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Chapter 1.
Getting Started

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.
- The pictures used for the cover and the main body in the User Manual are those of the representative model of each series and may differ from the actual appearance of the product.
- This guide decribes procedures for using both the mouse and the touchpad.
- The User guide supplied with this computer may vary depending on your model.

Safety Precaution Notations

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

Text Notations

Icon	Notation	Description
	Caution	Content included in this section includes information required about the function.
	Note	Content included in this section includes helpful information to use the function.

Before You Start

Copyright

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Samsung Electronics Co., Ltd. owns the copyright of this manual.

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

If a problem occurs because of the reinstallation of other operating systems(OS) or a previous version of an 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

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.

About the Product Capacity Representation Standard

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, Chrome) 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, OS(Windows, Chrome, etc.) represents the capacity as 74.5GB, 80x1,000x1,000x1,000 byte/(1,024x1,024x1,024) byte = 74.505GB)

About Memory Capacity Representation

The memory capacity reported in the OS(Windows, Chrome, etc.) 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, OS(Windows, Chrome, etc.) may report the capacity as 1,022MB or less)

Safety Precautions

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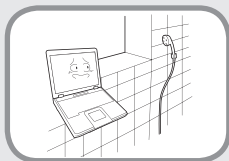
Since this is commonly applied to Samsung Computers, some pictures may differ from actual products.

⚠ Warning

Failure to follow instructions marked with this symbol may cause personal injury and even fatality.
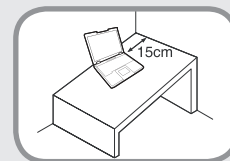
Installation Related

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

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

Keep the plastic bags out of the reach of children.

There is a danger of suffocation.

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

This may increase the internal temperature of the computer and may cause an injury.
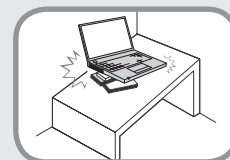
Do not install the computer on a slant or a place prone to vibrations, or avoid using the computer in that location for a long time.

This increases the risk that a malfunction or damage to the product will occur.
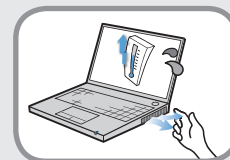
Avoid exposing any part of your body to the heat from the computer vent or AC adapter for a long time when the computer is on.

Exposing a part of your body close to the heat from the vent or AC adapter for long periods of time may cause a burn.
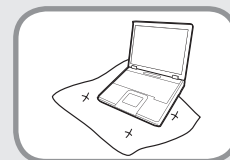
Avoid blocking the vent at the bottom or side of the computer when using it on a bed or cushion.

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

Safety Precautions

⚠ Warning

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

Power Related

📝 The power plug and wall outlet figures may differ depending on the country specifications and the product model.
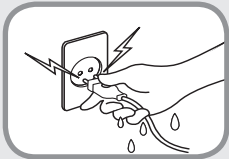
Do not touch the main plug or power cord with wet hands.

There is a danger of electric shock.
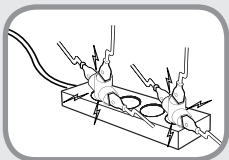
Do not exceed the standard capacity (voltage/current) of a multiplug or power outlet extension when using it for the product.

There is a danger of electric shock or fire hazard.
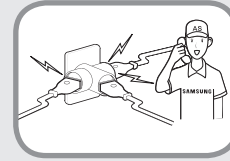
If the power cord or power outlet makes a noise, disconnect the power cord from the wall outlet and contact a service center.

There is a danger of electric shock or fire hazard.
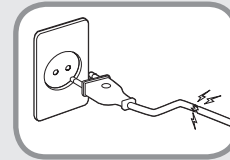
Do not use a damaged or loose main plug or power cord or power outlet.

There is a danger of electric shock or fire hazard.
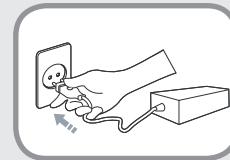
Plug the power cord firmly into the power outlet and AC adapter.

Failing to do so may cause fire hazard.
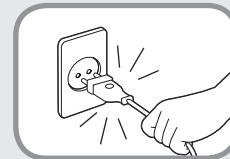
Do not unplug the power cord out by pulling the cable only.

