

SAMSUNG

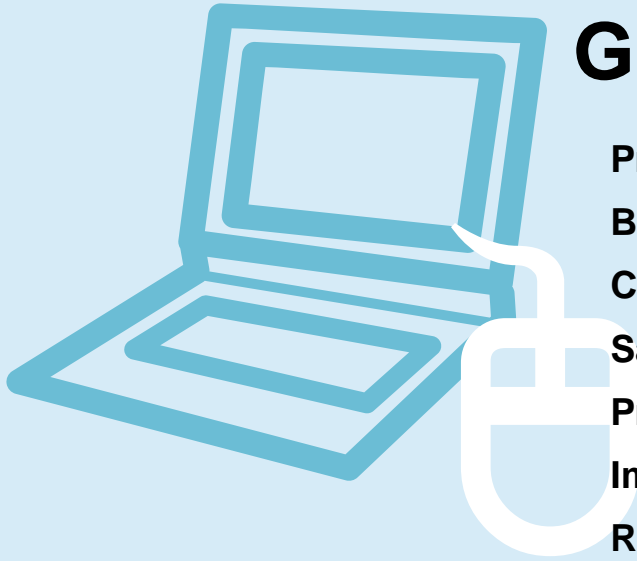
# User Guide



**SAMSUNG**

# Chapter 1.

## Getting Started



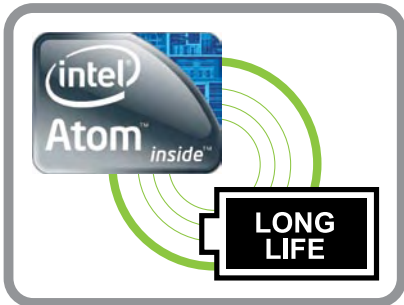
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## PC in Hand

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- Improved portability through its compact size and lightweight 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 (Optional)
- 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.






- 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.
- This manual has been written for the Windows operating system. The descriptions and figures may differ depending on the installed operating system.
- 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

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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.

## Copyright

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No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, without the consent of Samsung Electronics Co., Ltd.

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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- ❶ 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.
- ❷ 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)

## Recovery Solution Representation (Optional)

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### Q. What is a Recovery Area?

- A.- Samsung computers have an additional partition to recover computers or save backup files. (Only for models with the Samsung Recovery Solution.) This partition is called a Recovery Area and it includes a recovery image that comprises of the OS and application programs.
- You can either double-click the Samsung Recovery Solution icon on the desktop or press F4 while booting the computer to enter the Recovery Area. Then you can back up the present computer state or recover the computer from backed up images.
  - For deleting the Recovery Area, you need to use an additional Recovery Area Removal Tool. After deleting the recovery area, you can use the newly created partition for other uses, such as for saving personal data. Be careful that once the recovery area is deleted, the Samsung Recovery Solutions will not work anymore.

### Q. The capacity representation of the hard disk drive(HDD) in Windows is different from the product specifications.

- A.- The capacity of the storage device (HDD) 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. This is due to the difference in capacity calculation and does not mean the installed HDD is different from the product specifications.
- The capacity representation in Windows may be smaller than the actual capacity because some programs occupy a certain area of the HDD outside of Windows.
  - For models with Samsung Recovery Solution, the HDD capacity representation in Windows may be smaller than the actual capacity because Samsung Recovery Solution uses a hidden area of about 5~20GB of the HDD to save the recovery image, and that hidden area is not counted towards the total size available to Windows. The size of Samsung Recovery Solution varies by models because of the different size of applied programs.

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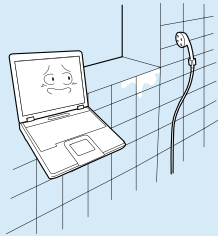
# Safety Precautions

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

## Warning

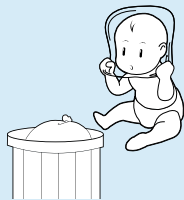
Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### Installation Related



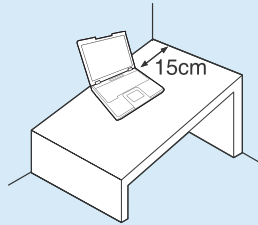
**Do not install the product in places exposed to humidity such as bathrooms.**

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



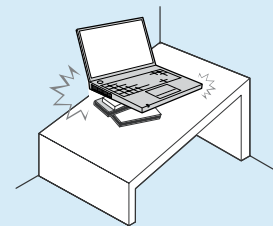
**Keep the plastic bags out of the reach of children.**

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.**

Failing to do so may cause an increase in the internal temperature of the computer and result in 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.**

Failing to do so may result in an increased risk of malfunctions or damage to the product.

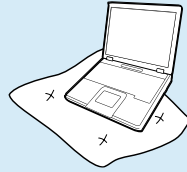
## Warning

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



**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.

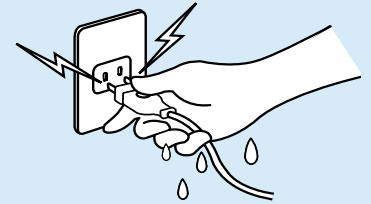


**Avoid blocking the vent at the bottom or side of the computer when using it on a bed or cushion.**

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

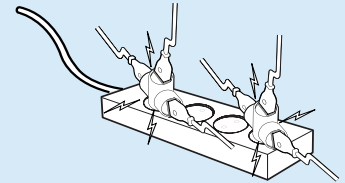
## Power Related

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.

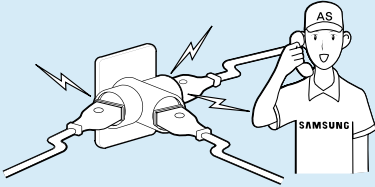


**Do not exceed the standard capacity (voltage/current) of a multi-plug or power outlet extension when using it for the product.**

This may result in electric shock or fire.

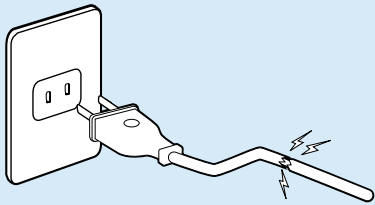
## Warning

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



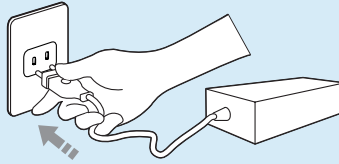
**If the power cord or power outlet makes a noise, disconnect the power cord from the wall outlet and contact a service center.**

This may result in electric shock or fire.



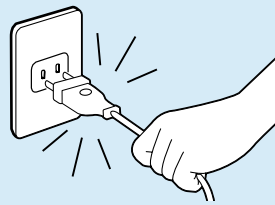
**Do not use a damaged or loose main plug or power cord or power outlet.**

This may result in electric shock or fire.



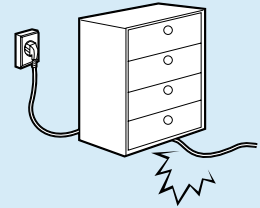
**Plug the power cord firmly into the power outlet and AC adapter.**

Failing to do so may result in electric shock or fire.



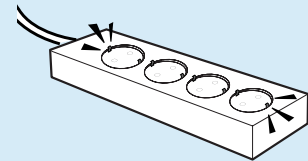
**Do not unplug the power cord out by pulling the cable only.**

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



**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.

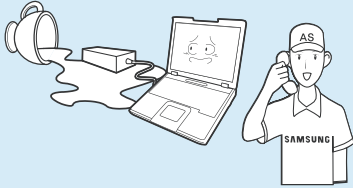


**Connect the power cord to an outlet or multiple power plug (extended cable) with a ground terminal.**

Failing to do so may result in electric shock.

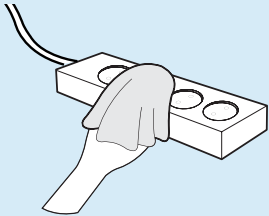
## Warning

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



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

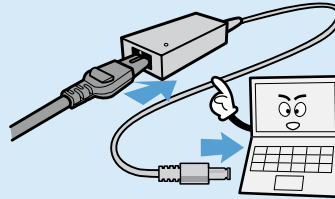
Damage to the device within the computer may result in electric shock or fire hazard.



**Keep the power cord or outlet clean so that they are not covered with dust.**

Failing to do so may result in fire.

## AC Adapter Usage Precautions

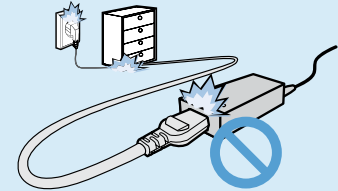


**Connect the power cord to the AC adapter firmly.**

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

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

Using another adapter may cause the screen to flicker.



**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.

## Warning

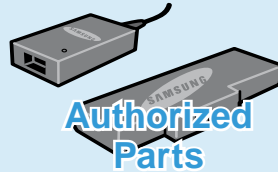
Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### 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 be overheated.**

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.

## Warning

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



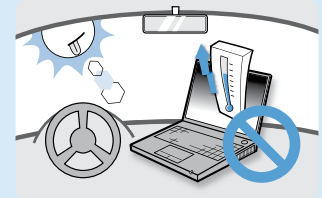
**Do not use the computer in a humid location such as a bathroom or sauna.**

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.

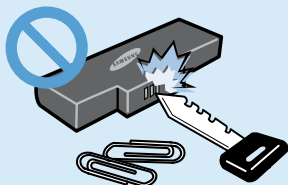


**Never heat the battery or put the battery into a fire. Do not put or use the battery in a hot location such as a sauna, inside a vehicle exposed to the heat, and so on.**

There is a danger of an explosion or fire.

## Warning

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



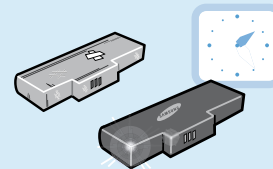
**Take care not to allow metal objects such as a key or clip to touch the battery terminal (metal parts).**

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.**

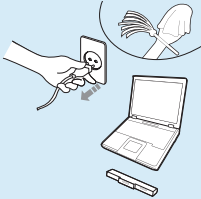


**Please charge the battery fully before using the computer for the first time.**

## Warning

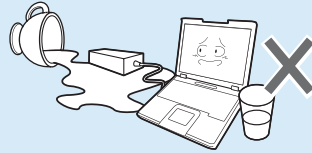
Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### Usage Related



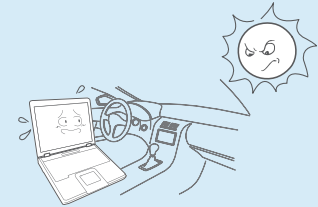
**Disconnect all cables connected to the computer before cleaning it. If you are cleaning a notebook computer, remove the battery.**

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



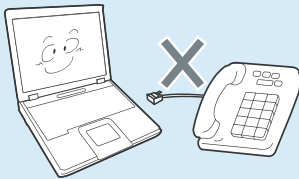
**Do not place any container filled with water or chemicals over or near the computer.**

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



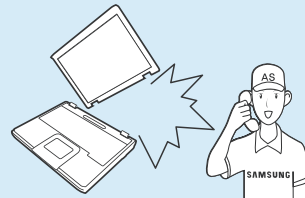
**Avoid leaving the computer exposed to direct sunlight when the computer is in a badly ventilated location such as inside a vehicle.**

This may result in overheating, fire or being stolen.



**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.



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

Using a damaged computer may result in electric shock or fire.



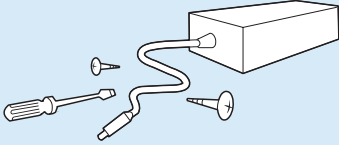
**Do not use your notebook PC for long periods of time while a part of your body is making direct contact with it. The temperature of the product may increase during normal operation.**

This may result in harming or burning your skin.

