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User's Manual

Libretto W100

Table of Contents

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TOSHIBA Libretto W100 User's Manual

First edition May 2010

Disclaimer

This manual has been validated and reviewed for accuracy. The instructions and descriptions it contains are accurate for the TOSHIBA Libretto W100 Portable Personal Computer at the time of this manual's production. However, succeeding computers and manuals are subject to change without notice. TOSHIBA assumes no liability for damages incurred directly or indirectly from errors, omissions or discrepancies between the computer and the manual.

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FCC information

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, 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 into 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.

Only peripherals complying with the FCC class B limits may be attached to this equipment. Operation with non-compliant peripherals or peripherals not recommended by TOSHIBA is likely to result in interference to radio and TV reception. Shielded cables must be used between the external devices and the computer's Universal Serial Bus (USB 2.0) 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.

FCC conditions

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

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

Contact

Address: TOSHIBA America Information Systems, Inc.

9740 Irvine Boulevard

Irvine, California 92618-1697

Telephone: (949) 583-3000

EU Declaration of Conformity

This product is carrying the CE-Mark in accordance with the related European Directives. Responsible for CE-Marking is TOSHIBA Europe GmbH, Hammfelddamm 8, 41460 Neuss, Germany. The complete and official EU Declaration of Conformity can be found on TOSHIBA's web site http://epps.toshiba-teg.com on the Internet.

CE compliance

This product is labelled with the CE Mark in accordance with the related European Directives, notably Electromagnetic Compatibility Directive 2004/108/EC for the notebook and the electronic accessories including the supplied power adapter, the Radio Equipment and Telecommunications Terminal Equipment Directive 1999/5/EC in case of implemented telecommunication accessories and the Low Voltage Directive 2006/95/EC for the supplied power adapter. Furthermore the product complies with the Ecodesign Directive 2009/125/EC (ErP) and its related implementing measures.

This product and the original options are designed to observe the related EMC (Electromagnetic Compatibility) and safety standards. However, TOSHIBA cannot guarantee that this product still observes these EMC standards if options or cables not produced by TOSHIBA are connected or implemented. In this case the persons who have connected/implemented those options/cables have to provide assurance that the system (PC plus options/cables) still fulfils the required standards. To avoid general EMC problems, the following guidance should be noted:

■ Only CE marked options should be connected/implemented

■ Only best shielded cables should be connected

Working environment

This product was designed to fulfil the EMC (Electromagnetic Compatibility) requirements to be observed for so-called "Residential, commercial and light industry environments". TOSHIBA do not approve the use of this product in working environments other than the above mentioned "Residential, commercial and light industry environments".

For example, the following environments are not approved:

■ Industrial Environments (e.g. environments where a mains voltage of 380 V three-phase is used)
■ Medical Environments
■ Automotive Environments
■ Aircraft Environments

Any consequences resulting from the use of this product in working environments that are not approved are not the responsibility of TOSHIBA.

The consequences of the use of this product in non-approved working environments may be:

■ Interference with other devices or machines in the near surrounding area.
■ Malfunction of, or data loss from, this product caused by disturbances generated by other devices or machines in the near surrounding area.

Therefore TOSHIBA strongly recommend that the electromagnetic compatibility of this product should be suitably tested in all non-approved working environments before use. In the case of automobiles or aircraft, the manufacturer or airline respectively should be asked for permission before use of this product.

Furthermore, for general safety reasons, the use of this product in environments with explosive atmospheres is not permitted.

VCCI Class B Information

この装置は、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ください。

VCCI-B

Canadian regulatory information (Canada only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulation of the Canadian Department of Communications.

Note that Canadian Department of Communications (DOC) regulations provide, that changes or modifications not expressly approved by TOSHIBA Corporation could void your authority to operate this equipment.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causng Equipment Regulations.

Cet appareil numérique de la class B respecte toutes les exgences du Règlement sur le matériel brouiteur du Canada.

Following information is only valid for EU-member States:

Disposal of products
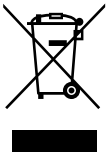
The crossed out wheeled dust bin symbol indicates that products must be collected and disposed of separately from household waste. Integrated batteries and accumulators can be disposed of with the product. They will be separated at the recycling centres.

The black bar indicates that the product was placed on the market after August 13, 2005.

By participating in separate collection of products and batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.

For more detailed information about the collection and recycling programmes available in your country, please visit our website (http://eu.computers.toshiba-europe.com) or contact your local city office or the shop where you purchased the product.

Disposal of batteries and/or accumulators

Pb, Hg, Cd

The crossed out wheeled dust bin symbol indicates that batteries and/or accumulators must be collected and disposed of separately from household waste.

If the battery or accumulator contains more than the specified values of lead (Pb), mercury (Hg), and/or cadmium (Cd) defined in the Battery Directive (2006/66/EC), then the chemical symbols for lead (Pb), mercury (Hg) and/or cadmium (Cd) will appear below the crossed out wheeled dust bin symbol.

By participating in separate collection of batteries, you will help to assure the proper disposal of products and batteries and thus help to prevent potential negative consequences for the environment and human health.

For more detailed information about the collection and recycling programmes available in your country, please visit our website (http://eu.computers.toshiba-europe.com) or contact your local city office or the shop where you purchased the product.

These symbols may not stick depending on the country and region where you purchased.

Disposing of the computer and the computer's batteries

- Discard this computer in accordance with applicable laws and regulations. For further information, contact your local government.
- This computer contains rechargeable batteries. 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 regulation, 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. Disposal of this material may be regulated due to environmental considerations. For disposal, reuse or recycling information, please contact your local government.

REACH - Compliance Statement

The new European Union (EU) chemical regulation, REACH (Registration, Evaluation, Authorization and Restriction of Chemicals), entered into force on 1 June 2007. Toshiba will meet all REACH requirements and is committed to provide our customers with information about the chemical substances in our products according to REACH regulation.

Please consult the following website www.toshiba-europe.com/computers/info/reach for information about the presence in our articles of substances included on the candidate list according to article 59(1) of Regulation (EC) No 1907/2006 („REACH") in a concentration above 0.1 % weight by weight.

Following information is only for Turkey:

■ **Compliant with EEE Regulations:** Toshiba meets all requirements of Turkish regulation 26891 "Restriction of the use of certain hazardous substances in electrical and electronic equipment".

■ The number of possible pixel failures of your display is defined according to ISO 13406-2 standards. If the number of pixel failures is less than this standard, they will not be counted as defect or failure.

■ Battery is a consumption product, since the battery time depends on the usage of your computer. If the battery can not be charged at all, then it is a defect or failure. The changes in battery time is not a defect or failure.

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General Precautions

TOSHIBA computers are designed to optimize safety, minimize strain and withstand the rigors of portability. However, certain precautions should be observed to further reduce the risk of personal injury or damage to the computer.

Be certain to read the general precautions below and to note the cautions included in the text of the manual.

Provide adequate ventilation

- 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 Sleep 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 anelectric blanket or heater.
  - Never cover or block the air vents including those located at the base of the computer.
  - Always operate your computer on a hard flat surface. Using your computer on a carpet or other soft material can block the vents.
- Always provide sufficient space around the computer.
- Overheating your computer or AC adaptor could cause system failure, computer or AC adaptor damage or a fire, possibly resulting in serious injury.

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.

Stress injury

Carefully read the *Instruction Manual for Safety and Comfort*. It contains information on the prevention of stress injuries to your hands and wrists that can be caused by extensive keyboard use. *Instruction Manual for Safety and Comfort* also includes information on work space design, posture and lighting that can help reduce physical stress.

Heat injury

■ Avoid prolonged physical contact with the computer. If the computer is used for long periods, its surface can become very warm. While the temperature will not feel hot to the touch, if you maintain physical contact with the computer for a long time, for example if you rest the computer on your lap or if you keep your hands on the palm rest, your skin might suffer a low-heat injury.

■ If the computer has been used for a long time, avoid direct contact with the metal plate supporting the various interface ports as this can become hot.

■ The surface of the AC adaptor can become hot when in use but this condition does not indicate a malfunction. If you need to transport the AC adaptor, you should disconnect it and let it cool before moving it.

■ Do not lay the AC adaptor on a material that is sensitive to heat as the material could become damaged.

Pressure or impact damage

Do not apply heavy pressure to the computer or subject it to any form of strong impact as this can damage the computer's components or otherwise cause it to malfunction.

Mobile phones

Please be aware that the use of mobile phones can interfere with the audio system. The operation of the computer will not be impaired in any way, but it is recommended that a minimum distance of 30cm is maintained between the computer and a mobile phone that is in use.

Instruction Manual for Safety and Comfort

All important information on the safe and proper use of this computer is described in the enclosed Instruction Manual for Safety and Comfort. Be sure to read it before using the computer.

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Preface

Congratulations on your purchase of the Libretto W100 computer, which is the dual screen computer featuring the "Bulletin Board". This convenient, lightweight device, with the floating Virtual Keyboard, TouchPad and additional useful utilities, is designed to be operated by finger tapping on the screens, while users can access Windows functions.

This manual tells how to set up and begin using your Libretto W100 computer. It also provides detailed information on configuring your computer, basic operations and care, using optional devices and troubleshooting.

If you are a new user of computers or if you're new to portable computing, first read over the Chapter 1, *Getting Started* and Chapter 3, *Hardware, Utilities and Options* chapters to familiarize yourself with the computer's features, components and accessory devices. Then read Chapter 1, *Getting Started* for step-by-step instructions on setting up your computer.

If you are an experienced computer user, please continue reading the preface to learn how this manual is organized, then become acquainted with this manual by browsing through its pages. Be sure to read the *Special features* section in Chapter 3, *Hardware, Utilities and Options* to learn about features that are uncommon or unique to this computer, as well as the section on Chapter 6, *HW Setup*, to understand how to setup and configure these features.

Read Chapter 3, *Hardware, Utilities and Options* if connecting optional products or external devices.

Conventions

This manual uses the following formats to describe, identify, and highlight terms and operating procedures.

Abbreviations

On first appearance, and whenever necessary for clarity, abbreviations are enclosed in parentheses following their definition. For example: Read Only Memory (ROM). Acronyms are also defined in the Glossary.

Icons

Icons identify ports, dials, and other parts of your computer. The indicator panel also uses icons to identify the components it is providing information on.

Keys

The virtual keyboard keys are used in the text to describe many computer operations. A distinctive typeface identifies the key top symbols as they appear on the virtual keyboard. For example, **ENTER** identifies the **ENTER** key.

Key operation

Some operations require you to simultaneously use two or more keys. We identify such operations by the key top symbols separated by a plus sign (+). For example, **CTRL** + **C** means you must hold down **CTRL** and at the same time press **C**. Please refer to *Virtual Keyboard* for detailed information.

ABC   When procedures require an action such as tapping an icon or entering text, the icon's name or the text you are to type in is represented in the typeface you see to the left.

Display

ABC   Names of windows or icons or text generated by the computer that appear on its display screen are presented in the type face you see to the left.

Messages

Messages are used in this manual to bring important information to your attention. Each type of message is identified as shown below.

Pay attention! A caution informs you that improper use of equipment or failure to follow instructions may cause data loss or damage your equipment.

Please read. A note is a hint or advice that helps you make best use of your equipment.

Indicates a potentially hazardous situation, which could result in death or serious injury, if you do not follow instructions.

Terminology

This term is defined in this document as follows:

Start	The word "**Start**" refers to the " " button in Windows 7.
SSD or Solid State drive	Your computer is equipped with a "Solid State Drive (SSD)" instead of a hard disk drive.

Chapter 1

Getting Started

This chapter provides an equipment checklist, and basic information to start using your computer.

⚠️ *Some of the features described in this manual may not function properly if you use an operating system that was not pre-installed by TOSHIBA.*

Equipment checklist

Carefully unpack your computer, taking care to save the box and packaging materials for future use.

Hardware

Check to make sure you have all the following items:

■ Libretto W100 Portable Personal Computer
■ AC adaptor and power cord (2-pin plug or 3-pin plug)
■ Battery pack

Documentation

■ Libretto W100 User Information Guide
■ Instruction Manual for Safety and Comfort

If any of the items are missing or damaged, contact your dealer immediately.

Software

The following Windows® operating system and utility software are pre-installed.

- Windows 7
- TOSHIBA Bulletin Board
- TOSHIBA ReelTime
- TOSHIBA Value Added Package
- TOSHIBA Recovery Media Creator
- TOSHIBA Assist
- TOSHIBA ConfigFree™
- TOSHIBA HDD/SSD Alert
- TOSHIBA Face Recognition
- TOSHIBA eco Utility
- TOSHIBA Media Controller
- Online Manual
  - Libretto W100 User's Manual (This manual)

∗ You may not have all the softwares listed above depending on the model you purchased.

Getting Started

- *All users should be sure to read the section Starting up for the first time.*
- *Be sure to read the enclosed Instruction Manual for Safety and Comfort for information on the safe and proper use of this computer. It is intended to help you be more comfortable and productive while using a notebook computer. By following the recommendations in it you may reduce your chance of developing a painful or disabling injury to your hand, arms, shoulders or neck.*

This section provides basic information to start using your computer. It covers the following topics:

- Connecting the AC adaptor
- Opening the display
- Turning on the power
- Starting up for the first time
- Turning off the power
- Restarting the computer
- Creating Recovery Media
- Restoring the pre-installed software from the Recovery hard disk drive/created Recovery Media

- *Use a virus-check program and make sure it is updated regularly.*
- *Never format storage media without checking its content - formatting destroys all stored data.*
- *It is a good idea to periodically back up the internal solid state drive or other main storage device to external media. General storage media is not durable or stable over long periods of time and under certain conditions may result in data loss.*
- *Before you install a device or application, save any data in memory to the solid state drive or other storage media. Failure to do so may result in the loss of data.*

Connecting the AC adaptor

Attach the AC adaptor when you need to charge the battery or you want to operate from AC power. It is also the fastest way to get started, because the battery pack will need to be charged before you can operate from battery power.

The AC adaptor can be connected to any power source supplying from 100 to 240 volts and 50 or 60 hertz. For details on using the AC adaptor to charge the battery pack, refer to Chapter 5, *Power and Power-Up Modes*.

■ *Always use the TOSHIBA AC adaptor that was included with your computer, or use AC adaptors specified by TOSHIBA to avoid any risk of fire or other damage to the computer. Use of an incompatible AC adaptor 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.*

■ *Never plug the AC adaptor into a power source that does not correspond to both the voltage and the frequency specified on the regulatory label of the unit. Failure to do so could result in a fire or electric shock, possibly resulting in serious injury.*

■ *Always use or purchase power cables that comply with the legal voltage and frequency specifications and requirements in the country of use. Failure to do so could result in a fire or electric shock, possibly resulting in serious injury.*

■ *The supplied power cord conforms to safety rules and regulations in the region the product is bought and should not be used outside this region. For use in other regions, please buy power cords that conform to safety rules and regulations in the particular region.*

■ *Do not use a 3-pin to 2-pin conversion plug.*

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

■ *Never place your computer or AC adaptor on a wooden surface, furniture, or any other surface that could be marred by exposure to heat since the computer base and AC adaptor's surface increase in temperature during normal use.*

■ *Always place your computer or AC adaptor on a flat and hard surface that is resistant to heat damage.*

Refer to the enclosed Instruction Manual for Safety and Comfort for detailed precautions and handling instructions.

1. Connect the power cord to the AC adaptor.
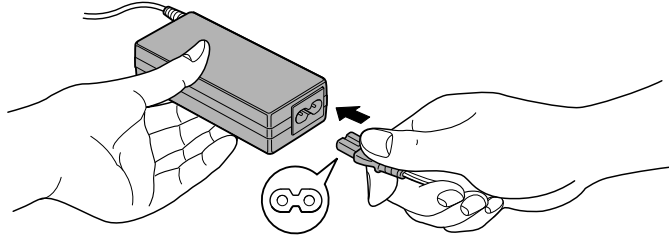
Figure 1-1 Connecting the power cord to the AC adaptor (2-pin plug)
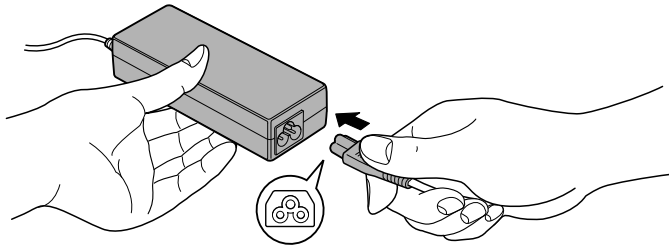
Figure 1-2 Connecting the power cord to the AC adaptor (3-pin plug)

Either a 2-pin or 3-pin adaptor/cord will be included with the computer depending on the model.

2. Connect the AC adaptor's DC output plug to the DC IN 19V jack on the right side of the computer.
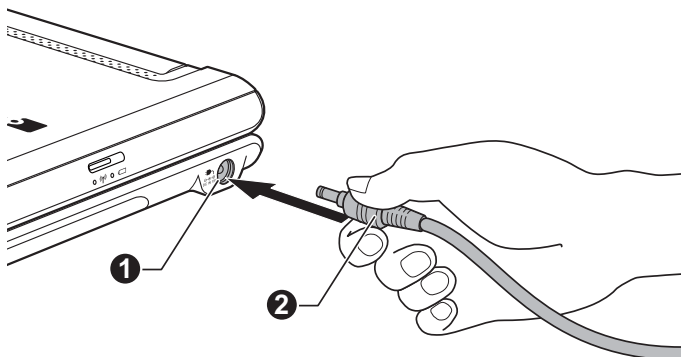
1. DC IN 19V jack   2. DC output plug

Figure 1-3 Connecting the DC output plug to the computer

3. Plug the power cord into a live wall outlet - the **DC IN/Battery** indicator on the right of the computer should glow.