If the cord is damaged, it may cause electric shock.
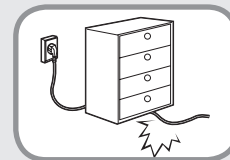
Do not bend the power cord excessively or do not place a heavy object over the power cord. It is especially important to keep the power cord out of reach of infants and pets.

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

⚠️ Warning

Failure to follow instructions marked with this symbol may cause personal injury and even fatality.
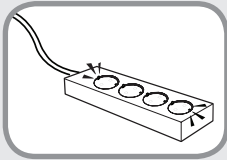
Connect the power cord to an outlet or multiple power plug (extended cable) with a ground terminal.

Failing to do so may result in electric shock.
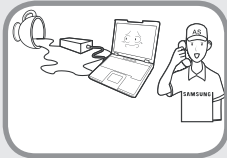
If water or another substance enters the power input jack, AC adapter or the computer, disconnect the power cord and contact the service center.

If the notebook computer has an external type (removable) battery, separate the battery also.

Damage to the device within the computer may cause electric shock or fire hazard.
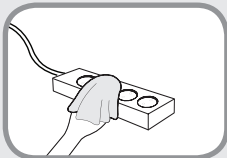
Keep the power cord or outlet clean so that they are not covered with dust.

Failing to do so may result in fire.

AC Adapter Usage Precautions
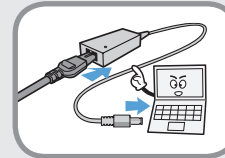
Connect the power cord to the AC adapter firmly.

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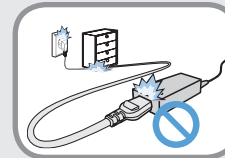
Do not place heavy objects or step onto the power cord or AC adapter to avoid damaging the power cord or AC adapter.

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

Safety Precautions

⚠ Warning

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

Battery Usage Related

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

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

There is a danger of electric shock or choking.
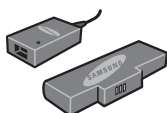
Use an authorized battery and AC adapter only.

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

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

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

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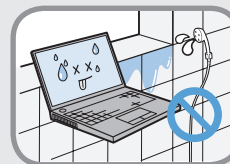
Do not use the computer in a humid location such as a bathroom or sauna.

Please use the computer within the recommended temperature and humidity range (10~32ºC, 20~80% RH).
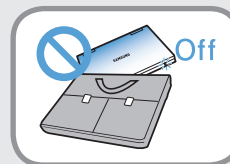
Do not close the LCD panel and put the computer into your bag to move it when it is still turned on.

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.

Safety Precautions

⚠ Warning

Failure to follow instructions marked with this symbol may cause personal injury and even fatality.
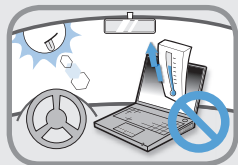
Never heat the product(or battery) or put the product(or battery) into a fire. Do not put or use the product(or battery) in a hot location such as a sauna, inside a vehicle exposed to the heat, and so on.

There is a danger of an explosion or fire.
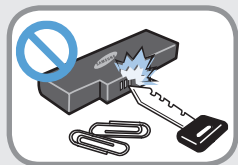
Take care not to allow metal objects such as a key or clip to touch the battery terminal (metal parts).

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

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

There is a danger of an explosion or fire.
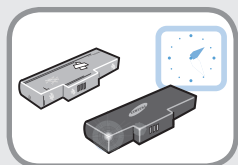
To use the computer safely, replace a dead battery with a new, authorized battery.

Cutting the power from the internal battery (for corresponding models only.)
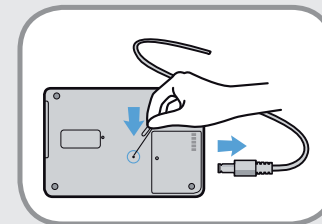
- For products with built-in batteries, customers cannot remove the battery.
- In the case of flooding, lightning or explosions, you can cut the battery power by inserting an object such as a paper clip into the [Emergency Hole] at the bottom of the computer.
- Disconnect the AC adapter and insert an object such as a paper clip into the hole at the bottom of the computer to cut the battery power.

> **In the case of flooding, lightning or explosions, cut the battery power, do not reconnect the AC adapter, and immediately contact Samsung Electronics so that the appropriate countermeasures can be taken.**

- Thereafter, if you connect the AC adapter, the battery power will be supplied again.

