

# Tecra<sup>®</sup> M7 Series User's Guide

If you need assistance:

- ❖ Toshiba's Support Web site  
[pcsupport.toshiba.com](http://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 209 in this guide.

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**▲ WARNING** 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.***

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## Model: Tecra® M7 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.**

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## 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.

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### 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.

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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](http://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 conforme 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:AAAEQ##TXXXX. The digits represented by the ## are the REN without a

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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.

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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.

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### CAUTION

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

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

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

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### 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.

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## 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.

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### **CAUTION** Exposure to Radio Frequency Radiation

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

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## 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



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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.

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**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](http://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.

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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 être 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 empêcher que cet appareil cause du brouillage au service faisant l'objet d'une licence, il doit être utilisé à l'intérieur et devrait être placé loin des fenêtres afin de fournir un écran de blindage maximal. Si le matériel (ou son antenne d'émission) est installé à l'extérieur, il doit faire l'objet d'une licence.

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**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.

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## EU Declaration of Conformity

TOSHIBA declares that this product conforms to the following Standards:



Supplementary \*The product complies with the  
Information: 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.

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### NOTE

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

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## 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

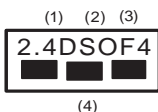
Please put the following sticker on devices incorporating this product.

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).

1. Before using this equipment, ensure that it does not interfere with any of the equipment listed above.
2. 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.
3. 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.
- 4** ■ ■ ■ This equipment uses a frequency bandwidth from 2,400 MHz to 2,483.5 MHz.

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

## 3. TOSHIBA Direct PC

Monday – Friday: 10:00 – 17:00

Toll Free Tel: 0120-15-1048

Direct Dial: 03-3457-4850

Fax: 03-3457-4868

## Device Authorization

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

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

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS  
EQUIPMENT

Approval Number: D01-1128JP

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

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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

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

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### 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.

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

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**NOTE** This device works on passive scan only.  
A peer-to-peer mode is not available in 802.11a and Turbo Mode.

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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/ Belgique:	For private usage outside buildings across public grounds over less than 300m no special registration with IBPT/BIPT is required. Registration to IBPT/BIPT is required for private usage outside buildings across public grounds over more than 300m. For registration and license please contact IBPT/BIPT.
	Voor privé-gebruik buiten gebouw over publieke grond 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. ( <a href="http://www.art-telecom.fr">http://www.art-telecom.fr</a> ) for applicable procedures to follow.
	Bande de fréquence restreinte: seuls les canaux 1- 7 (2400 et 2454 MHz respectivement) doivent être utilisés endroits extérieur en France. Vous pouvez contacter l'Autorité de Régulation des Télécommunications ( <a href="http://www.art-telecom.fr">http://www.art-telecom.fr</a> ) 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	
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## Europe - Restrictions for Use of 5 GHz Frequencies in European Community Countries

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

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)

Canada	USA	
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## 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 table.

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 computers and/or equipment using *Bluetooth* wireless technology other than TOSHIBA portable computers.

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

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

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

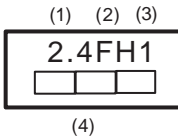
Please put the following sticker on devices incorporating this product.

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).

1. Before using this equipment, ensure that it does not interfere with any of the equipment listed above.
2. 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.
3. 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: 0120-15-1048

Direct Dial: 03-3457-4850

Fax: 03-3457-4868

## Device Authorization

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

The Name of the radio equipment: EYXF2CS

TELECOM ENGINEERING CENTER

Approval Number: 01NYDA1305

The following restrictions apply:

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

## Optical Drive Safety Instructions

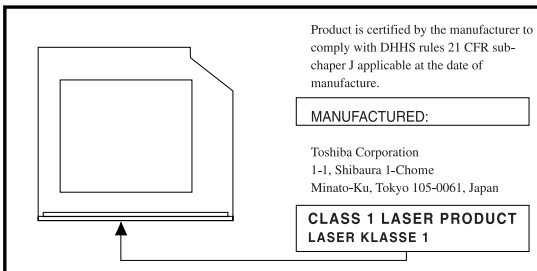
### **⚠ DANGER**

The HD 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 HD DVD, 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.)



### **⚠ 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 HD DVD, 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  
LASER KLASSE 1

---

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

## Computer Disposal Information

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

# Contents

---

Introduction.....	35
This guide .....	37
Safety icons .....	37
Other icons used .....	38
Other documentation .....	38
Service options .....	39
Chapter 1: Getting Started.....	40
Selecting a place to work .....	40
Creating a computer-friendly environment.....	40
Keeping yourself comfortable .....	41
Precautions .....	41
Important information on your computer's cooling fan .....	43
Setting up your computer .....	44
Setting up your software.....	45
Registering your computer with Toshiba .....	46
Adding optional external devices.....	46
Connecting to a power source .....	47
Charging the main battery.....	50

---

Using the computer for the first time .....	51
Opening the display panel .....	51
Your computer's features and specifications .....	52
Turning on the power .....	53
Adding memory (optional) .....	54
Installing a memory module .....	54
Hard Drive Recovery Utilities .....	55
Creating Recovery CDs/DVDs .....	55
Hard Disk Drive Recovery using the recovery partition .....	57
Hard Disk Drive Recovery using the Recovery media .....	62
Installing drivers and applications .....	65
Using the TouchPad™ .....	66
Scrolling with the TouchPad™ .....	67
Control buttons .....	67
Disabling or enabling the TouchPad™ .....	67
Using external display devices .....	69
Directing the display output when you turn on the computer .....	69
Adjusting the quality of the external display .....	71
Using an external keyboard .....	71
Using a mouse .....	71
Connecting a printer .....	72
Setting up a printer .....	73
Connecting an optional external diskette drive .....	74
Turning off the computer .....	75
Options for turning off the computer .....	75
Using the Turn Off Computer or Shut Down commands .....	78
Using and configuring Hibernation mode .....	80
Using and configuring Standby mode .....	82
Closing the display panel .....	83
Using your computer in tablet mode .....	84

---

Customizing your computer's settings.....	85
Caring for your computer.....	86
Cleaning the computer.....	86
Moving the computer.....	86
Using a computer lock.....	87
Chapter 2: Learning the Basics.....	88
Computing tips.....	88
Using the keyboard.....	90
Character keys.....	90
Making your keyboard emulate a full-size keyboard.....	90
Ctrl, Fn, and Alt keys.....	91
Function keys.....	91
Windows special keys.....	92
Overlay keys.....	92
Using the overlay to type numeric data.....	93
Starting a program.....	93
Starting a program from the Start menu.....	94
Starting a program from Windows® Explorer....	94
Starting a program from the Run dialog box ....	95
Saving your work.....	96
Printing your work.....	98
Backing up your work.....	99
Restoring your work.....	100
Using the optical drive.....	100
Optical drive components.....	101
Inserting a disc.....	102
Playing an audio CD.....	104
Playing optical media.....	105
Creating a CD/DVD.....	106
Removing a disc with the computer on.....	107
Removing a disc with the computer off.....	107
Caring for CD or DVD discs.....	108

---

Toshiba's online resources .....	108
<b>Chapter 3: Mobile Computing.....</b>	<b>109</b>
Toshiba's energy-saver design.....	109
Running the computer on battery power .....	109
Battery Notice .....	110
Power management .....	111
Using additional batteries .....	111
Charging batteries.....	112
Charging the main battery.....	112
Charging the RTC battery.....	113
Monitoring main battery power.....	114
Determining remaining battery power.....	116
What to do when the main battery runs low ...	117
Setting battery alarms.....	117
Conserving battery power .....	118
Power Profiles .....	119
Using a hot key to set the Power Profile .....	120
Changing the main battery .....	121
Removing the battery from the computer .....	121
Inserting a charged battery .....	123
Taking care of your battery .....	124
Safety precautions .....	124
Maximizing battery life.....	125
Disposing of used batteries .....	127
Traveling tips .....	128
<b>Chapter 4: Exploring Your Computer's Features.....</b>	<b>129</b>
Exploring the desktop .....	129
Finding your way around the desktop .....	130
Setting up for communications.....	132
Connecting the modem to a telephone line ....	134
Connecting your computer to a network.....	136
An overview of using the Internet .....	138

---

The Internet .....	139
The World Wide Web .....	139
Internet Service Providers.....	139
Connecting to the Internet .....	139
Surfing the Internet.....	140
Internet features.....	141
Uploading to, and downloading files from, the Internet .....	141
Exploring audio features .....	142
Recording sounds.....	142
Using external speakers or headphones.....	143
Using tablet mode .....	144
Preparing to use the tablet .....	144
Using tablet mode .....	147
Using the Toshiba tablet pen.....	148
Returning the computer to its original configuration.....	149
Using PC Cards.....	149
Inserting a PC Card .....	150
Removing a PC Card .....	150
Setting up a PC Card for your computer .....	151
Using the Bridge Media Adapter Slot .....	152
Inserting memory media .....	152
Removing memory media.....	153
Using the i.LINK® port.....	154
Using an expansion device.....	154
<b>Chapter 5: Toshiba Utilities.....</b>	<b>155</b>
TOSHIBA Assist .....	156
Connect.....	158
Secure.....	159
Protect & Fix .....	160
Optimize.....	161
TOSHIBA Application Installer.....	162