Opening the display

The Libretto is a dual screen computer provided with two display panels (upper and lower), which can be opened to a wide range of angles for optimal viewing.

You can open the display panel as the illustration shown below.
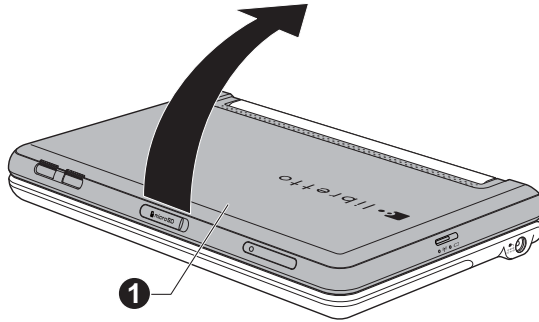
1. Upper display panel

Figure 1-4 Opening the display panel

Use reasonable care when opening and closing the display panels. Opening them vigorously or slamming them shut could damage the computer.

- *Do not press or push on the display panels.*
- *Do not close the display panels with pens or any other objects left in between them.*
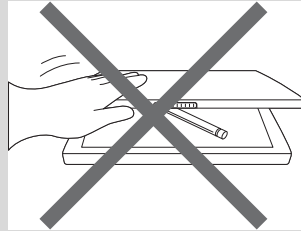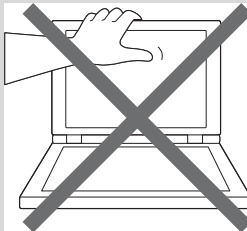
Turning on the power

This section describes how to turn on the power - the **Power** indicator will then indicate the status. Please refer to the *Monitoring of power condition* section in Chapter 5, Power and Power-Up Modes for more information.

■ *After you turn on the power for the first time, do not turn it off until you have set up the operating system. Please refer to the section Starting up for the first time for more information.*

■ *Volume cannot be adjusted during Windows Setup.*

1. Open the display panels.
2. Press the computer's power button.
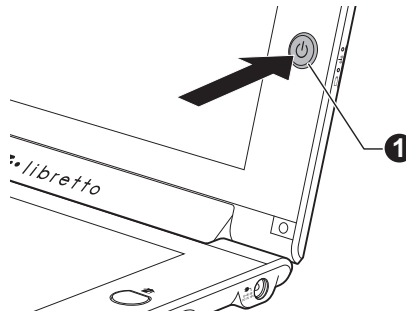
1. Power button

Figure 1-5 Turning on the power

Starting up for the first time

The Windows 7 Startup Screen will be the first screen displayed when you turn on the power. Follow the on-screen instructions in order to properly install the operating system.

When it is displayed, be sure to read the `Software License Terms` *carefully.*

When it is completed, the Windows screen will be displayed in the upper screen, while Libretto Home in the lower screen by default.
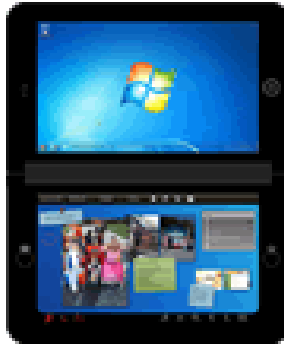
1. Windows screen   2. Libretto Home screen

Figure 1-6 Starting up for the first time

The Libretto virtual Keyboard will be displayed in the lower screen by pressing the Keyboard button.

Turning off the power

The power can be turned off in one of three modes, either Shut Down Mode, Hibernation Mode or Sleep Mode.

Shut Down Mode

When you turn off the power in Shut Down Mode no data will be saved and the computer will boot to the operating system's main screen the next time it is turned on.

1. If you have entered data, either save it to the solid state drive or to other storage media.

■ *Never turn off the power while an application is running. Doing so could cause loss of data.*

■ *Never turn off the power, disconnect an external storage device or remove storage media during data read/write. Doing so can cause data loss.*

2. Tap **Start**.

3. Tap the **Shut down** button (Shut down).

4. Turn off any peripheral devices connected to your computer.

Do not turn the computer or peripheral devices back on immediately - wait a short period to avoid any potential damage.

Sleep Mode

If you have to interrupt your work, you are able to turn off the power without exiting from your software by placing the computer into Sleep Mode. In this mode data is maintained in the computer's main memory so that when you turn on the power again, you can continue working right where you left off.

When you have to turn off your computer aboard an aircraft or in places where electronic devices are regulated or controlled, always completely shut down the computer. This includes turning off any wireless communication switches or devices, and canceling settings that reactivate the computer automatically, such as a timer recording function. Failure to completely shut down the computer in this way could allow the operating system to reactivate and run pre-programmed tasks or preserve unsaved data, which could interfere with aviation or other systems, possibly causing serious injury.

■ *Before entering Sleep Mode, be sure to save your data.*

■ *Do not remove the battery pack while the computer is in Sleep Mode (unless the computer is connected to an AC power source). Data in memory could be lost.*

■ *When the AC adaptor is connected, the computer will go into Sleep Mode according to the settings in the Power Options (to access it, tap* **Start** -> **Control Panel** -> **System and Security** -> **Power Options***).*

■ *To restore the operation of the computer from Sleep Mode, press and hold the power button for a short amount of time.*

■ *If the computer enters Sleep Mode while a network application is active, the application might not be restored when the computer is next turned on and the system returns from Sleep Mode.*

■ *To prevent the computer from automatically entering Sleep Mode, disable Sleep Mode within the Power Options (to access it, tap* **Start** -> **Control Panel** -> **System and Security** -> **Power Options***).*

■ *To use the Hybrid Sleep function, configure it in the Power Options.*

Benefits of Sleep Mode

The Sleep Mode feature provides the following benefits:

■ Restores the previous working environment more rapidly than does the Hibernation Mode feature.

■ Saves power by shutting down the system when the computer receives no input or hardware access for the time period set by the System Sleep Mode feature.

■ Allows the use of the panel power off feature.

Executing Sleep Mode

You can enter Sleep Mode in one of three ways:

■ Tap **Start**, point to the arrow icon (Shut down ▶) and then select **Sleep** from the menu.

■ Close the display panels. Please note that this feature must be enabled within the Power Options (to access it, tap **Start** -> **Control Panel** -> **System and Security** -> **Power Options**).

■ Press the power button. Please note that this feature must be enabled within the Power Options (to access it, tap **Start** -> **Control Panel** -> **System and Security** -> **Power Options**).

When you turn the power back on, you can continue where you left when you shut down the computer.

■ *If you are operating the computer on battery power, you can lengthen the overall operating time by turning it off into Hibernation Mode - Sleep Mode will consume more power while the computer is off.*

Sleep Mode limitations

Sleep Mode will not function under the following conditions:

■ Power is turned back on immediately after shutting down.

■ Memory circuits are exposed to static electricity or electrical noise.

Hibernation Mode

The Hibernation Mode feature saves the contents of memory to the hard disk drive when the computer is turned off so that, the next time it is turned on, the previous state is restored. Please note that the Hibernation Mode feature does not save the status of any peripheral devices connected to the computer.

■ *Save your data. While entering Hibernation Mode, the computer saves the contents of memory to the solid state drive. However, for safety sake, it is best to save your data manually.*

■ *Data will be lost if you remove the battery or disconnect the AC adaptor before the save is completed.*

Benefits of Hibernation Mode

The Hibernation Mode feature provides the following benefits:

■ Saves data to the solid state drive when the computer automatically shuts down because of a low battery condition.

■ You can return to your previous working environment immediately when you turn on the computer.

■ Saves power by shutting down the system when the computer receives no input or hardware access for the time period set by the System Hibernate feature.

■ Allows the use of the panel power off feature.

Starting Hibernation Mode

To enter Hibernation Mode, follow the steps below.

1. Tap **Start**.

2. Point to the arrow icon (Shut down ▶) and then select **Hibernate** from the menu.

Automatic Hibernation Mode

The computer can be configured to enter Hibernation Mode automatically when you press the power button or close the lid. In order to define these settings, you can follow the steps as described below:

1. Tap **Start** and tap **Control Panel**.
2. Tap **System and Security** and tap **Power Options**.
3. Tap **Choose what the power button does** or **Choose what closing the lid does**.
4. Enable the desired Hibernation Mode settings for **When I press the power button** and **When I close the lid**.
5. Tap the **Save changes** button.

Data save in Hibernation Mode

When you turn off the power in Hibernation Mode, the computer will take a moment to save the current data in memory to the solid state drive.

After you turn off the computer, and the content of memory has been saved to the solid state drive, turn off the power to any peripheral devices.

Do not turn the computer or devices back on immediately. Wait a moment to let all capacitors fully discharge.

Restarting the computer

Certain conditions require that you reset the computer, for example if:

■ You change certain computer settings.
■ An error occurs and the computer does not respond to your virtual keyboard commands.

If you need to restart the computer, there are three ways this can be achieved:

■ Tap **Start**, tap the arrow icon (Shut down ▶) and then select **Restart** from the menu.
■ Press and hold the Keyboard button (actions as **Ctrl+Alt+Del** keys) to display the menu window, tap the up arrow icon, then select **Restart** from the list menu.

Pressing **Ctrl+Alt+Del** *keys is not available on the virtual keyboard.*

■ Press the power button and hold it down for five seconds. Once the computer has turned itself off, wait between ten and fifteen seconds before turning the power on again by pressing the power button.

System Recovery

This section describes the creation of Recovery Media and their use.

Creating Recovery Media

This section describes how to create Recovery Media.

■ *Be sure to connect the AC adaptor when you create Recovery Media.*

■ *Be sure to close all other software programs except the Recovery Media Creator.*

■ *Do not run software such as screen savers which can put a heavy load on the CPU.*

■ *Operate the computer at full power.*

■ *Do not use power-saving features.*

■ *Do not write to the media when the virus check software is running. Wait for it to finish, then disable virus detection programs including any software that checks files automatically in the background.*

■ *Do not use utilities, including those intended to enhance solid state drive access speed. They may cause unstable operation and damage data.*

■ *Do not shut down/log off or Sleep/Hibernate while writing or rewriting the media.*

■ *Set the computer on a level surface and avoid places subjected to vibrations such as airplanes, trains, or cars.*

■ *Do not use on an unstable surface such as a stand.*

■ *You can use DVD media when you connected the external ODD.*

A recovery image of the software on your computer is stored on the solid state drive, and can be copied to either DVD or USB Flash Memory by using the following steps:

1. Select either blank DVD or USB Flash Memory.

   The application will allow you to choose from a variety of different media onto which the recovery image can be copied including DVD-R, DVD-R DL, DVD-RW, DVD+R, DVD+R DL, DVD+RW and USB Flash Memory.

■ *Please note that some of the above media may not be compatible with the external optical disc drive connected into your computer. You should therefore verify the optical disc drive supports the blank media you have chosen before proceeding.*

■ *USB Flash Memory will be formatted and all the data in the USB Flash Memory will be lost when proceeding.*

2. Turn on your computer and allow it to load the Windows 7 operating system from the solid state drive as normal.

3. Insert the first blank disc into the external optical disc drive, or Insert the USB Flash Memory into one available USB port

4. Double-tap the **Recovery Media Creator** icon on the Windows 7 desktop, or select the application from **Start** Menu.

5. After Recovery Media Creator starts, select the type of media and the title you wish to copy, and then taptap the **Create** button.

Restoring the pre-installed software from the Recovery solid state drive/created Recovery Media

A portion of the total solid state drive space is configured as a hidden recovery partition. This partition stores files which can be used to restore pre-installed software in the event of a problem.

If you subsequently set up your solid state drive again, do not change, delete or add partitions in a manner other than specified in the manual, otherwise you may find that space for the required software is not available.

In addition, if you use a third-party partitioning program to reconfigure the partitions on your solid state drive, you may find that it becomes impossible to setup your computer.

If the pre-installed files are damaged, you are able to either use the Recovery Media you have created or the solid state drive recovery process to restore the computer to the state it was in when you originally received it.

When the sound mute feature has been activated, be sure to disable this to allow sounds to be heard before starting the restore process.

When you reinstall the Windows operating system, the solid state drive will be reformatted and all data will be lost.

To perform this restoration, follow the steps below:

1. Turn off your computer.
2. Turn on your computer - when the **TOSHIBA Leading Innovation >>>** logo screen appears, press the Keyboard button to enter TOSHIBA Boot Manager.

To restore from the Rcovery Media, load the recovery disc into the external ODD or insert the recovery USB Flash Memory into the USB port.

3. Use the Keyboard button (emulating as arrow keys) to select the appropriate option according to your actual status, and press the Home button(emulating as ENTER key) to proceed.

For the buttons location, please refer to Front with the display open.

4. Follow the on-screen instructions. You can operating by directly touching the screen now.

*When drivers/utilities are installed, you can setup the respective drivers/utilities from the following place. To open the setup files, tap **Start -> All Programs -> TOSHIBA -> Applications and Drivers**.*

TOSHIBA

Chapter 2

The Grand Tour

This chapter identifies the various components of the computer - it is recommended that you become familiar with each before you operate the computer.

Legal Footnote (Non-applicable Icons)

For more information regarding Non-applicable Icons, please refer to the Legal Footnotes section in Appendix G.

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

Front with the display closed

The following figure shows the computer's front with its display panel in the closed position.
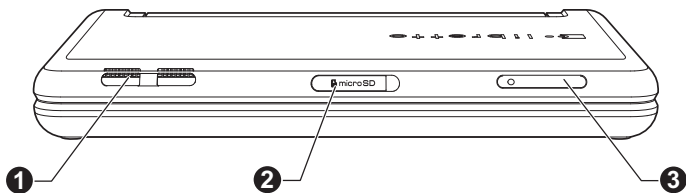
1. Cooling vents   3. SIM card slot*
2. MicroSD card slot

* Provided with some models.
  Product appearance depends on the model you purchased.

Figure 2-1 Front of the computer with display panel closed

	Cooling vents	The cooling vents help keep the processor from overheating.
microSD	**MicroSD card slot**	This slot can accommodate a single microSD memory card in order to transfer data from devices, such as digital cameras, onto your computer. The microSDHC card is also supported.
	SIM card slot	This slot can accommondate a single SIM card in order to give you the ability for a high-speed connection to the Internet, corporate Intranet, and your email while you are away from the office.

Do not block the cooling vents. Keep foreign metal objects, such as screws, staples and paper clips, out of the cooling vents and the microSD/SIM card slot. Foreign metal objects can create a short circuit, which can cause damage and fire, possibly resulting in serious injury.

Left side

The following figure shows the computer's left side.
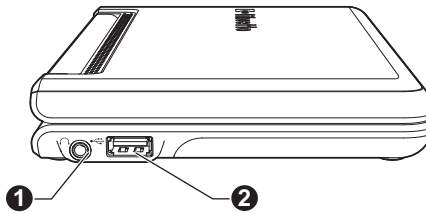
1. Headphone jack   2. Universal Serial Bus (USB 2.0) port

Product appearance depends on the model you purchased.
Figure 2-2 The left side of the computer

	Headphone jack	A 3.5 mm mini headphone jack enables connection of stereo headphones.
	Universal Serial Bus (USB 2.0) port	One Universal Serial Bus port, which complies to the USB 2.0 standard, is provided on the right hand side of the computer.

Keep foreign metal objects, such as screws, staples and paper clips, out of the USB port. Foreign metal objects can create a short circuit, which can cause damage and fire, possibly resulting in serious injury.

> *Please note that it is not possible to confirm the operation of all functions of all USB devices that are available. In view of this it may be noted that some functions associated with a specific device might not operate properly.*

Right side

The following figure shows the computer's right side.
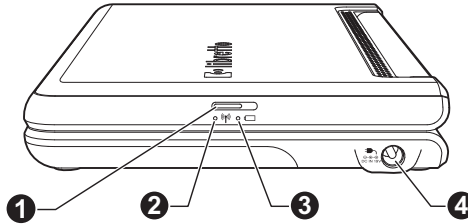
1. Speaker   3. DC IN/Battery indicator
2. Wireless indicator   4. DC IN 19V jack

Figure 2-3 The right side of the computer

	speaker	The speaker emits sound generated by your software as well as audio alarms.
((ʡ))	**Wireless communication**	The **Wireless communication** indicator glows amber when the Bluetooth, Wireless LAN and Wireless WAN functions are turned on. Only some models are equiped with Wireless WAN function.
▭	**DC IN/Battery indicator**	The **DC IN/Battery** indicator shows the condition of the **DC IN** and the battery's charge - green indicates the battery is fully charged while the power is being correctly supplied from the AC power adaptor. Please refer to Chapter 5, *Power and Power-Up Modes* for more information on this feature.
⊖–⊙–⊕ DC IN 19V	**DC IN 19V jack**	The AC adaptor connects to this jack in order to power the computer and charge its internal batteries. Please note that you should only use the model of AC adaptor supplied with the computer at the time of purchase - using the wrong AC adaptor can cause damage to the computer.