> - **Do not cut the battery power under normal conditions.**
> - **This may result in data loss or a product malfunction.**

Safety Precautions

⚠ Warning

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

Usage Related
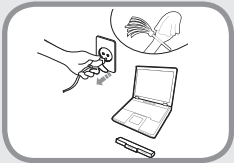
Disconnect all cables connected to the computer before cleaning it. If your notebook is external & removable battery type, remove the external battery.

There is a danger of electric shock or damage to the product.
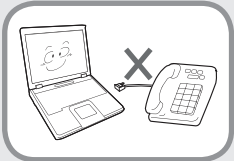
Do not connect a phone line connected to a digital phone to the modem.

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

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

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

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

If the notebook computer has an external type (removable) battery, separate the battery also.

Using a broken computer may cause electric shock or fire hazard.
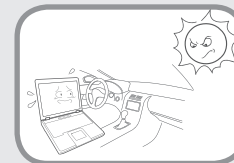
Avoid direct sunlight when the computer is in an air-tight location such as inside a vehicle.

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

Do not use your notebook PC for long periods of time while any 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

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

Upgrade Related
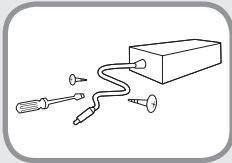
Never disassemble the power supply or AC adapter.

There is a danger of electric shock.
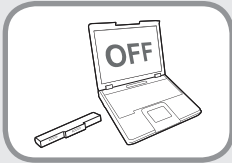
When removing the RTC (Real Time Clock) battery, keep it out of the reach of children as they could touch and/or swallow it.

There is a danger of choking. If a child has swallowed it, contact a doctor immediately.
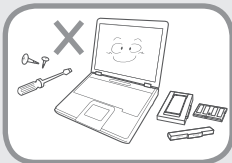
Use only authorized parts (multi-plug, battery and memory) and never disassemble parts.

There is a danger of damaging the product, electric shock or fire hazard.
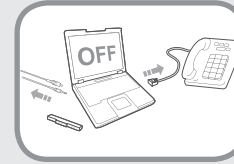
Shut down the computer and disconnect all cables before disassembling the computer. If there is a modem, disconnect the phone line. If your notebook is external & removable battery type, remove the external battery.

Failing to do so, may cause electric shock.

Safety Precautions

⚠️ Warning

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

Security 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

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

Installation Related

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

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

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

Failure 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

Dispose of worn-out batteries properly.

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

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

This may cause an injury, fire or explosion.

Use only a battery authorized by Samsung Electronics.

Failure 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.

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

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

There is a danger of explosion or fire.

Safety Precautions

⚠ Caution

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

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.
Failure to do so may cause electric shock hazard.

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

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

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

There is a danger of electric shock or fire.

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

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

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

Failure 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.

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

Safety Precautions

⚠ Caution

Failure to follow instructions marked with this symbol may cause slight injury or 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 immediately. If your notebook is external & removable battery type, remove the external battery.

There is a danger of fire.

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

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

Do not insert your fingers into the PC Card Slot.

There is a danger of injury or electric shock.

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

Failure 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 has 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.

Safety Precautions

⚠ Caution

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

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.

Use parts authorized by Samsung Electronics only.

Failure 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.

Security and Movement Related

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

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

For long periods of not using the notebook computer, discharge the battery and preserve as it is detached. (For external & removable battery type)

The battery will be preserved at its best condition.

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

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

⚠ Caution

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

Cautions on Preventing Data Loss (Hard Disk(HDD/SSD) 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 data on the hard disk drive.

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.

- Sudden impact or movement 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.

Using the power supply in an airplane

Since the power outlet type differs depending on the type of airplane, connect the power appropriately.

When using the AC power plug

Connect the power plug pins perpendicular into the center of the power outlet.

- If the plug pins are not inserted into the center of the holes, the plug pins are only inserted up to half their length. In this case, reconnect the power plug.
- You have to insert the power plug into the outlet when the power indicator (LED) of the power outlet is lit green. If the power is connected properly, the power indicator (LED) remains green.
  Otherwise, the power indicator (LED) is turned off. In this case, unplug the power, check if the power indicator (LED) is green, and then reconnect the power plug.

