TV program from.
- ❖ In the Recorder Defaults window, select **Fair** as the default recording quality. The better the quality of the recording, the more space the file takes.
- ❖ In the Recorder Defaults window, select **Until I watch** as the Keep setting for each recorded show.

Change TV Guide Settings

In the Guide Settings, you can select which channels to display and you can manually update your Guide from the Internet.

TV Guide settings are the same for each user and can be changed only by the administrator of the computer.

To change the TV Guide settings:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select Settings.
- 3 Select TV.
- 4 Select Guide.
 - Select Edit Channels to add or remove a channel from the Guide.
 - Select Add Missing Channels to add a TV channel that is missing from the Guide.
 - Select Setup Guide Listings to show or hide channels that appear in the Guide. To show a channel, select the channel check box. To hide a channel, clear the check box.
 - Select Get Latest Guide Listings to manually update the Television Program Guide from the Internet. Media Center connects to the Internet. This may take a few minutes to update.
 - Select Guide Terms of Service to view the Guide's terms of service statement.
 - Select About Guide Listings to find out general Guide information and the date range of your current Television Program Guide.

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Changing the Media Center Settings

- 5 Use the arrow buttons to select an option, and then press OK on the remote control. Make required changes, if any.
- 6 Press the **Back** button on the remote control to return to the TV Settings window.

Changing Parental Controls for TV Viewing

Only the administrator of the computer can change the Parental Control setting. This feature may not be available on your computer.

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select Settings.
- 3 Select General.
- 4 Select **Parental control**. The first time you select Parental control, Media Center asks you to create a password. Use the numeric keys on your keyboard to enter your password.
- 5 Select Movie/DVD Ratings.



- 6 Use the arrow buttons to select **Turn on movie blocking**, and then press **OK**.
- 7 Use the arrow buttons to select **Block unrated movies**, and then press **OK**.
- 8 Use the arrow buttons to select the + or area. Press the **OK** button on the remote control to scroll through the movie rating levels. When you find the one you want, use the arrow buttons to select **OK** in the window, and then press **OK** on the remote control to enter settings and return to the DVD settings window.
- 9 Press the **Back** button on the remote control to return to the main Settings window.

Changing DVD Movie Language

To select DVD language settings for subtitles, closed captioning, and viewing the DVD:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select Settings.
- 3 Select DVD.
- 4 In the DVD Settings window, select **DVD Language**.
- 5 Use the arrow buttons to select the + or buttons. Press the **OK** button on the remote control to scroll through the languages available. When you find the one you want, use the arrow buttons to select **OK** in the window, and then press **OK** on the remote control.
- 6 Press the **Back** button on the remote control to return to the main Settings window.

Changing the Media Center Settings

Selecting Close Captioning

The audio settings window allows you to select closed captioning. Close captioning displays the TV's spoken audio in text format for those who are unable to hear the audio.

To select close captioning:

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select Settings.
- 3 Select TV.
- 4 Select Close Captioning.
- 5 Use the arrow buttons to select the + or buttons. Press OK on the remote control to scroll through the choices available.
 - **Captioning:** Select **CC1** or **CC2**.
 - Caption Display: You can select to turn close captioning On, Off, or On when mute.
- 6 Use the arrow buttons to select **Save** in the window.
- 7 Click OK.

Changing Picture Settings

Each user can set his or her own picture settings.

- 1 Press the **Start** button on the remote control to start the Media Center and to open the Media Center main window.
- 2 Select Settings.
- 3 Select Pictures.



Sample Picture Settings screen

- 4 Use the arrows and OK button on the remote control to select or deselect options.
- 5 Select Save.
- 6 Click OK.

More Programs



Sample Media Center main screen

Use the options on the More Programs screen, available from the Media Center's main menu, to perform the following tasks:

- ❖ Select **Create CD/DVD** to create a CD or DVD.
- Select InterVideo to view and adjust the InterVideo Video & Audio Settings screen.
- Select Messenger to sign into Media Center's Messenger program.
- Select Sync to Device to sync with pocket computers and other data devices.

For more information about the options, please see Media Center help available at the top of each Media Center screen.



Sample More Programs main screen

Online Spotlight

Use the Online Spotlight screen, available from Media Center's main screen, to purchase and download music, DVDs, and movies, and read news and sports stories.

Tips on Media Center are also available for viewing from this screen.

Getting Help for Media Center

Getting Help for Media Center

Click the Help icon at the top left of the screen to access Media Center's Help screen, which includes a number of links to helpful information on Media Center, as well as help for hardware problems.



Sample Media Center main Help screen

Chapter 6

Toshiba Utilities

Your computer includes several utilities designed to help you to reconfigure your system to best meet your individual needs. Together, these allow you to determine certain system details, set additional options, or change default options. This chapter describes the utilities supplied by Toshiba:

- Fn-esse[®]
- Hotkey Utility
- TOSHIBA Assist
- ❖ PC Diagnostic Tool
- Power Management
- Mouse Utility
- Accessing TOSHIBA HW Setup
- TOSHIBA Zooming Utility
- TOSHIBA Picture Enhancement Utility
- CD/DVD Drive Acoustic Silencer
- TOSHIBA Accessibility
- Setting passwords
- Fingerprint Authentication Utility

Fn-esse®

Fn-esse[®]

Desktop shortcuts and Toshiba's Fn-esse program provide quick ways to open programs, documents, and folders from within any Windows® program without using the Start menu. For more information on creating desktop shortcuts, refer to the operating system documentation that came with your computer.

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® operating system program
- Open a file in its associated program
- Display a customized folder of programs and/or files from which to choose

Fn-esse also has several keys, known as hot keys, that perform preassigned operations. For more information, see "Hot Keys" on page 326.

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

Starting Fn-esse®

Click Start, point to All Programs, Toshiba, then Utilities, 1 then click **Fn-esse**.

The Fn-esse keyboard appears.



Sample Fn-esse screen

The keys are color-coded as follows:

- Available keys are dark gray with white letters.
- Assigned keys and keys associated with a popup list are shown on the Fn-esse keyboard in the selected color.
- Unavailable keys are light gray.

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

- Using drag-and-drop
- Using the keyboard or pointing device

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

Using drag-and-drop to assign a key

To assign a key to a program or document:

- 1 Start both Fn-esse and Windows® Explorer (or the program supporting drag-and-drop).
- 2 Resize the Explorer window so that you can see both the Fn-esse keyboard and Explorer at the same time.
- 3 In the Explorer window, highlight the program or document file you wish to assign to a key.
- 4 Click and hold the primary button as you drag the highlighted item from Explorer to the key on the Fn-esse keyboard to which you want to assign it.
- 5 Release the primary button.
 - Fn-esse displays the Add/Edit Command dialog box with the Description, Command Line, and Working Directory fields automatically completed.
- 6 Click **OK** to close the Add/Edit Command dialog box with your key assignment in place.
 - The program or document is now associated with the key you just selected. To open the program or document, press Fn plus the appropriate key from within any Windows program.

Fn-esse®

Using the keyboard or pointing device to assign keys

To assign a key to open a program or document:

- 1 Start Fn-esse.
- **2** Perform one of the following:
 - Using the keyboard, press and hold the Fn key, then press the desired assignment key.
 - Using the pointing device, move the cursor over the desired key in the Fn-esse window and press the secondary button.

The Assignment Type dialog box appears.



Sample Fn-esse assignment type dialog box

Follow the instructions in the "Making a direct key assignment" on page 225 or "Making a popup assignment" on page 225.

Making a direct key assignment

To make a direct key assignment, select **Direct** to display the Add/Edit Command dialog box, then complete these steps:

- 1 Enter the Description, Command Line, and Working Directory for the new Fn-esse key assignment, or click the Browse button to specify this information.
- 2 Click OK.

Making a popup assignment

To make a popup assignment, select **Popup** to display the Application Explorer dialog box, then complete these steps:

- Select the desired folder. The left side of the Application Explorer window displays the folders in the All Programs menu. The right side lists the programs and documents in the folder. These are the items that will appear in the popup list.
- 2 To create a popup list with items from various folders, or to pick only a few items from a folder, create a new folder containing only the desired programs and documents. If you are unsure how to do this, refer to your operating system documentation.
- 3 Click OK to associate the folder with the key you just selected.

To open a popup list showing the items in that folder, press Fn plus the appropriate key from within any Windows® program.

Viewing existing key assignments

To view the existing key assignments, choose **Assignments** from the Fn-esse keyboard. Fn-esse displays the Function Key Assignments dialog box. This box lists all the key assignments and the program or document to which each key is assigned.

To view items in a popup list, select the **Expand popup lists** check box.

Changing or removing existing key assignments

- 1 On the Fn-esse keyboard, click the key you wish to change with the secondary button.
 - Fn-esse displays the Assignment Type dialog box.
- 2 To change the key assignment, click **Direct** or **Popup** and continue as if you were creating a new assignment.
- 3 To remove the key assignment, click **Clear**.

Hotkey Utility

The hotkey utility allows you to receive a confirmation message when you use the hotkey combination for Standby [Fn+F3] and Hibernation [Fn+F4].

To activate:

1 Click Start, All Programs, Toshiba, Utilities, then click the Hotkey utility.

The Toshiba Hotkey window appears.



Sample Toshiba Hotkey utility window

- 2 Put a check mark next to the desired option.
- 3 Click OK.

TOSHIBA Assist

The TOSHIBA Assist provides quick access to computer functions and allows you to customize a range of computer settings.

To access this utility:

1 Click Start, All Programs, Toshiba, Utilities, then click Assist.

The TOSHIBA Assist window appears.



Sample TOSHIBA Assist window, Connect tab

The TOSHIBA Assist offers four categories of options:

- **♦** Connect
- Secure
- Protect & Fix
- Optimize

228 Toshiba Utilities TOSHIBA Assist

Connect

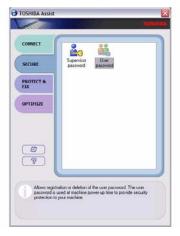
The options available in this category are:

- ConfigFree
- ❖ Start Bluetooth®
- Bluetooth Settings
- Bluetooth Local COM Settings

Secure

The options in this category are:

- Supervisor password
- User password



Sample TOSHIBA Assist window, Secure tab

Protect & Fix

The options available in this category are:

PC Diagnostic Tool



Sample TOSHIBA Assist window, Protect & Fix tab

Optimize

The options in this category are:

- Hotkey Utility
- Power Management
- SD Memory Card Format
- Mouse Utility
- **❖** TOSHIBA Zooming Utility
- ❖ TOSHIBA Picture Enhancement Utility
- ❖ CD/DVD Drive Acoustic Silencer
- **❖** TOSHIBA Accessibility



Sample TOSHIBA Assist window, Optimize tab

SD Memory Card Format

This utility is used to format SD cards used with the Bridge Media Adapter Slot.

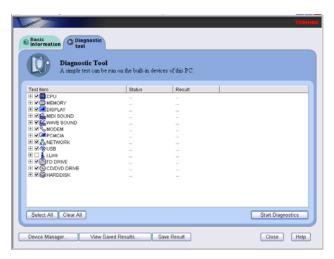


Sample SD Memory Card Format screen

PC Diagnostic Tool

This utility can help diagnose problems with devices in your computer. Refer to the online help documentation within the application for any additional help.

To start the utility, click **Start**, **All Programs**, **Toshiba**, **Utilities**, and click **PC Diagnostic Tool**.



Sample PC Diagnostic Tool screen

Power Management

NOTE

Toshiba recommends that you use the Toshiba Power Management Utility to change system power settings.

The Power Management utility enables you to control your computer's power usage, regardless of the source, and use the many preset power modes, or create one yourself.



To access Power Management through TOSHIBA Assist, click the **Power Management** icon.

The TOSHIBA Power Saver Properties window appears.



Sample TOSHIBA Power Saver Properties screen

The Profile panel on the left of the TOSHIBA Power Saver Properties screen shows the power usage for both AC power and battery power.

You can either use one of the preset profiles or create and use your own customized mode. The preset profiles cannot be deleted.

By changing the options that appear in the TOSHIBA Power Saver Properties window and clicking **OK**, you can reconfigure that function. Any options that you change become effective when you click either **OK** or **Apply**.

Power Usage Profiles

This section lists the preset profiles along with the estimated battery life for each mode. The preset profiles are:

- Long Life
- Normal
- High Power

- DVD Playback
- Presentation
- Full Power

Although you can change the properties for any of these profiles, this is not recommended. If you need a customized profile, create a new profile with the properties you require.

The DVD Playback profile applies only when a DVD program is playing while running the computer on battery power and using InterVideo WinDVD™.

Quickly creating a new power mode

- 1 Highlight one of the preset profiles.
- 2 Click Copy.
- A new profile appears with the title "Copy of Name" where Name is the title of the profile you copied.
- 4 To rename the profile, click the **Property** button.
- 5 Type the name for your new profile, and then click **OK**.

Customizing a power mode

- 1 Highlight the profile on the Profiles window.
- 2 Make the desired changes to settings on the Basic Setup page and the Setup Action page.
- 3 Click Apply.
- 4 Click **OK**.

Mouse Utility

The Mouse utility allows you to change your pointing device or mouse settings. To access the Mouse utility through the TOSHIBA Assist, click the **Mouse** icon.

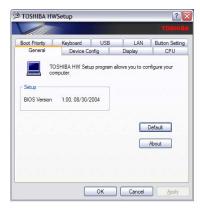
Accessing TOSHIBA HW Setup

TOSHIBA HW Setup is the Toshiba configuration management tool. To access it:

1 Click Start, All Programs, Toshiba, Utilities, then click Assist.

The TOSHIBA Assist screen appears.

2 Click Optimize and double-click on the HW Setup icon to open the HW Setup dialog box.



Sample TOSHIBA HW Setup tab options

TOSHIBA HW Setup has the following tabs:

- General—Allows you to view the current BIOS version or change certain settings back to their default values
- Device Config—Shows the Device configuration options
- Display—Allows you to change various default settings for the built-in LCD display
- CPU—Allows you to change the dynamic CPU frequency mode
- Boot Priority—Allows you to change the sequence in which your computer searches the drives for the operating system

- Keyboard—Allows you to configure an external PS/2 keyboard to emulate the Fn function key and access the wake-on keyboard function
- USB—Allows you to enable or disable USB Legacy Emulation
- LAN—Allows you to set networking functions
- Button Setting—Allows you to set conditions for the Power Button

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 become default settings when you restart your system.

TOSHIBA Zooming Utility

This utility allows you to zoom in and zoom out of applications. You can make this utility work on all applications or specific applications. These are the options available to you:

- All applications
- All applications with icons on the desktop
- Microsoft® Internet Explorer, Microsoft® Office, Windows® Media Player, and Adobe® Reader (you can select one or more of these programs)

To access the utility, click **Start**, **All Programs**, **Toshiba**, **Utilities**, and then **TOSHIBA Zooming Utility**.

The TOSHIBA Zooming Utility screen appears.



Sample TOSHIBA Zooming Utility screen

For more information about how to use the TOSHIBA Zooming Utility, right click on the [3] icon in the taskbar and click on Help.

TOSHIBA Picture Enhancement Utility

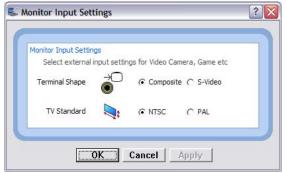
The TOSHIBA Picture Enhancement Utility allows you to adjust your computer screen to maximize the ambient surrounding light. To access the TOSHIBA Picture Enhancement Utility, click Start, point to **All Programs**, **Toshiba**, then **Utilities**, then click **Picture Enhancement**.