Underside

The following figure shows the underside of the computer. You should ensure that the display is closed before the computer is turned over to avoid causing any damage.
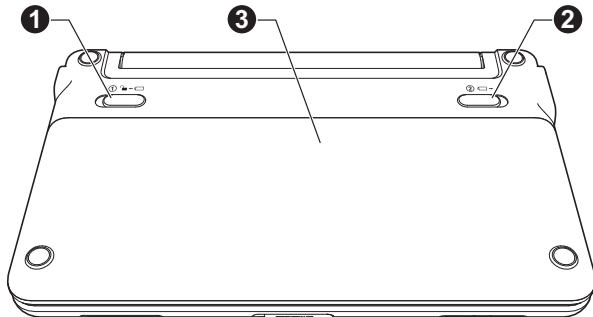
1. Battery lock   3. Battery pack
2. Battery release latch

Figure 2-4 The underside of the computer

① 🔒←▭	**Battery lock**	Slide the battery lock to release the battery pack ready for removal.
② ▭→	**Battery release latch**	Slide and hold this latch into its "Unlock" position in order to release the battery pack for removal. For more detailed information on removing the battery pack please refer to Chapter 5, *Power and Power-Up Modes*.
	Battery pack	The battery pack provides power to the computer when the AC adaptor is not connected. For more detailed information on the use and operation of the battery pack please refer to Chapter 5, *Power and Power-Up Modes*.
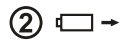
Front with the display open

This section shows the computer with the display panel open. In order to open the display, lift the display panel up and position it at a comfortable viewing angle for you.
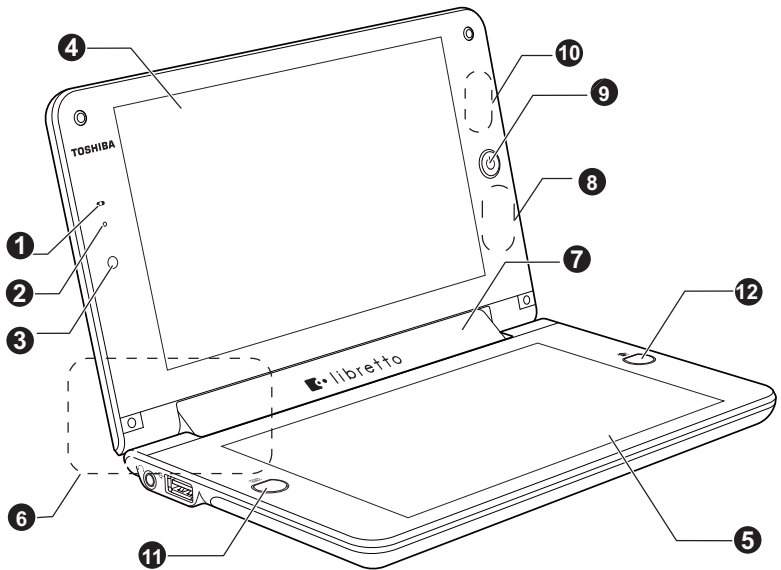
Figure 2-5 The front of the computer with the display panel open

1. Microphone
2. Web Camera LED
3. Web Camera
4. Upper screen

5. Lower screen
6. Wireless LAN and Wireless WAN antennas (not shown)*

7. Display hinge
8. Bluetooth antenna (not shown)*
9. Power button
10. Panel Sensor and Wireless LAN antenna (not shown)
11. Keyboard button
12. Home button

* Provided with some models.
 Product appearance depends on the model you purchased.

Microphone	A built-in microphone allows you to import and record sounds for your application - please refer to the *Wireless communications* section in Chapter 4, Operating Basics for more information.
	Some models are equipped with a built-in microphone.
Web Camera LED	The Web Camera LED glows when the Web Camera is operating.

	Web Camera	**Web Camera** is a device that allows you to record video or take photographs with your computer. You can use it for video chatting or video conferences using a communication tool such as **Windows Live Messenger**. **TOSHIBA Web Camera Application** will help you to add various video effects to your video or photograph.
		Enables the transmission of video and use of video chat via the internet using specialized applications.
		Please refer to the *Web Camera* section in Chapter 4, Operating Basics.
	Power button	Press this button to turn the computer's power on and off.
		The **Power** backlight LED normally glows white when the computer is turned on.
	Home button	This button functions differently depending on the number of times you press it and how to press it.
		Press once: To open or close *TOSHIBA Bulletin Board*. Press twice quickly: To open *TOSHIBA Flash Cards*.
	Keyboard button	This button functions differently depending on the number of times you press it and how to press it.
		Press once: To open or close the *Virtual Keyboard*. Press twice quickly: To open the *Virtual Touch Pad*.
		Press and hold: The function is equivalent to pressing Ctrl+Alt+Del on a standard computer.
	Wireless LAN antennas	Some computers in this series are equipped with the Wireless LAN antennas.
	Wireless WAN antennas	Some computers in this series are equipped with the Wireless WAN antennas.

Upper screen & Lower screen	Please be aware that, when the computer is operating on the AC adaptor, the image displayed on the internal screen will be somewhat brighter than when it operates on battery power. This difference in brightness levels is intended to save power when operating on batteries. For more information on the computer's display, please refer to the *Display Controller and Video mode* section in Appendix B.
Panel Sensor	This sensor senses when the display panel is either closed or opened and activates the Panel Power Off/On feature as appropriate. For example, when you close the display panel the computer enters Hibernation Mode and shuts itself down and then, when you next open the display, the computer will automatically start up and return you to the application you were previously working on.
	You can specify within the Power Options. To access it, tap **Start** -> **Control Panel** -> **System and Security** -> **Power Options**.

■ *Do not use the Wireless LAN (Wi-Fi®) or Bluetooth functionalities near a microwave oven or in areas subject to radio interference or magnetic fields. Interference from a microwave oven or other source can disrupt Wi-Fi or Bluetooth operation.*

■ *Turn all wireless functionalities off when near a person who may have a cardiac pacemaker implant or other medical electric device. Radio waves may affect pacemaker or medical device operation, possibly resulting in serious injury. Follow the instruction of your medical device when using any wireless functionality.*

■ *Always turn off wireless functionality if the computer is near automatic control equipment or appliances such as automatic doors or fire detectors. Radio waves can cause malfunction of such equipment, possibly resulting in serious injury.*

Display hinge	The display hinge allows the display panel to be position at a variety of easy-to-view angles.
Bluetooth antenna	Some computers in this series are equipped with a Bluetooth antenna.

AC adaptor

The AC adaptor can automatically adjust to any voltage ranging from 100 to 240 volts and to a frequency of either 50 or 60 hertz, enabling you to use this computer in almost all country/region. The adaptor converts AC power to DC power and reduces the voltage supplied to this computer.

To recharge the battery, simply connect the AC adaptor to a power source and to the computer. Please refer to Chapter 5, *Power and Power-Up Modes* for further information.
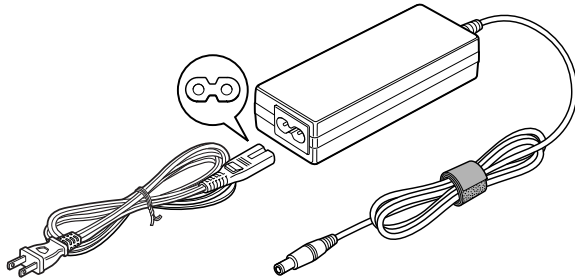
Figure 2-6 The AC adaptor (2-pin plug)
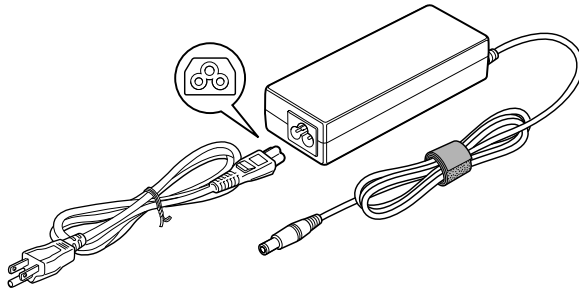
Figure 2-7 The AC adaptor (3-pin plug)

■ *Depending on the model in question, either a 2-pin or 3-pin adaptor/power lead will be bundled with the computer.*

■ *Do not use a 3-pin to 2-pin conversion plug.*

■ *The supplied power cord conforms to safety rules and regulations in the region the product is bought and should not be used outside of this region. In order to use the adaptor/computer in other regions, you should please buy a power cord that conforms to the safety rules and regulations in that particular region.*

Always use the TOSHIBA AC adaptor that was included with your computer, or use AC adaptors specified by TOSHIBA to avoid any risk of fire or other damage to the computer. Use of an incompatible AC adaptor 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.

TOSHIBA

Chapter 3

Hardware, Utilities and Options

Hardware

This section describes the hardware of your computer.

The actual specifications may vary depending on the model you purchased.

Processor

CPU	Your computer is equipped with one processor and processor type varies depending on model.
	To check which type of processor is included in your model, open the TOSHIBA PC Diagnostic Tool Utility by tapping **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **PC Diagnostic Tool**.

Legal Footnote (CPU)

For more information on the CPU, please refer to the Legal Footnotes section in Appendix G.

Memory

Memory slot	2GB onboard memory only.
Video RAM	The memory in a computer's graphics adaptor, used to store the image displayed on a bitmap display.
	The amount of Video RAM available is dependent on the computer's system memory.
	Start -> **Control Panel** -> **Appearance and Personalization** -> **Display** -> **Adjust resolution**.
	The amount of Video RAM can be verified by tapping the **Advanced Settings** button in the Screen Resolution window.

Legal Footnote (Memory (Main System))

For more information regarding Memory (Main System), please refer to the Legal Footnotes section in Appendix G.

Power

Battery pack	The computer is powered by one rechargeable lithium-ion battery pack.

Legal Footnote (Battery Life)

For more information regarding Battery Life, please refer to the Legal Footnotes section in Appendix G.

RTC battery	The internal RTC battery backs up the Real Time Clock (RTC) and calendar.
AC adaptor	The AC adaptor provides power to the system and recharges the batteries when they are low. It comes with a detachable power cord which will either have a 2-pin or 3-pin plug enclosure.
	As the AC adaptor is universal, it can receive a range of AC voltages from 100 to 240 volts, however you should note that the output current varies among different models. Using the wrong adaptor can damage your computer. Refer to the *AC adaptor* section in Chapter 2, The Grand Tour.

Disks

Solid state drive	This computer is equipped with a "Solid State Drive (SSD)" instead of a hard disk drive.

■ 62GB SSD

Please note that part of the Solid state drive's overall capacity is reserved as administration space. Additional SSD drive sizes may be introduced.

■ *SSD is a large-capacity storage media which uses Solid-State Memory in place of a magnetic disk of the hard disk.*

Under certain unusual conditions of prolonged non-use and/or exposure to high temperatures, the SSD may be vulnerable to data retention errors.

Legal Footnote (Solid State Drive (SSD) Capacity)

For more information regarding Solid State Drive (SSD) Capacity, please refer to the Legal Footnotes section in Appendix G.

Display

The computer's internal display panel supports high-resolution video graphics and can be set to a wide range of viewing angles for maximum comfort and readability.

Display panel	17.78cm (7.0" WSVGA) dual LCD screens

Legal Footnote (LCD)

For more information regarding the LCD, please refer to the Legal Footnotes section in Appendix G.

Graphics controller	The graphics controller maximizes display performance. Refer to *Display Controller and Video mode* section in Appendix B for more information.

Legal Footnote (Graphics Processor Unit ("GPU"))

For more information regarding the Graphics Processor Unit ("GPU"), please refer to the Legal Footnotes section in Appendix G.

Multimedia

Web Camera	**Web Camera** is a device that allows you to record video or take photographs with your computer. You can use it for video chatting or video conferences using a communication tool such as **Windows Live Messenger**. **TOSHIBA Web Camera Application** will help you to add various video effects to your video or photograph.
	Please refer to the *Web Camera* section in Chapter 4, Operating Basics.

Communications

Bluetooth	Some computers in this series have Bluetooth wireless communication function which eliminates the need for cables between electronic devices such as computers, printers and mobile phones. When it is enabled, Bluetooth provides the wireless personal area network environment which is safe and trustworthy, that is quick and easy.
Wireless LAN	Some computers in this series are equipped with a Wireless LAN module that is compatible with other Wireless LAN systems based on Direct Sequence Spread Spectrum/Orthogonal Frequency Division Multiplexing radio technology that complies with the IEEE 802.11 Standard.

Legal Footnote (Wireless LAN)

For more information regarding Wireless LAN, please refer to the Legal Footnotes section in Appendix G.

Wireless WAN	Some computers in this series are equipped with a Wireless WAN module.

Special features

The following features are either unique to TOSHIBA computers or are advanced features which make the computer more convenient to use.

Access each function using the following procedures.

*1 To access the Power Options, tap **Start** -> **Control Panel** -> **System and Security** -> **Power Options**.

Display automatic power off [1]	This feature automatically cuts off power to the computer's display panel when there is no keyboard input for a specified time, with power being restored the next time a key is pressed. This can be specified in the Power Options.
HDD automatic power off [1]	This feature automatically cuts off power to the hard disk drive when it is not accessed for a specified time, with power being restored when the hard disk drive is next accessed. This can be specified in the Power Options.
System automatic Sleep/Hibernation Mode [1]	This feature automatically shuts down the system into either Sleep Mode or Hibernation Mode when there is no input or hardware access for a specified time. This can be specified in the Power Options.
Power on password	Password security - user password is available to prevent unauthorized access to your computer.
Intelligent power supply [1]	A microprocessor in the computer's intelligent power supply detects the battery's charge, automatically calculates the remaining battery capacity and protects electronic components from abnormal conditions such as a voltage overload from the AC adaptor. This can be specified in the Power Options.
Battery save mode [1]	This feature lets you configure the computer in order to save battery power. This can be specified in the Power Options.
Panel power on/off [1]	This feature automatically turns power to the computer off when the display panel is closed, and turns it back on when the display panel is opened. This can be specified in the Power Options.
Low battery automatic Hibernation Mode [1]	When battery power is exhausted to the point that computer operation cannot be continued, the system automatically enters Hibernation Mode and shuts itself down. This can be specified in the Power Options.
Heat dispersal [1]	To protect against overheating, the processor has an internal temperature sensor so that, if the computer's internal temperature rises to a certain level, the cooling fan is turned on or the processing speed is lowered. This can be specified in the Power Options.

Hibernation Mode	This feature lets you turn off the power to the computer without exiting from your software. The contents of main memory are automatically saved to the solid state drive so that when you next turn the power on again, you can continue working right where you left off. Refer to the *Turning off the power* section in Chapter 1, Getting Started, for more details.
Sleep Mode	If you have to interrupt your work, you can use this feature to allow you to turn off power to the computer without exiting from your software. Data is maintained in the computer's main memory so that when you next turn on the power, you can continue working right where you left off.
USB Wakeup function	This function restores the computer from Sleep Mode depending on the external devices connected to the USB ports. For example, if a mouse or USB keyboard is connected to a USB port, clicking the mouse button or pressing the keyboard will wakeup the computer.
TOSHIBA PC Health Monitor	The TOSHIBA PC Health Monitor application proactively monitors a number of system functions such as power consumption, battery health and system cooling, informing you of significant system conditions. This application recognizes the system and individual component serial numbers and will track specific activities related to their usage. Refer to Appendix F, *TOSHIBA PC Health Monitor*.

Utilities and Applications

This section describes the pre-installed utilities that come with the computer and details how to start them. For further information on their operation, you may refer to each utility's online manual, help files or README.TXT file (if applicable).

TOSHIBA Power Saver	TOSHIBA Power Saver provides you with the features of more various power supply managements.
TOSHIBA PC Diagnostic Tool	The TOSHIBA PC Diagnostic Tool will display basic system configuration information and allow the functionality of some of the computer's built-in hardware devices to be tested.

TOSHIBA Flash Cards	TOSHIBA Flash Cards is a utility that uses a card type design. It provides functions similar to those of the Hot Keys on a standard computer.
	When this utility is launched, Flash Cards are displayed in a row at the top/bottom of the screen.
	To access this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **Flash Cards**.
HW Setup	This utility allows you to customize your hardware settings according to the way you work with the computer and the peripherals you use.
TOSHIBA Face Recognition	TOSHIBA Face Recognition uses a face verification library to verify the face data of users when they login to Windows. If the verification is successful, the user will be logged into Windows automatically. The user can thus avoid having to enter a password or the like, which makes the login process easier.
	For more information, please refer to the *Using the TOSHIBA Face Recognition* section in Chapter 4, Operating Basics.
Bluetooth Stack for Windows by Toshiba	This software enables communication between the computer and external Bluetooth devices such as printers and mobile phones.

Bluetooth functions cannot be used in models that do not have a Bluetooth module installed.

TOSHIBA Assist	TOSHIBA Assist is a graphical user interface that provides access to specific tools, utilities and applications that make the use and configuration of the computer easier.
TOSHIBA ConfigFree	TOSHIBA ConfigFree is a suite of utilities that improve the ease and control of communication devices and network connections, help in the identification of communication problems and allow the creation of profiles if you need to switch between different locations and communication networks. To access this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **ConfigFree**.

TOSHIBA eco Utility	This PC is equipped with "eco mode". This mode slightly lowers performance of some devices to reduce electric power consumption. You can realize measurable power savings by using it continuously. TOSHIBA eco Utility helps you monitor your power savings by showing approximate real time power consumption. Furthermore, it shows approximate accumulated power consumption and approximate accumulated power savings when using eco mode daily, weekly, and monthly. You can track power savings by using eco mode continuously.
TOSHIBA Disc Creator	You can create CDs and DVDs in a number of formats including audio CDs that can be played on a standard CD player, and data CD/DVDs which can store copies of the files and folders on your computer's hard disk drive. This software can be used on models connected with a CD-RW/DVD-ROM drive, DVD-R/-RW drive, DVD±R/±RW drive or DVD Super Multi drive.
	To start this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **CD&DVD Applications** -> **Disc Creator**.