---

Setting passwords .....	163
Using an instant password.....	163
Setting a user password .....	164
Disabling a user password.....	164
Using a supervisor or user password .....	165
Setting a supervisor password.....	165
Deleting a supervisor password.....	166
TOSHIBA Password Utility .....	166
TOSHIBA PC Diagnostic Tool Utility.....	168
TOSHIBA HDD Protection Utility .....	169
Fn-esse® .....	170
Starting Fn-esse® .....	170
Using drag-and-drop to assign a key .....	171
Using the keyboard or pointing device to assign a key .....	172
Viewing existing key assignments .....	173
Changing or removing existing key assignments .....	173
TOSHIBA Hotkey Utility .....	174
TOSHIBA SD™ Memory Card Format Utility .....	175
TOSHIBA SD™ Memory Boot Utility.....	176
Bootting from a bootable SD card.....	177
TOSHIBA Power Saver .....	178
Preset Power Profiles .....	179
Quickly creating a new power profile .....	179
Customizing a power profile .....	179
Mouse Utility.....	180
Toshiba Hardware Setup.....	181
TOSHIBA Rotation Utility .....	184
Tablet and Pen Settings .....	185
Cross Menu Utility .....	187
Creating a New Menu.....	188
TOSHIBA Tablet Access Code Utility .....	189
TOSHIBA Zooming Utility.....	190

---

TOSHIBA Button Controls .....	191
CD/DVD Drive Acoustic Silencer .....	192
TOSHIBA Accessibility .....	193
TOSHIBA Mobile Extension .....	194
Fingerprint Authentication Utility .....	195
Fingerprint utility limitations .....	195
Fingerprint Enrollment .....	196
Fingerprint Logon .....	197
Power-on Security .....	198
Control Center .....	199
Password Bank .....	201
Care and maintenance of your fingerprint reader .....	206
Fingerprint reader limitations .....	208
<b>Chapter 6: If Something Goes Wrong.....</b>	<b>209</b>
Problems that are easy to fix .....	209
Problems when you turn on the computer.....	211
The Windows® operating system is not working...	215
Using Startup options to fix problems .....	215
Internet problems .....	216
The Windows® XP operating system can help you .....	217
Resolving a hardware conflict .....	217
A plan of action .....	218
Resolving hardware conflicts on your own ....	218
Fixing a problem with Device Manager .....	220
Memory problems .....	222
Power and the batteries .....	223
Keyboard problems.....	224
Display problems .....	225
Disk drive problems .....	228
Optical drive problems .....	230
Sound system problems .....	232



---

PC Card problems .....	232
Printer problems .....	236
Modem problems.....	237
Wireless networking problems .....	238
DVD operating problems.....	241
Develop good computing habits .....	244
Data and system configuration backup in Windows XP .....	245
If you need further assistance.....	251
Before you contact Toshiba .....	251
Contacting Toshiba .....	252
Other Toshiba Internet Web sites.....	253
Toshiba's worldwide offices.....	253
<b>Appendix A: Hot Keys.....</b>	<b>255</b>
Volume Mute .....	255
Password security .....	256
Without a password .....	256
With a password .....	256
Maintaining security when the battery is not fully charged .....	257
Power profile .....	258
Standby mode.....	258
Hibernation mode .....	259
Display modes .....	260
Display brightness .....	260
Disabling or enabling wireless devices.....	261
Disabling or enabling the TouchPad .....	261
Zooming applications in/out .....	262
Keyboard hot keys .....	262

---

Appendix B: Power Cord/Cable Connectors.....	263
Appendix C: Using ConfigFree™ with your Toshiba Computer.....	264
Getting Started .....	265
Starting ConfigFree .....	265
ConfigFree Utilities .....	267
Connectivity Doctor .....	267
Search for Wireless Devices .....	270
Profile Settings .....	276
ConfigFree SUMMIT.....	280
Quick Connect.....	284
Using the Automatic Switch.....	287
Semi-Automatic Switch Feature .....	288
Glossary.....	289
Index.....	304

# Introduction

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

---

## NOTE

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

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

---

## NOTE

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

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## 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:

---

**▲ DANGER**

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

---

---

**▲ WARNING**

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

---

---

**▲ CAUTION**

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

---

---

**CAUTION**

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

---

---

NOTE

Provides important information.

---

---

## Other icons used

Additional icons highlight other helpful or educational information:



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

---



**HINT:** This icon indicates helpful hints and tips.

---



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

---

## Other documentation

Your computer comes with the following documentation:

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

For accessory information, visit Toshiba's Web site at [accessories.toshiba.com](http://accessories.toshiba.com).

---

## 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 [warranty.toshiba.com](http://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](http://pcsupport.toshiba.com).

If you have a problem or need to contact Toshiba, see “If Something Goes Wrong” on page 209.

# 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.

**▲ WARNING**

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 adaptor from the power plug socket and computer.
3. Remove the battery pack.

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

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

**▲ CAUTION**

Computer 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.

**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/disc or flash media may damage the disk/disc or flash media, 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.

**⚠ WARNING**

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

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

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

## NOTE

The cooling fan location will vary depending on the computer.

## Setting up your computer



**TECHNICAL NOTE:** You must complete all setup steps up to and including [“Setting up your software” on page 45](#) 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 adaptor. See [“Connecting to a power source” on page 47](#).

---

## Setting up your software

---

**CAUTION**

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

---

**NOTE**

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

---

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

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

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

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

---

**NOTE**

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

---

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

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

## Registering your computer with Toshiba

Product registration is strongly recommended, and allows Toshiba to send you periodic updates, announcements, and special offers applicable to your product. Product registration can be completed during the initial start up process of your computer. If you decide 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](http://www.register.toshiba.com) at a later time. Failure to complete Product Registration will not diminish Customer rights under the Toshiba limited Warranty.

---

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

---

## Adding optional external devices

---

**NOTE** Before adding external devices or memory, Toshiba recommends setting up your software. See “[Setting up your software](#)” on page 45.

---

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

- ❖ Add more memory (see “[Adding memory \(optional\)](#)” on page 54)
- ❖ Connect a mouse (see “[Using a mouse](#)” on page 71)
- ❖ Connect a full-size keyboard (see “[Using an external keyboard](#)” on page 71)
- ❖ Connect an external monitor (see “[Using external display devices](#)” on page 69)

- 
- ❖ Connect a local printer (see “Connecting a printer” on page 72)
  - ❖ Connect an optional external disk drive (see “Connecting an optional external diskette drive” on page 74)
  - ❖ Install PC Cards (see “Using PC Cards” on page 149)

## Connecting to a power source

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

---

**▲ WARNING**

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.

---

---

**▲ WARNING**

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

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

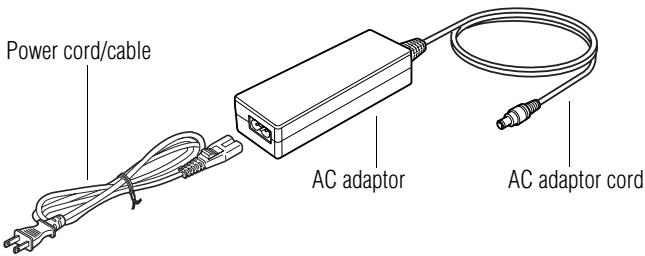
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---

**▲ WARNING**

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

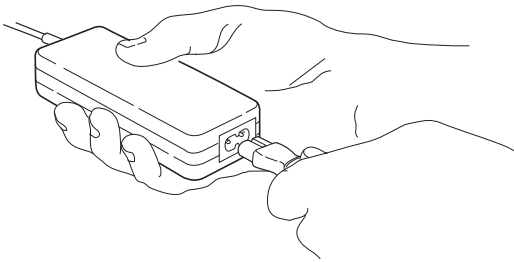
---



*(Sample Illustration) Power cord/cable and AC adaptor*

To connect AC power to the computer:

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



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

---

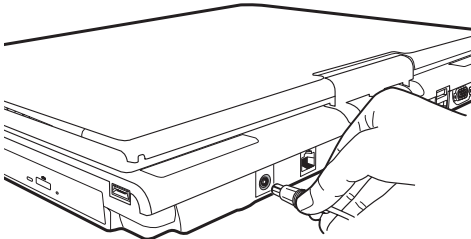
**▲ WARNING**

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.***

---



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



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

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



The AC power light on the indicator panel glows green.

---

**⚠ WARNING**

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 adaptor connected)
- ❖ Glows green when the main battery is fully charged
- ❖ Is unlit when the main battery has discharged, the battery is not charging, or the AC adaptor 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 adaptor

## 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 121](#) for information on replacing the main battery.

## Charging the main battery

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

To charge the battery, leave the computer plugged into an AC power source with the computer turned off until the battery light glows green. After that, the battery will be completely charged and ready to power the computer.

**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.



**TECHNICAL NOTE:** The recharging of the battery cannot occur when your computer is using all of the power provided by the AC adaptor to run applications, features, and devices. Your computer's Power 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.

## NOTE

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

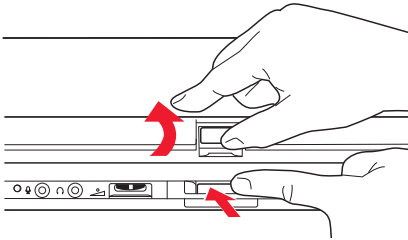
---

## Using the computer for the first time

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

### Opening the display panel

- 1 Slide the display latch to the right.
- 2 Lift the display panel.



*(Sample Illustration) Opening the display panel*

---

#### NOTE

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

---

---

#### CAUTION

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

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

---

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

## 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:



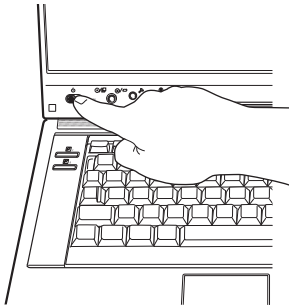
*(Sample Illustration) System icons*

---

## Turning on the power

To turn on the computer:

- 1 Make sure any external devices (such as the AC adaptor, if you plan to use AC power rather than battery power) are properly connected and ready.
- 2 Check to ensure that all optical drives are empty.
- 3 Slide and hold the power switch until the on/off light on the system indicator panel glows green—about one second.



*(Sample Illustration) Turning on the power*

The preinstalled operating system will load 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.

---

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## Adding memory (optional)

---



HINT: To purchase additional memory modules, see the accessories information packaged with your system or visit [accessories.toshiba.com](http://accessories.toshiba.com).

---

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.