Power Indicator (LED)
Center Holes

220V Power Plug **110V Power Plug**

Good Example ○

Wrong Example ✕
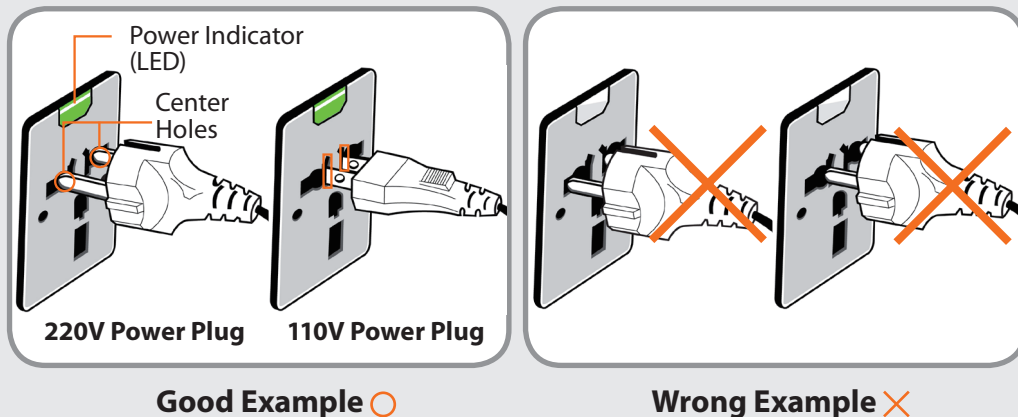
When using the auto adapter

When the cigar socket is provided, you have to use the auto adapter (optional). Insert the cigar plug of the auto adapter into the cigar socket and connect the DC plug of the auto adapter to the power input port of the computer.

Auto Adapter

DC Plug   Cigar Plug   In-flight Cigar Socket
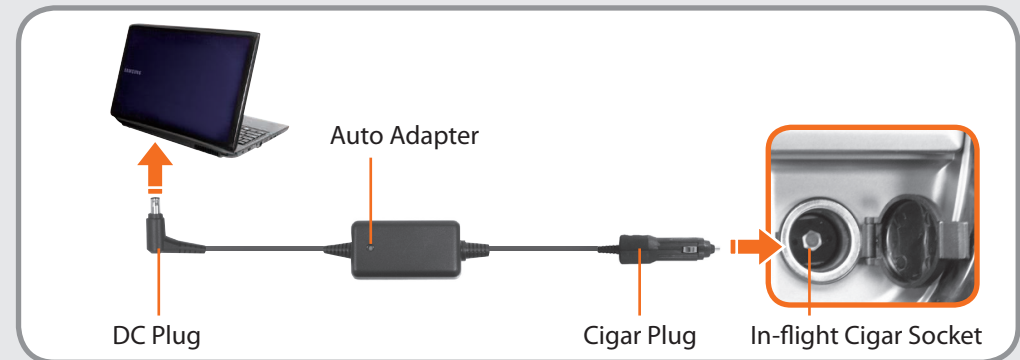
When using the Airplane Charging Converter

Depending on the airplane, you have to use the auto adapter and charging converter. Connect the airplane charging converter (optional) to the auto adapter (optional) and then insert the airplane power input jack into the power outlet.

Charging Converter

1 Connect this end to the auto adapter.

Connect the airplane power input jack to the power outlet of the airplane. **2**

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 waist 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).

Proper Posture During Computer Use

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)

Check your volume first to listen to music.

Check your volume!

VOLUME

- 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)

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

Illumination

- 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

- 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.

Overview

Front View

✎
- The pictures used for the cover and the main body in the User Manual are those of the representative model of each series. Therefore the colors and appearance of the pictures may differ from the actual appearance of the product depending on the model.
- The actual color and appearance of the computer may differ from the pictures used in this guide.

1	Illumination Sensor	This sensor detects the ambient illumination around the PC. When the ambient illumination decreases, the LCD backlight is automatically set to low. Conversely, if the ambient illumination increases, the LCD backlight is automatically set to high.
2	Camera (Optional)	Using this camera, you can take still pictures and record video.
3	Microphone (Optional)	You can use the built-in microphone.
4	LCD	The screen images are displayed here.
5	Power Button /I	Turns the computer on or off.
6	Keyboard	A device to enter data by pressing the keys.
7	Touchpad/ Touchpad Buttons	The touchpad and touchpad buttons provide functions similar to the mouse ball and buttons.
8	Multi Card Slot (Optional)	A card slot that supports SD card, SDHC card, MMC card and SDXC card.