## Warning

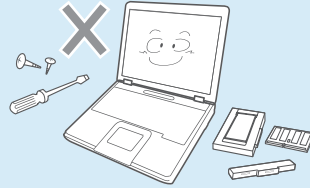
Failing to follow instructions marked with this symbol may cause personal injury and even fatality.

### Upgrade Related



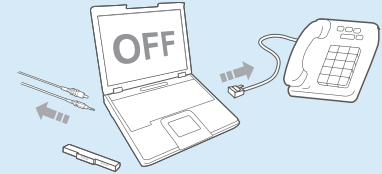
**Never disassemble the power supply or AC adapter.**

There is a danger of electric shock.



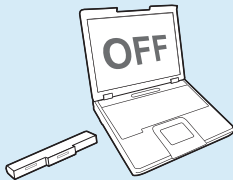
**Use only authorized parts (multi-plug, battery and memory) and never disassemble parts.**

This may result in damage to the product, electric shock or fire.



**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.



**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.

## Warning

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

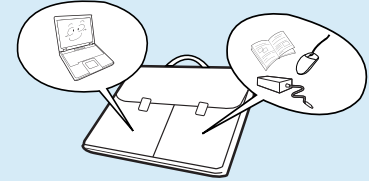
### Custody and Movement Related



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



**Avoid exposing a drive to magnetic fields. Security devices with magnetic fields include airport walk-through devices and security wands. The airport security devices that check carry-on luggage, such as conveyor belts, use x-rays instead of magnetism and will not damage a drive.**



**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

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**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.

## Caution

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

---

### **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 result in electric shock.

### **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.

## **Caution**

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

**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.

## Caution

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

### **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 not to throw or drop a computer part or device.**

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.

## Caution

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

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### **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.

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## **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.

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

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

### **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.

## **Caution**

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

### **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 so 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.

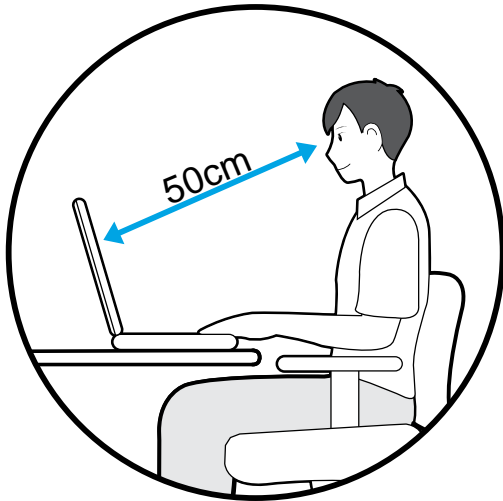
- Do not use the computer while you are lying down, but only while you are sitting down.
- Do not use the computer on your lap. If the computer temperature increases, there is a danger of burning yourself.
- Work while keeping your back straight.
- Use a chair with a comfortable back.

- 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

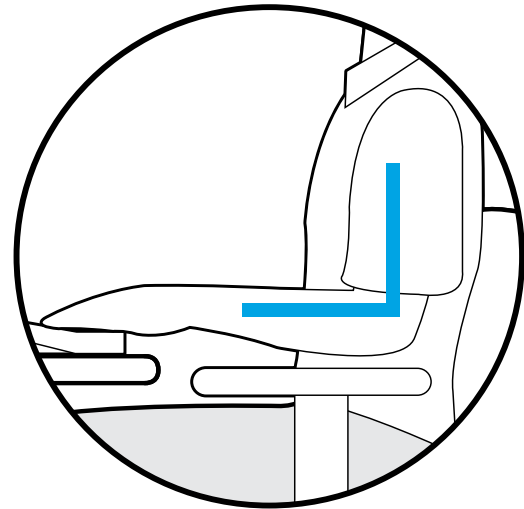
Keep the monitor or LCD away from your eyes by at least 50cm.



- 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.

## 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 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:**

- 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. (USA ONLY)
- The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C7 (or C5) connector, for mating with appliance inlet on the computer.

## Wireless Guidance

(If fitted with 2.4G band or 5G band)

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 using them 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.

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.



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 which will not occur in a correct 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.

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**

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(If fitted with 2.4G band or 5G band)

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.

## **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.

### 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

(If fitted with 2.4G band or 5G band)  
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.

### Brazil


Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

## 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:

- EMC Directive 2004/108/EC
- Low Voltage Directive 2006/95/EC
- R&TTE Directive 1999/5/EC

### Manufacturer Information

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#### **Samsung Electronics Co., Ltd.**

416, Maetan-3Dong, Yeongtong-Gu, Suwon-City, Gyeonggi-Do, 443-742, Korea

#### **Samsung Electronics Suzhou Computer Co., Ltd.**

No. 198, Fangzhou Road, Suzhou Industrial Park, Jiangsu Province, 215021, China

Tel:+86-512-6253-8988

For the web or the phone number of Samsung Service Centre, see the Warranty or contact the retailer where you purchased your product.

## 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 (€ 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 you 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.

## EU R&TTE Compliance Statements

 <b>Česky</b> [Czech]	Samsung tímto prohlašuje, že tento Notebook PC je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
 <b>Dansk</b> [Danish]	Undertegnede Samsung erklærer herved, at følgende udstyr Notebook PC overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
 <b>Deutsch</b> [German]	Hiermit erklärt Samsung, dass sich das Gerät Notebook PC in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
 <b>Eesti</b> [Estonian]	Käesolevaga kinnitab Samsung seadme Notebook PC vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
 <b>English</b>	Hereby, Samsung, declares that this Notebook PC is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
 <b>Español</b> [Spanish]	Por medio de la presente Samsung declara que el Notebook PC cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
 <b>Ελληνική</b> [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Samsung ΔΗΛΩΝΕΙ ΟΤΙ Notebook PC ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
 <b>Français</b> [French]	Par la présente Samsung déclare que l'appareil Notebook PC est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
 <b>Italiano</b> [Italian]	Con la presente Samsung dichiara che questo Notebook PC è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
 <b>Latviski</b> [Latvian]	Ar šo Samsung deklarē, ka Notebook PC atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
 <b>Lietuvių</b> [Lithuanian]	Šiuo Samsung deklaruoja, kad šis Notebook PC atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

 <b>Nederlands [Dutch]</b>	Hierbij verklaart Samsung dat het toestel Notebook PC in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
 <b>Malti [Maltese]</b>	Hawnhekk, Samsung, jiddikjara li dan Notebook PC jikkonforma mal- fhtiājiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid- Dirrettiva 1999/5/EC.
 <b>Magyar [Hungarian]</b>	Alulírott, Samsung nyilatkozom, hogy a Notebook PC megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
 <b>Polski [Polish]</b>	Niniejszym Samsung oświadcza, że Notebook PC jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
 <b>Português [Portuguese]</b>	Samsung declara que este Notebook PC está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
 <b>Slovensko [Slovenian]</b>	Samsung izjavlja, da je ta Notebook PC v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
 <b>Slovensky [Slovak]</b>	Samsung týmto vyhlasuje, že Notebook PC spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
 <b>Suomi [Finnish]</b>	Samsung vakuuttaa täten että Notebook PC tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
 <b>Svenska [Swedish]</b>	Härmed intygar Samsung att denna Notebook PC står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
<b>Íslenska [Icelandic]</b>	Hér með lýsir Samsung yfir því að Notebook PC er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.
 <b>Norsk [Norwegian]</b>	Samsung erklærer herved at utstyret Notebook PC er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.
<b>Türkiye [Türkçe]</b>	Bu belge ile, Samsung bu Notebook PC'nin 1999/5/EC Yönetmeliğinin temel gerekliliklerine ve ilgili hükümlerine uygun olduğunu beyan eder.

To view the EU Declaration of Conformity for this product (in English only), go to: <http://www.samsung.com/uk/support/download/supportDownMain.do> then search the model number of the product. If the Declaration of Conformity for the model you are interested in is not available on our web-site, please contact your distributor.

## 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  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.



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.

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.



## 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.



## Correct disposal of batteries in this product

**Pb**

**(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.

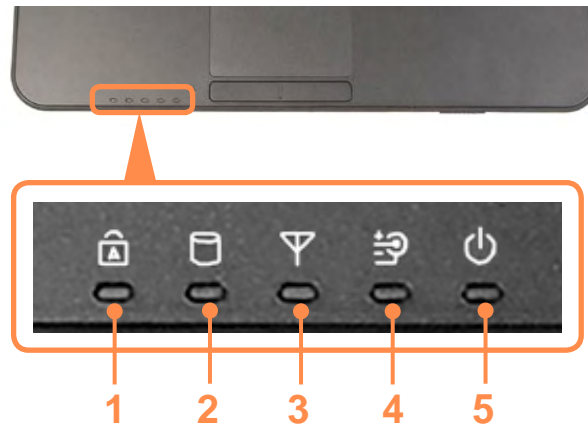
## Front View



- 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 Keyboard</b>	A device to enter data by pressing the keys.
<b>3 Touchpad/Touchpad Buttons</b>	The touchpad and touchpad buttons provide functions similar to the mouse ball and buttons.
<b>4 Power Switch </b>	Turns the computer on or off.
<b>5 Multi Card Slot  (Optional)</b>	A card slot that supports SD Card, SDHC and MMC.
<b>6 Status Indicators</b>	Shows the operating status of the computer. The corresponding operating LED is lit when the corresponding function operates.
<b>7 Microphone  (Optional)</b>	You can use the built-in microphone.
<b>8 LCD</b>	The screen images are displayed here.





## Status Indicators



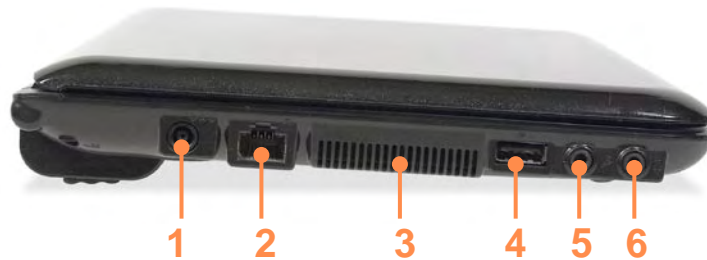
<b>1 Caps Lock</b>	This turns on when the Caps Lock key is pressed allowing capital letters to be typed without holding the Shift button down.
<b>2 Hard Disk Drive</b>	Indicates that the hard disk drive is running.
<b>3 Wireless LAN</b>	This turns on when the wireless LAN is operating.
<b>4 Charge Status</b>	This shows the power source and the battery charge status. <b>Green:</b> When the battery is fully charged or the battery is not installed. <b>Amber:</b> When the battery is being charged. <b>Off:</b> When the computer is running on battery power without being connected to AC adapter.
<b>5 Power</b>	This shows the computer operating status. <b>On:</b> When the computer is operating. <b>Blinks:</b> When the computer is in Sleep mode.







## Right View



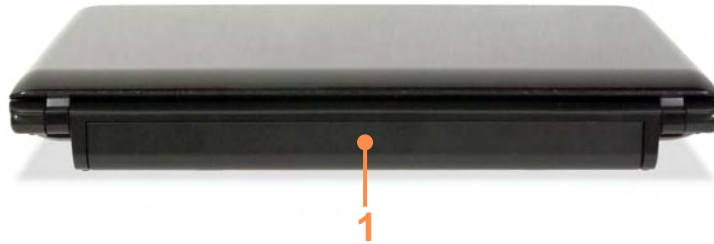
<b>1</b>	<b>Wireless LAN Switch</b>  (Optional)	In models with a wireless LAN function, first make sure that the wireless LAN function is turned off.
<b>2</b>	<b>USB Port</b> 	You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.
<b>3</b>	<b>Monitor Port</b> 	A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface.
<b>4</b>	<b>Security Lock Port</b> 	You can connect a Kensington lock to the Security Lock Port to prevent the computer from being stolen.