---

**NOTE**

Before adding external devices or memory, Toshiba recommends setting up your software. See "[Setting up your software](#)" on page 45.

---

## Installing a memory module

Your computer has two memory module slots. Both slots are located under the keyboard and should only be accessed by a Toshiba authorized service provider.

If you are a technically advanced user, visit [pcsupport.toshiba.com](http://pcsupport.toshiba.com) for information. Toshiba will not be responsible for any product damage, data loss, service or part replacement made necessary by improper installation of a memory module.

---

## Hard Drive Recovery Utilities

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

---

**NOTE**

It is strongly recommended that you create recovery CDs/DVDs before using your system. For more information on creating Recovery media see [“Creating Recovery CDs/DVDs” on page 55.](#)

---

Using the HDD Recovery, you can:

- ❖ Create Hard Drive Recovery CDs or DVDs using a writable drive.
- ❖ Recover your hard disk drive to the factory-set default.
- ❖ Recover just your C: drive, leaving any other partitions you may have created intact, for example, a D: drive.
- ❖ Recover your hard disk drive to the factory-set default without the HDD Recovery partition.
- ❖ Delete your hard disk drive recovery partition without the risk of losing your data.
- ❖ Reinstall drivers and applications which were bundled with your computer.

### Creating Recovery CDs/DVDs

Depending on your system configuration, you may be able to copy the Hard Drive Recovery Utilities to CD or DVD which gives you the ability to recover your hard disk drive and reclaim additional hard disk space used to store the Hard Drive Recovery Utilities on your computer.

## NOTE

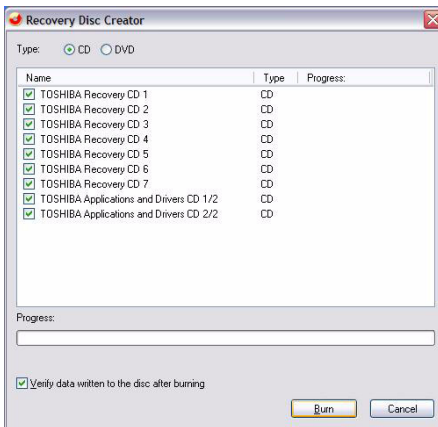
The system will prompt you to insert the appropriate number of blank CDs or DVDs to copy the Hard Drive Recovery Utilities. If your optical disc drive is not writable, contact Toshiba Customer Support to obtain the Recovery media for your system.

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

To create recovery CDs/DVDs:



- 1 Double-click the Recovery Disc Creator icon on the Windows desktop. You can also launch the application by clicking **Start, All Programs, then Recovery Disc Creator.**
- 2 Select CD or DVD (to create Recovery media on CDs or DVDs).



*(Sample Image) Recovery Disc Creator screen*

- 3 Select the items you want to copy by clicking the check box next to the item's Name – recovery files, applications (original bundled drivers and applications), or both the recovery files and applications.
- 4 Click **Burn.**



- 5 Insert the first blank CD or DVD into your computer's CD/DVD writable drive when prompted.
- 6 Follow the on-screen prompts for completing the copy process.

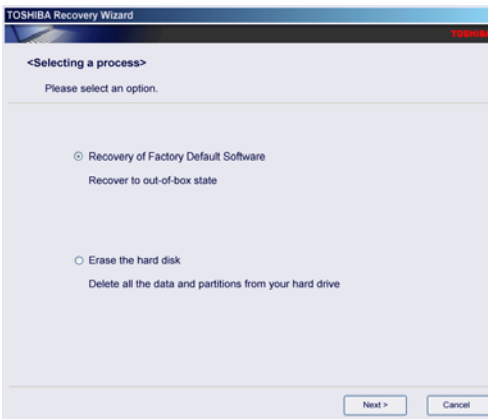
For more information on using the Recovery media you have created with the preceding steps see [“Hard Disk Drive Recovery using the Recovery media”](#) on page 62.

## Hard Disk Drive Recovery using the recovery partition

You have the options of recovering your system using the Hard Drive Recovery partition to the factory-set default, or recovering just your C: drive and leaving other partitions (for example, a D: drive) intact, or changing the size of your C: drive and then recovering it.

To recover your hard disk drive using the utilities stored on your computer's HDD:

- 1 Make sure the computer is turned off.
- 2 Press and hold the **0** (zero) key on your keyboard while powering on the computer. When the computer powers on, the Toshiba Recovery Wizard screen displays.



*(Sample Image) Toshiba Recovery Wizard screen*

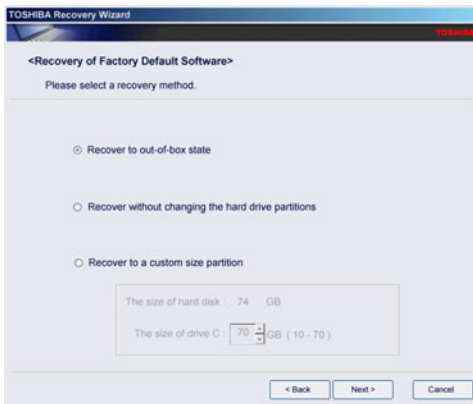
## Recovering the original factory image (recommended recovery method)

**CAUTION**

Recovering a hard disk drive to its factory default setting deletes all partitions on the hard disk drive and your information will be lost. Be sure to save your work to external media first.

- 1 On the Toshiba Recovery Wizard screen, select **Recovery of Factory Default Software**, then click **Next**.

The Recovery of Factory Default Software screen appears.



*(Sample Image) Recovery of Factory Default Software screen*

- 2 Select **Recover to out-of-box-state**, then click **Next**.

A confirmation message displays reminding you that all data will be lost during the recovery process. Be sure to save your work to external media before proceeding.

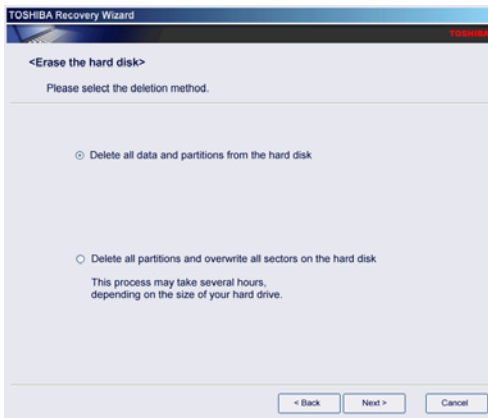
- 3 Click **Next** to begin the recovery. Once complete, a message displays that the HDD has been recovered.
- 4 Press any key on the keyboard to restart the computer.

## Erasing the hard disk

The Recovery Wizard allows you to delete all data and partitions from the hard disk.

To delete the data and partitions from your hard disk:

- 1 On the Toshiba Recovery Wizard screen, select **Erase the hard disk**, then click **Next**.
- 2 The next screen lists the two methods you can choose:
  - ❖ **Delete all data and partitions from the hard disk**— This option deletes all of the data on the hard disk without overwriting the HDD.
  - ❖ **Delete all partitions and overwrite all sectors on the hard disk**—This option deletes all data, then overwrites the entire HDD for security purposes. This may take several hours, depending on the size of your HDD.



*(Sample Image) Erase the hard disk screen*

- 3 Select the desired method, then click **Next**.

A confirmation message displays reminding you that all data will be lost. Be sure you have saved your work to external media before proceeding.

- 4 Click **Next** to begin deleting the HDD. When the process is completed, a message displays informing you that the HDD has been deleted.
- 5 Press any key on the keyboard to restart the computer.

### Recovering the C: partition of the HDD without changing the current partition size

---

**CAUTION**

Recovering the C: drive to its factory default setting reformats your drive and your information on the recovered drive will be lost. Be sure to save your work to external media first. If you have created other partitions (for example, a D: drive) those partitions and any information on them will not be affected and will remain intact.

---

To recover only your C: drive:

- 1 On the Toshiba Recovery Wizard Screen, select “Recovery of factory default.” Then, click **Next**.
- 2 Select “Recover without changing the hard drive partitions.” A confirmation message appears, reminding you that all information on the C: drive will be lost during the recovery process. Be sure you have saved your work to external media before proceeding.
- 3 Click **Next** to begin the restoration. Once complete, a message displays that the HDD has been recovered.
- 4 Press any key on your keyboard to restart the computer.

---

## Recovering the C: partition with a user specified size

---

**CAUTION** Resizing and recovering your C: drive to its factory default setting reformats all partitions on the HDD (for example, if you created a D: drive, it will be deleted during the recovery process) and your information will be lost. Be sure to save your work to external media first.

---

To resize and recover your C: drive:

- 1 On the Toshiba Recovery Wizard screen, select “Recovery of factory default.” Then, click **Next**.
- 2 Select “Recover to a custom size partition.”
- 3 Specify the size of the C: drive.
  - ❖ Press the Left/Right Arrow keys to increase/decrease the C: drive size by 1 GB.
  - ❖ Press the Up/Down Arrow keys to increase/decrease the C: drive size by 5 GB.

---

**NOTE** The size of the C: drive will display on the progress bar as you make your selections.

---

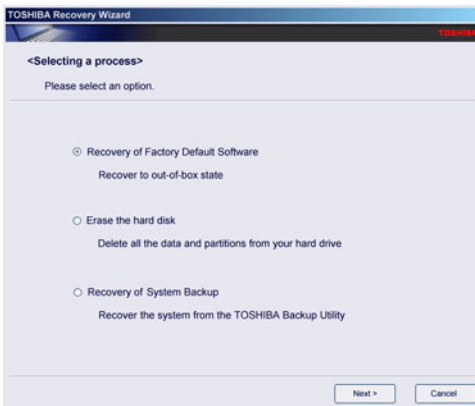
- 4 Click **Next** to begin the restoration. Once complete, a message displays that the HDD has been recovered.
- 5 Press any key on your keyboard to restart the computer.