TOSHIBA Picture Enhancement Utility



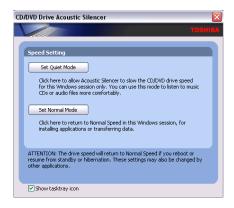
Sample TOSHIBA Picture Enhancement Utility

Clicking the **Monitor Input Settings** button displays a screen for selecting external input settings for devices such as video cameras and games.



Sample Monitor Input Settings screen

CD/DVD Drive Acoustic Silencer



Sample CD/DVD Drive Acoustic Silencer screen

This utility, available on TOSHIBA Assist, can slow the speed of your optical drive to make it run more quietly. You can use this utility to make listening to Music CDs more enjoyable.

NOTE

The CD/DVD Drive Acoustic Silencer does not operate when running QosmioPlayer. Please use Windows Media Center or Media Player if you want to use the CD/DVD Drive Acoustic Silencer.

NOTE

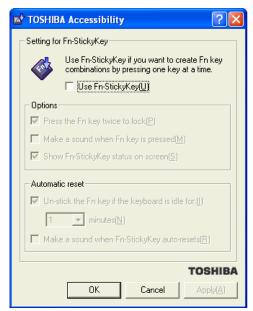
When you change the CD/DVD drive to "Quiet" mode, the setting is only valid for the current Windows session. If you shut down, restart, log off, or resume from hibernation, the setting will revert back to Normal speed. The setting can also be changed by CD burning software or other applications that can set the drive speed.

To change the setting, open the Acoustic Silencer by doubleclicking the tasktray icon.

Toshiba Utilities

- 1 Click Set Quiet Mode to make the drive run more slowly and quietly, for listening to Music CDs or Audio files on a CD.
- 2 Click **Set Normal Mode** to run the drive at normal speed, for transferring data.

TOSHIBA Accessibility



The TOSHIBA Accessibility window

The TOSHIBA Accessibility utility allows you to use the Fn key to create a hot key combination with one of the function keys without pressing the two keys simultaneously as is usually required. Using Accessibility lets you make the Fn key a *sticky key*, meaning you can press it once, release it, and then press a function key to activate the hot key function.

To open Accessibility:

- 1 Click **Start**, then click **All Programs**.
- 2 Select Toshiba, Utilities, then select Accessibility. The TOSHIBA Accessibility window appears.
- 3 Check the Use Fn-StickyKey box.
- 4 Put a check mark next to the desired option.

Setting passwords

Setting a password lets you walk away from 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 several types of passwords on your computer:

- An instant password—Secures your open programs and files when leaving the computer temporarily (the user password supports this function).
- A supervisor password—Prohibits unauthorized users from accessing certain functions such as TOSHIBA HW Setup. This is useful if more than one person uses the computer.

When setting up the various passwords, keep the following in mind:

- The user password can be set up under the supervisor password.
- The supervisor password must be set before the user password, or the user password must be deleted and then re-entered after the supervisor password is set.

Using an instant password

An instant password secures your system with a single keystroke. Use this feature when you leave your desk for a few minutes and do not want to turn off the computer.

To use an instant password, press Fn, then press F1. An instant password has no effect on an optional USB mouse or trackball.

To unlock your system, press any key or the pointing device and the Windows Logon screen will appear. Select your user name and enter your password, if any.

Using a supervisor or user password

A supervisor password prevents other users from changing hardware configuration options.

Setting a supervisor password

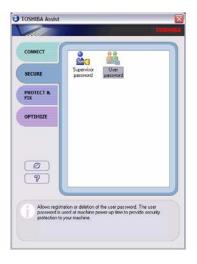
CAUTION

If you choose to set a supervisor or user password, Toshiba strongly recommends that you save your password in a location where you can later access it should you not remember it.

Toshiba is not responsible for any losses that may occur to you, your organization or others as a result of the inability to access the computer.

To register a password for the power-on password functions:

- 1 Click the **TOSHIBA Assist** icon on the desktop.
- 2 On the left side, select **Secure**.



Sample TOSHIBA Assist Security window

- 3 Select the **Supervisor Password** icon.
- 4 Click Set.
- 5 Type your password in the **Input** box.
- 6 Retype your password in the **Input** again box.
- 7 Click Set.
- 8 Click OK.

Deleting a supervisor password

To cancel the power-on password function:

- 1 Click the **TOSHIBA Assist** icon on the desktop.
- 2 On the left side, select **Secure**.
- 3 Select the **Supervisor Password** icon.
- 4 Select Verify by Password.
- 5 Select the **Supervisor Password** tab.
- **6** Type the correct password.

- 7 Click **Verify**.
- 8 Click Delete.
- 9 Select Verify by Password.
- **10** Type the correct password.
- 11 Click Verify.

Setting a user password

CAUTION

Make sure you use a password you can remember easily. If you forget the User and Supervisor passwords, you will not be able to use the computer. Contact a TOSHIBA Authorized Service Provider for assistance.

To register a password for the power-on password functions:

- 1 Click the **TOSHIBA Assist** icon on the desktop.
- 2 On the left side, select **Secure**.
- 3 Select the **User Password** icon.
- 4 Click Set.
- 5 Type your password in the **Input** box.
- 6 Retype your password in the **Input** again box.
- 7 Click **Set**.
- 8 Click OK.

Fingerprint Authentication Utility

Disabling a user password

To cancel the power-on password function:

- 1 Click the **TOSHIBA Assist** icon on the desktop.
- 2 On the left side, select **Secure**.
- 3 Select the **User Password** icon.
- 4 Select Verify by Password.
- 5 Type the correct password.
- 6 Click Delete.
- 7 Click OK.

Fingerprint Authentication Utility

The fingerprint authentication utility can be used to replace the keyboard-based user/BIOS password authentication system when booting up.

The fingerprint authentication utility can also be used for user logon. The user's fingerprint is read; if the system recognizes the fingerprint, the user is automatically logged on.

Fingerprint Enrollment

Use the **Enroll or Edit Fingerprints** wizard to enroll new fingerprints or to update existing fingerprint samples.

NOTE

It is recommended that you complete the Fingerprint tutorial before starting fingerprint enrollment. The fingerprint tutorial shows how to achieve the highest quality fingerprint samples.

To enroll a new fingerprint:

1 Click the **Fingerprints** topic in the Control Center. Click the **Enroll or Edit fingerprints** wizard.

- 2 Enter your credentials.
- **3** Complete the fingerprint tutorial.
- 4 Click the button above the finger you want to enroll.
- 5 Swipe your finger on the sensor. A sample will be created and indicated by an fingerprint icon.
- 6 Repeat the previous step. Swipe the same finger on the sensor again to create two more samples.
- 7 The final template will be created from these three samples.

NOTE

If you do not use a Windows password, you will be prompted to define a new (non-empty) one. This is not necessary, but a password improves the security of your software.

If your system supports power-on security, a Power-on button is also displayed above each enrolled finger. This button is shown pressed by default, indicating that your finger is automatically added for power-on authentication.

During fingerprint enrollment, the system displays icons as prompts, notifications, and warnings. These icons and their meanings are as follows:



Sensor ready. The sensor is waiting to read your fingerprint. Swipe your finger when you are ready.



Sensor busy. Wait for the sensor to complete its operation.



Problem with operation. The sensor could not read your fingerprint. Swipe your finger again.



Operation succeeded. The sensor successfully read or verified your fingerprint.



Failed to verify the user. The fingerprint could not be matched.

Toshiba Utilities

Fingerprint Authentication Utility



Error reading fingerprint—the finger was too far to the left or right. Center your finger and swipe it again.



Error reading fingerprint—the movement was skewed. Swipe your finger again in a straight line.



Error reading fingerprint—the movement was too fast. Swipe your finger again at a slower speed.



Error reading fingerprint—the movement was too short. Swipe your finger again using a longer motion.

Fingerprint Logon

The fingerprint utility enables logon to your computer using fingerprints. During user enrollment, fingerprint samples are saved and associated with the user's Windows® user account. When the user attempts to log on again, the user's fingerprint is read and compared with the user's enrolled fingerprints; if the fingerprint is recognized, user logon is completed.

The Fast User Switching feature of Windows® XP is also supported. If user A is logged on and the fingerprint utility verifies the fingerprint of user B (who is already enrolled), the utility recognizes the fingerprint and switches the users.

If your system supports power-on security, existing fingerprint samples can be used also for power-on authentication.

Power-on Security

Power-on security feature prevents unauthorized access to your computer when it is turned off by requiring the user to pass fingerprint authentication. If fingerprint authentication fails, the user will not be able to start the computer.

When power-on security is enabled, the system asks you to authenticate your fingerprint. You have 40 seconds to do swipe your fingerprint.

If the authentication fails, the system tries again up to two more times. If authentication fails after the third attempt, the system shuts down.

Enabling Power-on Security

Options for power-on security are displayed only if your computer supports this feature. In most configurations, power-on security is enabled automatically after the first user fingerprints are enrolled.

To disable/enable power-on security:

- Open the Control Center and go to Settings Power-on Security. (This wizard is displayed only if your system supports power-on security.)
- 2 Check the option Replace the power-on and hard drive passwords with the fingerprint reader.

Power-on security can be configured to operate with the fingerprint logon feature. If a fingerprint used for power-on security matches a fingerprint in an existing passport, the corresponding user is logged on automatically without having to enter the Windows® logon password.

NOTE

Your hardware must support Power-on security to use the single logon feature. You must have administrative privileges to change settings.

To enable power-on security single logon:

- 1 Open the Control Center and go to Settings System Settings.
- 2 Select Logon.
- 3 Check the Allow power-on security single sign-on check box. (Logon support must be enabled for this option to be accessible.)

Fingerprint Management

Fingerprints are stored in memory during enrollment. After a finger is enrolled, it is displayed with a power-on button above it. The button appears "pressed in" by default, indicating that the corresponding finger will be used for power-on security. If you do not want to use a finger for power-on security but only for logon, click the Boot button to delete the fingerprint from the fingerprint device memory.

The fingerprint device memory can typically hold up to 21 fingerprints. The number of slots remaining is displayed in the enrollment wizard.

Control Center

The Control Center contains various functions for fingerprint management and for setting up your fingerprint software. Available options depend on the software status, used hardware, and installed applications.

Fingerprints

- Enroll or Edit Fingerprints—Runs the fingerprint enrollment wizard. You can enroll/delete fingerprints for the current user and, if power-on security is implemented, control whether they are stored in the fingerprint device memory. After you enroll your fingerprints, they are associated with your user name and password. The next time you log in, you can use your fingerprints instead of your user name and password.
- Delete—In convenient mode, deletes all fingerprints for the current user. In secure mode, only administrators can delete data of all users.
- Import or Export User Data—Existing fingerprints can be exported to the *.vtp file and imported back to your fingerprint software. The *.vtp file is encrypted and protected by a password defined during export.

Fingerprint Authentication Utility

Settings

- System Settings—Opens the Settings dialog containing various options for setting up the product. Most of these settings can be modified only by administrators and affect all users.
- User Settings—Opens the User Settings dialog containing user-specific options for setting up the product.
- Power-on Security—The memory of the fingerprint device is limited (typical capacity is 21 fingerprints). You can decide which fingerprints are present in the device memory and can be used for verification on computer startup, or create new fingerprints to be used only for power-on authentication.
- Fingerprint Storage Inspector—Opens the Fingerprint Storage Inspector dialog where you can see the contents of your fingerprint storage.

Help

- Introduction—Displays the Introduction dialog with basic information about product features.
- Tutorial—Runs the fingerprint tutorial which learns you how to enroll your fingerprints. This tutorial is highly recommended for the first-time users of this technology. The quality of enrolled fingerprints is extremely important for your satisfaction with the product.
- Help icon—Displays this help. The help files in other languages (depending on your installation) are located in the mui subfolder of your installation folder.
- About icon—Displays version information.

Fingerprint utility limitations

Toshiba does not guarantee that the fingerprint utility technology will be completely secure or error-free. Toshiba

does not guarantee that the fingerprint utility will accurately screen out unauthorized users at all times. Toshiba is not liable for any failure or damage that might arise out of the use of the fingerprint software or utility.

Password Bank

The Password Bank stores registration and logon information for Web sites and dialogs, helping to automate the task of entering this information.

You enter the required information only once, during web page or dialog registration. When the window is displayed again, all the data is entered automatically when you scan your fingerprint on the sensor. Registered web pages can also be accessed directly from the Biomenu.

Supported browsers are:

- Internet Explorer 5.0 and higher
- **♦** Mozilla 1.3 1.7
- Netscape 7.0 7.2
- Firefox 1.0.x

Biomenu

Biomenu provides access to the utility's features and settings. It is available in several variants or skins. To view or select other Biomenu skins, open the Control Center and select **Settings**. User **Settings**.

Swipe your finger to open Biomenu. If finger verification is configured to invoke another action (e.g., display a registered page), press and hold the Shift key while swiping your finger.

The Biomenu contains the following menu options:

- Lock computer—Locks your computer. Use the sensor to unlock the computer again.
- Registered Sites—Displays a list of your web pages registered by Password Bank. To display and fill in a

registered page in your default web browser, click it in the list.

- Register—Registers a new window (dialog or web page).
- Lock/unlock My Safe—Opens or closes My Safe folder.
- Control Center—Displays Control Center.
- Help—Displays this help file.

Registering a new Web page or dialog

You are logged on to the computer and want to register a new web page.

To create a new registration:

- 1 Display a web page you want to register.
- 2 Fill in the data you want to replay the next time you access this web page.
- **3** Use the sensor to display the Biomenu.
- 4 Select Register.

Password Bank recognizes pages containing a password field and displays a hint that the page can be registered. These hints can be turned off in the Settings dialog.

A wizard will assist you through your first registration.

Replaying a registered Web page or dialog

You are logged on to the computer and want to replay a registered web page.

To replay a registration:

- 1 Swipe your enrolled finger to display the Biomenu.
- 2 Select Registered Sites.
- 3 Select a page you want to display and replay, or simply verify your finger if the page is already displayed.

If you directly access a registered page from your browser without using the Biomenu's Registered Sites option, Password Bank displays a hint that the page is registered and can be replayed. These hints can be turned off in the **Password bank** tab of the **User Settings** dialog.

Replaying registrations with multiple forms

Password Bank registers forms, not pages. If a page contains several forms, each form requires a separate registration. If a page contains several forms, replaying works as follows:

- If only one form is registered for the page (regardless of how many forms the page has), that registration is replayed.
- If the page has multiple registered forms, and one of the registered forms is active, the active form is replayed.
- ❖ If the page has multiple registered forms, but there is no active form, all existing registered forms for the page are displayed. You then select the one to be replayed.

Replaying a registered dialog

You are logged on to the computer and want to replay a registered dialog.

To replay a registration:

- 1 Display the dialog to be replayed.
- 2 Use the sensor.
- 3 Optional—If the hint for replaying dialogs is displayed, confirm that you want to replay the registration.
- 4 The registration is replayed.

Editing an existing registration

Sometimes it is useful to edit an existing registration. For example, your company's address may have changed and you want to update your registrations.

To edit an existing registration:

- 1 Click the **Settings** topic in the Control Center.
- 2 Click **User Settings**. Verify your fingerprint.
- **3** Select **Registrations**.
- 4 Select a registration.
- 5 Click Edit.

