

SAMSUNG

# User Guide



# Chapter 1.

## Getting Started

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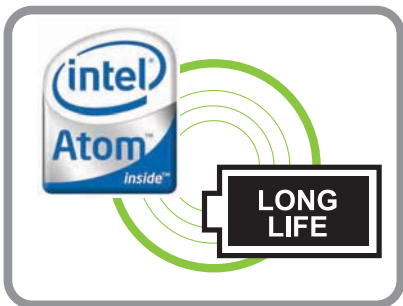
## Product Features



### PC in Hand

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- Improved portability through its compact size and light-weight design
- Slim, Polished Design



### Small but Powerful PC

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- An Intel “Atom” Processor with Low Power Consumption and Low Heat
- Extended Use Time through the use of Power-Efficient Parts



### Versatile and Convenient Use

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- A Camera Module for Video Chatting or Conferencing (Optional)
- Wireless LAN and Bluetooth Function (Optional)
- Multi Card Slot Support
- Easy-to-Use Keyboard



Optional items may be changed or may not be provided depending on the computer model.

# Before You Start

Before reading the User Guide, first check the following information.

## User Guide Information

This product is supplied with an **Installation Guide**, and a **User Guide**. You can even more easily and conveniently use the computer by using any of the guides depending on your needs.

### Installation Guide

This guide is provided so that you can conveniently refer to this guide when using the computer for the first time after purchasing it.

This document includes the computer components and the connection procedures.

### User Guide

You are currently reading the User Guide. To open the file at any time, double-click the icon on the Desktop. Alternatively, select **Start > All Programs > Samsung > User Guide > User Guide**.

This document includes the computer functions, how to use the functions, and how to use the programs.

## Utilizing the User Guide



- ① Be sure to read the **Safety Precautions** before using the computer.
- ② Refer to the separately supplied **Installation Guide** when installing your computer.
- ③ Refer to the **User Guide** for the procedures to use the computer.
- ④ Using the **Index** of the User Guide, you can easily find any information you are looking for.
- ⑤ Using the **Glossary** of the User Guide, you can easily find meanings for technical terms.
- ⑥ If a problem occurs, refer to the **Q & A** included in the User Guide.







- Optional items, some devices and software referred to in the User Guide may not be provided and/or changed by upgrade. Note that the computer environment referred in the User Guide may not be the same as your own environment.

- Images used in this User Guide may differ from actual product.
- This guide describes procedures for using both the mouse and the touchpad.
- The illustrations provided in this guide assume that your operating system is Windows XP. These illustrations are subject to change.
- The User guide supplied with this computer may vary depending on your model.

## Safety Precaution Notations

Icon	Notation	Description
	<b>Warning</b>	Failing to follow instructions marked with this symbol, may cause personal injury and or fatality.
	<b>Caution</b>	Failing to follow instructions marked with this symbol, may cause slight injury to yourself or damage your property.

## Text Notations

Icon	Notation	Description
	<b>Before You Start</b>	Content included in this section includes information required before using a function.
	<b>Caution</b>	Content included in this section includes information required about the function.
	<b>Note</b>	Content included in this section includes helpful information to use the function.
	<b>XX</b>	This notation represents the page number you can refer to for information about related functions or as a reference.
	<b>Start &gt; All Programs &gt; Samsung &gt; User Guide &gt; User Guide</b>	This represents a menu path to run a program. Click the Start button and then select <b>All Programs &gt; Samsung &gt; User Guide &gt; User Guide</b> in this order from the menu.

## Copyright

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The information in this document is subject to change without notice due to improving the performance of the product.

Samsung Electronics shall not be liable for any data loss. Please take care to avoid losing any important data and backup your data to prevent any such data loss.

## Precautions for Operating System Support

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If a problem occurs because of the reinstallation of other operating systems(OS) or a previous version of a OS pre-installed on this computer, or a software that does not support the OS, the company will not provide technical support, a replacement or refund, and if our service engineer visits you due to this problem, a service charge will be applied.

## Performance Restrictions

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- ① Online games and some games(3D,2D) may not be supported and Full HD video and some high bit rate HD video playback may be slow and stutter on this computer.
- ② There is one memory slot provided on this computer. It supports 2GB memory max. To upgrade to 2GB memory, replace the current memory with a 2GB memory module.

## About the Product Capacity Representation Standard

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### About HDD Capacity Representation

The capacity of the storage device (HDD, SSD) of the manufacturer is calculated assuming that 1KB=1,000 Bytes.

However, the operating system (Windows) calculates the storage device capacity assuming that 1KB=1,024 Bytes, and therefore the capacity representation of the HDD in Windows is smaller than the actual capacity due to the difference in capacity calculation.

(E.g. For a 80GB HDD, Windows represents the capacity as 74.5GB,  
 $80 \times 1,000 \times 1,000 \times 1,000 \text{ byte} / (1,024 \times 1,024 \times 1,024) \text{ byte} = 74.505 \text{ GB}$ )

In addition, the capacity representation in Windows may be even smaller because some programs such as Recovery Solution may reside in a hidden area of the HDD.

### About Memory Capacity Representation

The memory capacity reported in Windows is less than the actual capacity of memory. This is because BIOS or a video adapter uses a portion of memory or claims it for further use.

(E.g. For 1GB(=1,024MB) memory installed, Windows may report the capacity as 1,022MB or less)

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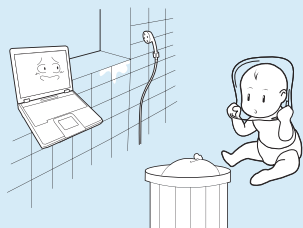
## Safety Precautions

For your security and to prevent damage, please read the following safety instructions carefully. Since this is commonly applied to Samsung Computers, some figures may differ from actual product.