## Hard Disk Drive Recovery using the Recovery media

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

To recover your hard disk drive using the utilities burned to CDs or DVDs (refer to “[Creating Recovery CDs/DVDs](#)” on page 55):

- 1 Insert the first recovery CD or DVD into your CD/DVD drive and power on the computer.
- 2 When the initial screen displays, press F12.  
The boot menu appears.
- 3 Using the arrow keys, select the CD/DVD option and press Enter.



*(Sample Image) Toshiba HDD Recovery Utility screen*

---

## Recovering the original factory image (recommended recovery method)

---

**CAUTION**

Recovering a hard disk drive to its factory default setting deletes all partitions on the hard disk drive and your information will be lost. Be sure to save your work to external media first.

---

- 1 Select “Recovery of Factory Default Software.” Click **Next**.
- 2 Select “Recover to out-of-the-box-state.” Click **Next**. A confirmation message displays, reminding you that all data will be lost during the recovery process. Be sure you have saved your work to external media before proceeding.
- 3 Click **Next** to begin the recovery process. Once complete, a message displays that the HDD has been recovered.
- 4 Press any key on the keyboard to restart the computer.

## Recovering the C: partition of the HDD only

---

**CAUTION**

Recovering the C: drive to its factory default setting reformats your drive and your information on the recovered drive will be lost. Be sure to save your work to external media first. If you have created other partitions (for example, a D: drive) those partitions and any information on them will not be affected and will remain intact.

---

To recover only your C: drive:

- 1 Select “Recovery of Factory Default Software.” Click **Next**.

- 
- 2 Select “Recover without the hard drive partitions.” Click **Next**.
    - ❖ A confirmation message appears, reminding you that all information on the C: drive will be lost during the recovery process. Be sure you have saved your work to external media before proceeding.
  - 3 Click **Next** to begin the restoration. Once complete, a message displays that the HDD has been recovered.
  - 4 Press any key on your keyboard to restart the computer.

## Recovering the entire HDD without the HDD Recovery Area

This option recovers your C: drive without creating the HDD Recovery Utilities partition. This will increase the size of your C: drive

---

**CAUTION**

Recovering your C: drive to its factory default state without the recovery partition reformats all partitions on the HDD (for example, if you created a D: drive, it will be deleted during the recovery process) and your information will be lost. Be sure to save your work to external media first.

---

To recover your C: drive without the recovery partition:

- 1 Select “Recovery of Factory Default Software.” Click **Next**.
- 2 Select “Recover using all HDD space (no HDD recovery partition).” Click **Next**.
  - ❖ A confirmation message appears, reminding you that all partitions will be reformatted and all data will be lost during the recovery process. Be sure you have saved your work to external media before proceeding.
- 3 Click **Yes** to begin the restoration. Once complete, a message displays that the HDD has been recovered.
- 4 Press any key on your keyboard to restart the computer.



## Checking the HDD operating status

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

- 1 Click **Start**, and then click **Control Panel**.
- 2 Double-click the **Administrative Tools** icon.
- 3 Double-click the **Computer Management** icon.
- 4 Click **Disk Management**.
- 5 Highlight the hard disk drive in the Volume list to display its status in the lower portion of the screen.

## Installing drivers and applications

The Toshiba Application Installer allows you to reinstall the drivers and applications that were originally bundled with your computer.

To reinstall drivers and applications:



- 1 Double-click the Toshiba Application Installer icon on the Windows desktop.
- 2 Click **Next**.
- 3 Click the item(s) you want to install.
- 4 Click **Install**.
- 5 Follow the on-screen prompts to complete the installation process.

---

## Using the TouchPad™

The TouchPad™, the small, smooth, square cutout located in front of the keyboard, is sensitive to touch and enables you to move the cursor with the stroke of a finger. Simply move your finger on the TouchPad in the direction you would like to move the cursor:

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

---

### NOTE

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

---

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

---

## Scrolling with the TouchPad™

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

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

## Control buttons

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

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

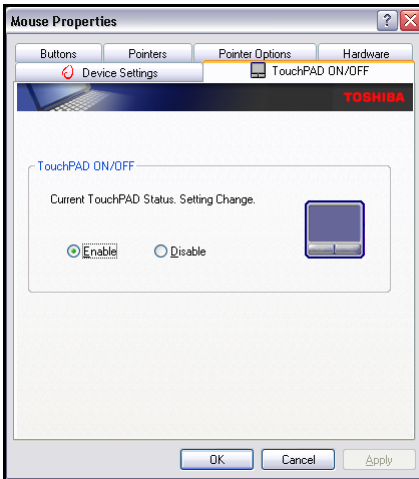
## Disabling or enabling the TouchPad™

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

- 1 Click **Start**, and then **Control Panel**.  
The Control Panel window appears.
- 2 Click **Printers and Other Hardware**.
- 3 Click the **Mouse** icon.

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

The TouchPAD ON/OFF tab view window appears.



*(Sample Image) TouchPAD ON/OFF screen*

- 5 Select **Disable** or **Enable**, whichever is appropriate.
- 6 Click **Apply**.
- 7 Click **OK**.

The Mouse Properties window closes.

- 8 Close the Printers and Other Hardware window.
- 9 Close the Control Panel window.

You can also use a hot key to disable or enable the TouchPad. See [“Disabling or enabling the TouchPad”](#) on page 261.

---

## Using external display devices

Your computer comes with a built-in LCD display, but you can also connect an external display device to an available video port, as follows:

- ❖ An external monitor or projector via the RGB (monitor) port
- ❖ A TV, VCR, or DVD recorder via the S-video (TV-out) port

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

### Connecting an external monitor or projector

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



- 1 Connect the monitor's video cable to the RGB (monitor) port on the left side of the computer.
- 2 Connect the device's power cable to a live electrical outlet.
- 3 Turn on the external device.
- 4 Set the display mode by pressing Fn + F5, or by configuring the Display Properties settings.

### Directing the display output when you turn on the computer

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

- 1 Press Fn and F5 simultaneously.

- 2 While holding down Fn, press F5 repeatedly until the setting you want takes effect. Briefly pause each time you press the F5 key to allow time for the display to change.

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
- ❖ TV and built-in display
- ❖ TV only
- ❖ Primary and CRT
- ❖ Dual Mode display
- ❖ Swap image display



*(Sample Image) Display options window*

- 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, Control Panel, Appearance and Themes, and then Display. Choose the Settings tab, click the Advanced button, select Display Device, select the applicable Monitor type, and then 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.

---

## 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 TouchPad. You can use a USB-compatible mouse.

---

### 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

---

**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 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 can set up the printer as described in [“Setting up a printer” on page 73](#).

To connect a 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 AC 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**, and then **Printers and Faxes**.  
The Printers and Faxes window appears.
- 2 Click **Add a printer**.  
The Add Printer Wizard appears.



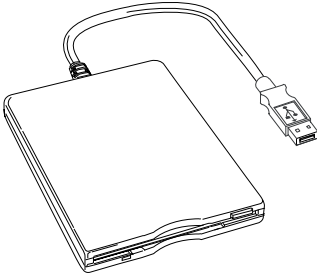
*(Sample Image) Add Printer Wizard*

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

---

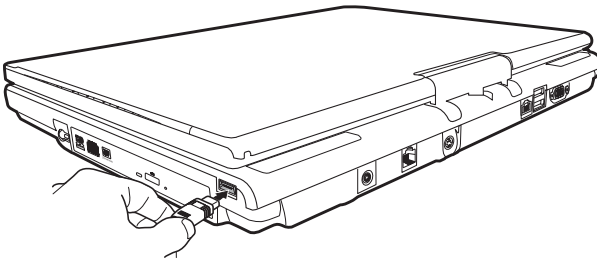
## Connecting an optional external diskette drive

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



*(Sample Illustration) Optional external USB diskette drive*

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



*(Sample Illustration) Connecting an optional external USB diskette drive*

---

## Turning off the computer

---

**CAUTION**

Sliding the power switch 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/disc is being accessed, you may lose data or damage the disk/disc and/or drive.

---

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

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

### Options for turning off the computer

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

#### Turn Off or Shut Down

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

- ❖ Use the Turn Off command if you are using Windows® XP Home, or either Windows® XP Professional or Windows® XP Media Center Edition (MCE) and are not connected to a domain server.
- ❖ Use the Shut Down command if you are using Windows® XP Professional 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 all disk/disc activity lights are off.

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

---

## Hibernation mode

Hibernation mode shuts the computer down completely, but it first saves the current state of the computer to the 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.
- ❖ Restarting from Hibernation takes less time and consumes less main battery power than restarting from turning off the computer.
- ❖ Since information is being retrieved from the hard disk rather than from memory, restarting from Hibernation takes a little more time and consumes more main battery power to start up than when restarting from Standby.
- ❖ When starting up again, the computer returns to the state in which you left it, including all open programs and files you were using.

---

For information on how to use and configure 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

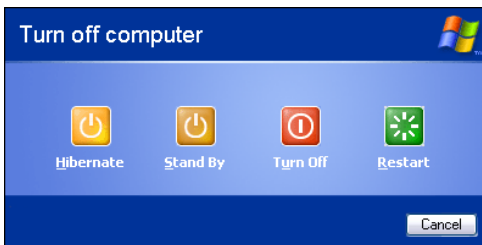
Depending on the operating system installed, use the following steps to turn off your computer.

### 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**, and then **Turn off computer**.

The Turn off computer dialog box appears.



*(Sample Image) Turn off computer Windows® dialog box*

- 2 Click **Turn Off**.

The computer shuts down completely.

### Shut Down

For Windows® XP Professional, follow these steps to turn off the computer:

- 1 Click **Start**, and 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 sliding the power switch.

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

- 1 Click **Start**, **Control Panel**, and then **Performance and Maintenance**.
- 2 Click the **TOSHIBA Power Saver** icon.
- 3 Click on the **Setup Action** tab.



*(Sample Image) 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 slide the power switch.
  - ❖ **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.