You can change the value of an item or delete the item.

6 Select the Auto submit check box to submit the selected registration automatically after replaying the registration. A warning is displayed if you attempt to register a form or dialog that may be incompatible or not work properly with automatic submittal.

Deleting a registration

You are logged on to the computer and want to delete an existing registration.

To delete an existing registration:

- 1 Click the **Settings** topic in the Control Center.
- 2 Click **User Settings**. Verify your fingerprint.
- **3** Select **Registrations**.
- 4 Select a registration.
- 5 Click Delete.

Care and maintenance of your fingerprint sensor

Failure to follow these guidelines and/or procedures might result in (1) damage to the sensor or cause sensor failure, (2) finger recognition problems, or lower finger recognition success rate.

Do not scratch or poke the sensor with your nails or any hard or sharp objects.

Fingerprint Authentication Utility

- Do not press the sensor strongly.
- Do not touch the sensor with a wet finger or any wet objects. Keep sensor surface dry and free of water vapor.
- Do not touch the sensor with a soiled finger. Minute foreign particles on a soiled or dirty finger may scratch the sensor.
- Do not paste stickers or write on the sensor.
- Do not touch the sensor with a finger or any object with built-up static electricity.

Observe the following before you swipe your finger on the sensor, whether for fingerprint enrollment/registration or recognition.

- Wash and dry your hands thoroughly.
- Remove static electricity from your fingers by touching any metal surface. Static electricity is a common cause of sensor failures, especially during dry seasons such as winter.
- Clean the sensor with a lint-free cloth. Do not use detergent to clean the sensor.
- Avoid the following finger conditions for enrollment or recognition as they may result in fingerprint enrollment errors or a drop in the fingerprint recognition success rate.
 - Soaked or swollen finger (e.g. after taking bath)
 - Injured finger
 - Wet finger
 - Soiled or oily finger
 - Extremely dry skin condition on finger

Observe the following to improve the fingerprint recognition success rate.

Enroll two or more fingers.

- Enroll additional fingers if recognition failure occurs often using enrolled fingers.
- Check your finger condition. Changed conditions, such as injured, rough, extremely dry, wet, soiled, dirty, oily, soaked, swollen fingers, may lower the recognition success rate. Also if the fingerprint is worn down or the finger becomes thinner or fatter, the recognition success rate may be lowered.
- The fingerprint for each finger is different and unique. Please ensure that only the registered or enrolled fingerprint or fingerprints are used for identification.
- Check sliding position and speed (see illustration below).



Sample aligning the finger on the sensor

Fingerprint sensor limitations

- The fingerprint sensor compares and analyzes the unique characteristics in a fingerprint. However, there may be instances where certain users are unable to register their fingerprints due to insufficiently unique characteristics in their fingerprints.
- A warning message will be displayed when recognition is abnormal or recognition is not successful within a fixed duration.
- The recognition success rate may differ from user to user.
- Toshiba does not guarantee that this fingerprint recognition technology will be error-free.
- Toshiba does not guarantee that the fingerprint sensor will recognize the enrolled user or accurately screen out

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Fingerprint Authentication Utility

unauthorized users at all times. To shiba is not liable for any failure or damage that might arise out of the use of this fingerprint recognition software or utility.

Chapter 7

Using the RAID-0 or RAID-1 Utility

Using RAID

RAID (Redundant Array of Independent Disks) is a utility that allows you to configure your computer to provide either improved performance in reading and writing data on the computer's internal hard disks or greater reliability in storing data on the computer's internal hard disks.

Your computer supports two types of RAID: RAID-0 and RAID-1.

Your computer can only be configured for one type of RAID at a time. It cannot be configured to use both RAID-0 and RAID-1 simultaneously.

Your computer comes ready to be configured for RAID-1; however, RAID-1 can be disabled or you can choose to install RAID-0.

NOTE

Toshiba RAID is only supported on Toshiba-certified hard disk drives.

Using RAID

RAID-0

RAID-0 provides improved performance in writing data to or reading data from your computer's internal hard disks.

RAID-0 is configured by creating an array which specifies the hard disks which striped data will be written to or read from. For your computer, you will create an array consisting of the computer's primary internal hard disk and secondary internal hard disk.

When a RAID-0 array is configured, data is written to the internal hard disks using a technique called **striping**.

The computer collects the data to be written until a specific amount of data has been collected. Then, the data is equally divided. One portion (stripe) is written to the primary hard disk. The other portion (stripe) is written to the secondary hard disk.

The two portions of data are simultaneously written to the hard disks. That way, a file that would take normally 30 seconds to write to a single hard disk would take approximately 15 seconds to write simultaneously to the two hard disks in the RAID-0 array.

The speed in reading data from the hard disks is also improved as data is simultaneously read from both hard disks. A file that would normally take 30 seconds to retrieve would take approximately 15 seconds to read from the RAID-0 array.

If you want to discontinue the process of striping, see "Breaking a RAID-0 array (striping)" on page 275.

RAID-1

RAID-1 improves reliability in storing data by automatically copying all data from your computer's primary internal hard disk to your computer's secondary internal hard disk.

If your computer's primary hard disk fails, you can replace the failed primary hard disk with the secondary hard disk that contains the mirrored data. See "Restoring a failed drive in a RAID-1 array" on page 280.

RAID-1 is configured by creating an **array** which specifies the hard disk to be copied, and the hard disk to which the data will be copied. For your computer, an array will consist of the computer's primary internal hard disk and the computer's secondary internal hard disk.

The process of copying data from the primary hard disk to the secondary hard disk is referred to as **mirroring**, and the array itself is referred to as a **mirror**. If you want to discontinue the process of mirroring, this is referred to as breaking a mirror. For more information, see "Breaking a RAID-1 array (mirror)" on page 277.

CAUTION

If both hard disk drives fail simultaneously, such as during a power failure, the mirrored data on the secondary hard disk may not be identical to the data on the primary hard disk.

To create a RAID-1 array, you must use a secondary internal hard disk with a capacity equal to or greater than that of the computer's primary internal hard disk. For example, if the primary internal hard disk is 40 GB, then the secondary internal hard disk must be 40 GB or greater.

When RAID-1 is configured, the operating system will display the smaller of the two hard disk drives defined in the array as the computer's total hard disk capacity. For example, when a RAID-1 array is configured with one 40 GB hard disk drive and one 80 GB hard disk drive, the computer's total

Using RAID

hard disk capacity will appear to the operating system as only 40 GB.

When you first start your computer

Each time you start your computer you will be prompted to configure your computer for RAID-1 until one of the following occurs:

- ❖ The computer is ready to enable for RAID-1. See the steps on the following page.
- ❖ The computer is configured for RAID-0. See "Creating a new RAID-0 array" on page 262 for more information.
- The computer's secondary hard disk is partitioned and formatted using the Disk Management utility. See your Windows online help for more information.

CAUTION

When configuring the secondary hard disk for RAID-1 support, all existing data on the secondary hard disk will be permanently erased and will not be recoverable. Toshiba is not responsible for any loss of data on the hard disk.

NOTE

Your computer can only be configured for one type of RAID at a time. It cannot be configured to use both RAID-0 and RAID-1 simultaneously.

6 Plug in the AC adapter and power on the computer. (The computer must be running from power provided by the AC adapter to perform these steps.)

The New HDD detected window appears.



Sample New HDD detected window

7 To create a RAID-1 array, click Enable RAID. The Confirm disk mirroring window appears.



Sample Confirm disk mirroring window

8 Click OK.

The computer begins creating the array by copying data from the primary internal hard disk to the secondary internal hard disk.

NOTE

RAID-1 configuration takes approximately one hour to complete.

NOTE

If the operating system is shut down before the RAID-1 configuration is complete, the RAID-1 configuration will automatically resume when the computer is restarted.

Once the computer has been restarted you can continue to work while the configuration resumes.

Creating a new RAID-0 array

Creating a new RAID-0 array

When RAID-0 is configured, the total hard disk capacity will appear to the operating system as twice that of the smaller of the two hard drives in the RAID configuration. For example, when a RAID-0 array is configured with one 40 GB hard disk and one 60 GB hard disk, the computer's total hard disk will appear to the operating system as 80 GB. You cannot use the remaining 20 GB on the larger hard disk drive.

CAUTION

Before configuring your system for RAID-0, make sure you back up all data on your computer's hard drives onto another storage media. When a RAID-0 array is created, all data on both your primary and secondary hard disks is erased and cannot be recovered. Toshiba is not responsible for any loss of data on your hard disks.

NOTE

Your computer can only be configured for one type of RAID at a time. It cannot be configured to use both RAID-0 and RAID-1 simultaneously.

To create a RAID-0 array:

- Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)
- 2 Insert the Recovery DVD shipped with your computer into the computer's CD/DVD drive.
- 3 Press **F12** to display the boot menu.
- 4 Press the right arrow key until the CD icon is highlighted; then, press **Enter**.

Creating a new RAID-0 array

The following menu is displayed:

Your machine supports Redundant Array of Independent Disks (RAID). Please select the RAID level.

1. Factory Default

Setup the computer ready to support mirroring function. You can use RAID Utility to configure two hard disks to become mirror of each other, in which the same data is written on both hard disks. If one hard disk fails, the system can still run from the other hard disk. Before using RAID Utility, your second hard disk can still work as independent hard disk.

Advance Setting (for Advance users only)

2. RAID-1 - Automatically configure two hard disks of your computer to become mirror after recovery process is completed.

WARNING: You can not use the second hard disk for any other purpose until you use RAID Utility to end mirroring.

3. RAID-0 - Automatically configure computer to support striping function - data is broken into blocks and written to both hard disks simultaneously to increase the hard disk performance.

WARNING: IF ONE HARD DISK FAILS, ALL DATA IS LOST. Enter selection:"

Sample Toshiba Recovery DVD RAID Menu

CAUTION

Before configuring your system for RAID-0, make sure you back up all data on your computer's hard drives onto another storage media. When a RAID-0 array is created, all data on both your primary and secondary hard disks is erased and cannot be recovered. Toshiba is not responsible for any loss of data on your hard disks.

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5 Press 3 and then press Enter to select RAID-0.

NOTE

RAID-0 configuration takes approximately one hour to complete.

TOSHIBA RAID Console Utility

The TOSHIBA RAID Console utility provides a way to view and manage the RAID configuration on your computer and to check the status of the RAID array and physical drives. It also allows you to:

- Create or break a mirror, see "Breaking a RAID-1 array (mirror)" on page 277
- Perform a media check on an array, see "Performing a media check on a RAID-1 array" on page 274
- Define options for RAID-0 or RAID-1, see "Defining options for RAID-0 or RAID-1" on page 267

To access the TOSHIBA RAID Console:

1 Click Start, All Programs. Then select TOSHIBA, RAID, RAID Console.

The TOSHIBA RAID Console window appears.



Sample TOSHIBA RAID Console Utility with no RAID configured

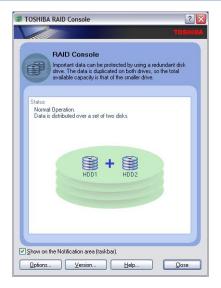
An icon is shown for each RAID-1 array configured on the computer.

On each array icon, an icon is displayed for each physical drive belonging to the array.

RAID-0

When RAID-0 (striping) is configured, a single array icon and two physical drive icons are shown to represent the array and the physical drives associated with the array. The plus sign indicates that data is simultaneously written (striped) to both the primary internal hard disk and to the secondary internal hard disk.

TOSHIBA RAID Console Utility

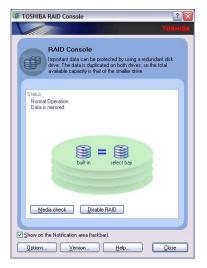


Sample TOSHIBA RAID Console Utility with RAID-0 configured

RAID-1

When RAID-1 (mirroring) is configured, a single array icon and two physical drive icons are shown to represent the array and the physical drives associated with the array. The equal sign indicates that the data is mirrored (copied) from the internal hard disk to the secondary internal hard disk.

TOSHIBA RAID Console Utility



Sample TOSHIBA RAID Console Utility with RAID-1 configured

Defining options for RAID-0 or RAID-1

The Options window allows you to define options for media checking, rebuilding an array, and notification of RAID errors. It also allows you to enable or disable a write cache, MBR protection, and S.M.A.R.T. For more information on write cache, see page 268. For more information on MBR protection, see page 269. For more information on S.M.A.R.T., see page 269.

To define options for RAID:

- Start the TOSHIBA RAID Console utility by clicking Start, All Programs. Then select TOSHIBA, RAID, RAID Console.
- 2 Click Options.

The Options dialog box appears.

TOSHIBA RAID Console Utility



Sample Options window

- Check media—Allows you to enable and specify the frequency of automatic media checking.
- Rebuild configuration—Allows you to enable and set options for automatic array rebuilding.
- Alert configuration—Specifies whether RAID event messages are written to an event log (within the TOSHIBA RAID Console utility) or displayed on your computer's screen.
- Array configuration—Allows you to enable or disable a write cache, MBR protection, and S.M.A.R.T.
- Enable write cache—During mirroring, data is copied from the computer's hard disk to the secondary internal hard disk.

If write caching is disabled, data is copied from the computer's hard disk to the secondary internal hard disk one piece at a time.

If write caching is enabled, data is copied from the computer's hard disk to a temporary storage area (write cache). Then, the data is sorted and written to the secondary internal hard disk.

The hard disk drive's performance improves when write cache is enabled.

MBR Protection—Protects the master boot record on your computer's hard disk by prohibiting data from being written onto the master boot record data area.

The master boot record is a special data area on the computer's hard disk which is read whenever the operating system is started.

CAUTION

It is recommended that you enable MBR Protection. If the master boot record of the primary internal hard disk is lost or damaged, the operating system is unable to start. This would result in data loss and your hard drive would need to be rebuilt.

Contact a Toshiba Authorized Service Provider or Toshiba Global Support Centre for assistance. Within the United States call (800) 457-7777. Outside of the United States call (949) 859-4273.

NOTE

MBR Protection can only be enabled if the RAID-1 array is designated as the boot drive.

Enable S.M.A.R.T. — Detects predictable drive failures by monitoring the motor, head, and performance of the physical disk drives.

S.M.A.R.T. logs a record in the Windows Event Viewer when performance of a physical drive is below specification values. See your Windows operating system

TOSHIBA RAID Console Utility

online help for information on using Windows Event Viewer.

You can also check the status of a hard disk drive on the TOSHIBA RAID Console. See "Viewing the status of a hard disk drive" on page 272 for more information.

CAUTION

Drive lifetime is not always accurately predicted using information from S.M.A.R.T. To avoid loss of data, it is recommended that the hard drive be replaced immediately after receipt of a S.M.A.R.T. warning.

NOTE

You can view the status of a hard disk drive on the TOSHIBA RAID Console. See "Viewing the status of a hard disk drive" on page 272 for more information.

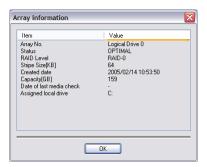
- **3** Make the appropriate selections.
- 4 To apply the settings, click **OK**.

Viewing the status of an array

To view the status of an array:

- Start the TOSHIBA RAID Console utility by clicking Start, All Programs. Then select TOSHIBA, RAID, RAID Console.
- 2 Double-click the array icon.

The Array information window appears.