TOSHIBA Disc Creator is not preinstalled. You need to install it manually by tapping **Start** *->* **All Programs** *->* **TOSHIBA** *->* **Applications and Drivers***, and select the TOSHIBA Disc Creator setup files.*

TOSHIBA HDD/SSD Alert Utility	This utility includes wizard functions to monitor the Disk Drive operating status and execute the system backup.
	To access the utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **HDD SSD Alert**.
TOSHIBA Service Station	This application allows your computer to automatically search for TOSHIBA software updates or other alerts from TOSHIBA that are specific to your computer system and its programs. When enabled, this application periodically transmits to our servers a limited amount of system information, which will be treated in strict accordance with the rules and regulations as well as applicable data protection law.
	To access this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **Service Station**.

	TOSHIBA Bulletin Board	Bulletin Board is a convenient place to pin things to visually organize in a fun and creative way.
		Simply drag and drop your favorite pictures, files or notes to pin them on the Board. You can use it to create thumbnail shortcuts, reminders, to-do list and so on according to your personal style.
		Press the Home button to launch the Bulletin Board.
		You can also access this utility by tapping **Start** -> **All Programs** -> **TOSHIBA** -> **TOSHIBA Bulletin Board**.
	TOSHIBA ReelTime	This application is a graphical history/indexing tool that enables you to view recently accessed files in a fun and easy-to-use format. View and scroll through your history of opened or imported files via thumbnails in an intuitive user interface.
		To access this utility, press the Home button, then choose the ReelTime icon on the Libretto Taskbar.
		You can also access this utility by tapping **Start** -> **All Programs** -> **TOSHIBA** -> **TOSHIBA ReelTime**.
	TOSHIBA Media Controller	This application allows you to control your music, pictures and videos by streaming content to any compatible device in your home.
		To access this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **TOSHIBA Media Controller** -> **TOSHIBA Media Controller**.
		For more information, please refer to the TOSHIBA Media Controller Help.

Optional devices

Optional devices can expand the computer's capabilities and its versatility. This section describes the connection or installation of the following devices:

Card

■ Bridge media slot
  ■ Secure Digital™ (SD) Card (microSD/SDHC Card)

Bridge media slot

The computer is equipped with a Bridge media slot that can accommodate some kinds of memory media with various memory capacities so that you can easily transfer data from devices, such as digital cameras and Personal Digital Assistants.

■ *Keep foreign objects out of the Bridge media slot. Never allow metal objects, such as screws, staples and paper clips, to enter the computer or Keyboard. Foreign metal objects can create a short circuit, which can cause computer damage and fire, possibly resulting in serious injury.*

■ *This Bridge media slot supports Secure Digital (SD) Card (microSD/SDHC card).*

■ *Please note that not all memory media have been tested and verified to work correctly. Therefore, it is not possible to guarantee that all memory media will operate properly.*

■ *The slot does not support Magic Gate functions.*

microSD card

Figure 3-1 Example of microSD card

Memory media

This section provides the important safety precautions in order to handle your memory media.

Points to note about the microSD/SDHC memory cards

MicroSD/SDHC memory cards comply with SDMI (Secure Digital Music Initiative), which is a technology adopted to prevent unlawful copy or playback of digital music. For this reason, you cannot copy or playback protected material on another computer or other device, and you may not reproduce any copyrighted material except for your personal enjoyment.

The supported maximum capacity of microSD memory card is 16GB.

Memory media format

New media cards are formatted according to specific standards. If you wish to reformat a media card, be sure to do so with a device that uses media cards.

Formatting a microSD/SDHC memory card

MicroSD/SDHC memory cards are sold already formatted in conformity to specific standards. If you reformat a microSD/SDHC memory card, be sure to reformat it with a device such as digital camera or digital audio player that uses the microSD/SDHC memory cards, not with the format command provided within Windows.

Should you need to format all areas of the memory card, including the protected area, you will need to obtain an appropriate application that applies the copy protection system.

Media care

Observe the following precautions when handling the card.

Card care

- Do not twist or bend cards.
- Do not expose cards to liquids or store in humid areas or lay media close to containers of liquid.
- Do not touch the metal part of a card or expose it to liquids or let it get dirty.
- After using card, return it to its case.
- The card is designed so that it can be inserted only one way. Do not try to force the card into the slot.
- Do not leave a card partially inserted in the slot. Press the card until you hear it click into place.

Memory card care

- Set the write-protect switch to the lock position, if you do not want to record data.
- Memory cards have a limited lifespan, so it is important to backup important data.
- Do not write to a card if the battery power is low. Low power could affect writing accuracy.
- Do not remove a card while read/write is in progress.

For more details on using memory cards, see manuals accompanying the cards.

Inserting a memory media

The following instructions apply to all types of supported media devices. To insert a memory media, follow the steps as detailed below:

1. Turn the memory media so that the contacts (metal areas) are face down.
2. Insert the memory media into the Bridge media slot on the front of the computer.

3. Press the memory media gently to ensure a firm connection is made.
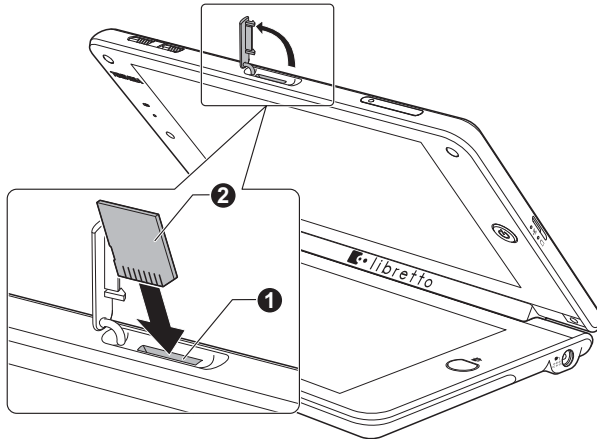
1. Bridge media slot   2. Memory media

Figure 3-2 Inserting a memory media

■ *Make sure memory media is oriented properly before you insert it. If you insert the media in wrong direction, you may not be able to remove it.*

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

■ *Do not turn the computer off or switch to Sleep Mode or Hibernation Mode while files are being copied - doing so may cause data to be lost.*

Removing a memory media

The following instructions apply to all types of supported media devices. To remove a memory media, follow the steps as detailed below:

1. Open the **Safely Remove Hardware and Eject Media** icon on the Windows Taskbar.

2. Point to memory media and tap the left Touch Pad control button.

3. Press the memory media to partially extend it out of the computer.

4. Grasp the media and remove it.
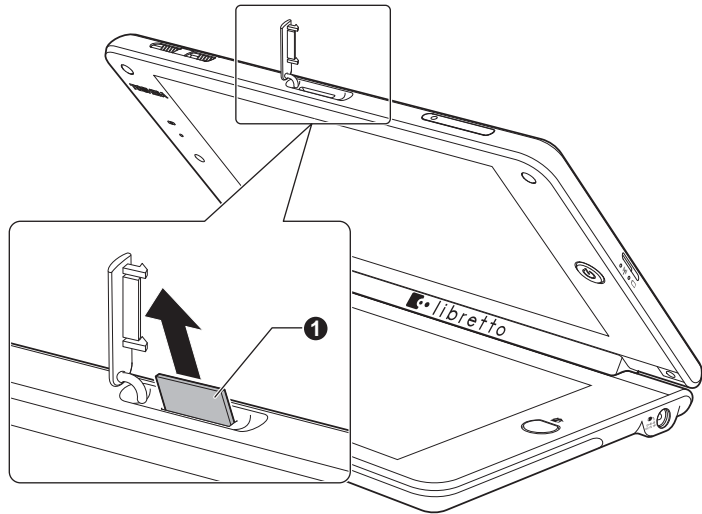
1. Bridge media slot   2. Memory media

Figure 3-3 Removing memory media

- *Do not remove the memory media or turn off the computer's power while the computer is accessing the memory media, otherwise, you may lose data or damage the media.*
- *Do not remove the memory media while the computer is in Sleep or Hibernation Mode. The computer could become unstable or data in the memory media could be lost.*

Optional accessories

You are able to add a number of options and accessories in order to make your computer even more powerful and convenient to use. For reference, the following list details some of the items that are available from your reseller or TOSHIBA dealer:

Universal AC Adaptor	If you frequently use your computer at more than one site, it may be convenient to purchase an additional AC adaptor to be kept at each site in order to remove the need to always carry the adaptor with you.
Battery Pack	An additional battery pack can be purchased for use as either a spare or replacement. Please refer to Chapter 5, *Power and Power-Up Modes* for further information.

Chapter 4

Operating Basics

This chapter describes the basic operations of your device, highlights the precautions that should be taken when using it.

Finger Tapping to Operate

This computer can be easily operated by finger tapping.

Using the Touch Screen

You can do operations by finger tapping and scrolling on both screens, as well as move icons, files, and the like by finger dragging across the two screens.

Virtual Touch Pad

You can launch Libretto virtual Touch Pad on the screen and operate it by finger tapping.

1. Press the Keyboard button twice quickly or tapping the Touch Pad icon on the Libretto Taskbar to launch the virtual Touch Pad.

2. Operate the Touch Pad by finger tapping to perform functions similar to those of the buttons on a standard mouse.

3. To close the Touch Pad, tap the cross icon on the upper right of the virtual Touch Pad.

Using the Dual Screens

The Libretto is a dual screen computer that enables you to utilize Libretto Home, Libretto Keyboard and additional useful utilities. It can be used in different screen modes, as well as different screen orientations.

Switching the Screen

You can switch the screens by just tapping the extended functional button on the top of the application window.

- Switch between the dual full screen mode (using two screens as one large screen) and the single screen mode (using two screens as separate windows).
- Switch the active window between top and bottom, or left and right screen.

Changing the Screen Orientation

You can change the screen orientation to Portrait mode by rotating the computer sideways.

Always make sure to keep the Web camera on the left (Landscape mode) or on the top (Portrait mode) while rotating

While rotating, a message, which can be disabled by setting, will appear to confirm whether you are sure to change the screen orientation.

Users can also lock the auto rotation and use the device always in Portrait or Landscape mode. These settings can be performed in the Display Rotation Setting window. Refer to *Changing the Libretto Settings*.

Zoom Function

You can launch the zoom function by the steps below.

1. If you tap the magnifying glass icon on the Libretto Taskbar and tap the Windows screen, the zoom window appears around where you tapped.
2. Tap anywhere except the zoom window to close it.

Virtual Keyboard

This computer is provided with a Libretto Keyboard - a virtual keyboard enables users to enter characters, numbers, and symbols.

Launching Virtual Keyboard

1. Press the Keyboard button once or tap the Keyboard icon on the Libretto Taskbar. Then the virtual Keyboard appears.
2. Tap where you desire to enter text on the Windows screen, and enter text by finger-tapping the keyboard directly.

- Up to two keys can be tapped simultaneously.
- Pressing **Ctrl+Alt+Del** keys is not available on the virtual keyboard. To perform this action, press and hold the Keyboard button instead.
- Ctrl, Alt and Shift keys are set to toggle mode respectively. Tapping it once sets the function ON (as if the key is being held on a standard computer), and tapping it again releases the function.

3. Press the Keyboard button once, or tap the cross icon on the upper right of the virtual Keyboard when you finish entering the text.

Switching Keyboard Layouts

This Libretto Keyboard is provided with several layouts. You can tap the keyboard icon in the application bar on the virtual Keyboard to toggle.

Libretto Taskbar

Press the Home button to launch the Libretto Home. Bulletin Board is lauched in the bottom screen. There will be the Libretto Taskbar displayed at the bottom.

Libretto Taskbar provides several icons to launch applications and utilities as below.

1. *TOSHIBA Bulletin Board*
2. *TOSHIBA ReelTime*
3. *File Browser*
4. *Volume Controls*
5. *Application Switcher*
6. *TOSHIBA Flash Cards*
7. *Zoom Function*
8. *Virtual Touch Pad*
9. *Virtual Keyboard*

Some icons are available on Windows taskbar when both screens are used for Windows (when the Bulletin Board is hidden).

The display location of the Bulletin Board and ReelTime is fixed for your computer. You cannot change the setting.

The descriptions in the help file of the Bulletin Board and ReelTime might differ from the actual operation of the device.

File Browser

File Browser enables users to have a friendly touch experience of browsing files and applications.

1. Tap the File Browser icon on the Libretto Taskbar to launch it. A preview list of drivers, folders and files will be displayed.

You can browse them by swiping from left to right or vice versa.

Above the preview list, some operation icons will be displayed to classify those drivers, folders and files.

2. Double-tap the icon of the driver, folder or file to open it.

3. Tap the cross icon on the upper right of the File Browser to exit.

Volume Controls

To adjust the volume, tap the volume icon on the Libretto taskbar. The Volume Controls menu appears.

🔇	Tap to mute the audio. Tap again to unmute the audio.
➖	Tap to decrease the volume.
➕	Tap to increase the volume.

Tap anywhere except Volume Controls pop-up to exit.

You can also adjust the volume through the speaker icon in the Windows screen.

Application Switcher

Application Switcher displays the list of all running applications. It enables users to switch an active application or end the applications with a single tap.

Tap the Application Switcher icon on the Libretto taskbar and select the application thumbnail to activate it.

Application Switcher automatically closes when other operations occur such as tapping anywhere other than Application Switcher thumbnail area.

Once the applications do not fit on the screen, a page indicator appears along the bottom of the pop-up. Users can flick among pages.

Changing the Settings

Changing the Libretto Settings

To change the Libretto settings, launch the Bulletin Board, and then tap [Boards] -> the third board from the left.

The Launcher board which contains the list of Libretto setting tools appears. It enables users to configure the settings of the display, haptics feedback, touch panel calibration, and so on.

These setting tools can also be found by tapping **Start** -> **All Programs** -> **Libretto**.

Calibrating the Touch Panel

If screen taps respond inaccurately, touch panel calibration may be necessary. You can perform the calibrating from the Tablet PC Setting in the Windows Control Panel.

Follow the steps below to calibrate the touch panel.

1. Tap **Start**->**Control Panel**->**Hardware and Sound**->**Tablet PC Setting**, the Tablet PC Setting window appears.
2. In the **Display** box, select **2.Toshiba Internal 1024x600 Panel**, which is the second display of your device.
3. Tap **Reset** to remove the calibration data.
4. Tap **Calibrate...**
5. Tap the crosshair each time that it appears on the screen.
6. After you have completed the calibration process, tap **Yes** in the prompt dialog box to save the calibration data.

Web Camera

This computer is equipped with a Web Camera, which is a device that allows you to record video or take photographs with your computer. You can use it for video chatting or video conferences using a communication tool such as **Windows Live Messenger**. **TOSHIBA Web Camera Application** will help you to add various video effects to your video or photograph.

Enables the transmission of video and use of video chat via the internet using specialized applications.

The effective pixel count for this web camera is HD (maximum photograph size: 1280x800 pixels).

Please refer to the Web Camera Application Online Help for details.
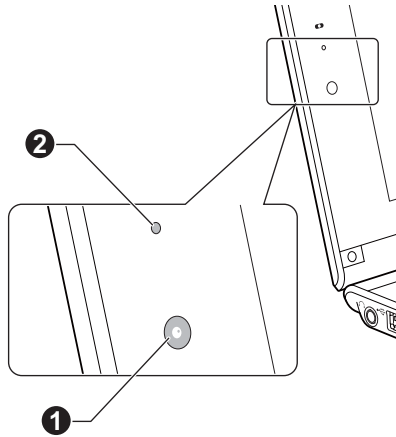
1. Web Camera   2. Web Camera LED

Figure 4-1 Web Camera

- *Do not point the web camera directly at the sun.*
- *Do not touch or press strongly on the web camera lens. Doing so may reduce image quality. Use an eyeglass cleaner (cleaner cloth) or other soft cloth to clean the lens if it becomes dirty.*
- *Setting the [Size] to more than "800x600" will cause a larger amount of data to be written to the solid state drive and may interfere with smooth recording.*
- *When recording in dimly lit environments, select "Night Mode" which allows for brighter images with less noise.*
- *The Web Camera Application can also be launched through Bulletin Board.*

Using the TOSHIBA Face Recognition

TOSHIBA Face Recognition uses a face verification library to verify the face data of users when they log in to Windows. The user can thus avoid having to enter a password or the like, which makes the login process easier.

■ *TOSHIBA Face Recognition does not guarantee the correct identification of a user. Changes to the likeness of a registrant, such as hair style changes, wearing a cap, or wearing glasses may effect the recognition rates when such changes occur after the registrant had registered.*

■ *TOSHIBA Face Recognition may incorrectly recognize faces that are similar to a registrant.*

■ *For high security purposes, TOSHIBA Face Recognition is not a suitable substitute for Windows passwords. When security is a high priority, use your established Windows passwords to log in.*

■ *Bright background light and/or shadows may prevent a registrant from being recognized correctly. In that case, log in using your Windows password. If recognition of a registrant fails repeatedly, refer to your computer documentation to learn ways to improve recognition performance.*

■ *TOSHIBA Face Recognition records face data in a log when face recognition fails. When transferring ownership or disposing of your computer, please uninstall the application or delete all the logs created by the application. For details on how to do this, see help file.*

■ *TOSHIBA Face Recognition can be used only in Windows Vista and Windows 7.*

Disclaimer

Toshiba does not guarantee that the face recognition utility technology will be completely secure or error-free. Toshiba does not guarantee that the face recognition utility will accurately screen out unauthorized users at all times. Toshiba is not liable for any failure or damage that might arise out of the use of the face recognition software or utility.