---

5 Click **Apply**.

6 Click **OK**.

---

## NOTE

For more information about the Power Saver utility, see “TOSHIBA Power Saver” on page 178.

---

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

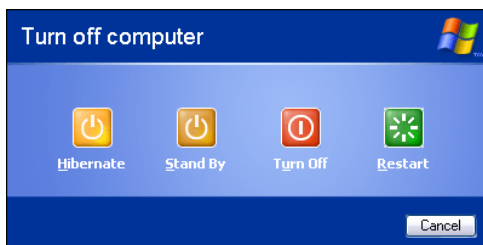
### Restarting your computer

To start the computer up again, slide the power switch until the on/off light glows green.

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 then select **Hibernate**.



*(Sample Image) Turn off computer Windows<sup>®</sup> dialog box*

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



---

## Configuring Hibernation mode options

You can place the computer into Hibernation mode by either sliding the power switch 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**, and then **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 slide the power switch.

❖ **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 ["TOSHIBA Power Saver" on page 178](#).

---

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

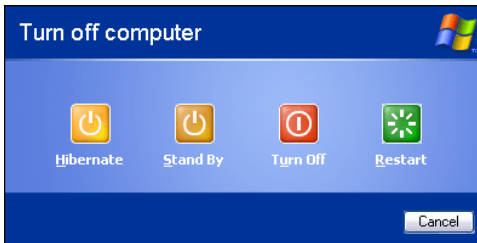
## Starting again from Hibernation mode

To start up the computer from Hibernation mode, slide the power switch until the on/off light glows green. 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 then select **Stand By**.



*(Sample Image) 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 on/off light blinks amber indicating the computer is in Standby mode.

## Configuring Standby mode options

You can place the computer into Standby mode by either sliding the power switch 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**, and then **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 slide the power switch.
  - ❖ **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 [“TOSHIBA Power Saver” on page 178](#).

---

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

## Starting again from Standby mode

To start up the computer from Standby mode, slide the power switch until the on/off light glows green. 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.

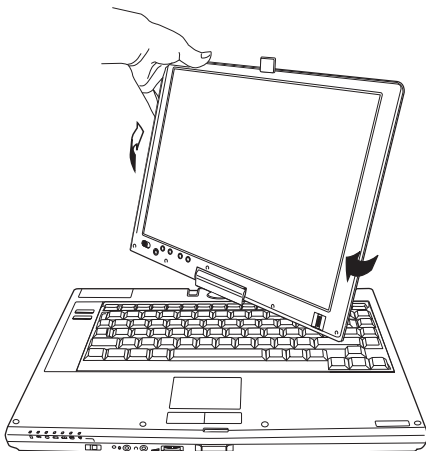
## Closing the display panel

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

---

## Using your computer in tablet mode

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



*(Sample Illustration) Rotating the screen*

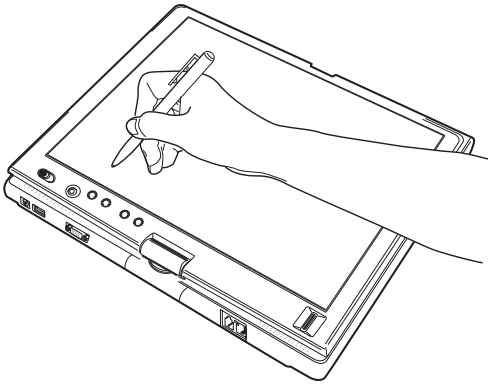
By simply rotating and folding the screen over the keyboard, your system is ready to use in tablet mode, with the included Toshiba tablet pen.

---

**CAUTION**

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

---



*(Sample Illustration) Using the computer in tablet mode*

To remove the tablet pen, press it in, and then pull it out from the right side of the computer.

For more information on using the computer in tablet mode, see [“Using tablet mode” on page 144](#).

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

## Customizing your computer's settings

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

You may also wish to customize your power usage settings. For more information, see [“Power Profiles” on page 119](#). There are additional custom settings you can choose. See [“Toshiba Utilities” on page 155](#).

## 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 124.

### Cleaning the computer

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**CAUTION**

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

---

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

### Moving the computer

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

---

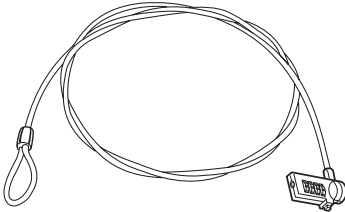
**CAUTION**

Do not pick up the computer by its display panel or by the back (where the ports are located). 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](http://accessories.toshiba.com).



*(Sample Illustration) Computer lock cable*

To secure the computer:

- 1** Wrap the cable through or around some part of a heavy object.

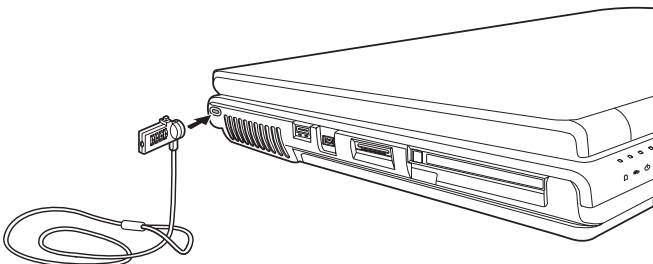
Make sure there is no way for a potential thief to slip the cable off the object.

- 2** Pass the locking end through the loop.



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

The computer is now securely locked.



*(Sample Illustration) Attaching security lock cable*

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

See [“Saving your work” on page 96](#) for further information.



**HINT:** Some programs have an automatic save feature that can be activated. This feature saves your file to the hard disk at preset intervals. See your software documentation for details.

---



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

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

- ❖ Use 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 [“Using and configuring Standby mode” on page 82](#) to learn more about Standby.

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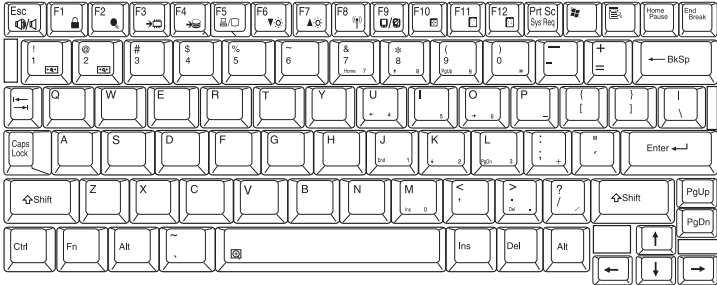
**NOTE**

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

---

## Using the keyboard

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



*(Sample Illustration) Keyboard*

## Character keys

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

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

## Making your keyboard emulate a full-size keyboard

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

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

Your computer's keyboard has only one Enter and one Ctrl key. Most of the time, this 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 Illustration) Ctrl, Fn, and Alt keys*

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

## Function keys

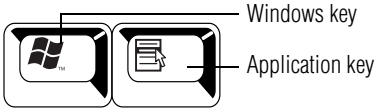
The function keys (not to be confused with the Fn key) are the 12 keys at the top of the keyboard.



*(Sample Illustration) Function keys*

F1 through F12 are called function keys because they execute programmed functions when pressed. Used in combination with the Fn key, function keys marked with icons execute specific functions on the computer. For example, Fn+F9 turns off the TouchPad. For more information, see [“Fn-esse®” on page 170](#), or [“Hot Keys” on page 255](#).

## Windows special keys



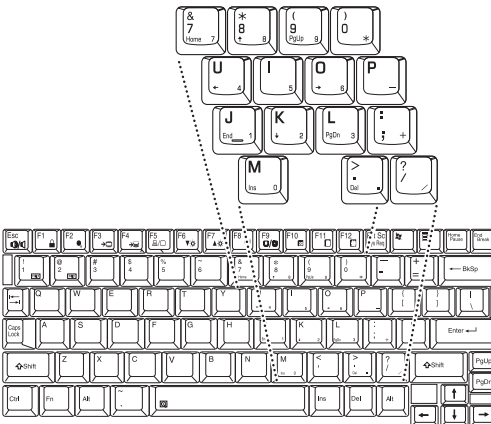
*(Sample Illustration) Windows special keys*

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

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

## Overlay keys

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



*(Sample Illustration) Numeric and cursor control overlay*

---

## Using the overlay to type numeric data

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



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

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

## Using the overlay for cursor control

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



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

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

## 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 or My Computer 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**, and then **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 Click the program group, in this example, **Accessories**.

The Accessories menu is displayed.

- 3 Click the program, in this example, **WordPad**.

WordPad opens.

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

## Starting a program from Windows® Explorer

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 contents 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**, and then **All Programs**.

- 2 Click **Accessories**.


- 3 Click **Windows Explorer**.
- 4 Click **My Computer** to expand the window.
- 5 In the left part of the window, click the line that ends in “(C:).”
- 6 In the left part of the window, under the C: icon, double-click the folder containing the program, in this case **Program Files**.

Windows® Explorer shows the contents of the Program Files folder on the right side of the window. The left side of the window shows all the folders contained within the Program Files folder.

- 7 In the left part of the window, click **Windows NT**.
- 8 In the left part of the window, click **Accessories**.

Windows® Explorer shows the contents of the **Accessories** folder on the right side of the window.

- 9 In the right part of the window, double-click **wordpad**.  
The operating system opens WordPad.

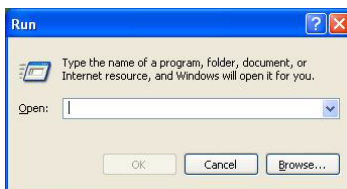
 To close the program, click the **Close** button in the upper-right corner of the program’s window.

## Starting a program from the Run dialog box

This example uses the Run command to start WordPad:

- 1 Click **Start**, and then **Run**.

The Run dialog box appears.



*(Sample Image) Run dialog box*

**2** In the Run dialog box:

- ❖ If you know the program's location, type the command line. For a program in the Windows® folder, type just the program name. Otherwise, type the full file path. For example, to access WordPad, type: `c:\Program Files\Windows NT\Accessories\wordpad.exe`, then click **OK**.