### Warning

Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### Installation Related

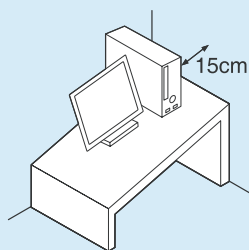


**Do not install the product in places exposed to humidity such as a bathrooms.**

There is a danger of electric shock. Use the product within the operating conditions specified in the Manufacturers User Guide.

**Keep the plastic bags out of the reach of children.**

There is a danger of suffocation.

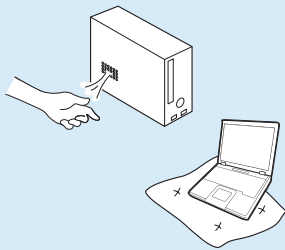


**Keep a distance of 15cm or more between the computer and the wall and do not place any objects between them.**

This may increase the internal temperature of the computer and may cause an injury.

**Do not install the computer on a slant or a place prone to vibrations, or avoid using the computer in that location for a long time.**

This increases the risk that a malfunction or damage to the product will occur.



**Avoid exposing any part of your body to the heat from the computer vent or AC adapter for a long time when the computer is on.**

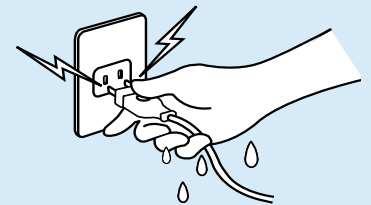
Exposing a part of your body close to the heat from the vent or AC adapter for long periods of time may cause a burn.

**Avoid blocking the vent at the bottom or side of the computer when using it on a bed or cushion.**

If the vent is blocked, there is a danger of damaging the computer or overheating the inside of the computer.

## Power Related

**The power plug and wall outlet figures may differ depending on the country specifications and the product model.**

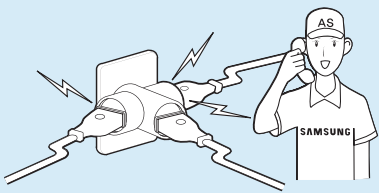


**Do not touch the main plug or power cord with wet hands.**

There is a danger of electric shock.

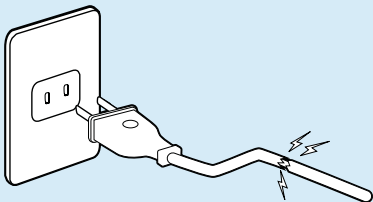
**Do not exceed the standard capacity (voltage/current) of a multi-plug or power outlet extension when using it for the product.**

There is a danger of electric shock or fire hazard.



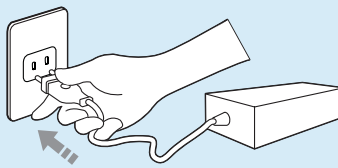
**If the power cord or power outlet makes a noise, disconnect the power cord from the wall outlet and contact a service center.**

There is a danger of electric shock or fire hazard.



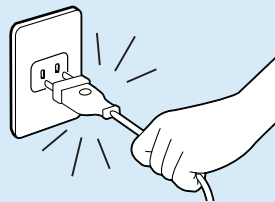
**Do not use a damaged or loose main plug or power cord or power outlet.**

There is a danger of electric shock or fire hazard.



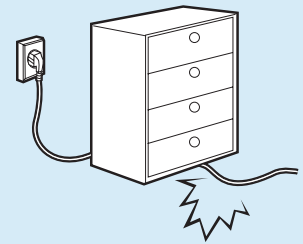
**Plug the power cord firmly into the power outlet and AC adapter.**

Failing to do so may cause fire hazard.



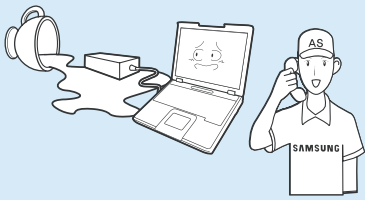
**Do not unplug the power cord out by pulling the cable only.**

If the cord is damaged, it may cause electric shock.



**Do not bend the power cord excessively or do not place a heavy object over the power cord. It is especially important to keep the power cord out of reach of infants and pets.**

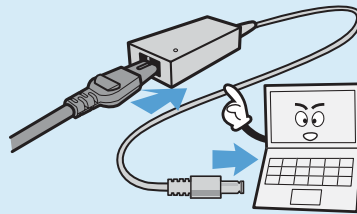
If the cord is damaged, it may cause electric shock or fire.



**If water or another substance enters the power input jack, AC adapter or the computer, disconnect the power cord and contact the service center.**

Damage to the device within the computer may cause electric shock or fire hazard.

## AC Adapter Usage Precautions

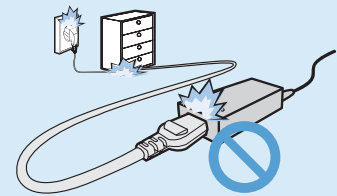


**Do not place heavy objects or step onto the power cord or AC adapter to avoid damaging the power cord or AC adapter.**

If the cord is damaged, there is a danger of electric shock or fire.

**Use only the AC adapter supplied with the product.**

Using another adapter may cause the screen to flicker.



**Connect the power cord to the AC adapter firmly.**

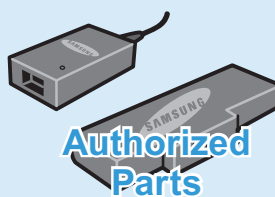
Otherwise, there is a danger of fire due to an incomplete contact.

## Battery Usage Related



**Keep the battery out of the reach of infants and pets, as they could put the battery into their mouths.**

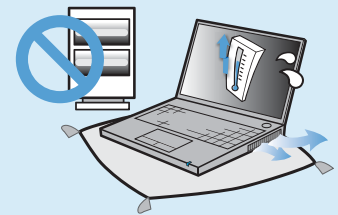
There is a danger of electric shock or choking.