## Left View



- |   |  |
|---|--|
| <b>1 DC Jack</b>   | A jack to connect the AC adapter that supplies power to the computer.  |
| <b>2 Wired LAN Port</b>    | Connect the Ethernet cable to this port.   |
| <b>3 Fan Vents</b>  | The internal heat of the computer is emitted through these holes.  |
| <b>!</b> If the vents are blocked the computer may overheat. Avoid blocking the vents as this may be dangerous.   |  |
| <b>4 USB Port</b>  / <b>Chargeable USB Port</b>  (Optional)   | You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc. (Chargeable USB: You can charge USB devices through the USB port even when the computer is turned off.) |
| <b>✎</b> <ul style="list-style-type: none"><li>● Charging a device through a Chargeable USB takes longer than using a regular charger.</li><li>● Press the <b>F2</b> key when the Samsung logo appears in the booting sequence to enter the BIOS Setup, select <b>Advanced &gt; USB Charge In Sleep Mode</b>, and set it to <b>Enable</b>. Then you can use the Chargeable USB Port feature even in sleep mode.</li></ul> |  |
| <b>5 Microphone Jack</b>   | A jack used to connect the microphone.   |
| <b>6 Headphone Jack</b>    | A jack used to connect the headphones.   |

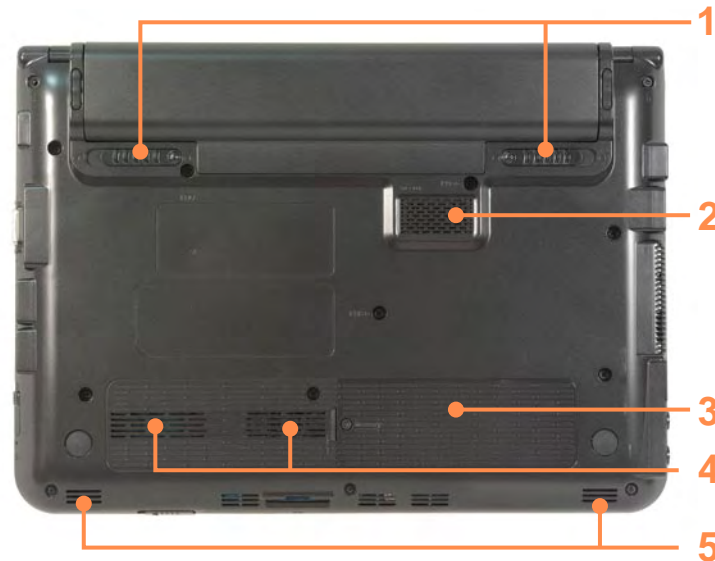
## Back View




### 1 Battery

This is a Lithium-Ion rechargeable battery that supplies power to the computer.

## Bottom View




<b>1 Battery Latches</b>	The latch used to remove or install the battery.
<b>2 Sub-Woofer Speaker (Optional)</b>	A device used to produce mid and low frequency sound louder.
<b>3 Memory Compartment Cover</b>	The main memory is installed inside the cover.
<b>4 Fan Vents</b>	The internal heat of the computer is emitted through these holes.
 If the vents are blocked the computer may overheat. Avoid blocking the vents as this may be dangerous.	
<b>5 Speaker</b>	A device used to generate sound.

# Turning the Computer On and Off


## Turning the computer on

- 1 Install the **battery** and connect the **AC adapter**.
- 2 Lift the LCD panel up.
- 3 Slide the **Power Switch** to turn the computer on.


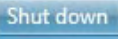


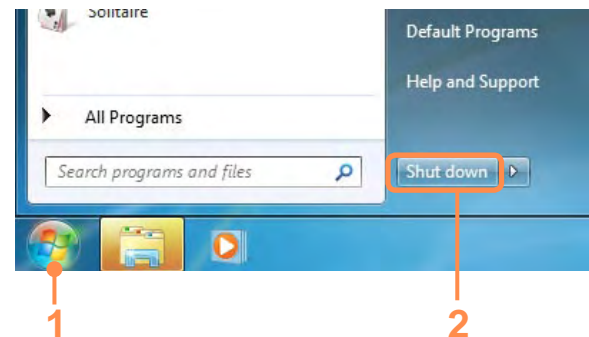
- When running the computer on battery power, the LCD brightness is dimmed automatically to save battery power. Press the **Fn +**  key to increase the LCD brightness.
- When turning the computer on for the first time, the Register Windows screen appears. You can use the computer after registering your user information.


## Turning the computer off

 Since the procedures to turn the computer off may differ depending on the installed operating system, please turn the computer off according to the procedures for the purchased operating system.

### ► For Windows 7

- 1 Click the **Start**  button on the taskbar.
- 2 Click **Shut down**  to shut down the computer.




 Save all your data before clicking on **Shut down**.



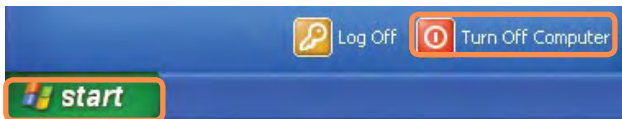
### If the model supports HyperSpace (Optional)

If you shutdown Windows when HyperSpace is running, HyperSpace is also terminated automatically when Windows is shutdown.

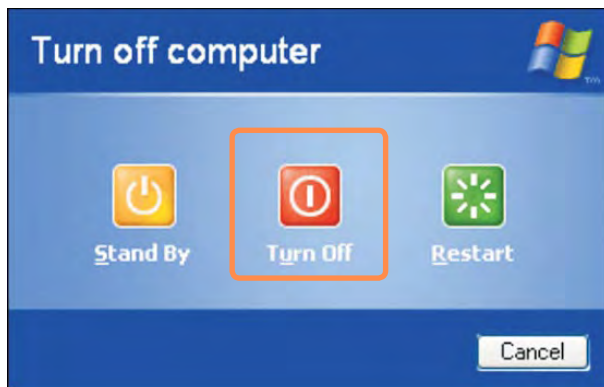
## ► For Windows XP

1 Click the **Start**  button on the taskbar.

2 Click **Turn Off Computer**.



3 Click **Turn Off**.



- If the computer has not turned off properly due to a system error, press **<Ctrl>+<Alt>+<Delete>**. When [Windows Task Manager] dialog box appears, click **Shut Down > Turn Off** to turn off the computer. Your unsaved work may be lost/damaged.
- If **<Ctrl>+<Alt>+<Delete>** keys do not operate either, press the power button for more than 4 seconds to turn off the computer. Your unsaved work may be lost/damaged. The next time you turn on your computer, a hard disk check will be performed, before Windows starts.

## Chapter 2.

# Using the computer

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# Keyboard

Shortcut key functions and procedures are discussed in the following sections.







- The keyboard is supplied according to the corresponding country.
- The keyboard may differ depending on your country. The following mainly describes the shortcut keys.



## Shortcut Keys

You can use the following functions by pressing the keys below with the **Fn** key.





<b>Fn+</b>	<b>Name</b>	<b>Function</b>
	<b>REST (Sleep Mode)</b>	Switches to Sleep mode. To wake the computer up, press the Power button.
	<b>Gauge</b>	Shows the remaining battery charge. You can only use this function when the Easy Display Manager program is installed.
	<b>Euro</b>	Enters the Euro monetary unit symbol. This key may not be provided depending on the keyboard type.
	<b>CRT/LCD</b>	Switches the screen output to the LCD or external monitor when an external monitor (or TV) is connected to the computer.
	<b>Backlight</b>	Turns the LCD backlight on or off.
	<b>Mute</b>	Mutes or cancels mute.

Fn+	Name	Function
	<b>Samsung Support Center</b>	<p>System diagnosis, recovery and Internet consultation program, Samsung Support Center, will be launched. (Optional)</p> <p> For some models, <b>Samsung Magic Doctor</b> is launched.</p>
	<b>Easy SpeedUp Manager</b>	<p>You can select operation mode when you need maximum system performance or low-noise/low power consumption with one-click.</p> <ul style="list-style-type: none"> <li>● <b>Silent:</b> Low-noise and low power consumption mode</li> <li>● <b>Normal:</b> Normal Mode</li> <li>● <b>Speed:</b> Maximum performance mode. The system operates in its maximum performance, and system resources are allocated to the currently active program with priority for maximum performance.</li> </ul> <p> ● For Windows XP model, Easy SpeedUp Manager function is provided in Magic Keyboard program. If you reinstall Windows XP, you have to install the Magic Keyboard program additionally using the System Software Media in order to use this function. (For models supplied with a System Software Media.)</p> <ul style="list-style-type: none"> <li>● If you don't want fan noise turning ON and OFF in the Silent mode, select the <b>Advanced</b> menu &gt; <b>Fan Silent Mode</b> &gt; <b>Low</b> in the BIOS Setup. The fan keeps turning ON and works in Low noise mode.</li> </ul>
	<b>Wireless LAN</b>	<p>Turns the wireless LAN function on or off in models with wireless LAN capability.</p>
	<b>Touchpad</b>	<p>Turns the Touchpad function on or off.</p> <p>When using an external mouse only, you can turn the Touchpad off.</p>



Fn+	Name	Function
	<b>Num Lock</b>	Turns the numeric keyboard on or off.
	<b>Scroll Lock</b>	If you turn the Scroll Lock on, you can scroll the screen up or down without changing the cursor location in some applications.


## Screen Brightness Control

To adjust the LCD brightness press the **Fn** +  key combination or the **Fn** +  key combination.

The changed screen brightness is displayed at the center of the screen for a moment.


## Volume Control

To control the volume, press the **Fn** +  key combination or the **Fn** +  key combination.

You can mute the sound or cancel the mute function by clicking the **Fn** +  key combination.

## Numeric Key

The numbers are printed in blue on the numeric keys.

If Num Lock is turned on by pressing the **Fn** +  key combination, you can use the numeric keys to enter digits.

## Other Function Keys

**Application Key** 

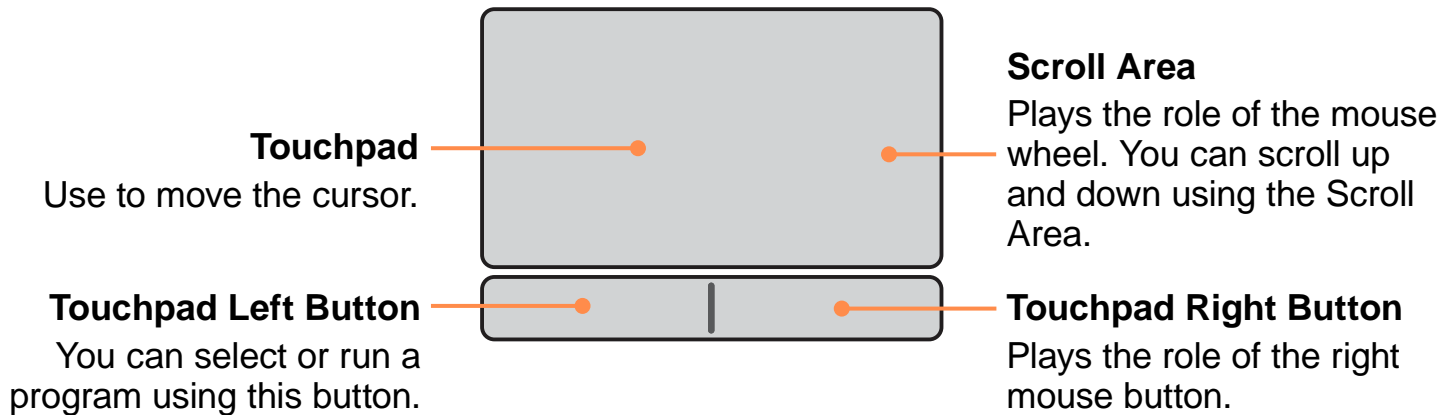
Performs the right-click mouse function (touchpad).