Sample Array information window

- Array No. Identification number of array.
- Status—Indicates the status of the array. The contents which will be displayed are as follows:
 - Optimal—The physical drives in the array are connected with the computer, are online, are in optimal status, and are not in the process of rebuilding data.
 - Degraded—One of the physical drives in the array is not connected with the computer, is not in optimal status, or is in the process of rebuilding data.
 - Critical—One of the physical drives has been disabled from use as part of the array.
- **❖ RAID level**—Displays the RAID level for the array.
- Stripe size—Displays the size of the segment written onto each hard disk in the RAID-0 array.
- Created date—Shows the date and time the array was created.
- **Capacity**—Displays the maximum size of the array.

TOSHIBA RAID Console Utility

NOTE

When RAID-0 is configured, the total hard disk capacity will appear to the operating system as twice that of the smaller of the two hard drives in the RAID configuration. For example, when a RAID-0 array is configured with one 40GB hard disk and one 60GB hard disk, the computer's total hard disk will appear to the operating system as 80GB - 40GB + 40GB (NOT 40GB + 60GB). You cannot use the remaining 20GB on the larger hard disk drive.

When RAID-1 is configured, the computer's total hard disk capacity will appear to the operating system as the smaller of the two hard disk drives used. For example, when RAID-1 is configured with one 40GB hard disk drive and one 80GB hard disk drive, the computer's total hard disk capacity will appear as only 40GB to the operating system.

- Date of last media check—Date and time when a media check was completed. Displays the most recent date that a media check or array rebuild occurred.
- Assigned local drive—Local drive letter assigned to the array.

Viewing the status of a hard disk drive

To view the status of a hard disk drive:

- Start the TOSHIBA RAID Console utility by clicking Start, All Programs. Then select TOSHIBA, RAID, RAID Console.
- 2 Double-click the hard disk icon.
 The Hard disk drive information window appears.



Sample hard disk drive information window

- **Status**—Displays the status of the physical drive.
 - Online—The drives are working in a normal state.
 - Offline—The drive is not used, as it is not configured as the logical drive.
 - Fail—The drive is disabled, as a failure has occurred on the drive.
 - **❖ Locked**—The drive is locked by password.
 - * **Rebuilding**—The drive is being rebuilt using data from the good drive.
 - Absent—The drive may have been removed from the computer.
- Capacity—Displays the drive capacity in gigabytes.
- **❖ Model number**—Displays the drive model number.
- Serial number—Displays the drive serial number.
- Firmware revision—Displays the drive firmware revision.
- ❖ **S.M.A.R.T.**—Displays the state of S.M.A.R.T.
 - **♦ Normal**—S.M.A.R.T. is within specifications.

TOSHIBA RAID Console Utility

Warning—The threshold value of S.M.A.R.T. has been exceeded.

Performing a media check on a RAID-1 array

A media check compares the data of the mirrored hard drives in an array to determine if there are any errors. If an error is detected during a media check, the data will be restored on the secondary internal hard disk based on the data on the primary internal hard disk.

A media check can only be performed on a mirrored array which is in an optimal state. Refer to "Viewing the status of an array" on page 270 for more information.

If the computer is performing a media check and the computer is restarted, the media check will resume when the computer is restarted.

NOTE

By default the TOSHIBA RAID Utility is set up to perform a media check on the 3rd Wednesday of each month at 12:00 noon.

To perform a media check:

- 1 Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)
- 2 Start the TOSHIBA RAID Console utility by clicking Start, All Programs. Then select TOSHIBA, RAID, RAID Console.
- 3 Click Media Check.

The Confirm media check window appears.



Sample Confirm media check window

4 Click OK.

A media check may take from several minutes up to one hour to be completed depending on the amount of data to be checked.

You may use the computer while performing a media check; however, the computer's performance may be slower than usual.

Breaking a RAID-0 array (striping)

If you want to permanently stop using the secondary internal hard disk drive for RAID-0, you must reinstall the Windows operating system from the Toshiba Recovery DVD that shipped with your system.

CAUTION

Before breaking the RAID-0 array, make sure you back up all data on your computer's hard drives onto another storage media. When a RAID-0 array is broken, all data on both your primary and secondary hard disks is erased and cannot be recovered. Toshiba is not responsible for any loss of data on your hard disks.

To break the RAID-0 array:

1 Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)

TOSHIBA RAID Console Utility

- Insert the Recovery DVD that shipped with your system into the computer's CD/DVD drive.
- 3 Press **F12** to display the boot menu.
- 4 Press the right arrow key until the CD icon is highlighted; then, press **Enter**.

The following menu is displayed:

Your machine supports Redundant Array of Independent Disks (RAID). Please select the RAID level.

1. Factory Default

Setup the computer ready to support mirroring function. You can use RAID Utility to configure two hard disks to become mirror of each other, in which the same data is written on both hard disks. If one hard disk fails, the system can still run from the other hard disk. Before using RAID Utility, your second hard disk can still work as independent hard disk.

Advance Setting (for Advance users only)

2. RAID-1 - Automatically configure two hard disks of your computer to become mirror after recovery process is completed.

WARNING: You can not use the second hard disk for any other purpose until you use RAID Utility to end mirroring.

3. RAID-0 - Automatically configure computer to support

striping function - data is broken into blocks and written to both hard disks simultaneously to increase the hard disk performance.

WARNING: IF ONE HARD DISK FAILS, ALL DATA IS LOST.

Enter selection: "

Sample Toshiba Recovery DVD RAID Menu

5 Press 1 and then press Enter to break the RAID-0 array.

TOSHIBA RAID Console Utility

All data is permanently erased from both of your computer's internal hard disk drives and the computer is restored to its default settings.

NOTE

This process takes takes approximately one hour to complete.

Breaking a RAID-1 array (mirror)

If you want to permanently stop using the secondary hard disk drive for mirroring, you must break the RAID-1 array (mirror). When you break the RAID-1 array, all data is permanently erased from the secondary internal hard disk.

To break the RAID-1 array:

1 Click Start, All Programs. Then, select TOSHIBA, RAID, RAID Console.

The TOSHIBA RAID Console is displayed.

2 Click Disable RAID.

The Confirm disk mirroring window appears.



Sample Confirm disk mirroring window

3 Click OK.

The mirror between the primary internal hard disk and secondary internal hard disk is broken and the information on the secondary internal hard disk is permanently erased.

Rebuilding the data on the secondary disk in a RAID-1 array

Rebuilding the data on the secondary disk in a RAID-1 array

If the secondary hard disk has been removed from the computer and you want to resume using the secondary hard disk for mirroring, you must reinsert the secondary hard disk drive into the computer.

If Auto Rebuild has previously been enabled on the Options window of the TOSHIBA RAID Console, rebuilding will start when the secondary hard disk drive is reinserted into the computer.

If Auto Rebuild has not previously been enabled:

- 1 Insert the secondary hard disk drive into the computer.
- 2 Plug in the AC adapter and power on the computer. (The computer must be running on power provided by the AC adapter to perform these steps.)

CAUTION

When rebuilding the RAID-1 array, all existing data on the secondary hard disk will be permanently erased and cannot be recovered. Toshiba is not responsible for any loss of data on the hard disk.

NOTE

If a hard disk password has previously been assigned, the password entry window will display. You must enter the hard disk password to continue.

- 3 The message "Mirror is broken" displays. Click **OK**.
- 4 Start up the TOSHIBA RAID Console Utility by clicking Start, All Programs. Then select TOSHIBA, RAID, RAID Console.
- 5 Click Mirroring.

The Confirm disk mirroring window appears.



Sample Confirm disk mirroring window

- 6 Click OK.
- 7 The Confirm disk mirroring window appears.



Sample Confirm disk mirroring window

8 Click OK.

The computer begins copying data from the internal hard disk to the secondary hard disk drive.

It may take several minutes or up to one hour to rebuild the array depending on the amount of data to be copied.

The progress of the rebuilding process can be viewed on the TOSHIBA RAID Console window.

Restoring a failed drive in a RAID-1 array

Restoring a failed drive in a RAID-1 array

CAUTION

If your computer's primary hard disk fails the failed hard disk can be removed and replaced with the secondary hard disk that contains the mirrored data.

Contact Toshiba Global Support Centre or a Toshiba Authorized Service Provider for assistance. Removing the failed primary hard disk and replacing it with the seconary hard disk improperly could damage your computer or result in the loss of data.

NOTE

If you want to resume mirroring, you must purchase a new secondary hard disk and recreate the array. For information on recreating the array, see "When you first start your computer" on page 260.

To restore a failed internal hard disk:

- 1 Remove the failed internal hard disk from the computer.
- 2 Replace the failed primary hard disk with the secondary hard disk (that contains the mirrored data).
- 3 Install a new secondary hard disk.
- 4 Plug in the AC adapter and power on the computer. (The computer must be running from power provided by the AC adapter to perform these steps.)
- 5 Restart the computer.
- 6 The New HDD detected window appears.
- 7 Click OK.
- 8 Click **Enable RAID** to copy data from the internal hard disk to the secondary hard disk.

Error message examples

Error message examples

The following error messages may be displayed on the TOSHIBA RAID Console.

Not enough memory available.

Increase the available memory by shutting down one or more applications.

Another user is working in administrator mode. Currently unable to use it.

Another user is logged onto the computer as an administrator and using the TOSHIBA RAID Console utility.

Only one administrator can use the TOSHIBA RAID Console utility on your computer at one time.

The number of connectable units has been exceeded. Currently it will not connect to the RAID service as another user is using it.

Only one instance of the TOSHIBA RAID Console utility can be opened on your computer at one time.

Unable to setup RAID, as the disk is in use.

Shut down the application currently in use and then set up RAID.

A failure has occurred in the array. Please press the button to stop the beep.

The configured mirroring on the disk appears to be abnormal. Check the status of the array by starting the RAID Console. It is necessary to replace the physical drive if the physical drive has failed.

Chapter 8

If Something Goes Wrong

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

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

If all else fails, contact Toshiba. You will find information on Toshiba's support services at the end of this chapter.

Problems that are easy to fix

Your program stops responding.

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

To close a program that has stopped responding:

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

Problems that are easy to fix

The Windows Task Manager window appears.

2 Click the **Applications** tab.

If a program has stopped responding, the words "not responding" appear beside its name in the list.

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

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

4 Close the remaining programs one by one by selecting the program name, then **End Task**.

To power off your computer, do one of the following:

If you are not connected to a domain server:

1 Click Start, Turn off computer.

The Turn off computer window appears.

2 Click Turn Off.

The computer turns off.

If you are connected to a domain server:

1 Click Start, Shut down.

The Shut Down window appears.

- 2 Select **Shut down** from the drop-down list.
- 3 Click OK.

The computer shuts down completely.

Your program performs an illegal operation.

If you receive the message, "Your program has performed an illegal operation," close the window and continue working. If it happens again, record the details of the message and consult the software manufacturer.

If Something Goes Wrong

Problems when you turn on the computer

To record the details:

- 1 Click the **Details** button and select the text the operating system displays.
 - The Details button displays information that the software manufacturer needs to help you solve your problem.
- 2 Press Ctrl and c simultaneously to copy the text to the clipboard.
- 3 Open Notepad (click **Start**, **All Programs**, **Accessories** and then 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 and how the error can be reproduced.
- 6 Save the file and refer to it when you contact the software manufacturer.

Problems when you turn on the computer

These problems may occur when you turn on the power.

The computer will not start.

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

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

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

Verify that the computer is on by looking at the on/off indicator. If the indicator is glowing, the computer is on.

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

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

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

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

Clearing the condition may get the computer running, but it will not solve a resource conflict. Read the documentation that came with the conflicting device and "Resolving a hardware conflict" on page 289.

The computer is not accessing the hard disk or the optional external diskette drive.

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

The computer displays the WARNING RESUME FAILURE message.

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

Always save your data even when you are using Standby. If your battery fully discharges, information that has not been saved will be lost. Your computer can be configured to warn you when the battery is running low see "What to do when the main battery runs low" on page 114.

If Something Goes Wrong

The Windows® operating system is not working

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

To charge the battery, leave the computer plugged into a live wall outlet for several hours. For more information see "Charging the main battery" on page 110.

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

Make sure there is no diskette in the optional external diskette drive. If there is a diskette in the drive, remove it and press any key to continue. If pressing any key does not work, press Ctrl, Alt, and Del to restart the computer. For more information see "The computer is not accessing the hard disk or the optional external diskette drive." on page 285.

The Windows® operating system is not working

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

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

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

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

Using Startup options to fix problems

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

To open the Startup menu:

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

The Windows[®] Advanced Options menu displays these options:

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

See your Windows® documentation for further explanation.

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

The Windows® operating system is not working

Internet problems

My Internet connection is very slow.

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

My browser cannot find the URL address I typed in.

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

My browser cannot find a site I bookmarked.

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

The Windows® XP operating system can help you

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

To access Windows® XP Help and Support:

1 Click Start, then click Help and Support.

The Help and Support window appears.

- 2 Then do one or both of the following:
 - In the search field, type in the topic for which you need help and follow the on-screen instructions.
 - Click a problem you would like help with from the listings and follow the on-screen instructions.

Resolving a hardware conflict

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

Resolving a hardware conflict

If you receive an error message telling you there is a device driver conflict or a general hardware problem, try using Windows[®] Help and Support to troubleshoot the problem first.

For help on hardware conflicts:

- 1 Click Start, then click **Help and Support**.
- 2 Click the **Hardware** link in the window's left pane. A list of category links appear.
- 3 Click the **Fixing a hardware problem** link.
- 4 Choose from specific topics and follow the steps.

If there is still a problem, the operating system should display a message that explains what the conflict is.

A plan of action

The smooth operation of the system depends on the interaction of all devices, programs, and features. If the system or one of its attached devices is not working, resolving the problem can be time-consuming and frustrating.

The recommended procedure for getting multiple devices to work together is to add and set up one device at a time. After you add each device, test it to make sure it and all previously connected devices work.

The device most recently connected to the system is the one most likely to be causing a hardware conflict.

Resolving hardware conflicts on your own

Computer components need resources to accomplish a task. A device, such as a disk drive or a modem, needs a channel to the computer's Central Processing Unit (CPU). It also needs a direct channel to the computer's memory to store information as it works. These channels of communication are commonly referred to as system resources.

Interrupt Request Channel

The channel to the CPU is called an Interrupt Request (IRQ) because it interrupts what the processor is doing and requests some of the processor's time. If two or more devices use the same IRQ, the processor does not know which device is asking for attention. This causes a hardware conflict.

Direct Memory Access

Similarly, the data required by the device is stored in a specific place or address in memory called the Direct Memory Access (DMA). The DMA provides a dedicated channel for adapter cards to bypass the microprocessor and access memory directly. If two or more devices use the same DMA, the data required by one device overwrites the data required by the other, causing a hardware conflict.

Plug and Play

With Plug and Play and the operating system, avoiding hardware conflicts is easy. Plug and Play is a computer standard that helps the system BIOS (basic input/output system) and the operating system to automatically assign system resources to Plug and Play-compliant devices. In theory, if every device connected to the computer is Plug and Play-compliant, no two devices will compete for the same system resources. Plug in the device and turn on your computer. The operating system is automatically set up to accommodate the new device.

If you install an older (legacy) device that the operating system cannot recognize, the operating system may have difficulty assigning resources to it. As a result, a hardware conflict can occur.