**Use an authorized battery and AC adapter only.**

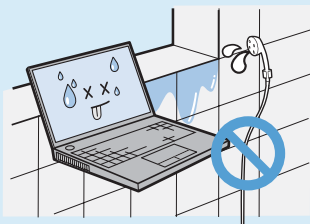
Please use an authorized battery and adapter approved by Samsung Electronics.

Unauthorized batteries and adapters may not meet the proper safety requirements and may cause problems or malfunctions and result in an explosion or fire.



**Do not use the computer in a badly ventilated location such as on bedding, on a pillow or cushion, etc, and do not use it in a location such as room with floor heating as it may cause the computer to overheat.**

Take care that the computer vents (on the side or the bottom) are not blocked especially in these environments. If the vents are blocked, the computer may overheat and it may cause a computer problem, or even an explosion.



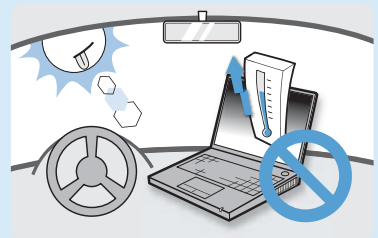
**Do not use the computer in a humid location such as a bathroom or sauna.**

Please use the computer within the recommended temperature and humidity range (10~32°C, 20~80% RH).



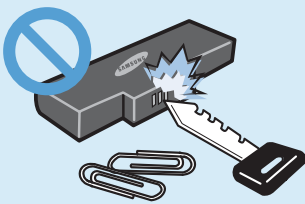
**Do not close the LCD panel and put the computer into your bag to move it when it is still turned on.**

If you put the computer into your bag without turning it off, the computer may overheat and there is a danger of fire. Shut the computer down properly before moving it.



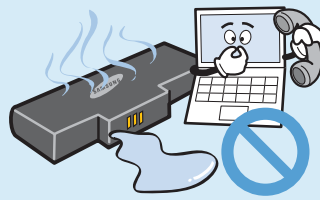
**Never heat the battery or put the battery into a fire. Do not put or use the battery in a hot location such as a sauna, inside a vehicle exposed to the heat, and so on.**

There is a danger of an explosion or fire.



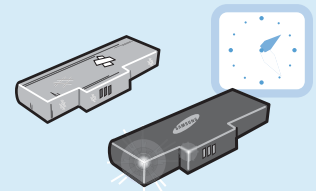
**Take care not to allow metal objects such as a key or clip to touch the battery terminal (metal parts).**

If a metal object touches the battery terminals, it may cause excessive current flow and it may damage the battery, or result in a fire.




**If liquid leaks out of the battery or there is a funny smell coming from the battery, remove the battery from the computer and contact a service center.**

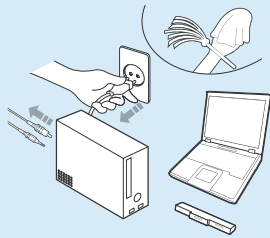
There is a danger of an explosion or fire.



**To use the computer safely, replace a dead battery with a new, authorized battery.**

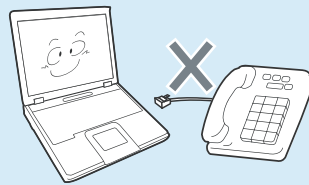
 **Please charge the battery fully before using the computer for the first time.**

## Usage Related



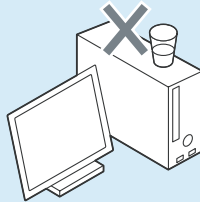
**Disconnect all cables connected to the computer before cleaning it. If you are cleaning a notebook computer, remove the battery.**

There is a danger of electric shock or damage to the product.



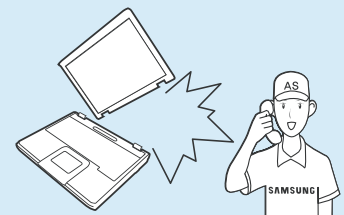
**Do not connect a phone line connected to a digital phone to the modem.**

There is a danger of a electric shock, fire or damage to the product.



**Do not place any container filled with water or chemicals over or near the computer.**

If water or chemicals enter the computer, this may cause fire or electric shock.



**If the computer is broken or dropped, disconnect the power cord and contact a service center for a safety check.**

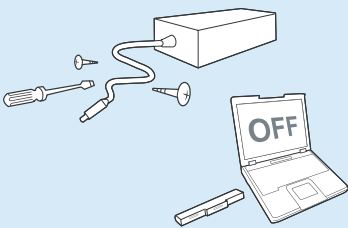
Using a broken computer may cause electric shock or fire hazard.

**Avoid direct sunlight when the computer is in an air-tight location such as inside a vehicle.**

There is a danger of a fire hazard. The computer may overheat and also present opportunity to thieves.



## Upgrade Related

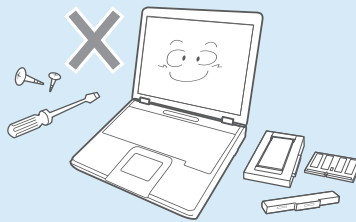


**Never disassemble the power supply or AC adapter.**

There is a danger of electric shock.

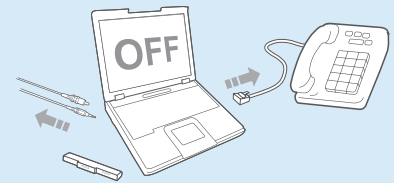
**When removing the RTC (Real Time Clock) battery, keep it out of the reach of children as they could touch and/or swallow it.**

There is a danger of choking. If a child has swallowed it, contact a doctor immediately.