# Touchpad

The touchpad provides the same function as a mouse and the left and right buttons of the touchpad plays the role of the left and right buttons of a mouse.



- Use the Touchpad with your fingers. Using a sharp object may damage the Touchpad.
- If you touch the Touchpad or press the Touchpad buttons while booting up, the Windows boot time may be extended.

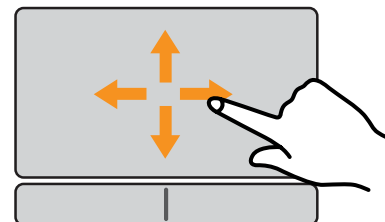


## Basic Touchpad Functions

### Moving the cursor on the screen

Place your finger on the touchpad slightly and move your finger.

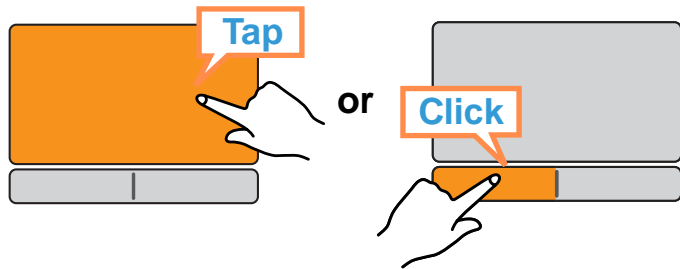
The mouse cursor will move accordingly. Move your finger in the direction you wish to move the cursor.



## Click Function

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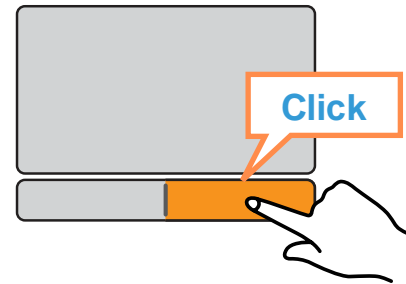
Place your finger on the touchpad and tap your finger once over an item you want. Alternatively, press the left touchpad button once.



## Right Button Function

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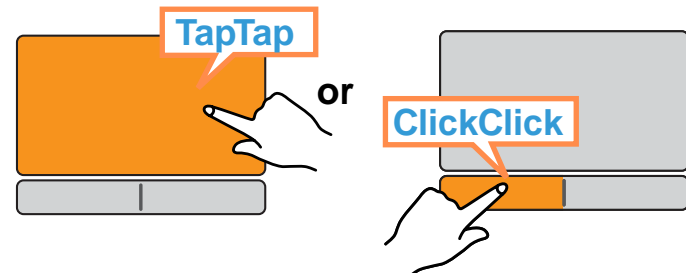
This corresponds to clicking the right mouse button. Press the right touchpad button once. The corresponding pop-up menu appears.



## Double-Click Function

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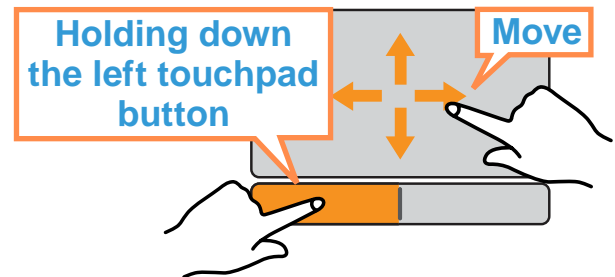
Put your finger on the touchpad and quickly tap twice with your finger on an item you want. Alternatively, press the left touchpad button twice quickly.



## Drag Function

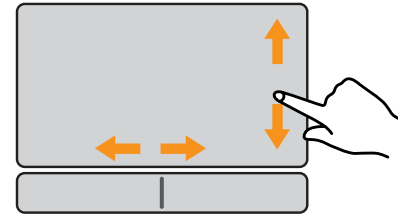
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Dragging refers to moving an item to another place after selecting it. Press and hold down the left touchpad button over an item you want to drag and move the item to the new location.



## Touchpad Scroll Function

The touchpad scroll area provides the mouse wheel function (scroll function). Place your finger on the touchpad's right edge for vertical scrolling or the bottom edge for horizontal scrolling and then move your finger along the edge to scroll the screen vertically or horizontally.



## The Gesture Function of the Touchpad (Optional)



- The Touchpad Gesture function may not be provided and the version of the function may differ depending on the model. Some usage procedures may differ depending on the version.
- For detailed usage procedures, refer to the description in the Touchpad Settings window. In addition, if you click the **Show Video** button of each item, you can refer to the video descriptions.
- The images in this document may differ from the actual screen images and a different Touchpad may be provided depending on the model. In addition, since the pictures used in this document are pictures of a representative model, they may differ from the actual appearance of your computer.
- These descriptions are written based on Windows 7, the latest operating system. Therefore, some descriptions and figures may differ from your operating system. But as the usage is similar to other Windows operating systems, you can use these descriptions for reference.
- The path may differ depending on the operating system.

Using the Touchpad, you can use the following additional Gesture functions.

- Scroll function using two fingers
- Zoom functions using two fingers
- Rotation function using two fingers.
- Move function using three fingers

## Configuring the Gesture Function

If the Gesture function is not activated, you can activate it according to the following procedures.

- 1** Click the **Start > Control Panel > Hardware and Sound > Mouse > Device Settings** tab > **Settings** button.
- 2** The Touchpad Settings window appears. Click over the corresponding item to select the item in the **Select an item** and click **OK**.

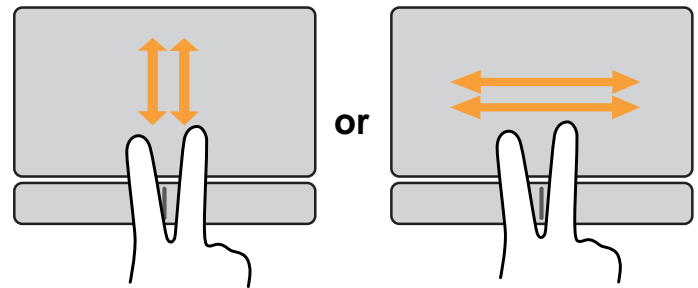


To cancel the Gesture function, unselect the corresponding item in the Touchpad Settings window and click **OK**.

## The Scroll Function

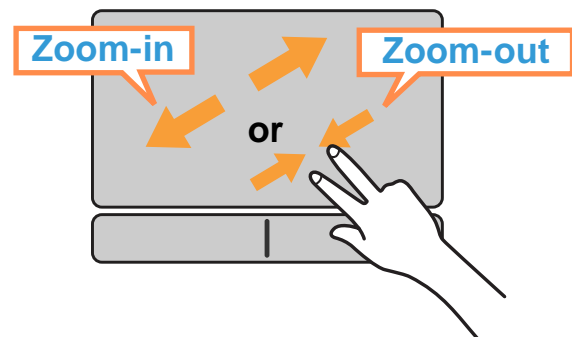
This function is the same as the scroll area of the Touchpad.

If you place two fingers over the Touchpad and move them up, down, left or right, the screen is scrolled up, down, left or right.




## Zoom Functions

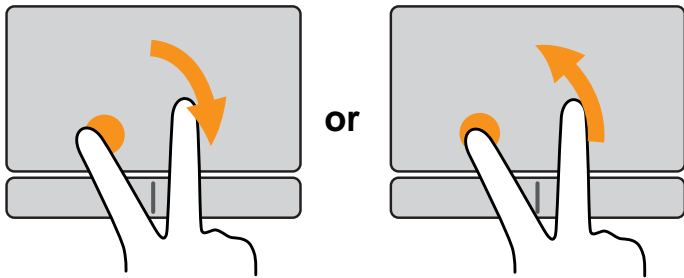
If you place two fingers over the Touchpad together or apart, the current image or text is zoomed in or out.



## Rotation Function

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If you place two fingers over the Touchpad, and keep one finger in place and turn the other finger in the left or right direction, the mouse pointer changes into the  icon and the current photo or image is rotated.



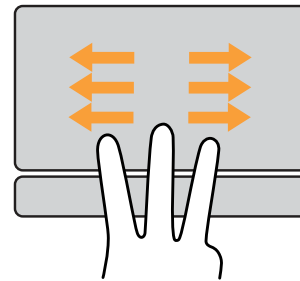
## Move Function

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When watching a photo or surfing the Internet, you can move to the previous or next photo or Internet page without using the mouse or buttons.


Place three fingers over the Touchpad and slightly touch the surface of the Touchpad with them in the left or right direction to move to the previous or next photo or Internet page.

For example, if you touch the Touchpad in the left direction using three fingers while looking at a website, the previous page is displayed.



## Touchpad On/Off Function

If you want to use the mouse only without using the touchpad, you can turn the touchpad off.

To lock the touchpad function, press the **Fn** +  keys.



You can set the touchpad and touchpad button settings in the tabs that appear when clicking **Start > Control Panel > Hardware and Sound > Mouse**.

## External-type CD drive (To be purchased)

This computer supports an external USB CD-ROM drive (can be additionally purchased).

Check if the interface type of the external CD-ROM drive is a USB type. For detailed specifications, refer to the catalog.



- Do not insert a cracked or scratched CD. Otherwise, the CD may break and damage the optical disk drive when the CD rotates at a high speed.
- When you clean a CD or DVD title, wipe with a soft cloth from inside to outside.
- Do not eject a CD when the CD operating LED is on.
- The images used for the illustration are of a representative model, therefore the images may differ from the the actual product.
- Using a CD that is not in the shape of a circle is not recommended.

## Connecting the CD Drive

Connect the CD drive to the **USB port**.



## Inserting and Ejecting a CD

- 1 Press the **Eject** button of the CD drive.



**Status Indicator** | **Eject Button** | **Emergency Hole**

- 2 When the CD tray opens, insert a CD or DVD and push the tray in until it clicks.
- 3 Push the CD tray inward until it clicks. The CD drive status indicator is turned on.



- A CD drive's reading and writing speed may differ depending on the condition and type of the media.
- To eject a CD when the CD drive does not work or the computer is off, place the end of a paper clip (—) into the Emergency Hole until the CD tray is ejected.

## Multi Card Slot (Optional)

Using the multi card slot, you can read and write data from and to an SD card, SDHC card, MMC.

You can use a card as a removable disk and conveniently exchange data with digital devices such as a digital camera, digital camcorder, MP3, etc.



- You have to additionally purchase a multi card with the necessary capacity depending on your requirements.
- You can use a multi card just like any data storage device. A copyright protection function is not supported.
- Since you can lose a card when moving the computer, keep the card separately.
- Before use, remove the dummy card that was inserted to protect the slot.
- Supported Cards: SD Card, SDHC Card, MMC
- The images used for the illustration are of a representative model, therefore the images may differ from the the actual product.
- These descriptions are written based on Windows 7, the latest operating system. Therefore, some descriptions and figures may differ from your operating system. But as the usage is similar to other Windows operating systems, you can use these descriptions for reference.