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.

How to register the Face Recognition Data

Take a picture for facial verification purposes, and register the data needed when you log in. To register the data needed when you log in, follow the steps as described below:

1. To launch this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **Face Recognition**.

   ■ The **Registration** screen is displayed for a logged-in user whose face has not been registered.

   ■ The **Management** screen is displayed for a logged-in user whose face has already been registered.

2. Tap **Run as administrator** in lower left of the **Management** screen, and then tap the **Register** button. The **Registration** screen is displayed.

- If you wish to practice, tap on the **Next** button in the **Registration** screen.

- If you do not wish to practice, tap on the **Skip** button in the **Registration** screen.

3. Tap the **Next** button to start the guide. Please follow the guide to practice.

- Tap the **Back** button to practice the guide once more.

4. Tap the **Next** button to start image-capturing process.
Adjust the position of your face so that it fits within the face-shaped frame.

5. Once your face has been positioned properly, the recording will commence.
Start moving your neck very slightly to the left and right, and then move your neck down and up.

6. Registration will end after you have repeatedly moved your neck left, right, down and up.
When the register succeeds, below message will be displayed on the screen:
"**Registration successful. Now we'll do the verification test. Click the Next button.**"
Tap the **Next** button to perform the verification test.

7. Perform the verification test. Face the screen as you do when you register.

- If verification fails, tap the **Back** button and re-register. Please refer to step 6 from step 4.

8. If verification is successful, tap the **Next** button and register an account.

9. Register the account.
Fill in all the fields.

10. The **Management** screen is displayed.
The registered account name will be displayed. tapping on it will cause the captured image of your face to be displayed on the left.

How to Delete the Face Recognition Data

Delete image data, account information, and personal record data created during registration. To delete the Face Recognition Data, follow the steps as described below:

1. To launch this utility, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **Face Recognition**.
The **Management** screen is displayed.

2. Select a user which is displayed in the **Management** screen.

3. Tap the **Delete** button. "`You are about to delete the user data. Would you like to continue?`" will be displayed on the screen.

   ■ If you do not want the data to be deleted, tap the **No** button and you will then be returned to the **Management** screen.

   ■ Tapping on the **Yes** button will remove the selected user from the **Management** screen.

How to launch the help file

For further information on this utility, please refer to help file.

1. To launch the help file, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **Face Recognition Help**.

Windows Logon via TOSHIBA Face Recognition

This section explains how to login to Windows with TOSHIBA Face Recognition. Two authentication modes are provided.

■ **1:N Mode Login mode**: It will automatically start facial authentication without requiring the selection of a user account.

■ **1:1 Mode Login mode**: It will verify the face for a selected user account.

1:N Mode Login screen

1. Turn on the computer.
2. The **Select Tiles** screen will be displayed.
3. Select **Start face recognition** (🔲).
4. "`Please face the camera`" will be displayed.
5. Verification will be performed. If the authentication is successful, the image data taken in step 4 will be faded in and placed over one another.

   ■ If an error occurs during authentication, you will be returned to the **Select Tiles** screen.

6. The Windows **Welcome** screen will be displayed, and will be logged in automatically to Windows.

1:1 Mode Login screen

1. Turn on the computer.
2. The **Select Tiles** screen will be displayed.
3. Select **Start face recognition** (🔲).
4. The **Select Account** screen will be displayed.
5. Select the account, and tap the **arrow** button.
6. "`Please face the camera`" will be displayed.

7. Verification will be performed. If the authentication is successful, the image data taken in step 6 will be faded in and placed over one another.

■ If an error occurs during authentication, you will be returned to the **Select Tiles** screen.

8. The Windows **Welcome** screen will be displayed, and will be logged in automatically to Windows.

■ If authentication was successful, but an authentication error subsequently occurred during the login to Windows, you will be asked to provide your account information.

TOSHIBA Disc Creator

You can use TOSHIBA Disc Creator when you connect external ODD.

Please be aware of the following limitations when you use the TOSHIBA Disc Creator:

■ DVD Video cannot be created using TOSHIBA Disc Creator.

■ DVD Audio cannot be created using TOSHIBA Disc Creator.

■ You cannot use TOSHIBA Disc Creator's "Audio CD" function to record music to DVD-R, DVD-R (Dual Layer), DVD-RW, DVD+R, DVD+R (Double Layer) or DVD+RW media.

■ Do not use the "Disc Backup" function of TOSHIBA Disc Creator in order to copy DVD Video or DVD-ROM material that has copyright protection.

■ DVD-RAM discs cannot be backed up using the "Disc Backup" function of TOSHIBA Disc Creator.

■ You cannot back up CD-ROM, CD-R or CD-RW media to DVD-R, DVD-R (Dual Layer) or DVD-RW media using the "Disc Backup" function of TOSHIBA Disc Creator.

■ You cannot back up CD-ROM, CD-R or CD-RW media to DVD+R, DVD+R (Double Layer) or DVD+RW media using the "Disc Backup" function of TOSHIBA Disc Creator.

■ You cannot back up DVD-ROM, DVD Video, DVD-R, DVD-R (Dual Layer), DVD-RW, DVD+R, DVD+R (Double Layer) or DVD+RW to CD-R or CD-RW media using the "Disc Backup" function of TOSHIBA Disc Creator.

■ TOSHIBA Disc Creator cannot record in packet format.

■ You might not be able to use the "Disc Backup" function of TOSHIBA Disc Creator to back up a DVD-R, DVD-R (Dual Layer), DVD-RW, DVD+R, DVD+R (Double Layer) or DVD+RW disc that was made with other software on a different optical media recorder.

■ If you add data to a DVD-R, DVD-R (Dual Layer), DVD+R or DVD+R (Double Layer) disc that you have already recorded to, you might not be able to read the added data under some circumstances. For example, it cannot be read under 16-bit operating systems, such as Windows 98SE and Windows Me, while in Windows NT4 you will need Service Pack 6 or later, and in Windows 2000, you will need Service Pack 2. In addition to this, some DVD-ROM and DVD-ROM / CD-R/RW drives cannot read this added data regardless of the operating system.

■ TOSHIBA Disc Creator does not support recording to DVD-RAM discs - to achieve this you should use Windows Explorer or another similar utility.

■ When you back up a DVD disc, be sure that the source drive supports recording to DVD-R, DVD-R (Dual Layer), DVD-RW, DVD+R, DVD+R (Double Layer) or DVD+RW media - if this is not the case then the source disc might not be backed up correctly.

■ When you back up a DVD-R, DVD-R (Dual Layer), DVD-RW, DVD+R, DVD+R (Double Layer) or DVD+RW disc, be sure to use the same type of disc.

■ You cannot partially delete any data written to a CD-RW, DVD-RW or DVD+RW disc.

Data Verification

To verify that data has been written or rewritten correctly to a data CD/DVD you should follow the steps below before you begin the write/rewrite process:

1. Display the setting dialog box by one of the following two steps:

   ■ Tap the **Recording settings** button (🖼) for writing on the main toolbar in the **Data CD/DVD** mode.

   ■ Select **Settings for Each Mode** -> **Data CD/DVD** in the **Settings** menu.

2. Mark the **Verify Written Data** check box.

3. Select **File Open** or **Full Compare** mode.

4. Tap the **OK** button.

How to learn more about TOSHIBA Disc Creator

Please refer to the Help files for additional TOSHIBA Disc Creator information.

Media care

This section provides tips on protecting data stored on your CD's and DVD's. Handle your media with care. Following the simple precautions listed below will increase the lifetime of your media and protect the data stored on it.

1. Store your CD's and DVD's in the containers they originally came in to protect them and keep them clean.

2. Do not bend the CD's or DVD's.

3. Do not write on, apply a sticker to, or otherwise mar the surface of the CD or DVD that contains the data.

4. Hold the CD or DVD by its outside edge or the edge on the center hole - any fingerprints on the surface of the disc can prevent the drive from properly reading data.

5. Do not expose the CD or DVD to direct sunlight, extreme heat or cold.

6. Do not place heavy objects on your CD's or DVD's.

7. If your CD's or DVD's become dusty or dirty, wipe them with a clean dry cloth from the center hole outwards - do not wipe in a circular direction. If necessary, you can use a cloth that has been lightly dampened in water or a neutral cleaner but you must not use benzine, thinner or any similar cleaning solution.

Wireless communications

The computer's wireless communication function supports some wireless communication devices.

Only some models are equipped with both Wireless LAN and Bluetooth functions.

■ *Do not use the Wireless LAN (Wi-Fi) or Bluetooth functionalities near a microwave oven or in areas subject to radio interference or magnetic fields. Interference from a microwave oven or other source can disrupt Wi-Fi or Bluetooth operation.*

■ *Turn all wireless functionalities off when near a person who may have a cardiac pacemaker implant or other medical electric device. Radio waves may affect pacemaker or medical device operation, possibly resulting in serious injury. Follow the instruction of your medical device when using any wireless functionality.*

■ *Always turn off wireless functionality if the computer is near automatic control equipment or appliances such as automatic doors or fire detectors. Radio waves can cause malfunction of such equipment, possibly resulting in serious injury.*

■ *It may not be possible to make a network connection to a specified network name using the ad hoc network function.*
If this occurs, the new network(*) will have to be configured for all computers connected to the same network in order to re-enable network connections.
* Please be sure to use new network name.

Wireless LAN

The Wireless LAN is compatible with other LAN systems based on Direct Sequence Spread Spectrum / Orthogonal Frequency Division Multiplexing radio technology that complies with the IEEE802.11 Wireless LAN standard.

■ Frequency Channel Selection of 5GHz for IEEE 802.11a or/and IEEE802.11n

- Frequency Channel Selection of 2.4GHz for IEEE 802.11b/g or/and IEEE802.11n
- Roaming over multiple channels
- Card power management
- Wired Equivalent Privacy (WEP) data encryption based on an 128-bit encryption algorithm
- Wi-Fi Protected Access™ (WPA™)

The transmission speed over the wireless LAN, and the distance over which the wireless LAN can reach, may vary depending on surrounding electromagnetic environment, obstacles, access point design and configuration, client design and software/hardware configurations. The transmission rate described is the theoretical maximum speed as specified under the appropriate standard - the actual transmission speed will be lower than the theoretical maximum speed.

Setting

1. Please make sure that the **Wireless Communication function** is turned on.
2. Tap **Start** -> **Control Panel** -> **Network and Internet** -> **Network and Sharing Center**.
3. Tap **Set up a new connection or network**.
4. Follow the wizard. You will need the name of the wireless network together with security settings. Consult the documentation accompanied with your router or ask your wireless network administrator for the settings.

Security

- TOSHIBA strongly recommend that you enable encryption functionality, otherwise your computer will be open to illegal access by an outsider using a wireless connection. If this occurs, the outsider may illegally access your system, eavesdrop, or cause the loss or destruction of stored data.
- TOSHIBA is not liable for the loss of data due to eavesdropping or illegal access through the wireless LAN and the damage thereof.

Bluetooth wireless technology

Bluetooth wireless technology eliminates the need for cables, such as desktop computers, between your PC and other electronic devices, example of printers and mobile phones.

You cannot use the computer's built-in Bluetooth functions and an external Bluetooth adaptor simultaneously. For reference, Bluetooth wireless technology has the following features:

Worldwide operation

The Bluetooth radio transmitter and receiver operate in the 2.4GHz band, which is license-free and compatible with radio systems in most countries in the world.

Radio links

You can easily establish links between two or more devices, with these links being maintained even if the devices are not within a line-of-sight of each other.

Security

Two advanced security mechanisms ensure a high level of security:

■ Authentication prevents access to critical data and makes it impossible to falsify the origin of a message.

■ Encryption prevents eavesdropping and maintains link privacy.

Bluetooth Stack for Windows by TOSHIBA

Please note that this software is specifically designed for the following operating systems:

■ Windows 7

Information regarding the use of this software with these operating systems is listed below, with further details being contained with the electronic help files supplied with the software.

This Bluetooth Stack is based on the Bluetooth Version 1.1/1.2/2.0+EDR/2.1+EDR specification. However, TOSHIBA cannot confirm the compatibility between any computing products and/or other electronic devices that use Bluetooth, other than TOSHIBA notebook computers.

Release Notes related to the Bluetooth Stack for Windows by TOSHIBA

1. Fax application software:
   Please be aware that there is some fax application software that you cannot use on this Bluetooth Stack.
2. Multi-user considerations:
   The use of Bluetooth is not supported in a multi-user environment. This means that, when you use Bluetooth, other users that are logged into the same computer will not be able to use this type of functionality.

Product Support:

The latest information regarding operating system support, language support or available upgrades can be found on our web site http://www.toshiba-europe.com/computers/tnt/bluetooth.htm in Europe or www.pcsupport.toshiba.com in the United States.

Enable/disable Wireless communication

You can enable or disable Wireless communication functions by using TOSHIBA Flash Cards which is launched by the icon of TOSHIBA taskbar or Windows taskbar. No transmissions are sent or received when wireless communication is turned off.

Wireless communication Indicator

The wireless communication indicator shows the status of the computer's wireless communication functions.

Indicator status	Indication
Indicator off	The wireless communication switch is off - no wireless functionality is available.
Indicator glows	Wireless communication switch is on. Except for the stopped device by the software switch, all the wireless-communications functions can output a radio wave.

If you used the Taskbar to disable the wireless LAN, restart the computer or perform the following procedure to re-enable it: **Start** -> **Control Panel** -> **System and Security** -> **System** -> **Device Manager** -> **Network adapters** and right tap the wireless device then choose **enable.**

Computer Handling

This section explains computer handling and maintenance.

Cleaning the computer

To help ensure long, trouble-free operation, keep the computer free of dust and dirt, and use care with all liquids around it.

■ Be careful not to spill liquids into the computer. If the computer does get wet, turn the power off immediately and let the computer dry completely - in these circumstance you should get the computer inspected by an authorized service provider in order to assess the scope of any damage.

■ Clean the plastics of the computer using a slightly water dampened cloth.

■ You can clean the display screen by spraying a small amount of glass cleaner onto a soft, clean cloth and then wiping the screen gently with the cloth.

Never spray cleaner directly onto the computer or let liquid run into any part of it. Never use harsh or caustic chemical products to clean the computer.

Moving the computer

While the computer is designed for flexible day-to-day usage you should exercise a few simple precautions when moving it in order to help ensure trouble-free operation.

■ Turn off (shut down) the computer.

■ Disconnect the AC adaptor and all peripherals before moving the computer.

■ Close the display panel.

■ Before carrying your computer, shut it down, disconnect the AC adaptor and allow it to cool down - a failure to follow this instruction may result in minor heat injury.

■ Be careful not to subject the computer to impact or shock - a failure to follow this instruction could result in damage to computer, computer failure or loss of data.

■ Never transport your computer with any cards installed - this may cause damage to either the computer and/or the card resulting in product failure.

■ Always use a suitable carry case when transporting the computer.

■ When carrying your computer, be sure to hold it securely so that it does not fall or hit anything.

■ Do not carry your computer by holding any of its protruding elements.

Heat dispersal

To protect against overheating, the processor is equipped with an internal temperature sensor which activates a cooling fan or lowers the processing speed if the computer's internal temperature rises to a certain level. You are able to select whether to control this temperature by either turning on the fan first, then if necessary lowering the processor speed, or by lowering the processor speed first, then if necessary turning on the fan. Both of these functions are controlled through the Power Options.

When the processor's temperature falls within normal range, the fan will be turned off and the processor operation returned to its standard speed.

If the processor's temperature reaches an unacceptably high level with either setting, the computer automatically shuts down to prevent any damage. In this instance all unsaved data in memory will be lost.

TOSHIBA

Chapter 5

Power and Power-Up Modes

The computer's power resources include the AC adaptor, battery pack and any internal batteries. This chapter provides details on making the most effective use of these resources, and includes information on charging and changing batteries, tips for saving battery power, and information on the different power-up modes.

Power conditions

The computer's operating capability and battery charge status are affected by different power conditions, including whether an AC adaptor is connected, whether a battery pack is installed and what the charge level is for that battery.

The LED in the table below refers to the **DC IN/Batttery** *indicator.*

Table 6-1 Power conditions

		Power on	Power off (no operation)
AC adaptor connected	Battery fully charged	• Operates • No charge • LED: green	• No charge • LED: green
	Battery partially charged or no charge	• Operates • Charge • LED: amber	• Quick charge • LED: amber
	No battery installed	• Operates • No charge • LED: off	• No charge • LED: off

Table 6-1 Power conditions continued

		Power on	**Power off (no operation)**
AC adaptor not connected	Battery charge is above low battery trigger point	• Operates • LED: off	
	Battery charge is below low battery trigger point	• Operates • LED: flashes amber	
	Battery charge is exhausted	Computer shuts down	
	No battery installed	• No operation • LED: off	

Monitoring of power condition

As shown in the below table, the **DC IN/Battery** and **Power** indicators on the system indicator alert you to the computer's operating capability and battery charge status.