Resolving conflicts

There are several things you can do to resolve hardware conflicts:

- Get the most recent drivers from the manufacturer.
- Disable the device.
 For an older device, remove it from the computer.
- Disable another system component and use its resources for the new device. See "Fixing a problem with Device Manager" on page 291.
- Reconfigure the device so that its requirements do not conflict. Refer to the device's documentation for instructions about changing settings on the device.

Fixing a problem with Device Manager

Device Manager provides a way to check and change the configuration of a device.

CAUTION

Changing the default settings using Device Manager can cause other conflicts that make one or more devices unusable. Device Manager is a configuration tool for advanced users who understand configuration parameters and the ramifications of changing them.

Disabling a device

- 1 Click Start, Control Panel, then click Performance and Maintenance.
- **2** Click the **Administrative Tools** icon.
- 3 Double-click Computer Management, then click Device Manager.
- 4 Select the specific device from the device category. To expand a device category, double-click the category.
- 5 In the toolbar, look to the far right for an icon of a monitor with a strike mark through a circle on the front. This is the disable feature.
- 6 Click the icon.You are given the option of disabling the device.
- 7 Click **Yes** to disable the device or **No** to cancel.

Checking device properties

Device Manager provides a way to view the properties of a device. Properties include the name of the manufacturer, the type of device, the drivers installed, and the system resources assigned to the device.

To check a device's properties:

- 1 Click Start, Control Panel, then click Performance and Maintenance.
- 2 Click the **Administrative Tools** icon.
- 3 Double-click Computer Management, then click Device Manager.
- 4 To view the device(s) installed, double-click the device type.
- 5 To view the properties, double-click the device.

The operating system displays the Device Properties dialog box, which provides an array of tabs. They may include:

- The General tab, which provides basic information about the device.
- The Resource tab, which lists resources assigned to the monitor, optional external DVD-ROM, optional external diskette drive, and other power-using functions. This tab does not appear if the device is not using resources.
- The **Driver** tab, which displays the drivers being used by the device.

The tabs that appear in the dialog box vary from one device to another. A Troubleshooting button is also present.

6 Click Troubleshoot...

A Help and Support window for that device appears.

For more information about Device Manager, refer to Windows[®] XP online help.

Memory problems

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

- 1 Click Start, Turn off computer.
- 2 Click Turn Off.
 - The operating system shuts down and turns off the computer automatically.
- Remove the memory module, following the instructions in "Removing a memory module" on page 61.
- 4 Reinstall the memory module, following the instructions in "Installing a memory module" on page 56, and making sure the module is seated properly.

If Something Goes Wrong

Resolving a hardware conflict

- 5 Check for the error again.
- 6 If the error recurs, remove the memory module entirely and check for the error again.

If removing the memory module eliminates the error, the memory module may be faulty. If the error recurs without the memory module installed, the error is not caused by the memory module.



TECHNICAL NOTE: You must have at least one memory module installed for the computer to work.

Power and the batteries

Your computer receives its power through the AC adapter and power cord/cable or from the system batteries (battery, optional high-capacity battery and real-time clock (RTC) battery). Power problems are interrelated. For example, a faulty AC adapter or power cord/cable will neither power the computer nor recharge the batteries.

Here are some typical problems and how to solve them:

The AC power light does not come on when you plug in the AC adapter and power cord/cable.

Make sure the AC adapter and power cord/cable are firmly plugged into both the wall outlet and the computer.

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

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

The battery does not charge while the computer is consuming full power. Try turning off the computer.

The battery may not be inserted correctly in the computer. Turn off the computer, remove the battery, clean the contacts with a soft dry cloth (if necessary) and replace the battery. See "Removing the battery from the computer" on page 119.

The battery may be too hot or too cold to charge properly. If you think this is the probable cause, let the battery reach room temperature and try again.

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

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

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

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

If you frequently recharge a partially charged battery, it may not charge fully. Let the battery discharge completely, then try charging it again.

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

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

current on the most recent software and hardware options for your computer, and for other product information.

For more information on maximizing battery power see "Charging batteries" on page 110.

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

The keyboard you connected may be defective or incompatible with the computer. Try using a different make of keyboard.

Nothing happens when you press the keys on the external keyboard.

You may have plugged the external keyboard in while the computer was turned on. Click **Start**, **Shut Down** or **Turn off computer**, and **Restart the computer** using the pointing device on the internal keyboard. The computer will restart and recognize the device.

Display problems

Here are some typical display problems and their solutions:

The screen is blank.

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

You may have activated the instant password feature by pressing Fn and F1 simultaneously. If you have registered a password, press any key, type the password and press Enter. If no password is registered, press any key. The screen reactivates and allows you to continue working.

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



HINT: Holding the Fn key and pressing the F5 key several times will advance you through the display options.

If you are using an external monitor:

- Check that the monitor is turned on.
- Check that the monitor's power cord/cable is firmly plugged into a working power outlet.
- Check that the cable connecting the external monitor to the computer is firmly attached.
- Try adjusting the contrast and brightness controls on the external monitor.
- Press Fn and F5 simultaneously to make sure the display priority is not set for the built-in screen.

The screen does not look right.

You can change the display settings by clicking a blank area of the desktop with the secondary control button, then clicking Properties. This opens the Display Properties dialog box. The Appearance tab of this dialog box allows you to choose the colors for the screen. The Settings tab allows you to choose the screen resolution.

The built-in screen flickers.

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

To change the number of colors displayed:

- 1 Point at the desktop and click with the secondary button.
- 2 Click **Properties**, and then the **Settings** tab.
- 3 Change the Colors option and click **OK**.

For more information see Windows® Help.

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

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

To change the display properties:

- Point at the desktop and click with the secondary button.
 The Display Properties window appears.
- 2 Click **Properties**, then click the **Settings** tab.
- **3** Adjust the screen resolution and/or color quality.
- 4 Click OK.

The display mode is set to Simultaneous and the external display device does not work.

Make sure the external monitor is capable of displaying at resolutions of 800 x 600 or higher. Devices that do not support this resolution will only work in Internal/External mode, and not simultaneous mode.

Small bright dots appear on your TFT display when you turn on your computer.

Small bright dots may appear on your screen display when you turn on your PC. Your display contains an extremely large number of thin-film transistors (TFT) and is manufactured using high-precision technology. Any small bright dots that may appear on your display are an intrinsic characteristic of the TFT manufacturing technology. Over a period of time, and depending on the usage of the computer, the brightness of the screen will deteriorate. This is also an intrinsic characteristic of the screen technology. When the computer is operated on battery power, the screen will dim and you may not be able to increase the brightness of the screen while on battery power.

Disk drive problems

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

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

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

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Error-checking

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

To run Error-checking:

- 1 Click **Start**, then click **My Computer**.
- 2 Right-click the drive you want to check.
- 3 On the pop-up menu, click **Properties**.
 The drive's Properties box appears.

NOTE

This feature is not available for CD/DVD drives.

- 4 Click the **Tools** tab.
- 5 Click the **Check now** button.

The Check Disk All Apps box appears.

- 6 You can choose one or both options:
 - Automatically fix file system errors
 - Scan for and attempt recovery of bad sectors
- 7 Click **Start**.

Error-checking tests and repairs the disk.

Your hard disk seems very slow.

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

Your data files are damaged or corrupted.

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

You may also be able to recover lost data using utility software. Consult your network administrator.

Some programs run correctly but others do not.

This is probably a configuration problem. If a program does not run properly, refer to its documentation and check that the hardware configuration meets its needs.

A diskette will not go into the optional external diskette drive.

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

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

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

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

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

The drive cannot read a diskette.

Try another diskette. If you can access the second diskette, the first diskette (not the drive) is probably causing the problem. Run Error-checking on the faulty diskette (for instructions see "Disk drive problems" on page 299).

Resolving a hardware conflict

DVD-ROM or multi-function drive problems

You cannot access a disc in the drive.

If the DVD-ROM or multi-function drive is an external drive, make sure that the drive's cable is properly connected to the computer.

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 disc eject button, but the drive tray does not slide out.

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

Make sure a program is not accessing the drive and preventing it from ejecting.

If you need to remove a disc and cannot turn on the computer (for example, if the battery is completely discharged), use a narrow object, such as a straightened paper clip, to press the manual eject button. This button is in the small hole next to the DVD-ROM eject button on the face of the DVD-ROM tray.

CAUTION

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

Some discs run correctly but others do not.

Check the type of disc you are using. The DVD-ROM drive supports the Digital Versatile Disc (DVD) formats DVD-ROM, DVD-R (read-only), plus CD-ROM, CD-R (read-only), and CD-RW (read-only).

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

The disc will not come out of the drive when you click the eject button on the screen.

Press the button on the DVD-ROM drive itself. For additional information see "You press the disc eject button, but the drive tray does not slide out." on page 302.

Sound system problems

You do not hear any sound from the computer.

Adjust the volume control.

Try pressing Fn + Esc to see if volume mute is disabled.

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

The computer emits a loud, high-pitched noise.

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

PC Card problems

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

Most PC Card problems occur during installation and setup of new cards. If you are having trouble getting one or more of

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these devices to work together, several sections in this chapter may apply.

Resource conflicts can cause problems when using PC Cards. See "Resolving a hardware conflict" on page 289.

Card Information Structure

When you insert a PC Card into a slot, the computer attempts to determine the type of card and the resources it requires by reading its Card Information Structure (CIS). Sometimes the CIS contains enough information for you to use the card immediately.

Other cards must be set up before you can use them. Use the Windows® XP PC Card (PCMCIA) Wizard to set up the card. Refer to your Microsoft® documentation for more information, or refer to the documentation that came with the PC Card.

Some card manufacturers use special software called *enablers* to support their cards. Enablers result in nonstandard configurations that can cause problems when installing the PC Card.

If your system does not have built-in drivers for your PC Card and the card did not come with an operating system driver, it may not work under the operating system. Contact the manufacturer of the PC Card for information about using the card under the operating system.

PC Card checklist

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

Resolving PC Card problems

Here are some common problems and their solutions:

The slot appears to be dead. PC Cards that used to work no longer work.

Check the PC Card status:

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

The System Properties dialog box appears.

- 3 Click the **Hardware** tab.
- 4 Click the **Device Manager** button.
- 5 Double-click the **PCMCIA adapter**.
- 6 Double-click the appropriate PC Card.

The operating system displays your PC Card's Properties dialog box, which contains information about your PC Card configuration and status.

The computer stops working (hangs) when you insert a PC Card.

The problem may be caused by an I/O (input/output) conflict between the PCMCIA socket and another device in the system. Use Device Manager to make sure each device has its own I/O base address. See "Fixing a problem with Device Manager" on page 291 for more information.

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

Resolving a hardware conflict

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

Follow this procedure before you remove a PC Card:



- Double-click the Safely Remove Hardware icon on the 1 System tray.
- 2 Select the item you wish to remove.
- 3 Click Stop.
- 4 Remove the device when prompted to do so.
- Click **OK** three times to close the **Safely Remove** 5 Hardware screen.

CAUTION Never swap modules when the computer is in Hibernation or Standby mode. This is known as "warm swapping" and is not supported with this computer. For more information on Hibernation and Standby modes see "Using and configuring Hibernation mode" on page 80 and "Using and configuring Standby mode" on page 82.

The system does not recognize your PC Card.

Refer to the PC Card documentation.

Removing a malfunctioning card and reinstalling it can correct many problems.

A PC Card error occurs.

Reinsert the card to make sure it is properly connected.

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

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

Printer problems

This section lists some of the most common printer problems:

The printer will not print.

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

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

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

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

Make sure you installed the proper printer drivers as shown in "Setting up a printer" on page 65 or in the instructions that came with the printer.

You may have connected the printer while the computer is on. Disable Standby mode, turn off the computer, and turn off the printer. Turn the printer back on, make sure it is on line, then turn the computer back on.

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

If you cannot resolve the problem, contact the printer's manufacturer.

The printer will not print what you see on the screen.

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

If Something Goes Wrong

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Modem problems

This section lists common modem problems:

The modem will not receive or transmit properly.

Make sure the cable from the modem to the telephone line is firmly connected to the computer's modem port and the telephone line jack.

Check the port settings to make sure the hardware and software are referring to the same COM port. See "Determining the COM port" on page 130.

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

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

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

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

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

Wireless networking problems

NOTE

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

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

If your computer is equipped with an internal Wi-Fi adapter, verify that the Wi-Fi antenna switch is on (the wireless indicator light above the keyboard will be lit.)

NOTE

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

- Verify that signal strength is good using the utility provided with the Wi-Fi adapter.
- If another computer is on the same network, verify that it has network access, and can connect to the Internet. If, for example, the other computer cannot browse to a public Web site, the ISP's (Internet Service Provider) service may be disrupted.
- Verify that the Service Set Identifier (SSID), or network name, is correct—i.e., that it matches the SSID assigned to the access point you are attempting to connect through. SSIDs are case-sensitive. Toshiba provides a Client Manager utility for setting and managing SSIDs.

Resolving a hardware conflict

- Check Control Panel's Device Manager to verify that the Wi-Fi adapter is recognized by Windows®, and that the driver is loaded. Carefully note any error messages these will be very helpful if you should confer with a support technician at a later time.
- Verify that the network connection is configured to obtain its Internet Protocol (IP) address dynamically:
 - 1 Click Start, Control Panel.
 - 2 Double-click Network Connections.
 - 3 Right-click the name of your wireless network connection, then click **Properties**.
 - 4 Select Internet Protocol (TCP/IP), then click Properties.
 - 5 Select Obtain an IP address automatically.
 - 6 Click **OK**, then click **Close**.
- Use IPCONFIG to verify that the computer has a useful IP address—one other than the private address of 169.254.xxx.xxx assigned by Windows.
 - Click Start, then click Run...
 - Enter Cmd and press Enter.
 - Enter "IPCONFIG /ALL" and press Enter.
 - The IP address for each active network adapter will be displayed.
- Connect your computer directly to your router or broadband modem, by plugging a standard CAT5 Ethernet patch cable (sold separately) into your computer's RJ45 Ethernet port. If your connection problem disappears, the problem lies in the Wi-Fi part of your network.

- Use the PING command to verify a connection to the gateway at 192.168.1.1 (a default gateway for most wireless routers).
 - Click Start, then click Run...
 - Enter Cmd and press Enter.
 - Enter PING 192.168.1.1 at the command prompt, and press Enter.
 - If "Request Timed Out" or another error message appears in response, then the problem is probably Wi-Fi-related.
- If you have enabled any security provisions (closed system, MAC address filtering, Wired Equivalent Privacy (WEP), etc.), check the access point vendor's Web site for recent firmware upgrades. Problems with WEP keys, in particular, are frequently addressed in new firmware releases.

Special considerations for Windows XP

Wired Equivalent Privacy (WEP) encryption is not enabled on the wireless access point.

When you install a wireless access point device, Windows XP checks whether WEP encryption is enabled on the device. If it is not enabled, Windows XP adds the device to its list of available wireless networks, but does not create a wireless connection using the device, since the connection would not be secure. You can still, however, use the access point. To use an access point without WEP encryption, follow these steps:

- Right-click the Wireless Network icon in the System Tray (far-right portion of the Windows Taskbar).
- Click View Available Wireless Networks.
- Select Allow me to connect to the selected wireless network, even though it is not secure.
- Windows XP will now try to establish a wireless connection.

The Windows XP wireless management facility does not work.

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

DVD operating problems

If you experience a problem playing DVDs, you may be able to fix the problem yourself.