## To Insert and Use a Memory Card

- 1 Insert a card into the slot according to the directions printed on the slot.

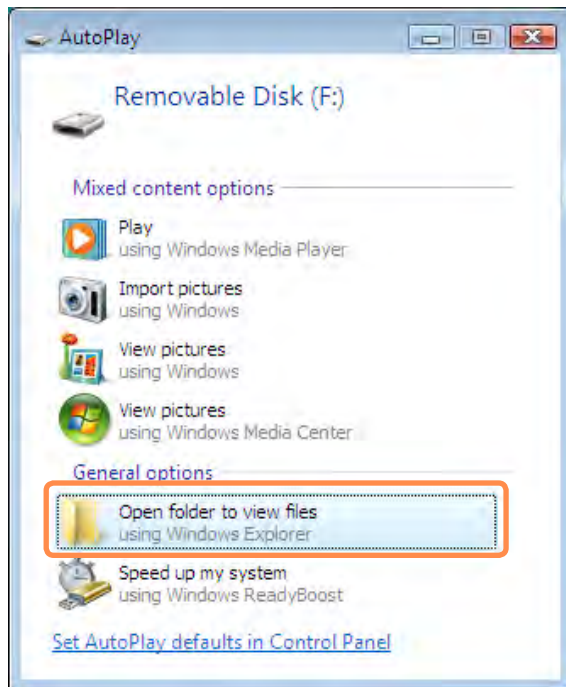


Example) SD Card

**2** The card drive appears. Click **Open folder and view files**.

If the window does not appear, click **Start > Computer**.

(For Windows XP, click **Start > My Computer**.)



**3** You can save, move and delete data by double-clicking the corresponding drive.



The device name of the card drive may differ depending on your computer model.

You can only use the card after formatting it.



**Using a Mini SD and RS-MMC**

Since the above cards are too small, you cannot insert the cards into the slot directly.

Insert the card into the dedicated adapter (available from most electronic retailers) and then insert the adapter into the multi card slot.

However, depending on the adapter's body material, some RS-MMC cards may not be recognized properly. Samsung recommends checking the card is recognized correctly prior to purchasing.

## To remove a memory card

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Take hold of the end of the card and remove the card.

## To format a memory card

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When using the memory card for the first time, you must format the card before using it.



Formatting a card deletes all data saved on the card. If the card includes data, backup the data before formatting it.



- To use a card to exchange data with a digital device such as a digital camera, formatting the data using the digital device is recommended.
- When you try to use a card, which is formatted in the computer, in another digital device, you may have to format the card again in the device.
- You cannot format, write or delete data from a SD, or SDHC card with a write protection tab when it is in the Lock position.
- Inserting and removing a memory card repeatedly may damage the memory card.

**1** Click **Start > Computer**.  
(For Windows XP, click **Start > My Computer**.)

**2** Right-click over a card drive with the touchpad and select **Format**.

**3** Click **Start** to the formatting.

## Connecting a monitor / TV

Using an external display device is useful when you are giving a presentation or watching a video or movie through your monitor.

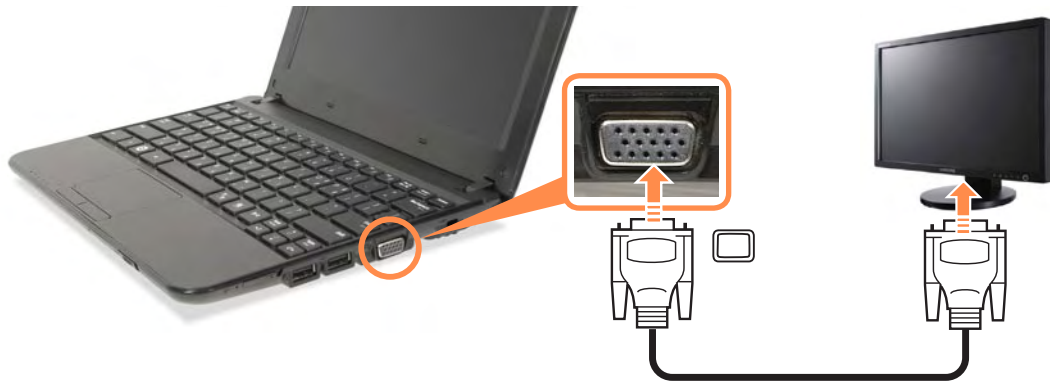


- You have to buy a connection cable additionally.
- Due to restrictions of the operating system the DualView function is not supported for Windows 7 Starter.

## Connecting to the Monitor / TV

### Connecting to the Monitor port


Connect the computer to the RGB port of the monitor or TV using a monitor cable (15-pin).




## Viewing Through a Monitor / TV

You can switch the display device using the shortcut key.

### Switching the Display Device using the Shortcut Key

Press the **Fn** +  key combination once. Then the **Easy Display Manager** screen appears in which you can select a display device.

Whenever you press the  key while holding down the **Fn** key, the selected option is changed.



**Example) Selecting LCD+CRT Dual View**



- **LCD:** Notebook Screen
- **CRT:** External Monitor Screen
- **LCD+CRT Clone :** Notebook+ External Monitor Screen
- **LCD+CRT DualView:** Notebook+ External Monitor Screen in Dual View
- **What is Dual View?**  
Dual View is a function that enables you to view a computer screen over two display devices. It is convenient when you need a wide screen.
- Due to restrictions of the operating system the DualView function is not supported for Windows 7 Starter.



External Monitor / TV is not supported in the DOS Command Prompt window.

## Using Dual View to View Extended Screen

Dual View is a function that enables you to view a computer screen over two display devices. This is convenient when needing a wide screen for work.

In Dual View mode, you can select the screen resolution and color quality for each display device, as if there were two separate graphics cards.



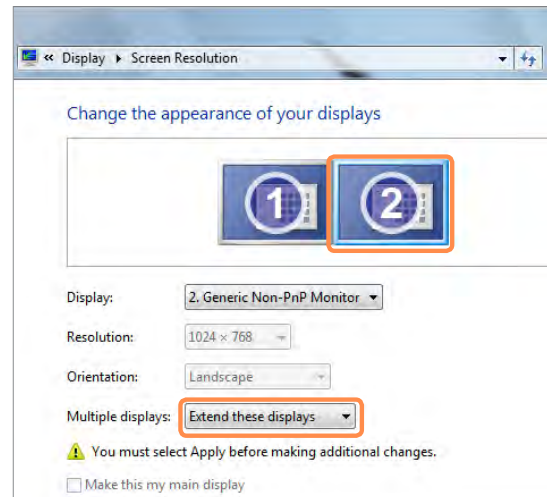
Due to restrictions of the operating system the DualView function is not supported for Windows 7 Starter.

### Selecting Dual View

Check if the external display device is properly connected and follow the instructions below.

#### ► For Windows 7

- 1 Click the **Start > Control Panel > Appearance and Personalization > Adjust screen resolution**.
- 2 Click the monitor number 2 icon and select **Extend these displays** in the **Multiple displays** item. Click the **Apply** button and then the **OK** button.



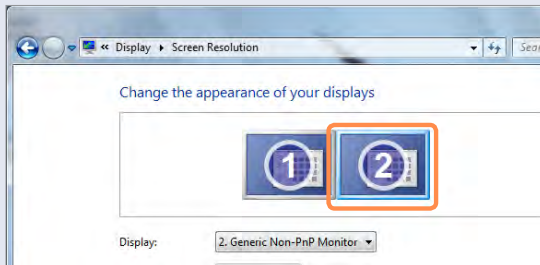
- 3 When notebook LCD is set as the main device, the 1 digit is displayed over it and the 2 digit is displayed over the auxiliary display device. Now you can expand the Desktop screen over 2 display devices.

When using Dual View, it is recommended setting the LCD as the main device (number 1).



## Adjusting the resolution of the auxiliary display device (Monitor Number 2)

If the resolution of the auxiliary display device is output, you can adjust the resolution and color quality by clicking **Start > Control Panel > Appearance and Personalization > Adjust screen resolution > Monitor Number 2**.



### ► For Windows XP

- 1 Connect the external display device (e.g. a monitor or a projector) to the corresponding port of the system. To connect a TV, connect the TV to the TV output port of the system.
- 2 Press touchpad right button on the desktop, click **Properties**, and then click the **Settings** tab.
- 3 Click the monitor **2** icon, select the **Extend my Windows desktop onto this monitor** check box, and then click **Apply**.



- 4 When the configuration is complete, click **Identify** on the left side of Troubleshoot. The primary display device (the LCD) is indicated as **1**, and the secondary display device is indicated as **2**. Now you can view the screen through two monitors.

When you use Dual View, configuring the LCD as the 'Primary' monitor is recommended.



1 : Primary



2 : Secondary

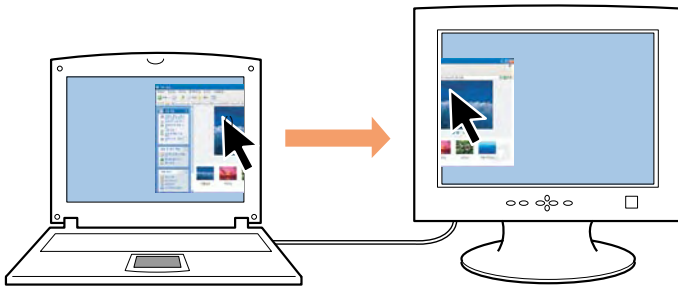


## Adjusting the resolution of the auxiliary display device (Monitor Number 2)

If the screen of the secondary display device is displayed, change the settings to the desired screen resolution and color quality in the [Display Properties] dialog box.

## Using Window in Dual View

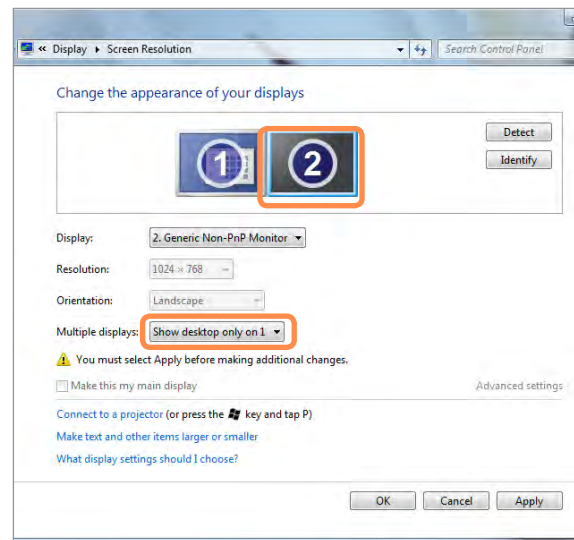
Click on the window title bar of the main LCD (monitor number 1) and drag it into the auxiliary display device (monitor number 2) to move the window.



## Canceling Dual View

### ► For Windows 7

- 1 Click the **Start > Control Panel > Appearance and Personalization > Adjust screen resolution**.
- 2 Click the monitor number 2 icon and select **Show Desktop on 1 only** in the **Multiple displays** item. Click the **Apply** button and then the **OK** button.




### ► For Windows XP



Click the monitor 2 icon, clear the **Extend my Windows desktop onto this monitor** check box, and then click **Apply**.


# Adjusting the Volume

You can adjust the volume using the keyboard and the volume control program.


 Since these descriptions are written on the basis of the latest operating system, Windows 7, some of the content and the figures of the descriptions may differ depending on the operating system. Since the procedures for other Windows operating systems are similar, use the computer referring to these descriptions.