**Use only authorized parts (multi-plug, battery and memory) and never disassemble parts.**

There is a danger of damaging the product, electric shock or fire hazard.



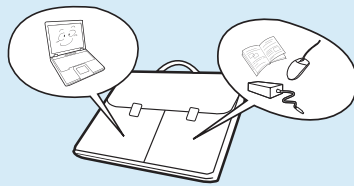
**Shut down the computer and disconnect all cables before disassembling the computer. If there is a modem, disconnect the phone line. If you are disassembling a notebook computer, make sure to remove the battery.**

Failing to do so, may cause electric shock.

## Custody and Movement Related



**Follow the instructions for the relevant location (e.g. airplane, hospital, etc.) when using a wireless communication device (wireless LAN, Bluetooth, etc.).**



**When carrying the notebook computer with other items, such as the adapter, mouse, books etc, take care not to press anything against the notebook computer.**

If a heavy object is pressed against the notebook computer, a white spot or stain may appear on the LCD. Therefore, take care not to apply any pressure to the notebook.

In this case, place the notebook computer in a separate compartment away from the other objects.

## Caution

Failing to follow instructions marked with this symbol may cause slight injury or damage to the product.

### Installation Related

---

**Do not block the ports (holes), vents, etc. of the product and do not insert objects.**

Damage to a component within the computer may cause electric shock or fire.

**When using the computer with it lying on its side, place it so that the vents face upwards.**

Failing to do so, may cause the internal temperature of the computer to rise and the computer to malfunction or halt.

**Do not place a heavy object over the product.**

This may cause a problem with the computer. In addition, the object may fall and cause injury, or damage the computer.

### Battery Usage Related

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**Dispose of worn-out batteries properly.**

- There is a danger of fire or explosion.
- The battery disposal method may differ depending on your country and region. Dispose of the used battery in an appropriate way.

**Do not throw or disassemble the battery and do not put it into water.**

This may cause an injury, fire or explosion.

---

**Use only a battery authorized by Samsung Electronics.**

Failing to do so may cause an explosion.

**Avoid contact with metal objects such as car keys or clips when keeping or carrying a battery.**

Contact with a metal may cause excessive current and a high temperature and may damage the battery or cause a fire.

**Charge the battery according to the instructions in the manual.**

Failing to do so, may cause an explosion or fire from damage to the product.

**Do not heat the battery or expose it to heat (e.g. inside a vehicle during the summer).**

There is a danger of explosion or fire.

---

**Usage Related**

**Do not place a candle, light cigar, etc. over or on the product.**

There is a danger of fire.

**Use a wall outlet or multi-plug with a grounding part.**

Failing to do so may cause an electric shock hazard.

**Make sure to have the product tested by a safety service engineer after repairing the product.**

Authorized Samsung Repair Centers will carry out safety checks after a repair. Using a repaired product without testing it for safety may cause an electric shock or fire.

---

**In case of lightning, immediately turn the system off, disconnect the power cord from the wall outlet and phone line from modem. Do not use a modem or phone.**

There is a danger of electric shock or fire.

**Do not use your computer and AC-Adapter on your lap or soft surfaces.**

If the computer temperature increases, there is a danger of burning yourself.

**Connect only permitted devices to the connectors or ports of the computer.**

Failing to do so, may cause electric shock and fire.

**Close the LCD panel only after checking if the notebook computer is turned off.**

The temperature may rise and it may cause overheating and deformation of the product.

**Do not press the Eject Button while the Floppy Disk/CD-ROM drive is in operation.**

You might lose data and the disk might be suddenly ejected and could cause an injury.

**Take care not to drop the product while using it.**

This may cause personal injury or loss of data.

**Do not touch the antenna with electricity facility such as the power outlet.**

There is a danger of electric shock.

**When handling computer parts, follow the instructions on the manual supplied with the parts.**

Failing to do so, may cause damage to the product.

**If the computer emits smoke, or there is a burning smell, disconnect the power plug from the wall outlet and contact a service center. If your computer is a notebook computer, make sure to remove the battery.**

There is a danger of fire.

---

**Do not use a damaged or modified CD/Floppy Disk.**

There is a danger of damaging the product or personal injury.

**Do not insert your fingers into the PC Card Slot.**

There is a danger of injury or electric shock.

**Use recommended computer cleansing solution when cleaning the product and only use the computer when it is completely dried.**

Failing to do so may cause electric shock or fire.

**Emergency disk eject method using paperclip should not be used while the disk is in motion. Make sure to use the emergency disk eject method only when the Optical Disk Drive is stopped.**

There is a danger of injury.

**Do not place your face close to the Optical Disk Drive tray when it is operating.**

There is a danger of injury due to an abrupt ejection.

**Check CDs for cracks and damage prior to use.**

It may damage the disc and cause disorder of device and injury of user.

---

**Upgrade Related**

**Take care when touching the product or parts.**

The device may be damaged or you may be injured.

**Take care to handle internal components with care.**

This may cause injury or damage to the product.

**Make sure to close the computer cover before connecting the power after a reassembly.**

There is a danger of electric shock if your body touches an internal part.

---

**Use parts authorized by Samsung Electronics only.**

Failing to do so, may cause fire or damage the product.

**Never disassemble or repair the product by yourself.**

There is a danger of electric shock or fire.

**To connect a device that is not manufactured or authorized by Samsung Electronics, enquire at your service center before connecting the device.**

There is a danger of damaging the product.

---

## Custody and Movement Related

**When moving the product, turn the power off and separate all connected cables first.**

The product might be damaged or users may trip over the cables.

**For long periods of not using the notebook computer, discharge the battery and preserve as it is detached.**

The battery will be preserved at its best condition.