DC IN/Battery indicator

Check the **DC IN/Battery** indicator to determine the status of the battery pack and the power status with the AC adaptor connected. The following indicator conditions should be noted:

Green	Indicates the AC adaptor is connected while correctly supplying power to the computer and the battery is fully charged.
Amber	Indicates the AC adaptor is connected and the battery is charging.
Flashing amber	The battery charge is low, the AC adaptor must be connected in order to recharge the battery. Or,Indicates a problem with the power supply. You should initially try plugging the AC adaptor into another power outlet - if it still does not operate properly, you should contact your reseller or dealer.
No light	Under any other conditions, the indicator does not light.

*If the battery pack becomes too hot while it is being charged, the charge will stop and the **DC IN/Battery** indicator will go out. When the battery pack's temperature falls to a normal range, charging will resume - this process will occur regardless of whether the computer's power is on or off.*

Power indicator

Check the **Power** indicator to determine the power status of the computer - the following LED conditions should be noted:

White	Indicates power is being supplied to the computer and the computer is turned on.
Blinking amber	Indicates that the computer is in Sleep Mode and that there is sufficient power available (AC adaptor or battery) to maintain this condition. In Sleep Mode, this indicator will turn on for one second and off for two seconds.
No light	Under any other conditions, the indicator does not light.

Battery

This section explains battery types, use, recharging methods and handling.

Battery types

The computer has different types of batteries.

Battery pack

When the AC adaptor is not connected, the computer's main power source is a removable lithium ion battery pack, also referred to in this manual as the main battery. You can purchase additional battery packs for extended use of the computer away from an AC power source although you should not change the battery pack while the AC adaptor is connected.

Before you remove the battery pack, save your data and shut down the computer, or place the computer into Hibernation Mode. Please be aware that, when placing the computer into Hibernation Mode, the contents of memory will be saved to the solid state drive, although for safety sake, it is best to also save your data manually.

Real Time Clock (RTC) battery

The Real Time Clock (RTC) battery provides power for the internal real time clock and calendar function and also maintains the system configuration while the computer is turned off. If the RTC battery becomes completely discharged, the system will lose this information and the real time clock and calendar will stop working - in this instance the following message will be displayed when you turn on the power:

**** RTC Power Failure ****
Press Home Button and set the date/time in OS.

You can change the Real Time Clock settings in the Date and Time screen of Windows. To access it, tap **Start** -> **Control Panel** -> **Clock, Language and Region** -> **Date and Time**.

The RTC battery does not charge while the computer is turned off even if the AC adaptor is attached.

Care and use of the battery pack

This section provides the important safety precautions in order to handle your battery pack properly.

Refer to the enclosed *Instruction Manual for Safety and Comfort* for detailed precautions and handling instructions.

■ *Make sure the battery is securely installed in the computer before attempting to charge the battery pack. Improper installation could generate smoke or fire, or cause the battery pack to rupture.*

■ *Keep the battery pack out of reach of infants and children. It can cause injury.*

■ *The battery pack are lithium ion batteries, which can explode if not replaced, used, handled or disposed of properly. Dispose of the battery as required by local ordinances or regulations. Use only batteries recommended by TOSHIBA as replacements.*

■ *The computer's RTC battery is a Ni-MH battery and should be replaced only by your dealer or by a TOSHIBA service representative. The battery can explode if not properly replaced, used, handled or disposed. Dispose of the battery as required by local ordinances or regulations.*

■ *Charge the battery pack only in an ambient temperature between 5 and 35 degrees Celsius. Otherwise, the electrolyte solution might leak, battery pack performance might deteriorate and the battery life might be shortened.*

■ *Never install or remove the battery pack without first turning off the power and disconnecting the AC adaptor. Never remove the battery pack while the computer is in Sleep Mode. Data could be lost.*

Charging the batteries

When the power in the battery pack becomes low, the **DC IN/Battery** indicator will flash amber to indicate that only a few minutes of battery power remain. If you continue to use the computer while the **DC IN/Battery** indicator flashes, the computer will enable Hibernation Mode so that you do not lose any data, and automatically turn itself off.

You must recharge a battery pack when it becomes discharged.

Procedures

To recharge a battery pack while it is installed in the computer, connect the AC adaptor to the DC IN 19V jack and plug the other end into a working outlet - the **DC IN/Battery** indicator will glow amber while the battery is being charged.

Use only the computer connected to an AC power source or optional TOSHIBA Battery charger to charge the battery pack. Never attempt to charge the battery pack with any other charger.

Time

Refer to User Information Guide about Charging time.

Battery charging notice

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

■ The battery is extremely hot or cold (if the battery is extremely hot, it might not charge at all). To ensure the battery charges to its full capacity, you should charge it at room temperature of between 5°C to 35°C (41°F to 95°F).

■ The battery is nearly completely discharged. In this instance you should leave the AC adaptor connected for a few minutes and the battery should begin charging.

The **DC IN/Battery** indicator may show a rapid decrease in battery operating time when you try to charge a battery under the following conditions:

■ The battery has not been used for a long time.

■ The battery has completely discharged and been left in the computer for a long time.

■ A cool battery is installed in a warm computer.

In such cases you should follow the steps as detailed below:

1. Fully discharge the battery by leaving it in the computer with the power on until the system automatically turns itself off.

2. Connect the AC adaptor to the DC IN 19V jack of the computer, and to a wall outlet that is supplying power.

3. Charge the battery until the **DC IN/Battery** indicator glows green.

Repeat these steps two or three times until the battery recovers normal capacity.

Monitoring battery capacity

Remaining battery power can be monitored using the following methods.

■ Tapping the battery icon on the Taskbar

■ Via the Battery Status in the Windows Mobility Center window

■ *You should wait at least 16 seconds after turning on the computer before trying to monitor the remaining operating time. This is because the computer needs this time to check the battery's remaining capacity and then calculate the remaining operating time, based on this together with the current power consumption.*

■ *Please be aware that the actual remaining operating time may differ slightly from the calculated time.*

■ *With repeated discharges and recharges, the battery's capacity will gradually decrease. In view of this it will be noted that an often used, older battery will not operate for as long as a new battery even when both are fully charged.*

Maximizing battery operating time

A battery's usefulness depends on how long it can supply power on a single charge, while how long the charge lasts in a battery depends on:

■ Processor speed

■ Screen brightness

■ System Sleep Mode

■ System Hibernation Mode

■ Display power off period

■ Solid state drive power off period

■ How often and for how long you use the solid state drive and external disk(c) drives, for example, optical disc and floppy diskette drive.

■ How much charge the battery contained to begin with.

■ How you use optional devices, such as an microSD Card, to which the battery supplies power.

■ Whether you enable Sleep Mode, which can conserve battery power if you are frequently turning the computer off and on.

■ Where you store your programs and data.

■ Whether you close the display panel when you are not using it - closing the display saves power.

■ The environmental temperature - operating time decreases at low temperatures.

■ The condition of the battery terminals - you should always ensure the terminals stay clean by wiping them with a clean dry cloth before installing the battery pack.

Retaining data with power off

Refer to User Information Guide about Retaining time.

Extending battery life

To maximize the life of your battery packs:

■ 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 as detailed 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 then go to Step 4.

3. Operate the computer on battery power for five minutes. If you find that the battery pack has at least five minutes of operating time, continue operating until the battery pack is fully discharged, however, if the **DC IN/Battery** indicator flashes or there is some other warning to indicate a low battery condition, go to Step 4.

4. Connect the AC adaptor to the DC IN 19V jack of the computer, and to a wall outlet that is supplying power. The **DC IN/Battery** indicator should glow amber to indicate that the battery pack is being charged, however, in the event that **DC IN/Battery** indicator does not glow this indicates that power is not being supplied - check the connections for the AC adaptor and the power cord.

5. Charge the battery pack until the **DC IN/Battery** indicator glows green.

■ If you have extra battery packs, rotate their use.

■ If you will not be using the system for an extended period, for example for more than one month, remove the battery pack from the computer.

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

Replacing the battery pack

Please be aware that the battery pack is classified as a consumable item.

The operating life of the battery pack will gradually reduce through repeated charging and discharging, and will need to be replaced when it reaches the end of its operating life. In addition to this, you might also replace a discharged battery pack with a charged spare when you are operating your computer away from an AC power source for an extended period of time.

This section explains how to remove and install the battery pack, and begins with the removal process which is detailed through the following steps.
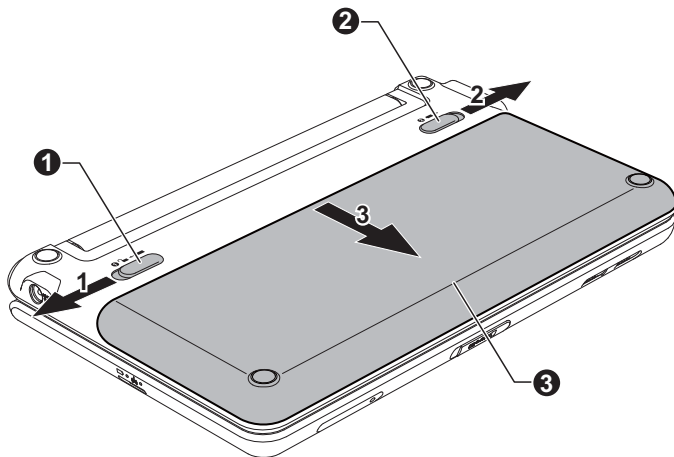
■ *Do not remove the battery pack while the computer is in Sleep Mode. Data is stored in RAM, so if the computer loses power it could be lost.*

■ *In Hibernation Mode, data will be lost if you remove the battery pack or disconnect the AC adaptor before the save is completed.*

■ *Do not touch the battery release latch while holding the computer or the battery pack might fall out due to the unintentional release of the battery release latch and cause injuries.*

Removing the battery pack

To remove a discharged battery, follow the steps as detailed below:

1. Save your work.
2. Turn the computer's power off - ensure that the **Power** indicator is off.
3. Remove all cables and peripherals that are connected to the computer.
4. Close the display panel and turn the computer upside down.
5. Slide the battery lock (1) into its (⌒▪) position.
6. Slide and hold the battery release latch (2) to disengage the battery pack and then remove it from the computer (3).

1. Battery lock   3. Battery pack
2. Battery release latch

Figure 5-1 Releasing the battery pack
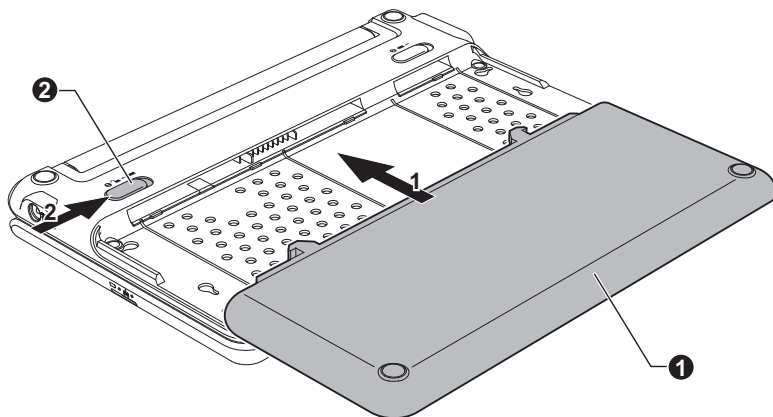
Installing the battery pack

To install a battery pack, follow the steps as detailed below:

Do not touch the battery release latch while holding the computer or the battery pack might fall out due to the unintentional release of the battery release latch and cause injuries.

1. Insert the battery pack as far as it will go into the computer (1).

2. Ensure that the battery pack is securely in place and the battery lock (2) is in its lock position.

1. Battery pack   2. Battery lock

Figure 5-2 Securing the battery pack

3. Turn your computer over.

Power-up modes

The computer has three different power-up modes as follows:

■ Shut Down Mode : The computer will shut down without saving data - in view of this you must always save your work before you turn the computer off.

■ Hibernation Mode : Data in memory will be saved to the solid state drive.

■ Sleep Mode : Data will be maintained in the computer's memory.

Please refer to the sections Turning on the power *and* Turning off the power *in Chapter 1, Getting Started for further information.*

Windows utilities

You can configure various settings associated with both Sleep Mode and Hibernation Mode within the Power Options (to access it, **Start** -> **Control Panel** -> **System and Security** -> **Power Options**).

Panel power on/off

You can set up your computer so that power is turned off automatically when you close the display panel, and turned on again when you open it. Please note that this function is only available for Sleep Mode or Hibernation Mode, not for Shut Down Mode.

If the panel power off function is enabled, and you manually shut down Windows, do not close the display panel until the shut down process has been completed.

System automatic Sleep/Hibernation

This feature automatically turns off the system in Sleep or Hibernation Mode if the computer is not used for a set duration. Refer to *Special features*, in Chapter 3 for an explanation of how to set the duration.

Chapter 6

HW Setup

This chapter explains how to use the TOSHIBA HW Setup program to configure your computer, and provides information on settings for various functions.

Accessing HW Setup

To run the HW Setup program, tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **HWSetup**.

HW Setup window

The HW Setup window contains a number of tabs (General, Password, Boot Priority, CPU, USB, SATA, and Advanced) to allow specific functions of the computer to be configured.

In addition there are also three buttons : **OK**, **Cancel** and **Apply**.

`OK`	Accepts your changes and closes the HW Setup window.
`Cancel`	Closes the window without accepting your changes.
`Apply`	Accepts all your changes without closing the HW Setup window.

General

This window displays the BIOS/EC version, BIOS language and contains two buttons : **Default** and **About**.

`BIOS Language`	Select the language to use for BIOS settings.
`Default`	Return all HW Setup values to the factory settings.
`About`	Display the HW Setup version.

Setup

This field displays the installed `BIOS version`, `date`, and `EC version`.

Password

This option allows you to set or reset the user password for power on.

User Password

Let you register a new password or change/remove an existing password.

`Not Registered`	Changes or remove the password. (Default)
`Registered`	Selects the password. A dialogue box will appear to allow you to set the password.

To enter a user password:

1. Select **Registered** to display the following prompt:

   Enter Password:

Enter a password of up to 10 characters. The character string you enter is displayed as a string of asterisk.

2. Tap **OK**. The following message appears, allowing you to verify the password.

   Verify Password:

3. If character strings match, the password is registered. Tap **OK**. If they do not match, the following message appears. You must repeat from step 1.

   Entry Error!!!

To delete a user password:

1. Select **Not Registered** to display the following prompt:

   Enter Password:

2. Enter the currently registered password. The character string you enter is displayed as a string of asterisks.

3. Tap **OK**. If the character string you enter matches the registered password, the password option is reset and the display changes to:
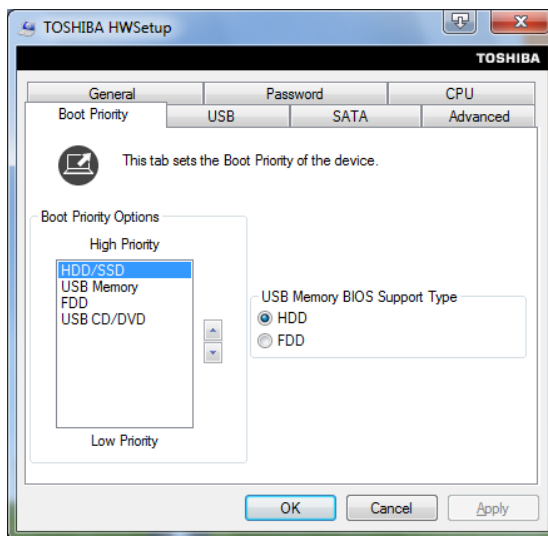
   Not registered

If they do not match, the following message appears. You must repeat from step 1.

```
Incorrect Password.
```

Boot Priority

Boot Priority Options

This tab allows you to set the priority for booting the computer. The Boot Priority Options setting window will be displayed as shown below. Tap the up and down arrow buttons to adjust the priority.

USB Memory BIOS Support Type

This option allows you to set the type of the USB memory to be used as a startup device.

HDD	Sets the USB memory to be the equivalent of a hard disk drive (default). With this setting, the USB memory device can be used to start the computer as though it were a hard disk drive based on the hard disk drive settings within both the Boot Priority and HDD Priority options detailed previously.
FDD	Sets the USB memory to be the equivalent of a floppy diskette drive. With this setting, the USB memory device can be used to start the computer as though it were a floppy diskette based on the floppy diskette drive settings within the Boot Priority option detailed previously.

CPU

This function allows you to set the processor's operating mode.

Dynamic CPU Frequency Mode

This option allows you to configure the power saving modes associated with the processor - the following settings are available:

Dynamically Switchable	The processor's power consumption and automatic clock speed switching functions are enabled - in use the processor's operation is automatically switched when necessary (default).
Always High	The processor's power consumption and automatic clock speed switching functions are disabled - in use the processor will always run at its highest level of power consumption and its highest speed.
Always Low	The processor's power consumption and automatic clock speed switching functions are disabled - in use the processor will always run at a lower level of power consumption and a low speed.

USB

USB KB/Mouse Legacy Emulation

You can use this option to enable or disable USB keyboard/mouse legacy emulation so that, even if your operating system does not support USB devices, you can still use a standard USB mouse and keyboard - to achieve this you should set the appropriate option(s) to Enabled.

Enabled	Enables the USB KB/Mouse Legacy Emulation function (Default).
Disabled	Disables the USB KB/Mouse Legacy Emulation function.