## Adjusting the Volume using the Keyboard

Press the **Fn** +  key combination or **Fn** +  key combination to adjust the volume.

Press the **Fn** +  key combination to turn the volume on or off.

## Adjusting the Volume using the Volume Adjustment Program

Click the **Volume** icon  on the taskbar and slide the volume control bar to adjust the volume.




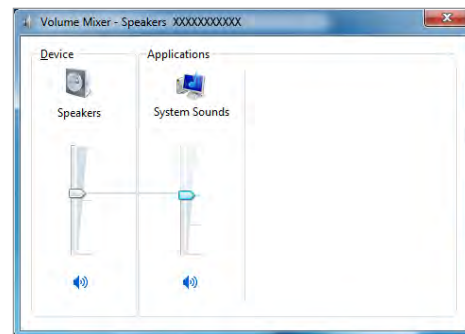
Windows 7




Windows XP

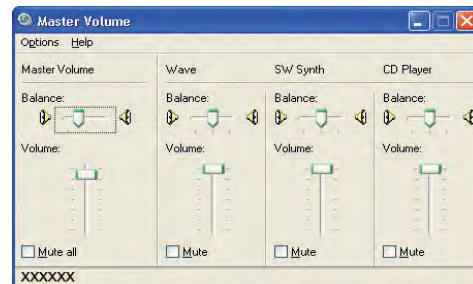
## ► For Windows 7

Right-click over the **Volume** icon  and select **Open Volume Mixer** to adjust the volume.



## ► For Windows XP

Double-click the **Volume** icon , and adjust the volume level in the volume control program.







- The SRS function is only supported for a computer's built-in speakers or headphones.
- It is recommended to unchecking the SRS option before recording, and to check it before play. It is to prevent sound distortion because of double application of SRS effect when user plays the file recorded by using stereo mix.

## ► For Windows XP

**1** Click **Control Panel > Sound, Voice and Audio Device > Sound and Audio Devices**.

**2** Click the audio tab, select **SRS Premium Sound** in **Play > Default Device (D)**;, and then click the **OK** button at the bottom.

In this case, although you can change the volume in the SRS Mixer, you can also change the volume in the Master Volume of the **Realtek HD Audio Output Mixer**.

Therefore, when SRS is selected, you can set the Master Volume of the **Realtek HD Audio Output Mixer** to the maximum value and then set the actual volume using the SRS Mixer.

This operation may not be required depending on the type of SRS driver.

**3** Click on **Control Panel > Sound, Voice and Audio Device > SRS Control Panel**.

Check the **Enable** checkbox and select a mode. Then you can listen to sound through the selected **SRS** effect.



- **WOW XT (Music)**: Select to listen to music.
- **TruSurround XT (Movie/Video)**: Select to watch a movie.




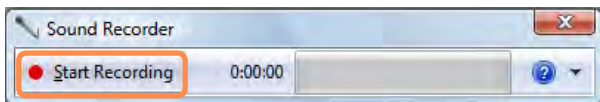
- The SRS function is only supported for a computer's built-in speakers or headphones.
- It is recommended unchecking the SRS option before recording, and checking it before playing sound. This is to prevent sound distortion due to the double application of the SRS effect when a user plays the recorded file by using stereo mix.

## Using Recorders

This section describes how to perform recording on a computer by using Windows Recorder.

### ► For Windows 7

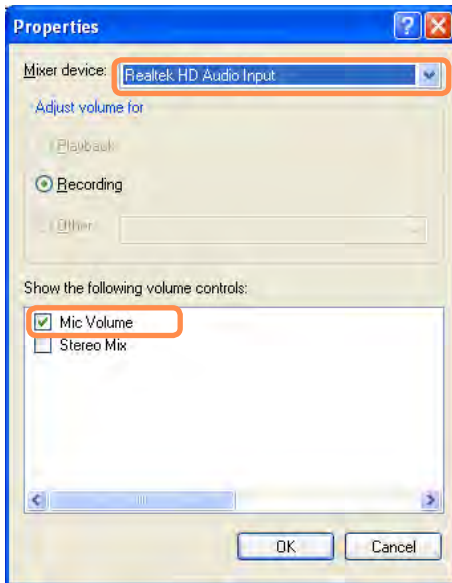
- 1** Connect a microphone to the microphone jack.  
You can also use the internal MIC.
- 2** Right-click over the **Volume** icon  on the taskbar and select **Recording Device**.
- 3** Check if the microphone is set as the default recording device.  
If this is the case, it is already set as the default device. If not, right-click over the microphone and select **Set default**.
- 4** Click **Start > All Programs > Accessories > Sound Recorder** and click **Start recording** to start a recording.



### ► For Windows XP

- 1** Connect a microphone to the microphone jack.  
You can also use the internal MIC.
- 2** Click **Start > Control Panel > Sounds, Speech, and Audio Devices > Sounds and Audio Devices**.
- 3** Click **Advanced** from Volume and then, click **Options > Properties**.

- 4 Select **Realtek HD Audio input** from the mixer device to select **Recording** from **Adjust Volume** for.



- 5 Select **Mic Volume** from **Show the following volume controls** and click **OK**.

- 6 When **Recording Control** window appears, check the **Select** checkbox. Increase the **recording** volume to increase the recording sensitivity and close the window.

- 7 Click **Start > All Programs > Accessories > Entertainment > Sound Recorder**.


- 8 Click the **Record** button to perform recording.



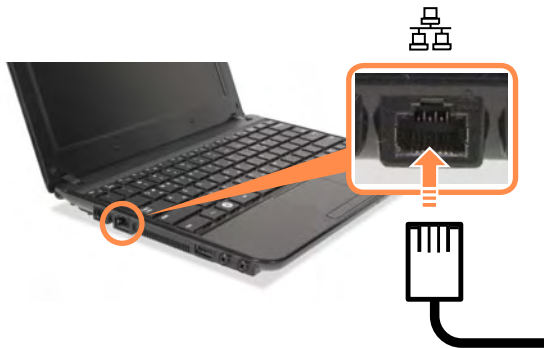
The default recording duration of Windows is 60 seconds. Download a dedicated recording program from the Internet to record audio data for a long time.

# Wired Network

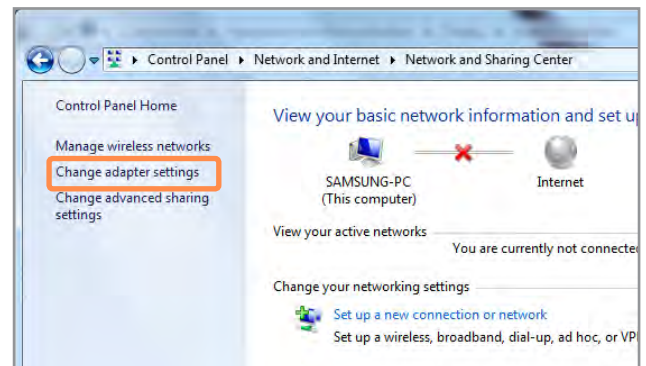
A wired network is a network environment used for a company network or broadband internet connection at home.

 Since these descriptions are written on the basis of the latest operating system, Windows 7, some of the content and the figures of the descriptions may differ depending on the operating system. Since the procedures for other Windows operating systems are similar, use the computer referring to these descriptions.

- 1 Connect a LAN cable to the computer's LAN port.

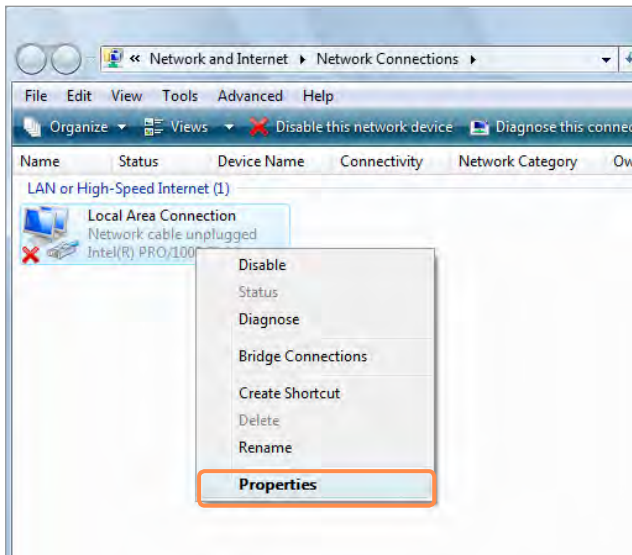


- 2 ▶ **For Windows 7**  
Click **Start > control Panel > Network and Internet > Network and Sharing Center** and click **Change adapter settings** in the left menu pane.



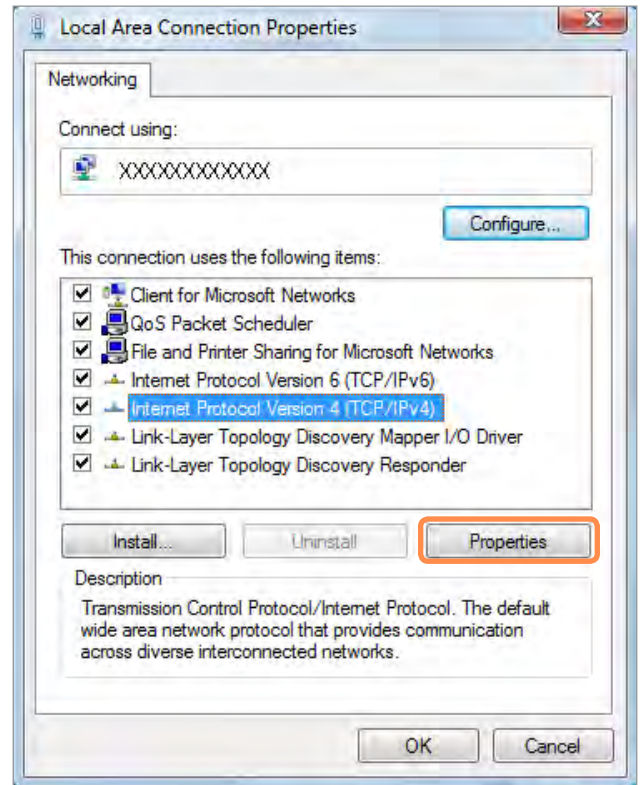
- ▶ **For Windows XP**  
Click **Start > Control Panel > Network and Internet Connections > Network Connection**.

**3** Select **Local Area Connection** and click the right button of the touch pad and select **Properties**.



The LAN Device name may differ depending on your computer's Network Device.

**4** ▶ **For Windows 7**  
Select **Internet Protocol Version 4 (TCP/IPv4)** from the **Networking** tab and click **Properties**.



▶ **For Windows XP**

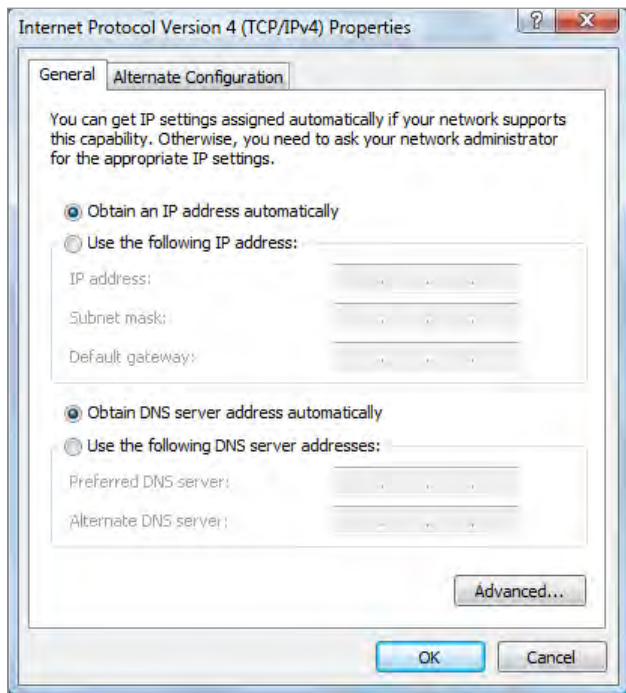
Click **General** tab and select a LAN driver from **Connect using:**. Select **Internet Protocol(TCP/IP)** and click **Properties**.