**Do not operate or watch the computer while driving a vehicle.**

There is a danger of a traffic accident. Please concentrate on driving.

## **Cautions on Preventing Data Loss (Hard Disk Management)**

---

### **Take care not to damage the data on a hard disk drive.**

- A hard disk drive is sensitive to external impact that an external impact may cause loss of data on the surface of the disk.
- Take extra care, because moving the computer or an impact on the computer when it is turned on may damage the data of the hard disk drive.
- The company is not liable for any loss of any data caused by a customer's careless usage or bad environmental conditions.

### **Causes that may damage the data of a hard disk drive and the hard disk drive itself.**

- The data may be lost when an external impact is applied to the disk while disassembling or assembling the computer.
- The data may be lost when the computer is turned off or reset by a power failure while the hard disk drive is operating.
- The data may be lost and irrecoverable due to a computer virus infection.
- The data may be lost if the power is turned off while running a program.
- Moving or causing an impact to the computer while the hard disk drive is operating, may cause files to be corrupted or bad sectors on the hard disk.

**To prevent data loss due to damage to the hard disk drive, please backup your data frequently.**




## Proper Posture During Computer Use

Maintaining a proper posture during computer use is very important to prevent physical harm.

The following instructions are about maintaining a proper posture during computer use developed through human engineering. Please read and follow them carefully when using the computer.

Otherwise, the probability of (RSI: Repetitive Strain Injury) from repeated operations may increase and serious physical harm may be caused.

 The instructions in this manual have been prepared so that they can be applied within the coverage of general users.

If the user is not included in the coverage, the recommendation is to be applied according to the user's needs.

### Proper Posture

#### **Adjust the heights of desks and chairs appropriate to your height.**

The heights are to be adjusted so that your arm forms a right angle when you place your hand over the keyboard while sitting down on a chair.

Adjust the height of chair so that your heel is comfortably placed on the floor.

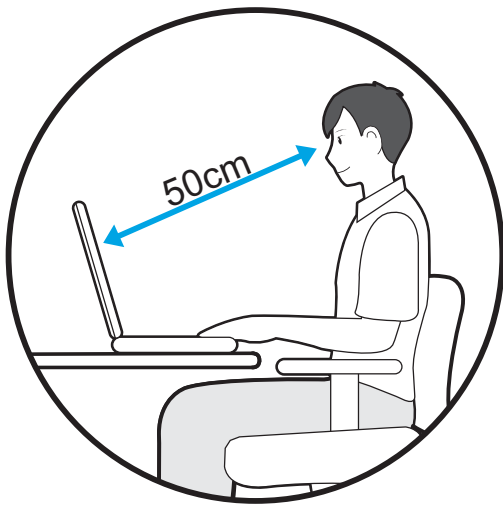
- Do not use the computer while you are lying down, but only while you are sitting down.
- Do not use the computer on your lap. If the computer temperature increases, there is a danger of burning yourself.
- Work while keeping your wrist straight.
- Use a chair with a comfortable back.

- Keep the center of your leg weight not on the chair but on your feet when you are sitting on a chair.
- To use the computer while talking over the telephone, use a headset. Using the computer with the phone on your shoulder is bad for posture.
- Keep frequently used items within a comfortable work range (where you can reach them with your hands).



## Eye Position

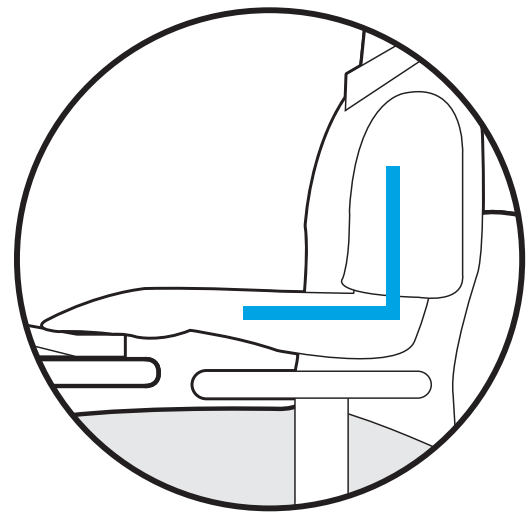
Keep the monitor or LCD away from your eyes by at least 50cm.



- Adjust the height of the monitor and the LCD screen so that its top height is equal to or lower than your eyes.
- Avoid setting the monitor and LCD excessively bright.
- Keep the monitor and LCD screen clean.
- If you wear glasses, clean them before using the computer.
- When entering contents printed on a paper into the computer, use a static paper holder so that the height of the paper is almost equal to that of the monitor.

## Hand Position

Keep your arm at a right angle as shown by the figure.



- Keep the line from your elbow to your hand straight.
- Do not place your palm over the keyboard while typing.
- Do not hold the mouse with excessive force.
- Do not press the keyboard, touchpad or mouse with excessive force.
- It is recommended connecting an external keyboard and mouse when using the computer for long periods of time.

## Volume Control (Headphones and Speakers)

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**Check your volume first to listen to music.**



- Check if the volume is too loud before using headphones.
- It is not recommended using headphones for long periods of time.
- Any deviation from the equalizer default setting could cause hearing impairment.
- The default setting can be changed through software and driver updates without your intervention. Please check the equalizer default setting before first usage.

## Use Time (Break Time)

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- Take a break for 10 minutes or more after a 50-minute period when working for more than one hour.

## Illumination

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- Do not use the computer in dark locations. The illumination level for computer use must be as bright so for reading a book.
- Indirect illumination is recommended. Use a curtain to prevent reflection on the LCD screen.

## Operation Condition

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- Do not use the computer in hot and humid locations.
- Use the computer within the allowed temperature and humidity range specified in the User Guide.

# Important Safety Information

## Safety Instructions

Your system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.