For general problems playing a DVD title, try the following steps:

- 1 Verify that the disc is in a format that the drive supports.
- **2** Ensure that the disc is properly inserted in the drive tray.
- 3 Ensure that the Display properties are not True Color (24-bit). If it is set to 24-bit color, there may be a video format error. To verify your display settings:
 - Click Start, Control Panel, Appearance and Themes, and double-click Display.
 - Click on the Settings tab and check the Color Palette. It should be set to High Color (16-bit).
 - If it is not set to High Color, change the settings to 16-bit color and click OK.
- 4 Clean the disc and try again.

A dirty drive can also cause audio problems. If you have tried several discs and all fail, consider sending your drive to an authorized service provider to get it cleaned.

- 1 01
- 5 Verify that your computer recognizes your DVD-ROM drive. To do this:
 - Double-click the **My Computer** icon on the desktop. The DVD-ROM drive should appear in the list.
- 6 See "Checking device properties" on page 292 for instructions on using Device Manager to view the DVD-ROM properties.
- 7 Check the Toshiba Web site for new information on DVD-ROM drives and their operation.

A blank screen appears while watching a DVD-ROM movie or title.

Disable the Shut off Monitor feature in the Display Properties using the following steps:

- 1 Click the secondary mouse button on a blank area of the desktop.
- 2 Click Properties.
- 3 Click the Screen Saver tab.
- 4 Deselect Shut off Monitor.

Jumping video lines appear around the DVD-ROM video window.

To change the screen's display resolution:

- 1 Click Start, Control Panel.
 - The Control Panel window appears.
- 2 Click Appearance and Themes, and double-click the Display icon.
 - The Display Properties dialog box appears.
- 3 Click the **Settings** tab.
- 4 Next to the words **Desktop Area**, move the slider to a lower setting, such as 800 x 600 or 640 x 480.
- 5 Click OK.

DVD titles, games, or applications appear distorted.

Having Stretch enabled when your video resolution is set to 640×480 or 800×600 can cause distortion. To disable Stretch, follow the instructions below:

- 1 Right-click the **Desktop**, select **Properties**.
- 2 Select the **Settings** tab.
- 3 Select the Advanced Flat Panel tab.
- 4 Click Disable Display Stretch Feature.
- 5 Click **OK**.

The screen saver runs while you are watching a movie or title.

If the screen saver is enabled, it runs on top of any movie or title you are watching. To disable the screen saver:

1 Click Start, Control Panel.

The Control Panel window appears.

2 Click Appearance and Themes, and double-click the Display icon.

The Display Properties dialog box appears.

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.

Save your work frequently.

You can never predict when your computer will lock, forcing you to close a program and lose unsaved changes. Many software programs build in an automatic backup, but you should not rely solely on this feature. Save your work! See "Computing tips" on page 86 for instructions.

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

Here are some ways you can do this:

- Copy files to diskette.
- Connect a tape drive to the system and use specialized software to copy everything on the hard disk to a tape.
- Connect your computer to the office network and copy files to your network partition.

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

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

Read the user's guides.

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

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

If Something Goes Wrong

Develop good computing habits

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

Data and system configuration backup in Windows XP

Windows XP offers some easy-to-use features for backing up your Windows settings and your data – documents and other important files. Take advantage of these features to protect yourself from much more difficult and time-consuming restoration procedures, and to safeguard your valuable data from loss.

Saving system configuration with Restore Points

The System Restore feature of Windows XP quickly creates Restore Points—'snapshots' of your Windows configuration—and saves them for later recall. If you experience problems after installing some new hardware or software, you can easily select a previously established Control Point to 'turn back the clock,' restoring Windows to the state it was in just prior to the installation. This is much easier and more effective than uninstalling the hardware or software, which often leaves behind unwanted files and settings. It is also easy to undo a Restore Point selection, if you change your mind.

Follow these steps to create a Restore Point using the System Restore utility:

- 1 Click Start.
- **2** Click **Help and Support**.
- 3 Under Pick a Task, click Undo changes to your computer with System Restore.
- 4 Click Create a restore point, and then click Next.
- 5 In the **Restore point description** field, enter a name that is descriptive enough to be easily understood in the future, such as "Before installing Brand X Accounting app." Then click **Create**.

6 Windows creates the Restore Point and automatically stamps it with the current date and time.

Then, at a later time, you can re-establish your Windows configuration using the saved Restore Point. To do this:

- 1 Click Start.
- 2 Click Help and Support.
- 3 Under Pick a Task, click Undo changes to your computer with System Restore.
- 4 Click **Restore my computer to an earlier time**, then click **Next**.
- 5 A calendar will be presented, showing a month at a time. Each date for which a Restore Point has been set will be marked as bold. When a boldfaced date is clicked, a description of the Restore Point will appear in a list to the right.

NOTE

This list may contain Restore Points that you did not create. Restore Points labeled System Checkpoint were automatically created by Windows XP. Other Restore Points may have been created automatically by applications when they were installed.

- 6 Select the desired Restore Point from the list, and then click **Next**.
- Your Windows configuration will now be restored to the state it was in when the chosen Restore Point was created.

Backing up your data to CDs with Windows XP

For most of us, by far the most valuable component of our computer system is the data we have created with it, and stored on its hard disk drive. Since problems with either hardware or software can make the data inaccessible or even destroy it, the next most valuable component of your computer system may be a recent backup of your data.

Fortunately, Windows XP offers a convenient way to back up your important data files to CDs, a relatively high-capacity storage media. No additional software is required. Most of the CD and DVD drives built into recent Toshiba portable computer models can write to (or 'burn') as well as read from CDs. External CD and DVD writers are also widely available.

Follow these steps to back up files in the **My Documents** folder to one or more CDs:

- 1 Put a blank CD-R (CD-recordable) disc into the computer's CD or DVD drive.
- A menu of options will appear. Select **Open writable CD folder using Windows Explorer**, and click **OK**.
- 3 A Windows Explorer window will open for the blank CD. This window will be referred to as "the CD window."
- 4 Open a second Windows Explorer window, by clicking **Start**, then **My Computer**.
- 5 In this second window, browse to the files you wish to back up. Click the down-pointing arrow at the upper right of the window (to the left of the **Go** button) to see a list of locations that includes **My Documents**—a likely location of your data.
- 6 Drag and drop folders or individual files from this window into the CD window. If the files do not immediately appear in the CD window, press F5 (or click View, Refresh) to prompt Windows to display them.

NOTE

Documents and other data files that you create as you work are typically stored in the My Documents folder. You may also wish to back up other important data files stored elsewhere on your hard disk drive, for example:

- E-mail files and settings—for Outlook, Outlook Express, or other e-mail apps. Visit the vendors' Web sites (www.microsoft.com, for example) for detailed instructions.
- Newsgroup files and settings—for Outlook Express, or other newsgroup readers. Visit the vendors' Web sites for detailed instructions.
- Other data files. If you do not find an application's data files in any of the folders within the My Documents folder, check the application's options or preferences settings to discover the locations of the files.
- 7 When you have finished copying files to the CD window, click **File**, **Write these files to CD**.
- **8** A CD Writing Wizard will appear, prompting for a name for the CD. You may accept the default name, or enter a new (more descriptive) name. Click **Next** to continue.
- 9 The CD Writing Wizard will now write the selected files to the CD. It is best not to use the computer for any other tasks during this operation, so as not to interrupt it.
- 10 Finally, click Finish. The CD will be ejected. It should contain all of the files you have selected, but you may easily verify this by placing the CD back into the drive, and viewing the list of files.

Favorites (bookmarks) for Internet Explorer and other Web browsers

Follow these steps to back up your Favorites for Internet Explorer (ver 5.0 or newer):

- 1 In Internet Explorer, click **File**, **Import and Export**.
- 2 The Import/Export Wizard will appear. Click **Next**.
- 3 Click Export Favorites, Next. (To restore the Favorites to the hard disk drive later you would select Import Favorites from this list.)
- 4 A list of your Favorites folders will appear, with the toplevel Favorites folder selected (highlighted). Click **Next** to back up all of your Favorites, or select a particular Favorites folder to back up, then click **Next**.
- 5 In the Export Favorites Destination window, use the Browse button to browse to the **My Documents** folder. Click **Save** in the Select Bookmark file window, and then click **Next**.
- 6 Click Finish. The message "Successfully exported favorites" should appear.
- 7 Follow the steps above for backing up files from the **My Documents** folder to a CD.

Each CD has room for 650-700 megabytes of data. Follow this same set of steps any number of times to back up any number of files to as many CDs as is required to hold them.

Windows XP also includes a Backup utility, though it does not directly support writing to CDs. For more information, click **Start**, **Help and Support**, or start the Backup utility by clicking **Start**, **All Programs**, **Accessories**, **System Tools**, **Backup**.

General tips for installing hardware and software

Here are a few tips to help insure safe and easy installation of new hardware (printers, pointing devices, external hard drives, DVD writers, scanners, etc.) and software (applications like Microsoft Office and Adobe Photoshop, or utility software such as special toolbars for your web browser).

- Create a Restore Point (see "Saving system configuration with Restore Points" on page 316). Before installing anything, use the System Restore utility to set a Restore Point (see the section titled Restore Points). If anything goes wrong, you will then be able to easily restore Windows to the state it was in prior to the installation, undoing any changes the installation process introduced.
- Back up your critical data (see "Backing up your data to CDs with Windows XP" on page 318).
- ♦ Have your factory Restore/Reconfiguration CD(s) on hand in case you need any files from them.
- Do not guess; follow directions carefully! It is often necessary to run an installation utility first—before connecting a new hardware item to the computer. If the device is connected first, it may be very difficult to complete the installation successfully. Always carefully follow the installation instructions that accompany the hardware or software.
- Restart Windows. Always restart Windows after each installation, even if the installation utility does not prompt you to do so. This will insure that the installation is completed, and will clean up anything that the installation utility left behind.
- Do one installation at a time. If you have several new items to add to your computer system, install just one at a time, creating Restore Points immediately before each successive installation. This will make it much easier to determine the origin of any new problems. For best results, follow this sequence:

If Something Goes Wrong

If you need further assistance

- 1 Back up critical data.
- 2 Create a Restore Point.
- 3 Install one item of hardware or software.
- 4 Restart Windows.
- 5 Use the new hardware or software for a while, noting any new problems. Make sure that your critical applications (e-mail, business apps, etc.) are working correctly, and verify that important devices are still functioning.
- 6 For each additional hardware or software item, repeat these steps, starting at step 1 if any of your critical data has changed, or starting at step 2 if no critical data has changed.

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 contact Toshiba

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

Try the following before you contact Toshiba:

- Review the troubleshooting information in your operating system documentation.
- If the problem occurs while you are running a program, consult the program's documentation for troubleshooting suggestions. Contact the software company's technical support group for their assistance.
- Consult the dealer from whom you purchased your computer and/or program. Your dealer is your best source for current information.

Detailed system specifications are available at www.ts.toshiba.com by selecting your particular product and model number, clicking GO, and then clicking the **Detailed Specs** link from the menu on the left, or just refer to the computer documentation shipped with your product.

For the number of a Toshiba dealer near you in the United States, call: (800) 457-7777.

Contacting Toshiba

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

Toshiba's Technical Support Web site

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

Toshiba voice contact

Before calling Toshiba, make sure you have:

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

For technical support, call the Toshiba Global Support Centre:

If Something Goes Wrong

Other Toshiba Internet Web sites

Within the United States at (800) 457-7777 Outside the United States at (949) 859-4273

Other Toshiba Internet Web sites

toshiba.com Worldwide Toshiba corporate

site

computers.toshiba.com Marketing and product

information in the USA

accessories.toshiba.com Accessories information in

the USA

www.toshiba.ca Canada

www.toshiba-Europe.com Europe

www.toshiba.co.jp/index.htm Japan

http://servicio.toshiba.com Mexico and all of Latin

America

Toshiba's worldwide offices

Australia

Toshiba (Australia) Pty. Limited 84-92 Talavera Road North Ryde NSW 2113

Sydney Australia

France

Toshiba Systèmes (France) S.A. 7, Rue Ampère; B. P. 131 92800 Puteaux Cédex

France

Canada

Toshiba Canada Ltd. 191 McNabb Street Markham, Ontario L3R - 8H2

Canada Germany

Toshiba Europe GmbH Leibnizstraße 2 D-93055 Regensburg

Germany

Italy

Centro Direzionale Colleoni Palazzo Perseo Via Paracelso 10 20041, Agrate Brianza Milano, Italy

Latin America and Caribbean

Toshiba America Information Systems 9740 Irvine Blvd. Irvine, California 92618 USA

800-457-7777 (within the US)

949-859-4273 (outside of the US this call may incur long-distance charges)

Spain

Toshiba Information Systems (España) S.A. Parque Empresarial San Fernando Edificio Europa, 1a Planta Escalera A 28831 (Madrid) San Fernando de Henares Spain

United States

Toshiba America Information Systems, Inc. 9740 Irvine Boulevard Irvine, California 92618 United States

Japan

Toshiba Corporation, PCO-IO 1-1, Shibaura 1-Chome Minato-Ku, Tokyo, 105-8001 Japan

Mexico

Toshiba de México S.A. de C.V. Sierra Candela No.111, 6to. Piso Col. Lomas de Chapultepec. CP 11000 Mexico, DF.

United Kingdom

Toshiba Information Systems (U.K) Ltd. Toshiba Court Weybridge Business Park Addlestone Road Weybridge, Surrey KT15 2UL United Kingdom

The Rest of Europe

Toshiba Europe (I.E.) GmbH Hammfelddamm 8 D-4-1460 Neuss Germany

For more information on additional Toshiba worldwide locations, please visit: www.toshiba.co.jp/index.htm.

Appendix A

Hot Keys

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

Volume Mute



This hot key enables/disables volume mute on your computer.

When volume mute is enabled, no sound will come from the speakers or headphones.

Hot Keys

Password security



This hot key blanks the display.

Without a password

The Fn + F1 key combination turns off the display and activates instant security. Using the pointing device or any key will make the display's content reappear, if no password is set for the current user.

With a password

The Fn + F1 key combination turns off the display and activates instant security.

If you set a blank screen saver, pressing the Fn + F1 key combination to activate instant security will cause the screen to go blank. Using the pointing device or any key will make the display's content reappear. The Windows® operating system log-on screen will appear, prompting you for a password. After typing in the password for the current user, press Enter.

To activate the password feature:

- 1 Click Start, Control Panel, then click Appearances and Themes.
- 2 Click one of the following:
 - **♦ Choose a screen saver** in the "Pick a task" section
 - Display in the "or pick a Control Panel icon" section

The Display Properties window appears.

- 3 If you clicked **Choose a screen saver**, the Screen Saver tab has already been selected. If it is not selected, click the **Screen Saver** tab.
- 4 Click the **On resume**, password protected check box.
- 5 Click OK.

Maintaining security when the battery is not fully charged

When the battery is not fully charged (even if the computer is operating on AC power) your display may reappear automatically after a short time. To protect your desktop, you must set up a screen saver with a password before activating the password feature.

To set up a password with a screen saver, go to Windows XP help for instructions:

- 1 Click Start, Help and Support.
- 2 In the **Search** field, type password screen saver.
- 3 Press Enter.
- 4 Click the **Protect your files with a screen saver password link** located under the suggested topics.

Follow the steps listed in the Windows help to set up your password-protected screen saver.