- The displayed LAN driver may vary depending on the LAN device type.
- Click **Install** to add a network component as shown in the figure below: You can add a client, a service, or a protocol.

## 5 Configure IP settings.

Select **Obtain an IP address automatically** when using DHCP. If you use a static IP, select **Use the following IP address** and enter the values.



## Using both DHCP and a fixed IP simultaneously

Using the **Alternate Configuration** provided by Windows, you can set both automatic and fixed IP addresses and then you can select to use either of them to connect to the Internet.

### 1 ► For Windows 7

Click **Start > Control Panel > Network and Internet > Network and Sharing Center** and click on **Change adapter settings** in the left menu pane.

### ► For Windows XP

Click **Start > Control Panel > Network and Internet Connections > Network Connection > Local Area Connection** by using the right button of the touch pad and click **Properties**.



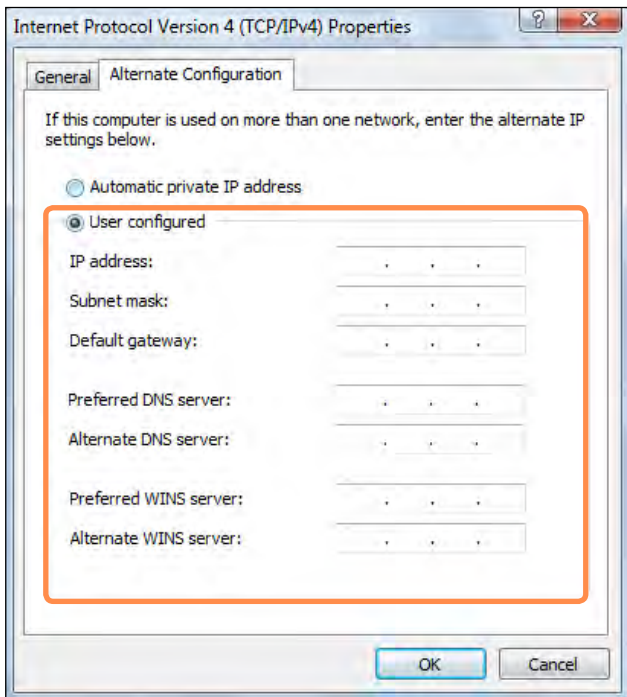
If the IP of your computer is not automatically assigned, contact the network administrator.

## 6 If all settings are made, click **OK**. Now the network configuration is finished.

- 3** For Windows 7, select **Internet Protocol Version 4 (TCP/IPv4)** from the **Networking** tab and select **Properties**.

For Windows XP, select **Internet Protocol (TCP/IP)** and click **Properties**.



- 4** Select the **Alternate Configuration** tab, select **User configured**, fill in the corresponding fields and click the **OK** button.



## Wireless Network (Optional)

A wireless network allows computers to share resources or an internet connection without using LAN cables between them.



- This description is applied only to the models equipped with wireless LAN cards or devices.
- Some of the pictures shown in this description may vary depending on the wireless LAN device.
- To use the wireless LAN, you have to turn the wireless LAN on first by pressing the **Fn** +  keys. If the wireless LAN is turned on, the **Wireless LAN LED**  is lit.



### What is Access Point (AP)?

AP is a network device that connects wired LAN to wireless LAN and corresponds to the wireless hub of a wired network. Also, AP allows you to connect more than one computer where wireless LAN is enabled.

## Connecting to Wireless LAN

If there is an AP, you can connect to the Internet via the AP using the Wireless LAN connection method provided by Windows.

Some processes may differ depending on the operating system version. Moreover, the provided images may differ from the actual screen images.

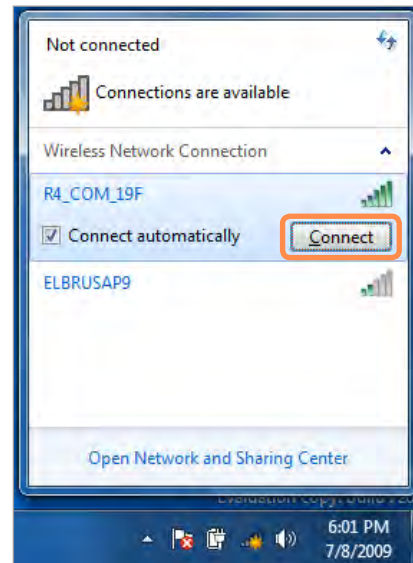
## ► For Windows 7

- 1 If you click the **Network Connections** icon in the system tray, a list of available APs appears. If you select an AP to connect to, the **Connect** button appears.



- 2 Click **Connect**.

If a network key is set for the AP, enter the network key and then click **Connect**.



For the network key, please ask your network administrator.

- 3 When **Connected** to the AP is displayed, click the **Close** button. You can access the network.

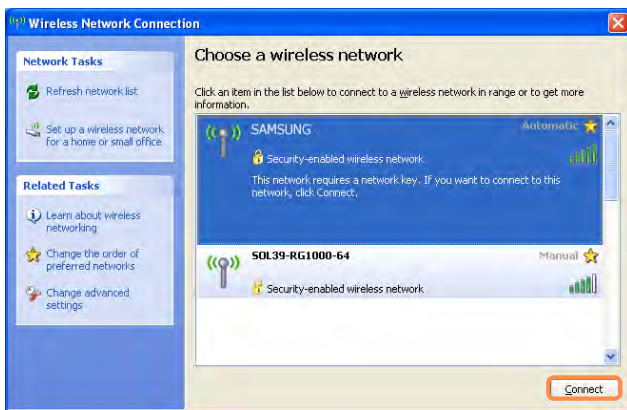
## ► For Windows XP

- 1 Click the **Wireless Network Connection** icon  from the Taskbar using the right button of the touch pad. Then, click **View Available Wireless Networks**.





- 2 Select an AP to be connected and click **Connect**.

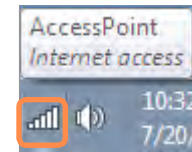
If a network key is set in the AP, the network key input window will appear. Enter the network key in the input window and click **OK**.



- 3 Once **Connected to AP** is displayed, you can use a wireless network.

## To check the network connections

Place the mouse over the **Wireless Network Connection** icon  (For Windows XP, ) from the Taskbar. Then, the status will appear.



Windows 7



Windows XP




For a network key, contact the network administrator.

## Using HyperSpace (Optional)

HyperSpace is a space that enables you to enjoy multimedia content such as the Internet, news, music, videos, and social networking sites through fast Linux-based booting.


 For more information about the **HyperSpace** functions, refer to the online help that appears when clicking **Apps > Others icon > Help**.

- 
- The software programs provider may vary, depending on your computer model.
  - In addition, some pictures may differ from actual product depending on the computer model and software version.

## Starting/Exiting

### Starting Hyperspace


You can start HyperSpace as follows when the computer is turned off or when Windows is running.

 If you do not register Windows when running it for the first time, you cannot use the HyperSpace function. Use the function after booting Windows and registering Windows.

#### ► When the computer is turned off,

- 1 Turn the computer on. When the booting screen (SAMSUNG logo) appears, press the **F6** key.



 Alternatively, if the booting screen has passed, press and hold the **F6** key until the HyperSpace screen appears.

- 2 After a moment, the HyperSpace Desktop screen appears.  
You can now use HyperSpace.

► **When Windows is running:**

**1** Double-click the **Switch to HyperSpace Boot HyperSpace Now > Restart Now.**

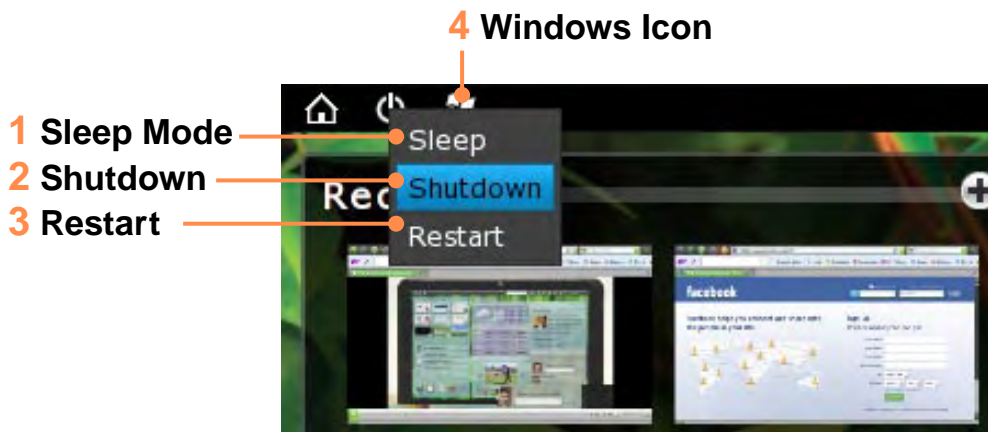


**2** When the computer is restarted, the HyperSpace screen appears.

## Exiting Hyperspace

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**1** Click the power icon  > **Shutdown** at the top left of the screen.



**2** **HyperSpace** is terminated.

When Windows is also being used, the computer is automatically switched to Windows, Windows is shutdown first and then **HyperSpace** is terminated.

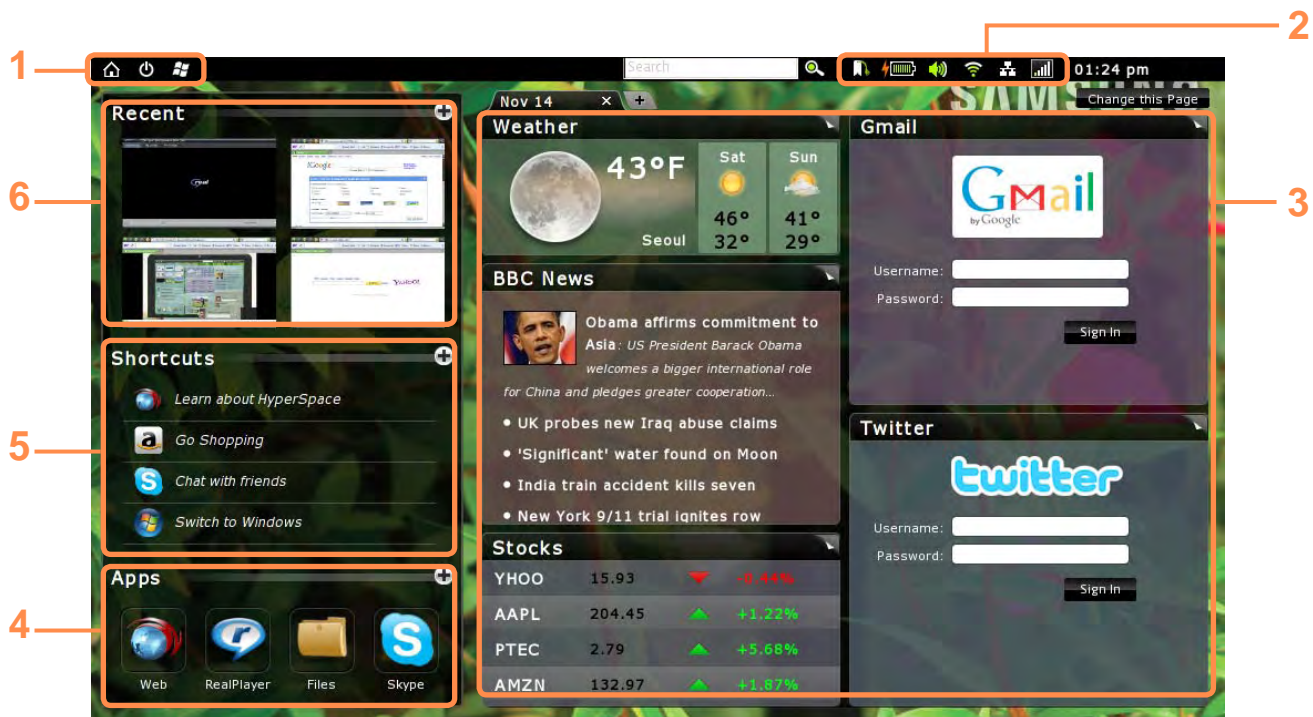
## Switching to Windows








To switch to Windows from HyperSpace, click the Windows icon . If Windows is not currently running, it will take longer to boot up Windows.