Always follow these instructions to help guard against personal injury and damage to your system.

## Setting Up your System

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only with the type of power source indicated on the rating label.
- Ensure that the electrical outlet you are using to power your equipment is easily accessible in case of fire or short circuit.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Ensure that the fan vents on the bottom of the casing are clear at all times. Do not place the computer on a soft surface, doing so will block the bottom vents.
- If you use an extension cord with this system, make sure that the total power rating on the products plugged into the extension cord does not exceed the extension cord power rating.

## Care During Use

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- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to not eat or drink near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer. Dispose of batteries according to the manufacturers instructions. If the CMOS battery requires replacement insure that a qualified technician performs the task.
- When the computer is turned off, a small amount of electrical current still flows through the computer.  
To avoid electrical shock, always unplug all power cables, remove the battery and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not operate properly when the operating instructions are followed.
  - The system was dropped or the casing is damaged.
  - The system performance changes.


## The Instruction On Safety Operation of the NotePC


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- ① When installing and operating devices please refer to safety requirements in the user guide.
- ② Devices can be used only with the equipment specified in the technical specifications of the devices.
- ③ If any smell of burning or smoke is detected from the computer the unit should be switched off and battery removed. The unit should be checked by a qualified technician before reuse.
- ④ Service and repair of devices should be carried out by authorized service centers.
- ⑤ Do not allow your portable computer to operate with the base resting directly on exposed skin for extended periods of time. The surface temperature of the base will rise during normal operation (particularly when AC Power is present). Allowing sustained contact with exposed skin can cause discomfort or eventually a burn.


## Replacement Parts and Accessories

Use only replacement parts and accessories recommended by manufacturer.

 To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.


 Do not use this product in areas classified as hazardous. Such areas include patient care areas of medical and dental facilities, oxygen rich environments, or industrial areas.

## Battery Disposal

 Do not put rechargeable batteries or products powered by non-removable rechargeable batteries in the garbage.

Contact the Samsung Helpline for information on how to dispose of batteries that you cannot use or recharge any longer.

Follow all local regulations when disposing of old batteries.

 **THERE IS A RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.  
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.**

## Laser Safety

All systems equipped with CD or DVD drives comply with the appropriate safety standards, including IEC 60825-1. The laser devices in these components are classified as “Class 1 Laser Products” under a US Department of Health and Human Services (DHHS) Radiation Performance Standard. Should the unit ever need servicing, contact an authorized service location.



- **Laser Safety Note:**

Use of controls or adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure. To prevent exposure to laser beams, do not try to open the enclosure of a CD or DVD drive.

- Class 1M laser radiation when operating part is open.  
Do not view directly with optical instruments.
- Class 3B invisible laser radiation when open.  
Avoid exposure to the beam.

## Connect and Disconnect the AC adapter

The socket-outlet shall be installed near the equipment and shall be easily accessible. **Do not unplug the power cord out by pulling the cable only.**



## Power Cord Requirements

The power cord set (wall plug, cable and AC adapter plug) you received with your computer meets the requirements for use in the country where you purchased your equipment.

Power cord sets for use in other countries must meet the requirements of the country where you use the computer. For more information on power cord set requirements, contact your authorized dealer, reseller, or service provider.

## General Requirements

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**The requirements listed below are applicable to all countries:**

- The length of the power cord set must be at least 6.00 feet (1.8m) and a maximum of 9.75 feet (3.0m).
- All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.
- The power cord set must have a minimum current capacity of 7 A and a nominal voltage rating of 125 or 250 volts AC, as required by each country's power system.
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C7 connector, for mating with appliance inlet on the computer.

# Regulatory Compliance Statements

## Wireless Guidance


Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4GHz/5GHz Band, may be present (embedded) in your notebook system. The following section is a general overview of considerations while operating a wireless device.

Additional limitations, cautions, and concerns for specific countries are listed in the specific country sections (or country group sections). The wireless devices in your system are only qualified for use in the countries identified by the Radio Approval Marks on the system rating label. If the country you will be using the wireless device in, is not listed, please contact your local Radio Approval agency for requirements. Wireless devices are closely regulated and use may not be allowed.

The RF field strength of the wireless device or devices that may be embedded in your notebook are well below all international RF exposure limits as known at this time. Because the wireless devices (which may be embedded into your notebook) emit less energy than is allowed in radio frequency safety standards and recommendations, manufacturer believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

Some circumstances require restrictions on wireless devices. Examples of common restrictions are listed on the next page:

- 
- Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane.  
802.11ABGN (also known as wireless Ethernet or Wifi) and Bluetooth communication devices are examples of devices that provide wireless communication.
  - In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, Hospitals, and Oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.
  - Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.
  - If your system came equipped with an internal embedded wireless device, do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.
  - Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Please contact manufacturer for service.
  - Only use drivers approved for the country in which the device will be used. See the manufacturer System Restoration Kit, or contact manufacturer Technical Support for additional information.

## United States of America

### USA and Canada Safety Requirements and Notices

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Do not touch or move antenna while the unit is transmitting or receiving.

Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.

Do not operate the radio or attempt to transmit data unless the antenna is connected; if not, the radio may be damaged.

#### Use in specific environments:

The use of wireless devices in hazardous locations is limited by the constraints posed by the safety directors of such environments.

The use of wireless devices on airplanes is governed by the Federal Aviation Administration (FAA).

The use of wireless devices in hospitals is restricted to the limits set forth by each hospital.



#### Explosive Device Proximity Warning

Do not operate a portable transmitter (such as a wireless network device) near unshielded blasting caps or in an explosive environment unless the device has been modified to be qualified for such use.



#### Use On Aircraft Caution

Regulations of the FCC and FAA prohibit airborne operation of radio-frequency wireless devices because their signals could interfere with critical aircraft instruments.