**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.

---

- ❖ If you do not know the location, you can search for it by clicking **Start**, then **Search**, and then following the on-screen instructions.

## Saving your work

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

---



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

---

Saving documents is quick and easy, so it is a good idea to get in the habit of saving frequently.

Many programs offer a feature that saves documents at regular intervals. Check your program's documentation to see if it has an automatic save feature.



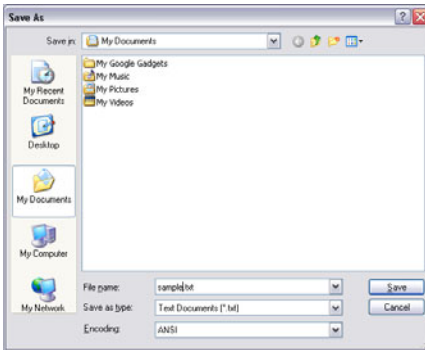
---

## Saving files

- 1 In your Windows® application, click **File**, and then **Save**.

If you are working with a document that already has a file name, this is all you need to do. If you created a new document, your program displays a Save As dialog box.

Use this dialog box to specify where to store the document and to give it a file name.



*(Sample Image) Save As dialog box*

- 2 Choose the drive and folder where you want your file to be stored.
- 3 Type a file name, then click **Save**.



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

---

---

## File names

The Windows operating system supports long file names that 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: \_ ^ \$ ~ ! # % & { } ( ) @ 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

Ensure the operating system is set up for your printer as described in “[Setting up a printer](#)” on page 73.

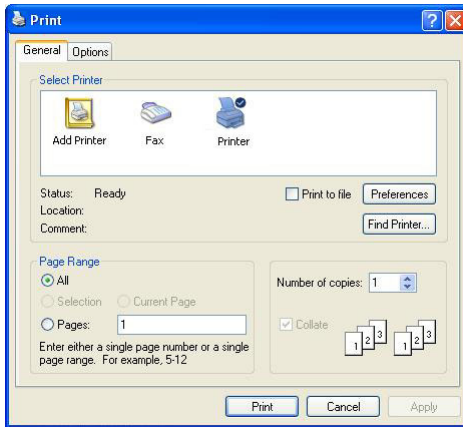


**HINT:** You only need to set up the printer the first time you connect it. If you use more than one printer or are changing printers, you will need to set up the Windows® operating system to run with the additional printer(s).

---

To print a file:

- 1 If your printer is not on, turn it on now.
- 2 In your Windows® application, click **File**, and then **Print**.  
The program displays a Print dialog box.



(Sample Image) 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 247.



**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 or 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 optical 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 an optical drive.



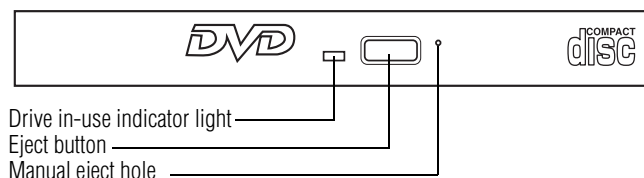
**TECHNICAL NOTE:** Your optical drive is set to play region 1 (North America) DVD-ROMs. If you play a DVD disc from another region, the drive will automatically change to play in the format of the other region. The drive will allow you to change regions four times. On the fourth change, the region will 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.

## Optical drive components

The optical drive is located on the right side of the computer. Your optical drive may look like this:



*(Sample Illustration) Optical drive*

**Drive in-use indicator light**—Indicates when the drive is in use.

**Eject button**—Press to release the disc tray.

**CAUTION**

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

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

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

**CAUTION**

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

## Inserting a disc

To insert a compact disc into the drive:

- 1 Make sure the computer is turned on.

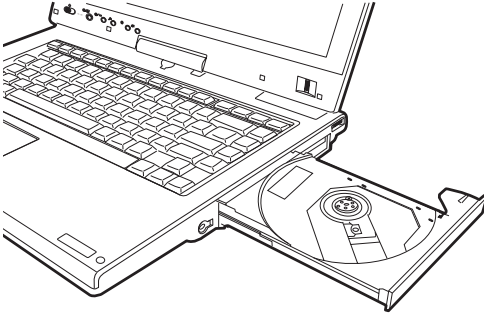
The drive will not open if the computer's power is off.

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

- 3 Press the drive's eject button.

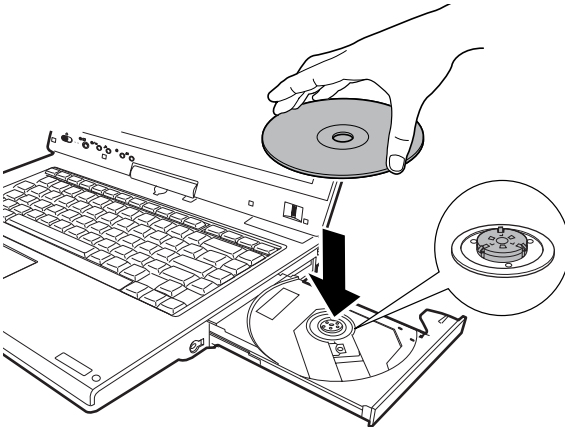
The disc tray slides partially out of the drive (about 1 inch).

- 4 Grasp the tray and pull it fully open.



*(Sample Illustration) Drive tray fully extended*

- 5 Hold the disc by its edges and check that it is free of dust.  
If the disc is dusty, clean it as described in “Caring for CD or DVD discs” on page 108.
- 6 Place the disc carefully in the disc tray, label side up.



*(Sample Illustration) Positioning the disc in the drive*

- 
- 7 Gently press the disc onto the center spindle until it clicks into place.
- 

**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.

---

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

**CAUTION**

If you insert the disc incorrectly, it may jam the drive. If this happens, contact Toshiba support for assistance.

---

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

You are ready to use the disc.

## Playing an audio CD

Insert an audio CD and close the disc tray.

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.

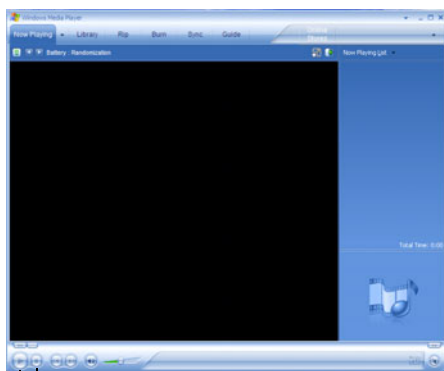
To access the Windows Media Player, you can open it through the Start menu or activate it from the Taskbar.

**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.

---





Stop button  
Play/Pause button

*(Sample Image) 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.
- ❖ To stop the CD, click the **Stop** button.

**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 headphones. Continuous exposure to loud sound can harm your hearing.

## Playing optical media

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

- 1 Click **Start**, and then **My Computer**.
- 2 Click the optical drive icon.

The disc drive will run the CD/DVD.

---

If your disc does not run using this method, try using an application that is associated with the media on the disc. 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 disc.

## Creating a CD/DVD

Depending on the 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 data (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 play back optical media recorded by other computers or optical media recorders. Additionally, certain optical media recorded on your optical drive may not play back or operate properly on other computers or optical media players. These problems are not due to any defect in your Toshiba computer or optical drive. Please refer to your computer'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 with the computer on

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

- 1 Press the eject button on the drive.

---

**CAUTION**

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

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

---

- 2 Pull the tray out until it is fully open, remove the disc, and place it in its protective cover.
- 3 Gently press the tray in to close it.

## Removing a disc with the computer off

To remove a disc with the computer turned off:

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

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

---

**CAUTION**

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

---

- 2 Pull the tray out until it is fully open, remove the disc, and place it in its protective cover.
- 3 Gently press the tray in to close it.

## 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 optical 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 252](#).

# Chapter 3

## Mobile Computing

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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.

## 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. 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 [accessories.toshiba.com](http://accessories.toshiba.com). Use only batteries designed to work with your Toshiba notebook computer.

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 125 for procedures. If the computer is continuously operated on AC power, either through an AC adaptor 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 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 only while 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](http://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.

Always use the battery charger specified by Toshiba. You can order a Toshiba battery charger from Toshiba's Web site at [accessories.toshiba.com](http://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:** The recharging of the battery cannot occur when your computer is using all of the power provided by the AC adaptor to run applications, features, and devices. Your computer's Power 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 adaptor 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.

---

**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 adaptor connected).
  - ❖ Glows green when the main battery is fully charged.
  - ❖ Is unlit when the battery has discharged, the battery is not charging, or the AC adaptor 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 adaptor.

NOTE

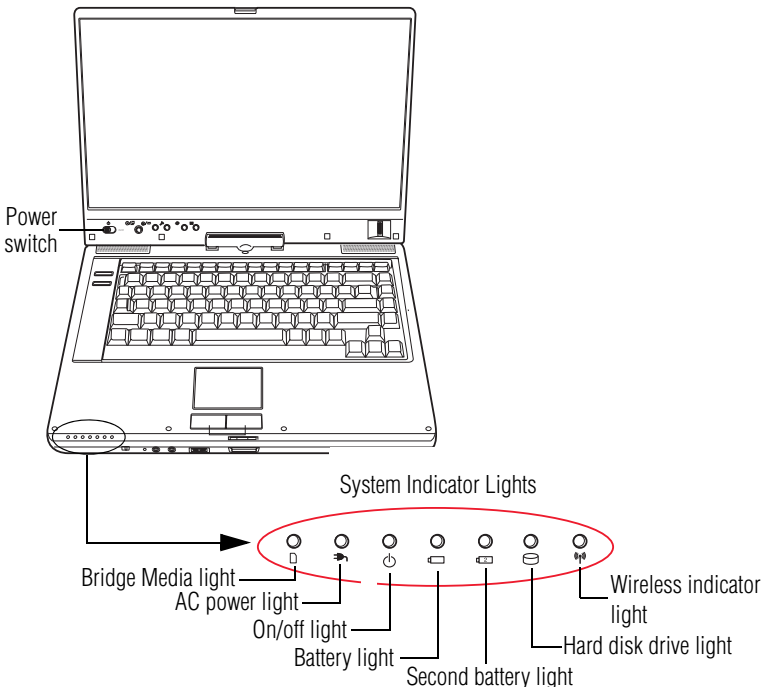
If the AC power light flashes amber during charging, either the battery pack is malfunctioning, or it is not receiving correct input from the AC power supply.