To ensure the password protection is activated after pressing Fn + F1 (to activate instant security), wait ten seconds before walking away from the computer.

Power usage mode



This hot key displays the power usage pop-up window and cycles through the battery save modes.



Sample power usage modes

The properties of each mode are set in the Toshiba Power Management utility. For more information, see "Power Management" on page 231.

Standby mode



This hot key places the computer into Standby mode.

A message box displays by default to confirm that the computer is entering Standby mode. You can choose not to display this message box.



Sample Standby confirmation box

For more information about Standby mode, please see "Using and configuring Standby mode" on page 82.

Hibernation mode



This hot key places the computer into Hibernation mode.

If Hibernation mode is enabled (the default) a message box displays by default to confirm the computer is entering Hibernation mode. You can choose not to display this message box.



Sample Hibernation confirmation box

If Hibernation mode is disabled, this hot key will not respond. For more information on Hibernation mode, see "Using and configuring Hibernation mode" on page 80. Display modes

Display modes



This hot key cycles through the power-on display options.

The display modes are:

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



Sample display options window

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



This hot key decreases the screen brightness.



This hot key increases the screen brightness.

Enabling a wireless device



This hot key enables/disables the optional wireless devices on your computer (for systems with Wi-Fi or *Bluetooth*® only).

The wireless modes are:

Bluetooth enabled—This enables only the *Bluetooth* module.

Wi-Fi enabled—This enables only the Wi-Fi module.

Enable all devices—This enables all devices.

Disable all devices—This disables all devices.



Sample wireless modes window

Zooming applications in/out



This hot key turns the Zooming utility to zoomout. For more information, see "TOSHIBA Zooming Utility" on page 235.



This hot key turns the Zooming utility to zoom-in. For more information, see "TOSHIBA Zooming Utility" on page 235.

Keyboard hot keys



This hot key turns the cursor control overlay on and off.



This hot key turns the numeric overlay on and off.



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



This hot key switches screen or video modes between SVGA (800 x 600), XGA (1024 x 768), and SXGA+ (1400 x 1050).

Appendix B

Power Cord/Cable Connectors

The computer features a universal power supply you can use worldwide. This appendix shows the shapes of the typical AC power cord/cable connectors for various parts of the world.

USA and Canada



UL approved CSA approved

Australia



United Kingdom



BS approved

Europe



Appendix C

Using ConfigFreeTM with your Toshiba Computer

ConfigFreeTM is a set of utilities that makes it easy to control communication devices and network connections.

ConfigFree also lets you identify communication problems and create profiles for easy switching between locations and communication networks.

NOTE

For more information on using ConfigFree, see the ConfigFree online Help.

The ConfigFree utilities include the following:

- Connectivity Doctor—The Connectivity Doctor utility is used to analyze network connections and fix networking problems with your notebook computer. For more information, see "Connectivity Doctor" on page 339.
- Search for Wireless Devices—The Search for Wireless Devices utility searches for wireless LAN and Bluetooth® devices used in the neighborhood, and displays information about them on a virtual map. For more information, see "Search for Wireless Devices" on page 342.

- Profile Settings—The Profiles utility lets you switch between network configurations. For more information, see "Profile Settings" on page 347.
- ConfigFree SUMMIT—The ConfigFree SUMMIT utility is used to connect with other ConfigFree users for file sharing. For more information, see "ConfigFree SUMMIT" on page 351.

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

Getting Started

This section contains information about the ConfigFree main screen, and how to start and setup ConfigFree.

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

Starting ConfigFree

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

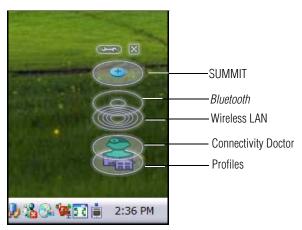
- (Microsoft® Windows® XP or 2000) Click the Start button, and select All Programs, TOSHIBA, Networking, ConfigFree.
- Double-click the ConfigFree icon on the taskbar.
- Press the TOSHIBA Assist button (if applicable to your system) to open the TOSHIBA Assist, and then click the ConfigFree icon.
- Click the ConfigFree icon on the taskbar, and then click the desired utility.

Using ConfigFree™ with your Toshiba Computer *Getting Started*

NOTE

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

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

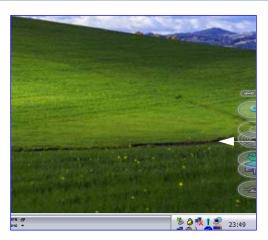


Sample ConfigFree Launcher

ConfigFree Launcher can be set to hide from view when it is not in use. When this setting is active (set the ConfigFree Launcher to Auto-hide mode), you can re-display ConfigFree Launcher by moving the mouse cursor to the right of the screen.



Sample ConfigFree Launcher Auto-hide mode setting



Sample ConfigFree Launcher coming back into view

ConfigFree Utilities

Connectivity Doctor

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

The Connectivity Doctor works with the following network devices:

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

The Connectivity Doctor displays the following information:

- WEP (Used, not Used)
- Wired connection line (link speed)
- Wireless connection line (signal strength and link speed)

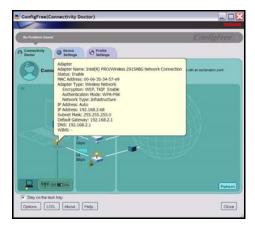
ConfigFree Utilities

- Location of wireless communication switch (identified with a yellow arrow)
- Status of wireless communication switch (on or off)



Sample Connectivity Doctor screen

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



Sample viewing device information

If a problem or potential problem is detected, in most cases, a screen automatically displays showing you the possible cause and solution for the problem.

A triangle containing an exclamation point also appears on the Connectivity Doctor screen and an orange frame describes the relevant location. You can also view the possible cause and solution for the problem by clicking the exclamation point. If multiple triangles display, you can toggle between each of their cause and solution information screens by clicking its exclamation point.

For example, if the connection to a wireless network cannot be established because the wireless communication switch is turned off, the problem description screen will normally display automatically when you start the Connectivity Doctor, and an exclamation point will appear next to the wireless communication switch.

The following checkboxes and buttons are provided on the Connectivity Doctor screen:

Stay on the task tray	When checked, the ConfigFree icon resides in the system tray.
Options	Displays ConfigFree setting screen.
Log	Lets you create a diagnostic log, view a history of log files, or delete the history. Log files are saved as CFhtmlxxxxx.htm, where xxxxx is the creation date and time. They reside in the folder: C;\Documents and Settings\username\Local Settings\Temp
About	Displays the version of Connectivity Doctor.
Help	Displays online help.
Close	Closes the Connectivity Doctor screen.

ConfigFree Utilities

Search for Wireless Devices

The Search for Wireless Devices utility searches for wireless LAN and *Bluetooth*® devices currently used in the neighborhood, and displays information about them on a virtual map.

To search for wireless devices:

- Click the icon in the system tray.
- **2** Click **Search for Wireless Devices**.

A virtual map appears with a graphical representation of the wireless devices that have been detected.

NOTE

Search for Wireless Devices can also be started from the ConfigFree Launcher.

For Wi-Fi networks, the intensity of a signal is displayed in five levels or "bands." The signal from the connected access point is displayed in the bands surrounding the PC icon at the center of the map. The closer to the center, the stronger the connection. Placing the pointer over the displayed "point of light" shows detailed information about the wireless device.

NOTE

The wireless device shown near the center of the map is not necessarily near your notebook computer. If a wireless device located a distance away also has a strong signal, it appears near the center of the map as well.

The Search for Wireless Devices feature identifies if a device is IEEE 802.11a, b, or g. It also includes an option to display hidden access point availability.



Sample viewing Wi-Fi devices

Creating a new wireless connection

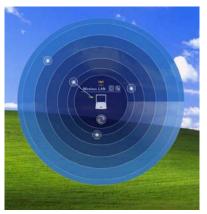
NOTE

This feature is only supported on systems running Windows XP SP2.

To add a new wireless connection to an Access Point:

- 1 Open the Search for Wireless Devices option from ConfigFree Launcher.
- 2 Drag and drop the device you want to connect to the PC icon at the center of the map. The Wireless Settings screen appears.

ConfigFree Utilities



Sample dragging a device to the Access Point



Sample Wireless settings screen

3 Enter the SSID/WEP information and connect to the device.

NOTE

After the Access Point is set up and added to the connection list, the system displays the Connection screen rather than the Wireless settings screen.

The following screen shows an example of *Bluetooth*[®] devices that are detected using the **Search for Wireless Devices** option. Moving the mouse cursor over a device icon displays information about the device.



Sample viewing Bluetooth devices

You can connect to devices shown on the *Bluetooth* map:

- 1 Drag and drop the device you want to connect to the PC icon at the center of the map.
- 2 Configured devices are automatically connected. Devices not yet configured launch the Add New Connection Wizard, where you can configure and connect to the device.

Transferring files using *Bluetooth*®

There are several ways to use *Bluetooth* to send files to other devices.

To select the device using the Bluetooth radar screen:

Open the *Bluetooth* radar screen, and drag and drop the file directly onto the icon for that *Bluetooth* device.

Using ConfigFree $\ensuremath{^{\text{TM}}}$ with your Toshiba Computer

ConfigFree Utilities



Sample dragging the file to the Bluetooth device icon

To be prompted for the device:

1 Drag and drop the file to the *Bluetooth* radar icon on the ConfigFree Launcher.



Sample dragging the file to the Bluetooth radar icon

Or, you can right click on the file and select **Send to Bluetooth Devices**.



Sample selecting Send to Bluetooth Devices option

- 2 Choose a file recipient.
- 3 Click Send.

NOTE

During a file transfer, connecting and disconnecting to the selected device will occur automatically.

Disconnecting from a Bluetooth device

To disconnect from a *Bluetooth* device:

- 1 Place the cursor on top of the connected line. The icon changes to a pair of scissors.
- 2 Click to disconnect from the device.

Profile Settings

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

If you visit a client company occasionally, for example, you can set up a profile to match that environment and connect to the network. Similarly, users who access networks in the

ConfigFree Utilities

office and at home can set up profiles to handle these networking environments.

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

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

To create a profile:

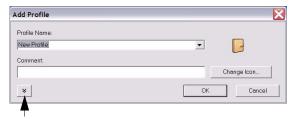
- 1 Click the **!** icon in the system tray.
- 2 Move the pointer to **Profile**.
- 3 Click **Add**. The Add Profile screen appears.
- 4 Select **Capture** and click **OK**. The Add Profile screen appears.
- 5 Enter the name of the profile you want to create.
- 6 Enter any optional comments, if desired.
- 7 Click **Change Icon** and select an icon for this profile.

- 8 Click the icon at the bottom of the screen to display more capture options.
- 9 Under Captured Items, select the items you want to capture for this profile.
- 10 If connecting with a wireless network, select the desired Auto Switch Settings. (These options are unavailable if wireless devices have been disabled.)
- 11 Under Execute this program after switching, click the **Browse** button and select the program, file, or Web site URL that is to start after switching to this profile.

For example, to have Internet Explorer start in Windows XP after switching profiles, type:

C:\Program Files\Internet Explorer\IEXPLORE.EXE

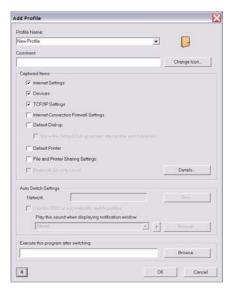
12 Click OK.



Press to show more capture options

Sample Add Profile screen

ConfigFree Utilities



Sample expanded Add Profile screen

NOTE

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

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

ConfigFree SUMMIT

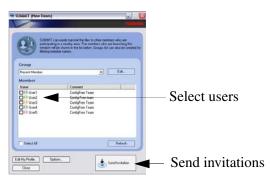
The ConfigFree SUMMIT utility is a convenient way to share files with other users and to transfer files between your computers at home and at work. This utility is faster and more dependable than sending the files via email.

Use this utility, which handles files regardless of size, to distribute presentations, reports, or music files to meeting attendees or to users at different locations.

The SUMMIT utility uses the following types of connections:

- Wireless LAN via Access Point
- Wireless LAN via Ad-Hoc
- LAN (same subnet)
- Bluetooth PAN/LAP
- Cross cable (Ethernet or Gbit Ethernet)

To host a ConfigFree SUMMIT, click the SUMMIT icon on the ConfigFree Launcher, select the users that you want to attend the SUMMIT meeting, and send them an invitation.



Sample of inviting users to SUMMIT meeting

When a user joins the SUMMIT, their icon appears on the SUMMIT table.

Using ConfigFree $^{\text{TM}}$ with your Toshiba Computer

ConfigFree Utilities



Sample of users attending SUMMIT meeting (user icons appear on SUMMIT table)

Files can be shared with one user or all users attending the meeting.

To share a file with one user, drag and drop the file on the user's icon.

NOTE

Only the SUMMIT Host (the initiator) can share files with multiple users by this method. SUMMIT users can share a file with only one other user.



Sample of sharing a file with one user

❖ To share a file with all users, drag the file to the center of the SUMMIT table where users can access it as desired.

NOTE

If you are the Host of the summit, and drag a file to the center of the SUMMIT table, it will automatically be sent to all SUMMIT users who can then accept or decline the file as desired.



Sample of sharing a file with all users

ConfigFree Utilities

NOTE

Participating users must be connected by LAN, wireless LAN, or *Bluetooth* (PAN). Firewall software may prevent ConfigFree SUMMIT from working.

Using ConfigFree SUMMIT

To host a ConfigFree SUMMIT:

- 1 Click the **!** icon in the system tray.
- 2 Click SUMMIT. Other users appear on the SUMMIT main window.

NOTE

SUMMIT can also be started from the ConfigFree Launcher.

- 3 Select the appropriate users and invite them to the SUMMIT meeting. As users join the SUMMIT, their icons appear on the SUMMIT table.
- 4 Use drag and drop to share documents with SUMMIT users:
 - To share a file with one user, drag the file to the user's icon.
 - To share a file with all users, drag the file to the center of the summit table.

There are other ways to send files to users.

To send files to all SUMMIT users:

- 1 Right click on the file and select **Send to SUMMIT Devices**.
- 2 Click Send.

To send files to a user without creating a SUMMIT meeting:

- 1 Drag and drop the file to the Wireless radar icon on the ConfigFree Launcher.
- 2 Right click on the file and choose a file recipient.
- Click Send.

An Access Point may not always be available. To find out how to use Quick Connect to launch ConfigFree Summit, see "Direct Link Toshiba Device" on page 357.

Quick Connect

The Quick Connect feature includes two options:

- Toshiba Wireless Projector. Switches the Wireless LAN connection to connect to a Toshiba Wireless Projector
- Direct Link Toshiba Device. Launches ConfigFree SUMMIT

Toshiba Wireless Projector

The Quick Connect feature switches the Wireless LAN connection to connect to a Toshiba Wireless Projector. Once the projector utility is installed, launching the Quick Connect utility automatically opens the Wireless Data Projector Application. There you can configure how you would like to use the projector.

To connect to a Toshiba Wireless Projector:

- 1 Click the **!** icon in the system tray.
- 2 Move the mouse pointer to **Toshiba Wireless Projector** (**DPJ**), then click **Connect**.

Launching Quick Connect prevents you from using the network to connect to a Toshiba Wireless Projector when the wireless LAN Configuration is set to Ad hoc. If you are connected to an access point, the connection is broken and reestablished later.