### Other Wireless Devices

**Safety Notices for Other Devices in the Wireless Network:** Refer to the documentation supplied with wireless Ethernet adapters or other devices in the wireless network.



The Part 15 radio device operates on a non-interference basis with other devices operating at this frequency. Any changes or modification to said product not expressly approved by Intel could void the user's authority to operate this device.

## Unintentional Emitter per FCC Part 15

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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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- 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.



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 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:

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet helpful: “Something About Interference.” This is available at FCC local regional offices. Our company is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by our company. The correction will be the responsibility of the user. Use only shielded data cables with this system.

## Intentional emitter per FCC Part 15

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4GHz/5GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the United States of America if an FCC ID number is on the system label.

This device is restricted to indoor use due to its operation in the 5.15 to 5.25 GHz frequency range. FCC requires this product to be used indoors for the frequency range 5.15 to 5.25 GHz to reduce the potential for harmful interference to co-channel Mobile Satellite systems. High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and /or damage this device.

The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by the FCC.

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

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

Wireless devices are not user serviceable. Do not modify them in any way.

Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.





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## **FCC Part 68** **(If fitted with a modem device.)**

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

This equipment uses the following USOC jacks : RJ11C

An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or promises wiring using a compatible modular jack which is Part 68 compliant. See Installation Instructions for details.

The REN is used to determine the quantity of devices which may be connected to telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by total RENs, contact the local telephone company to determine the maximum REN for the calling area.

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

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advanced notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment (Modem) for repair or warranty information, please contact your local distributor. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product.

No repairs may be done by the customer. This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be any number for which charges exceed local or long-distance transmission charges.)

In order to program this information into your fax machine, refer to your communications software user manual.



## Canada

### Unintentional Emitter per ICES-003

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par Industrie Canada.

### Intentional Emitter per RSS 210

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4GHz/5GHz Band, may be present (embedded) in your notebook system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in Canada if an Industry Canada ID number is on the system label.

When using IEEE 802.11a wireless LAN, this product is restricted to indoor use due to its operation in the 5.15- to 5.25-GHz frequency range. Industry Canada requires this product to be used indoors for the frequency range of 5.15 GHz to 5.25 GHz to reduce the potential for harmful interference to co-channel mobile satellite systems. High power radar is allocated as the primary user of the 5.25- to 5.35-GHz and 5.65 to 5.85-GHz bands. These radar stations can cause interference with and/or damage to this device.

The maximum allowed antenna gain for use with this device is 6dBi in order to comply with the E.I.R.P limit for the 5.25- to 5.35 and 5.725 to 5.85 GHz frequency range in point-to-point operation.

The power output of the wireless device (or devices), which may be embedded in your notebook, is well below the RF exposure limits as set by Industry Canada.

This transmitter must not be collocated or operate in conjunction with any other antenna or transmitter except the installed Bluetooth transmitter.

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



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



Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.

## Telecommunications per DOC notice (for products fitted with an IC-compliant modem)

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The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operation, and safety requirements. The Department does not guarantee the equipment will operate to the users' satisfaction.

Before installing this equipment, users should make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. In some cases, the inside wiring associated with a single-line individual service may be extended by means of a certified connector assembly. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

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



To avoid electrical shock or equipment malfunction do not attempt to make electrical ground connections by yourself. Contact the appropriate inspection authority or an electrician, as appropriate.


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

## European Union

### European Union CE Marking and Compliance Notices

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Products intended for sale within the European Union are marked with the Conformité Européene (CE) Marking, which indicates compliance with the applicable Directives and European standards and amendments identified below. This equipment also carries the Class 2 identifier.

The following information is only applicable to systems labeled with the CE mark .

### European Directives

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This Information Technology Equipment has been tested and found to comply with the following European directives:

- **Low Voltage Directive (Safety) 73/23/EEC as per EN 60950(A1/A2/A3/A4/A11)**
- **Radio and Telecom Terminal Equipment Directive 1999/5/EC as per**
  - CTR21 (if fitted with a modem device)
  - EN 300 328 (if fitted with a 2.4 GHz band embedded wireless device)
  - EN 301 489-1 (if fitted with a 2.4 GHz band embedded wireless device)
  - EN 301 489-17 (if fitted with a 2.4 GHz band embedded wireless device)
  - EN 301 893 (if fitted with a 5 GHz band embedded wireless device)
- **EMC Directive 89/336/EEC with amending directives 92/31/EEC & 93/68/EEC as per**
  - EN 55022 Class B
  - EN 61000-3-2
  - EN 61000-3-3
  - EN 55024

## European Radio Approval Information (for products fitted with EU-approved radio devices)

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This Product is a Notebook computer; low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4GHz/5GHz band, may be present (embedded) in your notebook system which is intended for home or office use. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark (E) with a Notified Body Registration Number and the Alert Symbol is on the system label.

The power output of the wireless device or devices that may be embedded in your notebook is well below the RF exposure limits as set by the European Commission through the R&TTE directive.

The low band 5.15 - 5.35 GHz is for indoor use only.



See 802.11b and 802.11g restrictions for specific countries or regions within countries under the heading “European Economic Area Restrictions” below.

## Translated Statements of Compliance

### [English]

This product follows the provisions of the European Directive 1999/5/EC.

### [Danish]

Dette produkt er i overensstemmelse med det europæiske direktiv 1999/5/EC

### [Dutch]

Dit product is in navolging van de bepalingen van Europees Directief 1999/5/EC.

### [Finnish]

Tämä tuote noudattaa EU-direktiivin 1999/5/EC määräyksiä.

### [French]

Ce produit est conforme aux exigences de la Directive Européenne 1999/5/EC.