Disconnect the AC power cord/cable and remove the battery pack. See [“Changing the main battery” on page 121](#) for information on replacing the main battery.



HINT: Be careful not to confuse the battery light (⏻) and the on/off light (⏻) (near the front-left edge of the keyboard).

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



*(Sample Illustration) Power and battery light locations*

---

## 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**.



- 2 Click the **TOSHIBA Power Saver** icon.

The 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 “[Hibernation mode](#)” on page 76.

## 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**.
- 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, optical 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 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**.

The TOSHIBA Power Saver Properties window appears.



*(Sample Image) 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.)

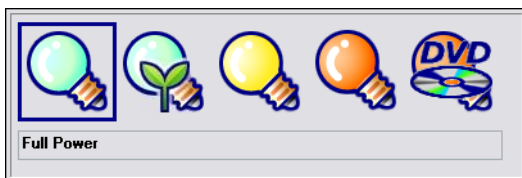
For more information, see [“TOSHIBA Power Saver” on page 178](#).

## 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 Image) Power Profile pop-up window*

- 2 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 [“TOSHIBA Power Saver”](#) on page 178.



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## Changing the main battery

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

---

**⚠ WARNING**

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 and computer.

- ❖ 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.



**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.

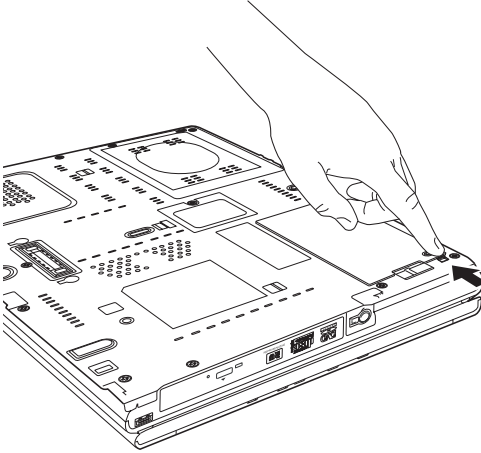
---

## Removing the battery from the computer

To remove the battery:

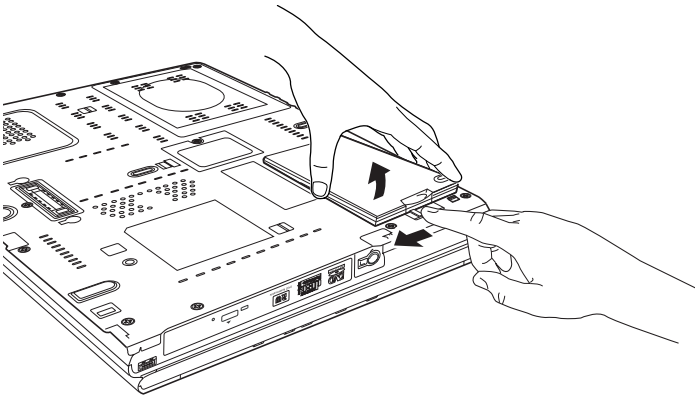
- 1 Save your work.
- 2 Turn off the computer or place it in Hibernation mode according to the instructions in [“Using and configuring Hibernation mode”](#) on page 80.
- 3 Unplug and remove any cables connected to the computer, including the AC adaptor.
- 4 Close the display panel and turn the computer upside down.

- 5 Slide the battery release lock to the unlocked position.



*(Sample Illustration) Unlocking the battery release lock*

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



*(Sample Illustration) Removing the battery*

---

**⚠ WARNING** 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:

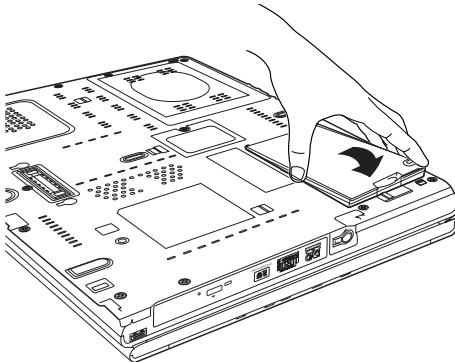
- 1 Wipe the terminals of the charged battery with a clean cloth to ensure a good connection.
- 2 Insert the charged battery into the slot until the latch clicks.

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

---

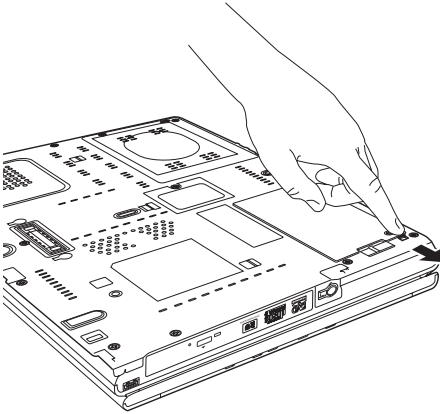
**⚠ CAUTION** If the battery does not slide into the slot easily, move the battery release lock to the unlocked position and try again. Do not force the battery into position.

---



*(Sample Illustration) Inserting the battery*

- 3 Slide the battery lock to the locked position.



*(Sample Illustration) Locking the battery release lock*

- 4 Turn the computer right side up.
- 5 Reconnect any cables that were removed in step 3 of “Removing the battery from the computer” on page 121.
- 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](http://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 adaptor and turn on the computer's power. If it does not turn on, go to step 4.

- 3 Operate the computer on battery power for five minutes. If the battery pack has at least five minutes of operating time, continue operating until the battery pack is fully discharged. If the battery light flashes or there is some other warning to indicate a low battery, go to step 4.
  - 4 Connect the AC adaptor to the computer and the power cord/cable to a power outlet. The DC-IN or AC power-light should glow green, 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 adaptor and power cord/cable.
  - 5 Charge the battery pack until the battery light glows green.
- ❖ 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 adaptor when the battery is fully charged. Overcharging makes the battery hot and shortens its life.
  - ❖ If you are not going to use the computer for more than eight hours, disconnect the AC adaptor.
  - ❖ Store spare battery packs in a cool dry place out of direct sunlight.

---

## Disposing of used batteries

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

You must discard a battery if it becomes damaged.

---

**▲ WARNING**

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

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

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**▲ WARNING**

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.

Toshiba is dedicated to preserving the environment by sponsoring Call2Recycle, a program of the Rechargeable Battery Recycling Corporation. For more information and for drop-off locations, visit [www.rbrc.org](http://www.rbrc.org) or call 1-800-822-8837.

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

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

## Traveling tips

The environmental precautions listed in “[Selecting a place to work](#)” on page 40, 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 or visit Toshiba’s Web site at [accessories.toshiba.com](http://accessories.toshiba.com).



**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.

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### NOTE

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

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# Chapter 4

## Exploring Your Computer's Features

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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® 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 Image) Windows® 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.

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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 or flash media, 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.



**Windows® Media Player** — Plays and organizes digital media files on your computer and on the Internet.

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**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® online Help 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® operating system update
- ❖ Open documents
- ❖ Adjust system settings
- ❖ Find files
- ❖ Access Windows® Help
- ❖ Run programs
- ❖ Suspend system activity and shut down the computer

## 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.

## 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.

## Setting up for communications

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

- ❖ A modem (available on certain models)
- ❖ A telephone line
- ❖ A browser or communications program
- ❖ An Internet Service Provider (ISP) or online service if you plan to use the Internet

---

## Determining the COM port

Your modem (available on certain models) 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**, and 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.

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

- 8 Click **OK** to close the properties dialog box for that specific modem.
- 9 Click **OK** to close the Modem Properties dialog box.
- 10 Close the Control Panel.

## Connecting the modem to a telephone line

Your computer may come with a built-in modem (available on certain models) 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 larger corporate wide area network (WAN).

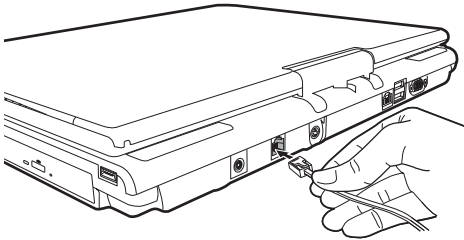
For specific information about connecting to a LAN or WAN, consult your network administrator.

- ❖ Send a fax directly from your computer.

For more detailed information regarding your computer's modem, visit Toshiba's Web site at [accessories.toshiba.com](http://accessories.toshiba.com).

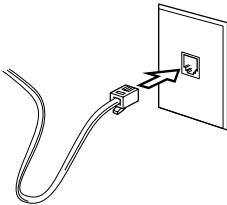
Before you can communicate using the modem, you need to connect it to a telephone line. Your computer's built-in modem port provides an RJ-11 jack, allowing you to connect the modem to a standard voice-grade telephone line.

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



*(Sample Illustration) Connecting the telephone cable to the modem port*

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



*(Sample Illustration) Connecting to a wall jack*

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NOTE

Connect the built-in modem only to ordinary analog phone lines.

Never connect the built-in modem to a digital line (ISDN).

Never connect the built-in modem to the digital connector on a public telephone or to a digital private branch exchange (PBX).

Never connect the built-in modem to a key telephone system for residences or offices.

Connection to any communication line other than an analog phone line could cause a computer system failure.