USB-FDD Legacy Emulation

Use this option to enable or disable USB floppy diskette drive legacy emulation. If your operating system does not support USB, you can still use a USB floppy diskette drive by setting the **USB-FDD Legacy Emulation** item to **Enabled**.

|	
Enabled	Enables the USB floppy diskette drive legacy emulation function (Default).
Disabled	Disables the USB floppy diskette drive legacy emulation function.

SATA

SATA Interface setting

This feature allows you to set SATA interface setting.

`Performance`	Let HDD/SSD work with maximum performance. (Default)
`Battery life`	Let HDD/SSD work with battery life mode. If this setting is selected, this caused performance down.

Advanced

This tab allows you to set the conditions for each device or function.The setting window will be displayed as shown below.
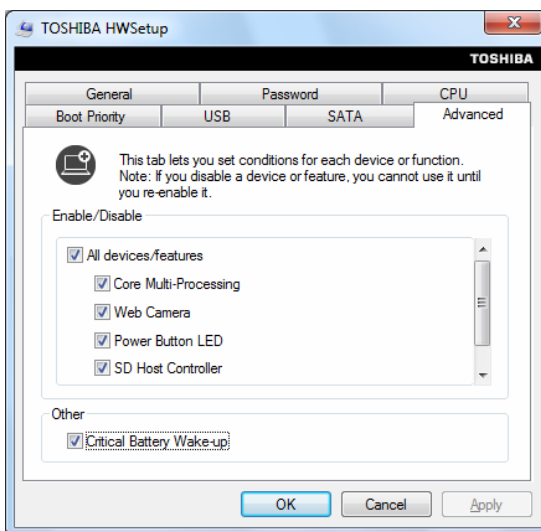
Enable/Disable

This option allows you to enable or disable the devices or functions you checked for power management. Disabled mode consumes less power.

If you disable a device or function, you must re-enable it before you can use it again.

Other

This option allows you to set what the system does when the battery power is about to run out.

If checked, when the battery power is about to run out while the system is in Sleep Mode, the system will automatically wake up and switch to Hibernation Mode (Default).

This setting is only available when the Critical battery action in Windows is set to Hibernate (Default).

If unchecked, no action is taken, even if the battery power is about to run out while the system is in Sleep Mode.

If the battery power runs out while in Sleep Mode, any unsaved data will be lost.

Chapter 7

Troubleshooting

TOSHIBA have designed this computer for durability, however, should problems occur you are able to use the procedures detailed in this chapter to help determine the cause.

All users should become familiar with this chapter as knowing what might go wrong can help prevent problems from occurring in the first place.

Problem solving process

Resolving problems will be much easier if you observe the following guidelines:

■ Stop immediately when you recognize a problem exists as taking further action may result in data loss or damage, or you may destroy valuable problem related information that can help solve the problem.

■ Observe what is happening - write down what the system is doing and what actions you performed immediately before the problem occurred. If you have a printer attached, print a copy of the screen.

Please also be aware that the questions and procedures described in this chapter are meant only as a guide, they are not definitive problem solving techniques. In reality many problems can be solved simply, but a few may require help from your reseller, dealer or service provider - if you find you need to consult others, be prepared to describe the problem in as much detail as possible.

Preliminary checklist

You should always consider the simplest solution first - the items detailed in this checklist are easy to fix and yet can cause what appears to be a serious problem:

■ Make sure you turn on all peripheral devices before you turn on the computer - this includes your printer and any other external device you are using.

■ Before you attach an external device you should first turn the computer off, then when you turn the computer back on again it will recognize the new device.

■ Make sure all optional accessories are configured properly in the computer's setup program and that all required driver software has been loaded (please refer to the documentation included with the optional accessories for further information on its installation and configuration).

■ Check all cables to ensure they are correctly and firmly attached to the computer - loose cables can cause signal errors.

■ Inspect all connecting cables for loose wires and all connectors for loose pins.

Always try to make detailed notes of your observations and keep them in a permanent error log - this will help you to describe your problems to your reseller, dealer or service provider. In addition, if a problem recurs, the log you have made will help to identify the problem faster.

Analyzing the problem

Sometimes the computer will give you clues that can help you identify why it is malfunctioning. In view of this you should keep the following questions in mind:

■ Which part of the computer is not operating properly - solid state drive, display panel - as each device will produce different symptoms.

■ Check the options within the operating system to ensure that its configuration is set properly.

■ What appears on the display? Does it display any messages or random characters? If you have a printer attached, print a copy of the screen using the **PRTSC** key and, if possible, look up the messages in the documentation included with the computer, software or operating system.

■ Check that all connecting cables are correctly and firmly attached as loose cables can cause erroneous or intermittent signals.

■ Do any indicators light, if so, which ones, what color are they and do they stay on or blink? Write down what you see.

■ Do you hear any beeps, if so how many, are they long or short and are they high pitched or low pitched? In addition, is the computer making any unusual noises? Write down what you hear.

Record your observations so you can describe them in detail to your reseller, dealer or service provider.

Software	The problems may be caused by your software or disk. If you cannot load a software package, the media may be damaged or the program might be corrupted - in these instances try loading another copy of the software if possible.
	If an error message appears while you are using a software package you should refer to the documentation supplied with it as this will usually include a problem solving section or a summary of error messages.
	Next, you should check any error messages against the operating system documentation.
Hardware	If you cannot find a software problem, you should then check the setup and configuration of your hardware. First run through the items in the preliminary checklist as described previously then, if you still cannot correct the problem, try to identify the source - the next section provides checklists for individual components and peripherals.

Before using a peripheral device or application software that is not an authorized Toshiba part or product, make sure the device or software can be used with your computer. Use of incompatible devices may cause injury or may damage your computer.

Hardware and system checklist

This section discusses problems caused by your computer's hardware or attached peripherals. Basic problems may occur in the following areas:

- System start-up
- Self test
- Power
- Internal display panel
- MicroSD/SDHC Card
- USB device
- Sound system
- Wireless LAN
- Bluetooth
- Recovery Media

System start-up

When the computer does not start properly, check the following items:

- Self Test
- Power Sources
- Power-on Password

Self test

While booting up the computer, self test is executed automatically and the **TOSHIBA** logo is displayed on the screen.

This message remains on the screen for a few seconds.

If the self test is successful, the computer tries to load the operating system.

If any of the following conditions are present, the self test has failed:

■ The computer stops and does not proceed to display information or messages except for the TOSHIBA logo.

■ Random characters appear on the screen and the system does not function normally.

■ The screen displays an error message.

In these instances, turn off the computer, check all cable connections and then restart it - if the self test fails again, contact your reseller, dealer or service provider.

Power

When the computer is not plugged into an AC power outlet, the battery pack is the primary power source. However, your computer also has a number of other power resources, including an intelligent power supply and a Real Time Clock (RTC) battery, all of which are interrelated with any one having the ability to produce apparent power problems.

This section provides checklists for AC power and the battery. If you cannot resolve a problem after following them, the cause may lie with another power related resource - in such an instance you should contact your reseller, dealer or service provider.

Overheating power down

If the processor's temperature reaches an unacceptably high level with either setting, the computer will automatically shut down to prevent any damage.

AC power

If you have trouble turning on the computer with the AC adaptor connected you should check the status of the **DC IN/Battery** indicator. Please refer to Chapter 5, *Power and Power-Up Modes* for further information.

Problem	Procedure
AC adaptor doesn't power the computer (**DC IN/Battery** indicator does not glow amber)	Check the connections to make sure that the power cord/adaptor is firmly connected to the computer and a working power outlet.
	Check the condition of the cord and terminals. If the cord is frayed or damaged it should be replaced, while if the terminals are soiled, they should be cleaned with a clean cotton cloth.
	If the AC adaptor still does not power the computer, you should contact your reseller, dealer or service provider.

Battery

If you suspect a problem with the battery, you should check the status of the **DC IN/Battery** indicator. Please refer to Chapter 5, *Power and Power-Up Modes* for more information on these indicators, together with general battery operation.

Problem	Procedure
Battery doesn't power the computer	The battery may be discharged - connect the AC adaptor to recharge the battery.
Battery doesn't charge when the AC adaptor is attached (**DC IN/Battery** indicator does not glow amber).	If the battery is completely discharged, it will not begin charging immediately, in these instances you should wait a few minutes before trying again. If the battery still does not charge, you should check that the power outlet the AC adaptor is connected to is supplying power - this can be tested by plugging another appliance into it.
	Check whether the battery is hot or cold to the touch - if so, it will not charge properly and should be allowed to reach room temperature before you try again.
	Unplug the AC adaptor and remove the battery to make sure its connecting terminals are clean - if necessary wipe them with a soft dry cloth lightly dipped in alcohol.
	Connect the AC adaptor and replace the battery, taking care to ensure that it is securely seated in the computer.
	Check the **DC IN/Battery** indicator - if it does not glow, allow the computer to charge the battery for at least twenty minutes. If the **DC IN/Battery** indicator starts to glow after this period, allow the battery to continue to charge for at least another twenty minutes before turning on the computer. However, if the indicator still does not glow, the battery may be at the end of its operating life and should be replaced. However, if you do not believe the battery is at the end of its operating life, you should speak to your reseller, dealer or service provider.
Battery doesn't power the computer as long as expected	If you frequently recharge a partially charged battery, the battery might not charge to its full potential - in these instances you should fully discharge the battery and then attempt to charge it again.
	Check the **Power saver** option under **Select a power plan** in the **Power Options**.

Real Time Clock

Problem	Procedure

The following message is Displayed on the screen:
 	
`RTC Power`
`Failure.`
`Press Home Button`
`and set the`
`date/time in OS.`
	The charge in the Real Time Clock (RTC) battery has run out - you will need to set the date and time in the Date and Time screen of Windows.
	
	To access it, tap **Start** -> **Control Panel** -> **Clock, Language and Region** -> **Date and Time**.

Touch screen

Apparent computer's touch screen problems may be related to the computer's setup and configuration - please refer to Chapter 6, *HW Setup*, for further information.

Problem	Procedure
No display	Adjust the display priority, and to make sure it is not set for output to an external monitor.
Markings appear on the computer's touch screen.	You should try to remove the marks by gently wiping the touch screen with a clean dry cloth or, if this fails, with a good quality LCD screen cleaner. In this latter instance you should always follow the instructions with the screen cleaner and always ensure you let the screen dry properly before closing it.
Problems above remain unresolved or other problems occur	You should initially refer to the documentation supplied with you software to determine if it is this that is causing the problems. Alternatively you may wish to run the TOSHIBA PC Diagnostic Tool to check the general operation of the computer. If you are still unable to resolve the problem, contact your reseller, dealer or service provider.

MicroSD/SDHC Card

For further information, please refer to Chapter 3, *Hardware, Utilities and Options*.

Problem	Procedure
MicroSD/SDHC Card error occurs	Remove the microSD/SDHC Card from the computer and then reinsert it in order to ensure it is firmly connected.
	If the problem persists, then you should refer to the documentation supplied with your microSD/SDHC Card for further information.
You cannot read a file	Check to ensure the required file is actually on the microSD/SDHC Card that is inserted into the computer.
	If you are still unable to resolve the problem, contact your reseller, dealer or service provider.

USB device

In addition to the information in this section, please also refer to the documentation supplied with your USB device.

Problem	Procedure
USB device does not work	Remove the USB device from the computer and then reconnect it to a free port it in order to ensure it is firmly attached.
	Ensure that any required USB device drivers are properly installed - to achieve this you should refer to both the device documentation and the operating system documentation.

Sound system

In addition to the information in this section, please also refer to the documentation supplied with your audio device.

Problem	Procedure
No sound is heard	Adjust the volume.
	Check the software volume settings.
	Please check to see if Mute is turned to Off
	Check to make sure the headphone connection is secure.

Problem	Procedure
	Check within the Windows Device Manager application to ensure the sound device is enabled and that the device is properly working.
	For further information, please refer to "Troubleshooting in Windows" section of Windows Help and Support.
Annoying sound is heard	In this instance you may be experiencing feedback from the internal microphone.
	Volume cannot be adjusted during Windows start up or shut down.
	If you are still unable to resolve the problem, contact your reseller, dealer or service provider.

Wireless LAN

If the following procedures do not restore LAN access, consult your LAN administrator. For more information on wireless communication, refer to Chapter 4, *Operating Basics*.

Problem	Procedure
Cannot access Wireless LAN	Make sure the computer's Wireless communication service is turned on.
	If problems persist, contact your LAN administrator.

Bluetooth

For further information on Bluetooth wireless communication, please refer to Chapter 4, *Operating Basics*.

Problem	Procedure
Cannot access Bluetooth device	Check to ensure the computer's Wireless Communication service is turned on.

Check to ensure the Bluetooth Manager application is running on the computer and that power to the external Bluetooth device is turned on.

Check to ensure that no optional Bluetooth Adaptor is installed in the computer - the built-in Bluetooth hardware cannot operate simultaneously with another Bluetooth controller.

If you are still unable to resolve the problem, contact your reseller, dealer or service provider.

Recovery Media

Problem	Procedure
The following message appears when executing Recovery Media Creator. **"The Recovery Media Creator can not be launched because there is no recovery partition."**	You will see this message if you have previously chosen to remove the partition and are trying to create "Recovery Media". When there is no recovery partition, the Recovery Media Creator cannot make Recovery Media. However, if you have already created a "Recovery Media", you can use it to restore the recovery partition. Simply follow the instructions in *Restoring the pre-installed software from the Recovery solid state drive/created Recovery Media* section in Chapter1, Getting Started. You will be directed to select "Restore Original Factory Image" from the drop-down menu. If you have not created "Recovery Media", please contact TOSHIBA support for assistance.

TOSHIBA support

If you require any additional help using your computer or if you are having problems operating the computer, you may need to contact TOSHIBA for additional technical assistance.

Before you call

Some problems you experience may be related to software or the operating system so it is important that you investigate other sources of assistance first. Before contacting TOSHIBA, try the following:

■ Review troubleshooting sections in the documentation supplied with your software and/or peripheral devices.

■ If a problem occurs when you are running software applications, consult the software documentation for troubleshooting suggestions and consider calling the software company's technical support department for assistance.

■ Consult the reseller or dealer from where you purchased your computer and/or software - they are your best resource for current information and support.

Where to write

If you are still unable to solve the problem and suspect that it is hardware related, write to TOSHIBA at the nearest location listed below:

Outside of Europe	In Europe
Australia TOSHIBA Australia Pty. Ltd. Information Systems Division Building C, 12-24 Talavera Rd, North Ryde, 2113, NSW, Australia.	**Germany & Austria** TOSHIBA Europe (I.E.) GmbH Geschäftsbereich, Deutschland-Österreich Hammfelddamm 8, D-41460 Neuss, Germany
Canada TOSHIBA of Canada Ltd. 191 McNabb Street, Markham, Ontario L3R 8H2	**France** TOSHIBA Systèms France S.A. 7, Rue Ampère B.P. 131, 92804 Puteaux Cedex
China TOSHIBA Personal Computer & Network (Shanghai) Co., Ltd. 10F, BEA Finance Tower, No.66 Hua Yuan Shi Qiao Road, Pudong, Shanghai, P.R.China 200120	**Netherlands** TOSHIBA Information Systems, Benelux B.V. Rivium Boulevard 41 2909 LK Capelle a/d IJssel
Singapore TOSHIBA Singapore Pte. Ltd. 438B Alexandra Road #06-01 Alexandra Technopark Singapore 119968	**Spain** TOSHIBA Information Systems, ESPAÑA Parque Empresarial San Fernando Edificio Europa, 1a Planta, Escalera A 28830 Madrid España

Outside of Europe	In Europe
United States of America	**United Kingdom**
TOSHIBA America Information Systems, Inc. 9740 Irvine Boulevard Irvine, California 92618 USA	TOSHIBA Information Systems (U.K.) Ltd. TOSHIBA Court Weybridge Business Park Addlestone Road Weybridge, Surrey KT15 2UL
India	**The Rest of Europe**
TOSHIBA India Pvt Ltd. PC Division 6th Floor, DR Gopal Das Bhawan Barakhamba Road, Delhi-110001, India	TOSHIBA Europe (I.E.) GmbH Geschäftsbereich, Deutschland-Österreich Hammfelddamm 8, D-41460 Neuss, Germany

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Appendix A

Specifications

This appendix summarizes the computer's technical specifications.

Physical Dimensions

Refer to User Information Guide about Size.

Environmental Requirements

Conditions	Ambient temperature	Relative humidity
Operating	5°C (41°F) to 35°C (95°F)	20% to 80% (noncondensing)
Non-operating	-20°C (-4°F) to 65°C (149°F)	10% to 90% (noncondensing)
Wet-bulb temperature	26°C maximum	
Conditions	**Altitude (from sea level)**	
Operating	-60 to 3,000 meters	
Non-operating	-60 to 10,000 meters maximum	

Power Requirements

AC adaptor	100-240V AC
	50 or 60 hertz (cycles per second)
Computer	19V DC
	2.37A

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Appendix B

Display Controller and Video mode

Display controller

The display controller interprets software commands into hardware commands that turn particular parts on the screen on or off.

Due to the display panel's increased resolution, lines may appear broken in when displaying images in full-screen text mode.

The display controller also controls the video mode and uses industry standard rules to govern the screen resolution and the maximum number of colors that can be displayed at any one time. Therefore, software written for a given video mode will run on any computer that supports that mode.

Video mode

Video mode settings are configured via the **Screen Resolution** dialog.

To open the **Screen Resolution** dialog, tap **Start** -> **Control Panel** -> **Appearance and Personalization** -> **Display** -> **Change display settings**.