### [German]

Dieses Produkt entspricht den Bestimmungen der Europäischen Richtlinie 1999/5/EC

### [Greek]

Το προϊόν αυτό πληροί τις προβλέψεις της Ευρωπαϊκής Οδηγίας 1999/5/EC.

### [Icelandic]

Þessi vara stenst reglugerð Evrópska Efnahags Bandalagsins númer 1999/5/EC

### [Italian]

Questo prodotto è conforme alla Direttiva Europea 1999/5/EC.

**[Norwegian]**

Dette produktet er i henhold til bestemmelsene i det europeiske direktivet 1999/5/EC.

**[Portuguese]**

Este produto cumpre com as normas da Diretiva Européia 1999/5/EC.

**[Spanish]**

Este producto cumple con las normas del Directivo Europeo 1999/5/EC.

**[Swedish]**

Denna produkt har tillverkats i enlighet med EG-direktiv 1999/5/EC.

**European Economic Area Restrictions**

**Local Restriction of 802.11b/802.11g Radio Usage**

[Note to integrator: The following statements on local restrictions must be published in all end-user documentation provided with the system or product incorporating the wireless product.]



Due to the fact that the frequencies used by 802.11b/802.11g wireless LAN devices may not yet be harmonized in all countries, 802.11b/802.11g products are designed for use only in specific countries or regions, and are not allowed to be operated in countries or regions other than those of designated use.

As a user of these products, you are responsible for ensuring that the products are used only in the countries or regions for which they were intended and for verifying that they are configured with the correct selection of frequency and channel for the country or region of use. Any deviation from permissible settings and restrictions in the country or region of use could be an infringement of local law and may be punished as such.

The European variant is intended for use throughout the European Economic Area. However, authorization for use is further restricted in particular countries or regions within countries, as follows:

### **General**

European standards dictate maximum radiated transmit power of 100 mW effective isotropic radiated power (EIRP) and the frequency range 2400 – 2483.5 MHz.

The low band 5.15 - 5.35 GHz is for indoor use only.

### **Belgium**

The product may be used outdoors, but for outdoor transmissions over a distance of 300m or more, a license from the BIPT is required.

This restriction should be indicated in the manual as follows:

Dans le cas d'une utilisation privée, à l'extérieur d'un bâtiment, au-dessus d'un espace public, aucun enregistrement n'est nécessaire pour une distance de moins de 300m. Pour une distance supérieure à 300m un enregistrement auprès de l'IBPT est requise. Pour une utilisation publique à l'extérieur de bâtiments, une licence de l'IBPT est requise. Pour les enregistrements et licences, veuillez contacter l'IBPT.

### **France**

For Metropolitan departments:

2.400 - 2.4835 GHz for indoor use.

2.400 - 2.454 GHz (channels 1 to 7) for outdoor use.

For Guadeloupe, Martinique, St Pierre et Miquelon, Mayotte:

2.400 - 2.4835 GHz for indoor and outdoor use.

For Reunion, Guyane:

2.400 - 2.4835 GHz for indoor use.

2.420 - 2.4835 GHz for outdoor use (channels 5 to 13)

The low band 5.15 - 5.35 GHz is for indoor use only.

## European Telecommunication Information (for products fitted with EU-approved modems)

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Marking by the symbol **CE** indicates compliance of this equipment to the Radio and Telecom Terminal Equipment Directive 1999/5/EC. Such marking is indicative that this equipment meets or exceeds the following technical standards: CTR 21 - Attachment requirements for pan-European approval for connection to the analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting voice telephony services) in which network addressing, if provided, is by means of Dual Tone Multi-Frequency (DTMF) signaling.

This equipment has been approved to Council Decision 98/482/EEC - "CTR 21" for Pan-European single terminal connection to the Public Switched Telephone Network (PSTN).

However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact manufacturer Technical Support.



Although this equipment can use either loop disconnect (pulse) or DTMF (tone) signaling, only the performance of the DTMF signaling is subject to regulatory requirements for correct operation.

It is therefore strongly recommended that the equipment is set to use DTMF signaling for access to public or private emergency services. DTMF signaling also provides faster call setup.



## WEEE SYMBOL INFORMATION



### Correct disposal of this product (Waste Electrical & Electronic Equipment)

**(Applicable in the European Union and other European countries with separate collection systems.)**

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.



**Pb**

## Correct disposal of batteries in this product

**(Applicable in the European Union and other European countries with separate battery return systems.)**

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

### USA ONLY

This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA.

“Perchlorate Material- special handling may apply, See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).”

Contains Mercury, Dispose According to Local, State or Federal Laws.

For details see [lamprecycle.org](http://lamprecycle.org), [eise.org](http://eise.org), or call 1-800-Samsung.

# Overview

## Front View

- Optional items may be changed or may not be provided depending on the computer model.
- The actual color and appearance of the computer may differ from the pictures used in this guide.



<b>1 Camera Lens (Optional)</b>	Using this lens, you can take still pictures and record video.
<b>2 Power Button</b>	Turns the computer on and off. <a href="#">☰ 55</a>
<b>3 Keyboard</b>	A device to enter data by pressing the keys. <a href="#">☰ 58</a>
<b>4 Touchpad/Touchpad Buttons</b>	The touchpad and touchpad buttons provide functions similar to the mouse ball and buttons. <a href="#">☰ 61</a>
<b>5 Multi Card Slot</b>	A card slot that supports SD Card, SDHC and MMC. <a href="#">☰ 65</a>
<b>6 Status Indicators</b>	Shows the operating status of the computer. The corresponding operating LED is lit when the corresponding function operates. <a href="#">☰ 51</a>
<b>7 Speaker</b>	A device used to generate sound.
<b>8 LCD</b>	The screen images are displayed here.
<b>9 Microphone</b>	You can use the built-in microphone.