---

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

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## Connecting your computer to a network

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

### Accessing a network

To access a network:

- ❖ At the office, connect an Ethernet cable to the RJ45 jack on your computer. For specific information about connecting to the network, consult your network administrator.
- ❖ While you are at home or traveling, you need a dial-up connection. Ask your network administrator for the telephone number of the network.

### 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 then **All Programs**.
- 2** Click **Accessories, 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.



---

## How to disable 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.

To disable the LAN port:

- 1 Click **Start, Control Panel**, and 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

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### 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.

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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 on/off switch to the On position.

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**NOTE**

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

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For help with common Wi-Fi® networking problems, see “Wireless networking problems” on page 238.

## **An overview of using the Internet**

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

- ❖ [The Internet](#)
- ❖ [The World Wide Web](#)
- ❖ [Internet Service Providers](#)
- ❖ [Connecting to the Internet](#)
- ❖ [Surfing the Internet](#)
- ❖ [Internet features](#)
- ❖ [Uploading 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 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 134.
- 2 Start your Web browser. Have your modem dial the ISP's telephone number, and establish a connection with the ISP's computer.

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

## Surfing the Internet

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

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

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

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## **Internet features**

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

❖ **Internet email**

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

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

❖ **Internet chat rooms**

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

❖ **Internet news groups**

A news group is similar to a chat room, but instead of using a dedicated site to converse about a specialized subject with others in real-time, it uses a Web site as a clearinghouse where all the messages are placed, like a gigantic bulletin board.

❖ **Online shopping**

Many Web sites offer products and services for sale.

## **Uploading 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. You can play sound files or audio CDs using the built-in speakers, headphones, or external speakers.

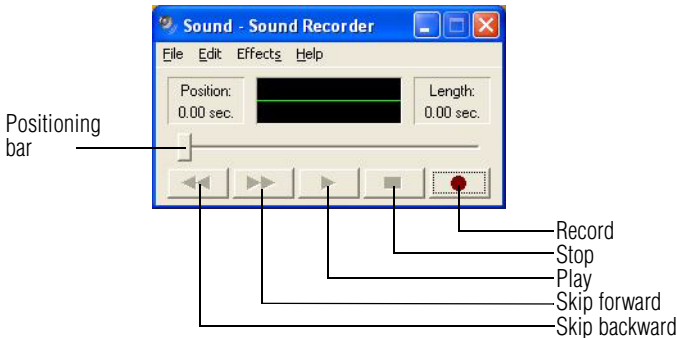
### Recording sounds

You may record sounds by connecting an optional external microphone or other sound source to the microphone jack.

#### Using a microphone



- 1 Connect an external microphone to the computer.
- 2 Click **Start, All Programs, Accessories, Entertainment**, and then **Sound Recorder**.



*(Sample Image) Sound Recorder screen*



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



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

**NOTE**

You can only record 60 seconds at a time.



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

**NOTE**

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

## Using external speakers or headphones

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

**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 headphones. Continuous exposure to loud sound can harm your hearing.



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

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To play back sound files through external speakers or headphones:



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

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

To adjust the volume:

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

## Using tablet mode

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

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

## Preparing to use the tablet

- 1 Press the display panel release button and lift the display panel.
- 2 Slide the power switch to the left and hold it until the on/off light on the system indicator panel glows green, depending on your model—about one second.

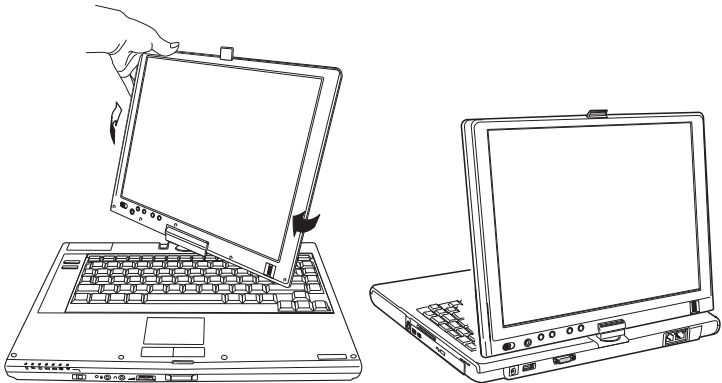




- 3 Rotate the display panel **clockwise** 180° (degrees). When you complete this task, the screen faces away from the keyboard.

**CAUTION**

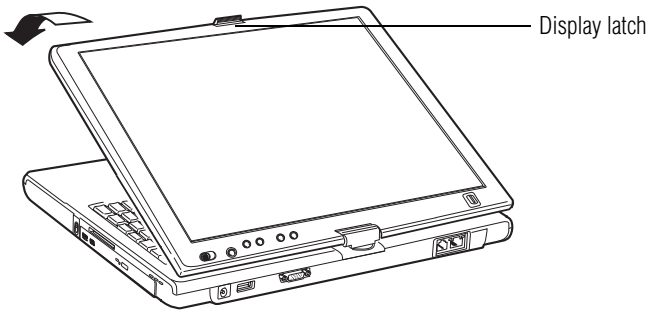
When rotating LCD screen of your computer, be sure to slowly turn the screen in the proper direction, and not apply excessive force or speed.



*(Sample Illustration) Rotating the display panel clockwise 180°*

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

- 5 Fold the display panel down flat over the keyboard. The display latch will click and lock the screen in tablet position.



*(Sample Illustration) Folding the display panel down flat*

By default, the computer desktop will automatically rotate to primary portrait view. For more information on changing tablet screen settings, see [“TOSHIBA Rotation Utility” on page 184](#).

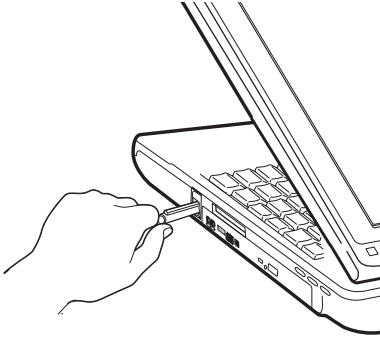
- 6 To send the video to an external monitor, use the Cross Menu button (the Cross-Functional button) and select the display option.

NOTE

You should view video on an external monitor in primary landscape mode. Any other orientation will display the external video resolution incorrectly.

## Using tablet mode

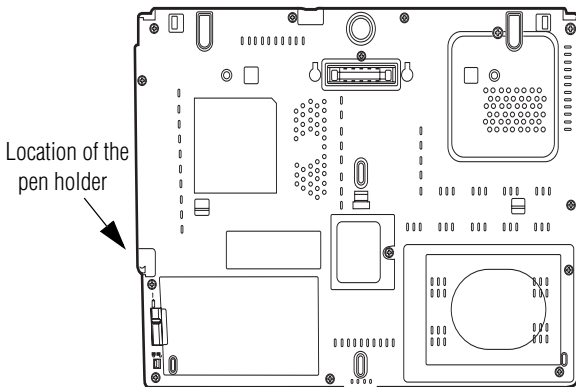
- 1 Remove the Toshiba tablet pen which is located on the right side of the computer by momentarily pressing in on the pen and then releasing it. Pull the pen from the holder.



*(Sample Illustration) Removing the Toshiba tablet pen from the slot on the tablet computer*

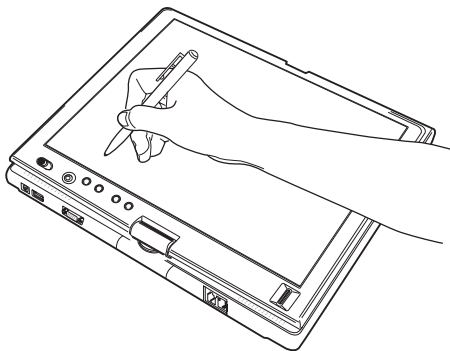
### NOTE

To protect the computer's display, make sure you change from tablet mode to computer mode and close the display before you turn the computer upside down.



*(Sample Illustration) Location of the pen and pen holder*

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



*(Sample Illustration) Writing on the tablet*

To learn how to manually change the layout of the screen from portrait to landscape, see [“TOSHIBA Rotation Utility” on page 184](#).

NOTE

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

## Using the Toshiba tablet pen

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

- ❖ To move the pointing icon (or cursor) on the tablet, simply drag the Toshiba tablet pen across the tablet.
- ❖ To click a button, gently press the Toshiba tablet pen on it (one click).
- ❖ To launch an application from the desktop, press the Toshiba tablet pen on the icon (some applications may require you to press it twice—two clicks).

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

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

## Returning the computer to its original configuration

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

- 1 Return the Toshiba tablet pen to its slot on the right side of the computer.
- 2 Press the display latch release button.
- 3 Lift the display panel to its upright position.
- 4 Rotate the display panel **counter-clockwise** 180°. When you complete this task, the screen returns to its normal position facing the keyboard.
- 5 Turn the display latch toward the LCD screen.

## Using PC Cards



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

Your notebook computer comes with a PC Card slot and supports two types of PC Cards that you can install:

- ❖ Type I cards
- ❖ Type II cards

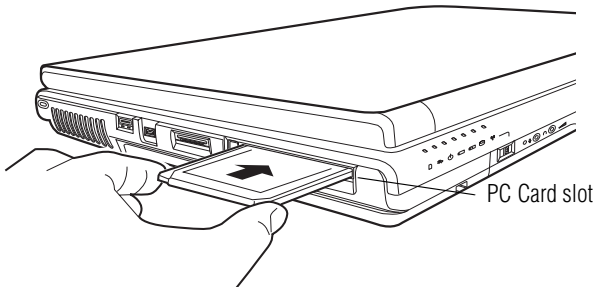
The PC Card slot supports hot swapping, which allows you to replace one PC Card with another while the computer is on.

## 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.

To insert a PC Card:

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



*(Sample Illustration) 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.

## Removing a PC Card

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**CAUTION**

Be sure to disable the PC Card prior to removing it. Otherwise, the system may be damaged.

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**NOTE**

Before removing a PC Card, make sure that no applications or system services are using the card.

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