## Screen Layout

### HyperSpace Desktop Screen

The HyperSpace Desktop screen is the computer's workspace and has the following layout.



1	<b>Start Menu</b>	 : Select to switch to the main screen.  : Select to show the power options.  : Select to switch to Windows.
2	<b>Notification Area</b>	 : Select to bookmark the current screen.  : Select to setup the power settings.  : Select to setup the volume settings.  : Select to setup the wired/wireless network settings.
3	<b>My Contents</b>	You can register frequently used content and confirm the registered content immediately.
4	<b>Apps</b>	You can directly use various application programs such as the web browser, multimedia applications, etc.
5	<b>Shortcuts</b>	You can use mini information programs.
6	<b>Recent</b>	Shows recently used programs.

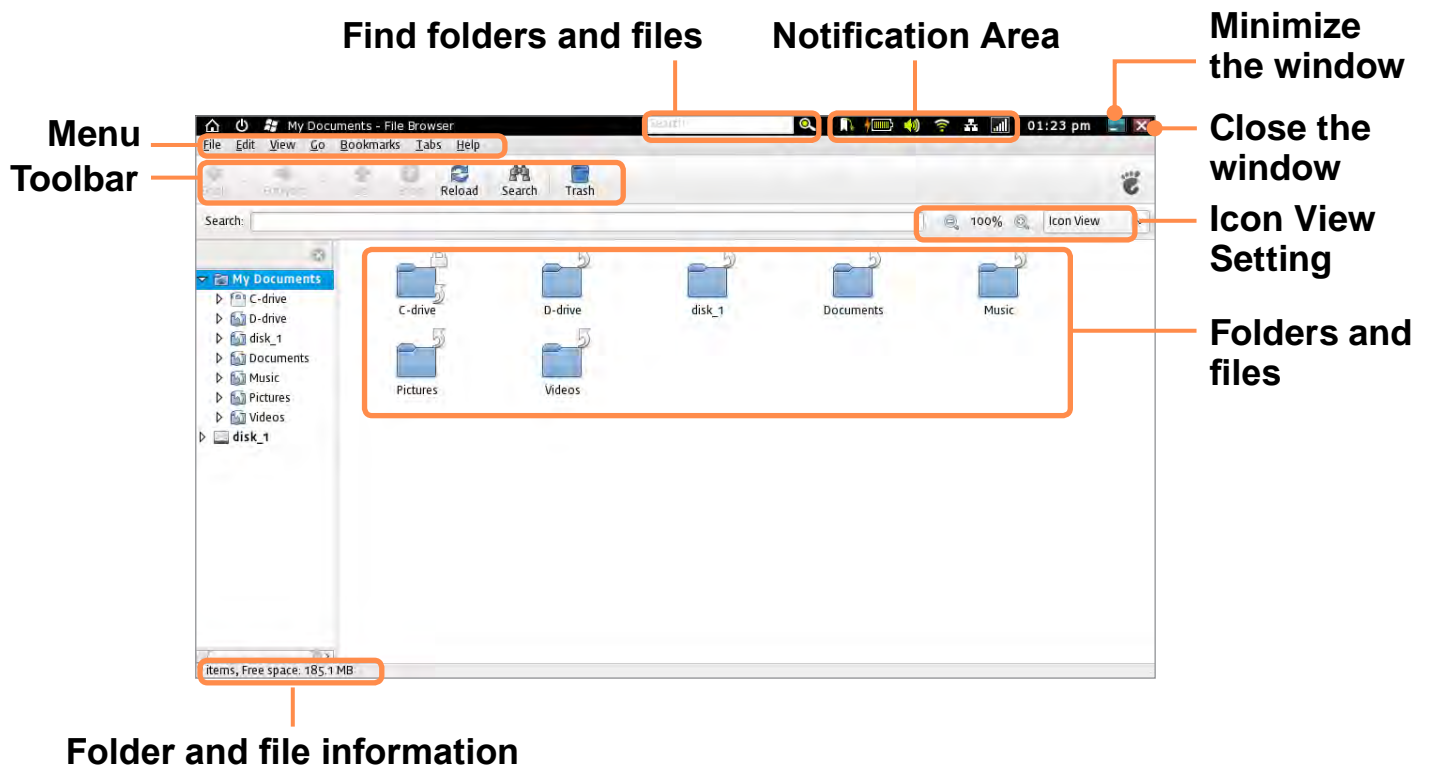
# Window

Click **Apps > Files** to launch the browser.


You can view the folders and files of the HDD drives and external devices recognized by Windows.



The items and names may differ depending on the model.



## Network Setting

 Some of the procedures may differ depending on the version of the operating system. In addition, the figures of the screens may differ from the actual screens.

### Setting Up the Wired Network

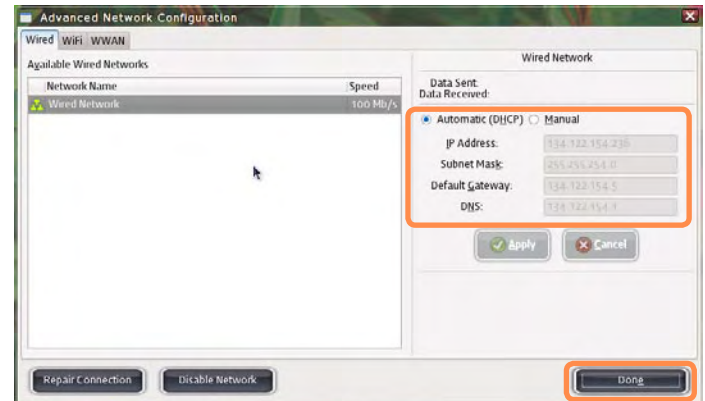
**1** Connect the LAN cable to the wired LAN port.


**2** Click the network icon .


**3** When the Network Wizard appears, click **Advanced**.

To use DHCP, click **Automatic (DHCP)**.

To use a static IP address, click **Manual (M)**, enter the **IP Address**, **Subnet Mask**, **Default Gateway**, and **DNS** fields and click **Finish**.



 When DHCP is not supported, ask your network administrator for the IP address information.

**4** When the network is connected, the icon  turns green.

Now, you can use the network.

## Setting Up the Wireless Network

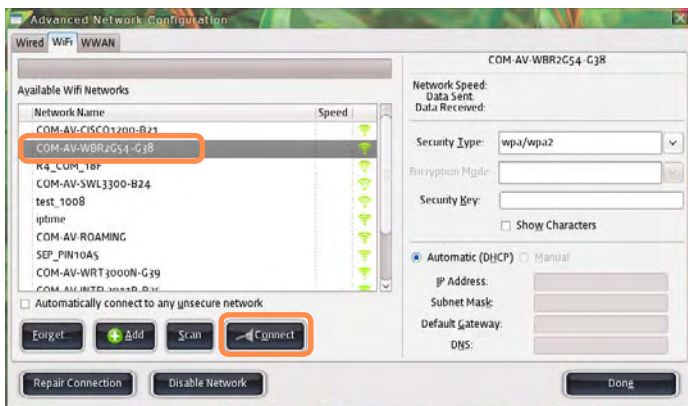
If there is an AP nearby, you can access the Internet simply by setting up the wireless LAN.

1 Click the network icon .


2 When the Network Setup Wizard appears, click **Advanced**.

If you select the Wireless tab, available APs are listed.

Click over an AP to connect and click **Connect**.



Ask your network administrator for the network key.

3 When the network is connected, the icon  turns green.

You can now use the wireless network.

## Using Applications

### Playing Music and Video Files

You can play music and video files using Real Player.

Click **Apps > Real Player > File > Open File** to play a music or video file.

If you run it for the first time, the setup screen appears. Perform the setup according to the instructions on the screen.



For more information on how to use Real Player, refer to the Help section.

## Using the Internet/Chatting

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After connecting to the network, click **Apps > Web** to access the Internet. In addition, you can use the video or text chatting function by clicking **Apps > Skype**.



The web browser may fail to open some web sites that use ActiveX. In this case, open the web site in Windows.


## Changing the Language Setting


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Click **Apps > Language**, select a language and click **Restart Now**. The language of HyperSpace is changed to the selected language.


## HDD Protection Function (Optional)

The **HDD Protection** program provides a function to protect the HDD from external impact while the HDD is operating.

 This function is only provided for models that are shipped from the factory with this function.

Through the icon colors, the HDD protection status can be identified. You can activate or deactivate the function by right-clicking over the icon  in the taskbar.

Icon Color	Operating Status
	The HDD protection function is activated.
	The HDD protection function is deactivated.
	The HDD has received an impact and the HDD protection function is currently running.

 If external movement (e.g. if a user moves or the vehicle carrying the computer moves) is detected while the HDD is in operation such as watching a video or copying data, the current operation and the HDD are stopped accordingly.  
If the external movement stops, the paused operation resumes after approximately 3 seconds.

# Chapter 3.

## Settings and Upgrade






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# LCD Brightness Control

You can adjust the LCD brightness in 8 levels.

## Controlling the Brightness Using the Keyboard

Adjust the LCD brightness by pressing the **Fn** +  key or the **Fn** +  key.

The LCD brightness can change up to 8 levels and the brightness increases by 1 level when pressing the **Fn** +  key once.



- **Maintaining the changed LCD brightness even after turning the computer on again**

To maintain the LCD brightness set by using the brightness control keys or through the Power Options, follow the procedures below.

1. Turn the computer on and press the **F2** key when the SAMSUNG logo appears on the screen to enter the BIOS Setup.
2. Select the **Boot** menu and set the **Brightness Mode Control** item to **User Control**.
3. Press the **F10** key to save the settings and exit Setup.

- **Saving battery power consumption**

Decreases the LCD brightness when the computer is running on battery power to save battery power consumption.

- **LCD bad pixels principle of laptop computer**

Samsung observes the specifications regarding strict quality and reliability of LCD. But in spite of that, it is inevitable that there might be a small number of bad pixels. A large number of bad pixels can cause problems in appearance, but a small number of pixels doesn't affect the computer performance.

Therefore Samsung observes and manages the following dot principles:

- Bright dot : 2 or less
- Black dot : 4 or less
- Combination of Bright and Dark : 4 or less