ConfigFree Utilities

To review the current Toshiba Wireless Projector settings and change them if necessary:

- 1 Click the **!** icon in the system tray.
- 2 Move the mouse pointer to **Toshiba Wireless Projector** (**DPJ**), then click **Settings**. The Quick Connect properties dialog box appears.
- 3 Complete the settings. Refer to the online help if necessary.
- 4 Click **OK**.

NOTE

The default connection setting is for Ad hoc mode, therefore, if the setting on the Toshiba Wireless Projector is in Infrastructure mode, it will not connect. However, you can change the settings to Infrastructure mode to match the settings on the projector.



Sample Projector icon when connected with Quick Connect

If the wireless mode for the wireless setting is set for 5 GHz (802.11a), Quick Connect changes this mode to 2.4 GHz (802.11b) and then connects to the projector.

The wireless LAN configuration returns to the settings that were last used before the Quick Connect function was started:

- If the Toshiba Wireless Projector utility is closed.
- If you select Toshiba Wireless Projector (DPJ) from the ConfigFree tray menu (this disconnects the wireless LAN connection).
- If you select a profile from the ConfigFree tray menu or when you disable a wireless device.
- If you close ConfigFree.

Direct Link Toshiba Device

When Access Point is not available, use the Direct Link Toshiba Device feature to connect your computer in ad-hoc (peer-to-peer) mode and use the Summit feature.

To use this feature:

- 1 Display the ConfigFree menu.
- 2 Select the ConfigFree Link option from the Direct Link Toshiba Device submenu. This action switches the computer's wireless network setting to ad-hoc mode, and launches the SUMMIT feature.



Sample using the Direct Link Toshiba Device feature

Using the Automatic Switch

Using the Automatic Switch

The Automatic Switch feature allows the computer to automatically switch profiles the next time it is powered on. This feature is particularly useful if you want your computer to automatically switch from the network configuration you use in your office to the one you use at home.

The Auto Switch feature contains options for automatically switching between wired and wireless devices. With these options, the computer automatically switches to a wireless LAN network when the cable of the wired LAN network is removed from the computer. When the cable is reconnected, the connection to the wired LAN is re-established.

To use the Automatic Switch feature:

- 1 Right-click the **!** icon in the system tray.
- 2 Click **Auto Switch**. The Auto Switch dialog box appears.
- 3 Check Enable Wireless when cable disconnect occurs.
- 4 Click OK.

NOTE

If your computer is connected to multiple wireless LAN devices, the Auto Switch (SSID) feature is disabled. To enable this feature, only one wireless LAN device can be used.

Semi-Automatic Switch Feature

The Semi-Automatic feature alerts you when the computer connects to a Service Set Identifier (SSID) stored in a profile, When the computer connects to the designated SSID, a notification window appears. You can then click this window to connect using the settings specified in the profile.

To use the Semi-Automatic Switch feature:

Semi-Automatic Switch Feature

- 1 Right-click the **!** icon in the system tray.
- 2 Click **Auto Switch**. The Auto Switch dialog box appears.
- 3 Select the **Auto Switch (SSID)** tab.
- 4 Select the profile to be automatically selected when the SSID is detected, then click **Add**. The profile is moved to the **List of target SSIDs and profiles**.
- 5 Repeat the previous step for each additional profile you want to select.
- 6 Select Automatically switch profiles when connected to this SSID.
- 7 Check Automatically switch profile when connected to this SSID.
- 8 Click **OK**.

The computer is now configured to use the Semi-Automatic Switch feature. When the computer connects to an SSID in a profile, a display notification window appears. You can then click **Switch** on the window to switch profiles. You can also set the option for having the switch be automatic without the need for a notification.

NOTE

Several profiles can be defined for a single SSID. In this case, several notification windows are displayed. By clicking these windows, you can switch to the profile for that location.

Glossary



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

Acronyms

These acronyms may appear in this user's guide.

AC alternating current

BIOS basic input/output system

bps bits per secondCD compact disc

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

CMOS complementary metal-oxide semiconductor

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

CPU central processing unit

DC direct current

DMA direct memory access

DIMM dual inline memory module

DOS disk operating system

DPI dots per inch

DSTN dual supertwist nematic

DVD digital versatile (or video) disc

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

ECP enhanced capabilities port

EPROM erasable programmable read-only memory

FAT file allocation table

FCC Federal Communications Commission

FIR fast infrared GB gigabyte

HDD hard disk drive

HTML Hypertext Markup Language

IEEE Institute of Electrical and Electronics Engineers

I/O input/output

IRQ interrupt request

ISP Internet service provider

KB kilobyte

LAN local area network

LCD liquid crystal display

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

DDRAM double data random access memory

SRAM static random access memory SVGA super video graphics adapter

TFT thin film transistor
USB universal serial bus

URL uniform resource locator

WAN wide area network
www World Wide Web

Terms

These terms may appear in this user's guide.

A

active-matrix display—A liquid crystal display (LCD) made from an array of liquid crystal cells using active-matrix technology. Also known as a "TFT display," in its simplest form there is one thin film transistor (TFT) for each cell. This type of display works well with notebook computers because of its shallow depth and high-quality color. Active-matrix displays are viewable from wider angles than most passive-matrix displays.

adapter—A device that provides a compatible connection between two units. For example, the computer's internal display adapter receives information from the software and translates it into images on the screen. An adapter can take a number of forms, from a microprocessor to a simple connector. An intelligent adapter (one that is capable of doing some processing) may also be called a controller.

alternating current (**AC**)—The type of power usually supplied to residential and commercial wall outlets. AC reverses its direction at regular intervals. Compare *direct current* (*DC*).

- application—A computer program that you use to perform tasks of a specific type. Applications include word processors, spreadsheets, and database management systems. See also *program*.
- **B** backup—A copy of a file, usually on a removable disk, kept in case the original file is lost or damaged.
 - basic input/output system (BIOS)—See BIOS.
 - baud rate—The speed at which a communication device, such as a printer or modem, transmits information. Baud rate is the number of signal changes per second (not necessarily the same as bits per second). See also bits per second.
 - BIOS (basic input/output system)—Basic instructions, stored in readonly memory (ROM), containing the information the computer needs 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.

- cache—A section of very fast memory in which frequently used information is duplicated for quick access. Accessing data from cache is faster than accessing it from the computer's main memory. See also CPU cache, L1 cache, L2 cache.
 - **CD**—An individual compact disc. See also *CD-ROM*.
 - **CD-ROM** (compact disc read-only memory)—A form of high-capacity storage that uses laser optics instead of magnetic means for reading data. See also *CD*. Compare *DVD-ROM*.
 - central processing unit (CPU)—The chip that functions as the "brain" of the computer. It takes information from outside sources, such as memory or keyboard input, processes the information, and sends the results to another device that uses the information.
 - character—Any letter, number, or symbol you can use on the computer. Some characters are non-printing characters, such as a paragraph break in a word-processing program. A character occupies one byte of computer storage.
 - chip—A small piece of silicon containing computer logic and circuits for processing, memory, input/output, and/or control functions. Chips are mounted on printed circuit boards.
 - click To press and release the primary control button adjacent to the pointing device or the mouse button without moving the pointing device or mouse. In the Windows® operating system, this refers to the pointing device left control button or the left mouse button, unless otherwise stated. See also double-click.
 - **color palette**—A set of specified colors that establishes the colors that can be displayed on the screen at a particular time.
 - compatibility—The extent to which computers, programs, or devices can work together harmoniously, using the same commands, formats, or language as another.
 - configuration—(1) The collection of components that make up a single computer system. (2) How parts of the system are set up (that is, configured).

- controller—A device that controls the transfer of data from a computer to a peripheral device and vice versa. For example, disk drives, monitors, keyboards, and printers all require controllers.
- **CPU**—See central processing unit (CPU).
- **CPU cache**—A section of very fast memory residing between the CPU and the computer's main memory that temporarily stores data and instructions the CPU will need to execute commands and programs. See also *cache*, *L1 cache*, *L2 cache*.
- cursor—A symbol that indicates the current position on the screen. The shape of the cursor varies, depending on the program you are using and what you are doing.
- **default**—The setting selected by a program when the user does not specify an alternative setting.
 - device—A component attached to the computer. Devices may be external (outside the computer's case) or internal (inside the computer's case). Printers, disk drives, and modems are examples of devices.
 - **device driver**—A program (called a "driver") that permits a computer to communicate with a device.
 - **dialog box**—An on-screen window displayed by the operating system or a program giving a direction or requesting input from the user.
 - **direct current (DC)**—The type of power usually supplied by batteries. DC flows in one direction. Compare *alternating current (AC)*.
 - **direct memory access (DMA)**—A dedicated channel, bypassing the CPU, that enables direct data transfer between memory and a device.
 - directory—See folder.
 - disable—To turn a computer option off. See also enable.
 - disc—A round, flat piece of metal, designed to be read from and written to by optical (laser) technology, and used in the production of optical discs, such as CDs and DVDs. Compare disk.

- disk—A round, flat piece of material that can be magnetically influenced to hold information in digital form, and used in the production of magnetic disks, such as diskettes and hard disks. Compare disc. See also diskette, hard disk.
- **disk drive**—The device that reads and writes information and programs on a diskette or hard disk. It rotates the disk at high speed past one or more read/write heads.
- diskette—A thin, flexible disk in a protective jacket that stores magnetically encoded data. Diskettes can be removed from the computer and come in two sizes: 5.25-inch and 3.5-inch. Your computer uses 3.5-inch diskettes. See also double-density diskette, high-density diskette.
- **document**—Any file created with an application and, if saved to disk, given a name by which it can be retrieved. See also *file*.
- double-click—To press and release the primary control button adjacent to the pointing device or mouse button rapidly twice without moving the pointing device or mouse. In Windows, this refers to the pointing device left 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 mouse button while moving the cursor to drag a selected object. In Windows[®], this refers to the left mouse button, unless otherwise stated.
- driver—See device driver.
- **DVD**—An individual digital versatile (or video) disc. See also *DVD-ROM*.
- **DVD-ROM** (digital versatile [or video] disc read-only memory)—A very high-capacity storage medium that uses laser optics for reading data. Each DVD-ROM can hold as much data as several CD-ROMs. Compare *CD-ROM*.

- **E emulation**—A technique in which a device or program imitates another device or program.
 - **enable**—To turn on a computer option. See also *disable*.
 - **executable file**—A computer program that is ready to run. Application programs and batch files are examples of executable files. Names of executable files usually end with a .bat or .exe extension.
 - **expansion device**—A device that connects to a computer to expand its capabilities. Other names for an expansion device are port expander, port replicator, docking station, or network adapter.
 - extension—See file extension.
 - external device... See device.
- **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 ground**—A conductor to which all components of an electric circuit are connected. It has a potential of zero (0) volts, is connected to the earth, and is the point of reference for voltages in the circuit.
- hard disk—A storage device composed of a rigid platter or platters that can be magnetically coded with data. Hard disks hold much more information than diskettes and are used for long-term storage of programs and data. The primary (or only) hard disk in a computer is usually fixed, but some computers have secondary hard disks that are removable. 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 in when the computer was turned off. See also *Standby*, *Suspend*.
 - **high-density diskette**—A 3.5-inch diskette that holds 1.44 MB of data. See also *diskette*.
 - hot key—(1) A feature in which certain keys in combination with the Fn key can set system options or control system parameters, such as the battery save mode. (2) A key or combination of keys that activates a memory resident program.
 - hot swapping—The ability to add or remove devices from a computer while the computer is running and have the operating system automatically recognize the change.
 - **icon**—A small image displayed on the screen that represents a function, file, or program.
 - interlaced—A method of refreshing a computer screen, in which only every other line of pixels is refreshed. Interlaced monitors take two passes to create a complete screen image. Compare non-interlaced.

internal device—See device.

- Internet—The decentralized, world-wide network of computers that provides electronic mail, the World Wide Web, and other services. See also World Wide Web.
- **keyboard shortcut**—A key or combination of keys that you use to perform a task instead of using a pointing device such as a mouse.
 - **L1** (**level one**) **cache**—Memory cache built into the processor to help improve processing speed. See also *cache*, *CPU cache*, *L2 cache*.
 - **L2** (**level two**) **cache**—Memory cache installed on the motherboard to help improve processing speed. It is slower than L1 cache and faster than main memory. See also *cache*, *CPU cache*, *L1 cache*.
 - **LAN (local area network)**—A group of computers or other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network.
 - **liquid crystal display (LCD)**—A type of display that uses a liquid substance between two transparent electrode panels. When an electric current passes through the electrodes, the molecules in the liquid form a crystalline pattern that polarizes the light passing through it. A filter over the electrodes permits only non-polarized light to pass to the surface of the display, creating light and dark pixels.
 - **load**—To move information from a storage device (such as a hard disk) into memory for processing.

local area network—See *LAN*.

- logical drive—A section of a disk that is recognized by the operating system as a separate disk drive. A system's logical drives may differ from its physical drives. For example, a single hard disk drive may be partitioned into two or more logical drives.
- memory—Typically refers to the computer's main memory, where programs are run and data is temporarily stored and processed.

 Memory can be volatile and hold data temporarily, such as RAM, or it can be nonvolatile and hold data permanently, such as ROM. A computer's main memory is RAM. See RAM, ROM.

N

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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.
- **multi-function drive**—A DVD drive that can read and write to CD and DVD media.
- **multimedia**—A combination of two or more media, such as sound, animation, and video in a computer program or presentation.
- Musical Instrument Digital Interface—See MIDI.
- network—A collection of computers and associated devices that are connected by communications facilities. A network allows you to share data and peripheral devices, such as printers, with other users and to exchange electronic mail.
- non-interlaced—A method of refreshing a computer screen, in which each pixel of every line is refreshed as the electron beam scans across and down the screen. Compare interlaced.
- **non-system disk**—A disk for storing programs and data that cannot be used to start the computer. Compare *system disk*.
- online—Available through the computer. Online may refer to information being read from your own computer's 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[®] XP and Windows[®] 2000.

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. A parallel port provides a parallel communications interface between a computer and an appropriate device. 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 mouse, that enables you to move the cursor on the screen.
- **port**—A socket on the computer where you plug in a cable for connection to a network or a peripheral device.
- **processor**—See central processing unit (CPU).
- **program**—A set of instructions that can be executed by a computer. The general classes of programs (also called software) are operating system, application, and utility. See also *operating system*, application, utility.
- **properties**—The attributes of an object or device. For example, the properties of a file include the file's type, size, and creation date.

RAM (random access memory)—Volatile memory that can be written to as well as read. 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*.

- **RJ-11**—A modular connector used on most U.S. telephone systems and direct-connect modems. The RJ-11 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 a 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.

TFT display—See active-matrix display.

- universal serial bus (USB)—A serial bus that supports a data transfer rate of up to 480 Mbps (480 million bits per second). USB can connect up to 127 peripheral devices through a single all-purpose USB port. USB allows hot swapping of peripherals. See also bus, hot swapping, serial.
- **upload**—To send a file to another computer through a modem or network. See also download.
- **USB**—See universal serial bus (USB).
- utility—A computer program designed to perform a narrowly focused operation or solve a specific problem. Utilities are often related to computer system management.
- Web—See World Wide Web.

W

Wi-Fi—A registered trademark owned by the Wireless Capability Ethernet Alliance which stands for Wireless Fidelity, and is another term for the communication protocol to permit an Ethernet connection using wireless communication components.

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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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