If you are running some applications (for example a 3D application or video playback and so on), you may see some disturbance, flickering or frame dropping on your screen.

If that occurs, adjust the resolution of display, lowering it until the screen is displayed properly.

Disabling Windows Aero™ may also help correct this issue.

Appendix C

Wireless LAN

This appendix is intended to help you get your Wireless LAN network up and running, with a minimum of parameters.

Card Specifications

Form Factor	PCI Express Mini Card
Compatibility	■ IEEE 802.11 Standard for Wireless LANs ■ Wi-Fi (Wireless Fidelity) certified by the Wi-Fi Alliance. The "Wi-Fi CERTIFIED" logo is a certification mark of the Wi-Fi Alliance.
Network Operating System	■ Microsoft Windows Networking
Media Access Protocol	■ CSMA/CA (Collision Avoidance) with Acknowledgment (ACK)

Radio Characteristics

Radio Characteristics of Wireless LAN module may vary according to:

■ Country/region where the product was purchased

■ Type of product

Wireless communication is often subject to local radio regulations. Although Wireless LAN wireless networking products have been designed for operation in the license-free 2.4GHz and 5GHz band, local radio regulations may impose a number of limitations to the use of wireless communication equipment.

Refer to the printed manual for regulatory information that may apply in your country/region.

| **Radio Frequency** | ■ Band 5GHz (5150-5850 MHz) (Revision a and n) |
| | ■ Band 2.4GHz (2400-2483.5 MHz) (Revision b/g and n) |

The range of the wireless signal is related to the transmit rate of the wireless communication. Communications at lower transmit range may travel larger distances.

■ The range of your wireless devices can be affected when the antennas are placed near metal surfaces and solid high-density materials.

■ Range is also impacted due to "obstacles" in the signal path of the radio that may either absorb or reflect the radio signal.

Supported Frequency Sub-bands

Subject to the radio regulations that apply in the countries/regions, your Wireless LAN module may support a different set of 5 GHz/2.4 GHz channels. Consult your Authorized Wireless LAN or TOSHIBA Sales office for information about the radio regulations that apply in the countries/regions.

2.4GHz Band Channels Sets (Wireless IEEE 802.11 Revision b, g and n)

Frequency Range Channel ID	2400-2483.5 MHz
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	**2457**[1]
11	2462
12	**2467**[2]
13	**2472**[2]

[1] Factory-set default channels

[2] The band width and the channel which can be used depends on the installed wireless LAN module. And the approved channels on using are different at each country or region. Check if these channels can be used in your country/region. The channel configuration is managed as follows:

■ For wireless clients that operate in a Wireless LAN Infrastructure, the Wireless LAN module will automatically start operation at the channel identified by the Wireless LAN Access Point. When roaming between different access points the station can dynamically switch to another channel if required.

■ In a Wireless LAN Access Point, the Wireless LAN module will use the factory-set default channel (printed in bold), unless the LAN Administrator selected a different channel when configuring the Wireless LAN Access Point device.

5GHz Band Channels Sets (Wireless IEEE 802.11 Revision a and n)

Frequency Range **Channel ID**	5150-5850 MHz
34	**5170**[*2]
36	**5180**[*2]
38	**5190**[*2]
40	**5200**[*2]
42	**5210**[*2]
44	**5220**[*2]
46	**5230**[*2]
48	**5240**[*2]
52	**5260**[*2]
56	**5280**[*2]
60	**5300**[*2]
64	**5320**[*2]
100	**5500**[*2]
104	**5520**[*2]
108	**5540**[*2]
112	**5560**[*2]
116	**5580**[*2]
120	**5600**[*2]
124	**5620**[*2]
128	**5640**[*2]
132	**5660**[*2]
136	**5680**[*2]
140	**5700**[*2]
149	**5745**[*2]
153	**5765**[*2]
157	**5785**[*2]

161	**5805***2
165	**5825***2

*1 Factory-set default channels

*2 The channel which can be used depends on the installed wireless LAN module. And the approved channels on using are different at each country or region. Check if these channels can be used in your country/region. The channel configuration is managed as follows:

■ For wireless clients that operate in a Wireless LAN Infrastructure, the Wireless LAN module will automatically start operation at the channel identified by the Wireless LAN Access Point. When roaming between different access points the station can dynamically switch to another channel if required.

■ In a Wireless LAN Access Point, the Wireless LAN module will use the factory-set default channel (printed in bold), unless the LAN Administrator selected a different channel when configuring the Wireless LAN Access Point device.

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Appendix D

Bluetooth wireless technology Interoperability

Bluetooth Adaptor 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 Ver. 2.1+EDR, as defined and approved by The Bluetooth Special Interest Group.

■ Logo certification with Bluetooth wireless technology as defined by The Bluetooth Special interest Group.

■ *When you use Bluetooth Adaptor 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 Adaptor 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 visit the following TOSHIBA PC product support website.*

■ *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 visit the following TOSHIBA PC product support website.

TOSHIBA PC product support website.
In Europe visit
 http://www.toshiba-europe.com/computers/tnt/bluetooth.htm
In the United States visit
 http://www.pc.support.global.toshiba.com

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 of airplanes, or

■ In any other environment where the risk of interference to other devices or services is perceived or identified as harmful.

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

Regulatory statements

General

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.

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.

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

USA-Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

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

■ Reorient or relocate the receiving antenna

■ Increase the distance between the equipment and the receiver.

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

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

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

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

Caution: Exposure to Radio Frequency Radiation

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

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 website www.hc-sc.gc.ca.

Taiwan

Article 12   Without permission granted by the DGT or NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to an approved low power radio-frequency devices.

Article 14   The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved.

The said legal communications means radio communications is operated in compliance with the Telecommunications Act.

The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

Using Bluetooth Adaptor from TOSHIBA equipment in Japan

In Japan, the frequency bandwidth of 2,400 - 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 computer incorporating this product.
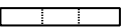
> The frequency bandwidth of this equipment may operate within the same range as industrial devices, scientific devices, medical devices, microwave ovens, licensed radio stations and non-licensed specified low-power radio stations for mobile object identification systems (RFID) used in factory production 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) (3)

2. 4FH1

(4)
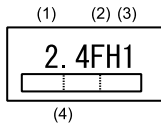
(1) 2.4 : This equipment uses a frequency of 2.4 GHz.

(2) FH : This equipment uses FH-SS modulation.

(3) 1: The interference range of this equipment is less than 10 m.

(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.

Device Authorization

This device obtains 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 Telecommunications Business Law.

The Name of the radio equipment: BSMAN3

JAPAN APPROVALS INSTITUTE FOR TELECOMMUNICATIONS EQUIPMENT

Approval Number: D09-0366001

The following restrictions apply:

Do not disassemble or modify the device.

Do not install the embedded wireless module into other device.

Appendix E

AC Power Cord and Connectors

The power cord's AC input plug must be compatible with the various international AC power outlets and the cord must meet the standards for the country/region in which it is used. All cords must meet the following specifications:

Length:	Minimum 1.7 meters
Wire size:	Minimum 0.75 mm^2
Current rating:	Minimum 2.5 amperes
Voltage rating:	125 or 250 VAC (depending on country/region's power standards)

Certification agencies

China:	CQC, CEMC		
U.S. and Canada:	UL listed and CSA certified No. 18 AWG, Type SVT or SPT-2		
Australia:	AS		
Japan:	DENANHO		
Europe:			
Austria:	OVE	**Italy:**	IMQ
Belgium:	CEBEC	**The Netherlands:**	KEMA

Denmark:	DEMKO	**Norway:**	NEMKO
Finland:	FIMKO	**Sweden:**	SEMKO
France:	LCIE	**Switzerland:**	SEV
Germany:	VDE	**United Kingdom:**	BSI

In Europe, two conductors power cord must be VDE type, H05VVH2-F or H03VVH2-F and for three conductors power cord must be VDE type, H05VV-F.

For the United States and Canada, two pin plug configuration must be a 2-15P (250V) or 1-15P (125V) and three pin plug configuration must be 6-15P (250V) or 5-15P (125V) as designated in the U.S. National Electrical code handbook and the Canadian Electrical Code Part II.

The following illustrations show the plug shapes for the U.S.A. and Canada, the United Kingdom, Australia, Europe and China.

USA
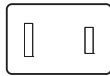
UL approved

United Kingdom
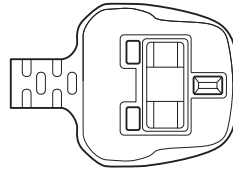
BS approved

Australia
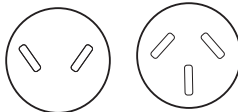
AS approved

Europe
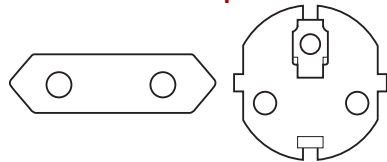
Approved by the appropriate agency

Canada
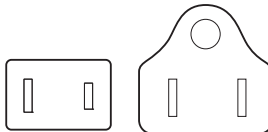
CSA approved

China
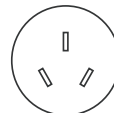
CCC approved

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Appendix F

TOSHIBA PC Health Monitor

The TOSHIBA PC Health Monitor application proactively monitors a number of system functions such as power consumption, battery health and the system cooling, informing you of significant system conditions. This application recognizes the system and individual component serial numbers, and will track specific activities related to the computer and their usage.

The collected information includes device operation time and number of actuations or status changes (i.e.: AC adaptor, battery, LCD, fan, sound volume, and USB information), date of initial system use, and also computer and device usage (i.e.: power settings, battery temperature and recharging, CPU, memory, backlight illumination time, and temperatures for various devices). The stored data uses a very small portion of the total hard disk capacity, approximately 10MB or less per year.

This information is used to identify and provide a notification of system conditions which may effect the performance of your Toshiba computer. It may also be used to help diagnose problems should the computer require service by Toshiba or Toshiba's authorized service providers. Additionally, Toshiba may also use this information for quality assurance analysis.

Once enabled, you may disable the TOSHIBA PC Health Monitor at any time by uninstalling the software via **Uninstall a program** in the **Control Panel**. Doing so will automatically delete all collected information from the SSD.

The TOSHIBA PC Health Monitor software does not extend or modify Toshiba's obligations under its standard limited warranty in any way. Toshiba's standard limited warranty terms and limitations apply.

Starting the TOSHIBA PC Health Monitor

The TOSHIBA PC Health Monitor can be started using the following methods:

■ Tap **Start** -> **All Programs** -> **TOSHIBA** -> **Utilities** -> **PC Health Monitor**.

■ Tap the icon ( ) in the notification area, then tap the "`Enable PC Health Monitor...`" message the first time you run the application and "`Run PC Health Monitor...`" every time thereafter.

No matter which method is used, the TOSHIBA PC Health Monitor explanation screen will be displayed.

Tapping **Next** will display the `PC Health Monitor Software Notice & Acceptance` screen. Please carefully read the information displayed. Selecting **ACCEPT** and tapping **OK** will enable the program. By enabling the TOSHIBA PC Health Monitor software, you agree with these terms and conditions and to the use and sharing of the collected information. Once the program is enabled, the TOSHIBA PC Health Monitor screen is displayed, and the program will begin monitoring system functions and collecting information.

Appendix G

Legal Footnotes

This chapter states the Legal Footnotes information applicable to TOSHIBA computers.

Non-applicable Icons

Certain computer chassis are designed to accommodate all possible configurations for an entire product series. Therefore, please be aware that your selected model may not have all the features and specifications corresponding to all of the icons or switches shown on the computer chassis.

CPU

Central Processing Unit ("CPU") Performance Legal Footnotes.

CPU performance in your computer product may vary from specifications under the following conditions:

■ use of certain external peripheral products

■ use of battery power instead of AC power

■ use of certain multimedia, computer generated graphics or video applications

■ use of standard telephone lines or low speed network connections

■ use of complex modeling software, such as high end computer aided design applications

■ use of several applications or functionalities simultaneously

■ use of computer in areas with low air pressure (high altitude >1,000 meters or >3,280 feet above sea level)

■ use of computer at temperatures outside the range of 5°C to 30°C (41°F to 86°F) or >25°C (77°F) at high altitude (all temperature references are approximate and may vary depending on the specific computer model - please refer to your computer documentation or visit the Toshiba website at www.pcsupport.toshiba.com for details).

CPU performance may also vary from specifications due to design configuration.

Under some conditions, your computer product may automatically shut-down. This is a normal protective feature designed to reduce the risk of lost data or damage to the product when used outside recommended conditions. To avoid risk of lost data, always make back-up copies of data by periodically storing it on an external storage medium. For optimum performance, use your computer product only under recommended conditions. Read additional restrictions in your product documentation. Contact Toshiba technical service and support, refer to *Troubleshooting* section in Chapter 7 Troubleshooting for more information.

64-Bit Computing

64-bit processors are designed to take advantage of 32 and 64 bit computing.

64-bit computing requires that the following hardware and software requirements are met:

■ 64-bit Operating System

■ 64-bit CPU, Chipset and BIOS (Basic Input/Output System)

■ 64-bit Device drivers

■ 64-bit applications

Certain device drivers and/or applications may not be compatible with a 64-bit CPU and therefore may not function properly. A 32-bit version of the operating system is preinstalled on your computer unless explicitly stated that the operating system is 64-bit.

Memory (Main System)

Part of the main system memory may be used by the graphics system for graphics performance and therefore reduce the amount of main system memory available for other computing activities. The amount of main system memory allocated to support graphics may vary depending on the graphics system, applications utilized, system memory size and other factors.

Battery Life

Battery life may vary considerably 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 computer is consuming full power.

After going through many charge and discharge cycles, the battery will lose its ability to perform at maximum capacity and will need to be replaced. This is a normal phenomenon for all batteries. To purchase a new battery pack, see the accessories information that is shipped with your computer.

Solid State Drive (SSD) Capacity

1 Gigabyte (GB) means $10^9 = 1,000,000,000$ bytes using powers of 10. The computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = $2^{30} = 1,073,741,824$ bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the product includes one or more pre-installed operating systems, such as Microsoft Operating System and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

LCD

Over a period of time, and depending on the usage of the computer, the brightness of the LCD screen will deteriorate. This is an intrinsic characteristic of LCD technology.

Maximum brightness is only available when operating in AC power mode. Screen will dim when the computer is operated on battery power and you may not be able to increase the brightness of the screen.

Graphics Processor Unit ("GPU")

Graphics processor unit ("GPU") performance may vary depending on product model, design configuration, applications, power management settings and features utilized. GPU performance is only optimized when operating in AC power mode and may decrease considerably when operating in battery power mode.

Total Available Graphics Memory is the total of, as applicable, Dedicated Video Memory, System Video Memory and Shared System Memory. Shared System Memory will vary depending on system memory size and other factors.

Wireless LAN

The transmission speed over the wireless LAN and the distance over which wireless LAN can reach may vary depending on surrounding electromagnetic environment, obstacles, access point design and configuration, and client design and software/hardware configurations.

The actual transmission speed will be lower than the theoretical maximum speed.

Copy Protection

Applicable copy protection standards included in certain media may prevent or limit recording or viewing of the media.

Images

All images are simulated for purposes of illustration.

Glossary

The terms in this glossary cover topics related to this manual. Alternate naming is included for reference.

Abbreviations

AC: Alternating current

ANSI: American National Standards Institute

AMT: Intel Active Management Technology

ASCII: American Standard Code for Information Interchange

BIOS: basic input/output system

bps: bits per second

CD: compact disc

CD-ROM: Compact Disc Read-Only Memory

CD-RW: Compact Disc-ReWritable

CMOS: complementary metal-oxide semiconductor

CPU: central processing unit

CRT: cathode ray tube

DC: direct current

DDC: display data channel

DDR: double data rate

DIMM: dual inline memory module

DVD: digital versatile disc

DVD-R: Digital Versatile Disc-Recordable

DVD-RAM: Digital Versatile Disc-Random Access Memory

DVD-R (Dual Layer): Digital Versatile Disc Recordable Dual Layer

DVD-ROM: Digital Versatile Disc-Read Only Memory

DVD-RW: Digital Versatile Disc-ReWritable

DVD+R (Double Layer): Digital Versatile Disc Recordable Double Layer

eSATA: external Serial ATA

FDD: floppy diskette drive

FIR: fast infrared

GB: gigabyte

HDD: hard disk drive

HDMI: High-Definition Multimedia Interface

IDE: integrated drive electronics

IEEE: Institute of Electrical and Electronics Engineers

I/O: input/output

IRQ: interrupt request

KB: kilobyte

LAN: local area network

LCD: liquid crystal display

LED: light emitting diode

MB: megabyte

MMC: multi media card

OCR: optical character recognition (reader)

PC: personal computer

PCI: peripheral component interconnect

RAM: random access memory

RGB: red, green, and blue

ROM: read only memory

RTC: real time clock

S/P DIF: Sony/Philips Digital Interface Format

SD: Secure Digital

SDHC: Secure Digital High Capacity

SDRAM: synchronous dynamic random access memory

SLI: Scalable Link Interface

SSD: Solid state drive

TFT: thin-film transistor

USB: Universal Serial Bus

UXGA: ultra extended graphics array

VGA: video graphics array

WAN: wide area network

WSXGA: wide super extended graphics array

WSXGA+: wide super extended graphics array plus

WUXGA: Wide Ultra Extended Graphics Array

WXGA: wide extended graphics array

WXGA+: wide extended graphics array plus

XGA: extended graphics array

TOSHIBA

Index