Overview

Right View
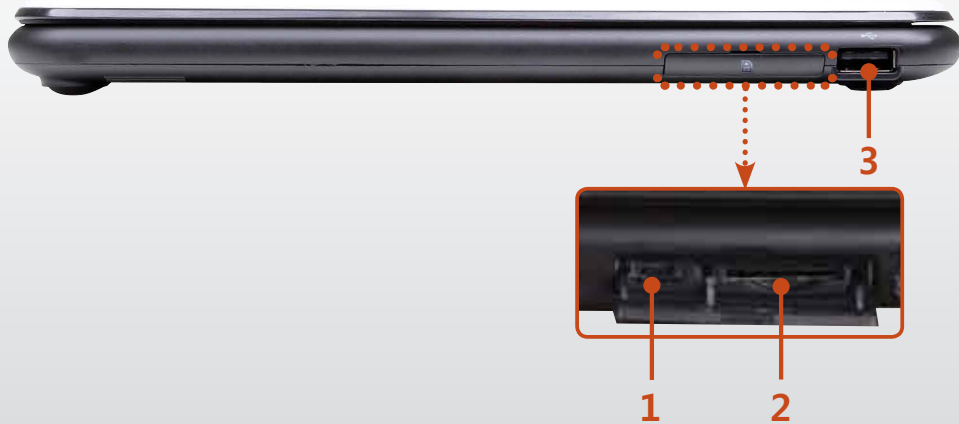
1	Switch User Mode	You can change the user mode. Left Side : Normal Mode Right Side : Developer Mode ❗ Please note that the Chrome notebook can be initialized if you switch the user mode. For more information refer to the Chrome OS help.
2	SIM Card Slot (Optional)	This slot is for SIM cards.
3	USB Port ↭	You can connect USB devices to the USB port such as a keyboard/mouse.

Left View

1	**Status Indicators** 🔋	This shows the power source and the battery charge status. 🟢 **Green:** When the battery is fully charged or the battery is not installed. 🔴 **Red:** When the battery is being charged. ⚫ **Off:** When the computer is running on battery power without being connected to AC adapter.
2	**DC Jack** ⊷	A jack to connect the AC adapter that supplies power to the computer.
3	**Fan Vents**	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.
4	**Monitor Port** 🖥 **(Optional)**	A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface. ⚠️ You can connect an external device by connecting a VGA adapter only that comes with the product.
5	**USB Port** ⟜	You can connect USB devices to the USB port such as a keyboard/mouse.
6	**Earset / headset Jack** 🎧 🎤	This is the jack for connecting an earset or headset.

Overview

Bottom View

1	Recovery Hole	This is the hole for the recovery function. For more information, refer to the Recovery section.
2	Emergency Hole	This is the hole that allows you to cut-off the power. If you insert an unfolded paper clip into the hole and push it in, the power from the battery is cut off. For more information, refer to the Cutting the power from the internal battery section of the Safety Precautions.

Turning the computer on

1 Connect the **AC adapter**.

2 If you open the LCD panel, the computer is automatically turned on.
If the LCD panel is already opened, press the power button.

3 **Power button LED** is lit while the computer is turned on.

LED

Entering Sleep mode

Closes the LCD panel.

Adjusting the screen brightness

Adjust the LCD brightness by pressing the [☀] key or the [☀] key.

Power Button LED

This shows the computer operating status.

On: When the computer is operating.

Blinks: When the computer is in Sleep mode.

Turning the Computer On and Off

Turning the computer off

If you press and hold the power button for 2 seconds, the system turns into the screen lock mode and if you hold it for another 2 seconds, the power is turned off.

When the system is frozen, press and hold down the power button for at least 8 seconds to shutdown the computer.

Chapter 2.
Using the computer

Keyboard

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

> • The keyboard image may differ from the actual keyboard.
> • The keyboard may differ depending on your country. The following mainly describes the shortcut keys.

Shortcut Keys

You can use the functions described in the table below by pressing the shortcut keys.
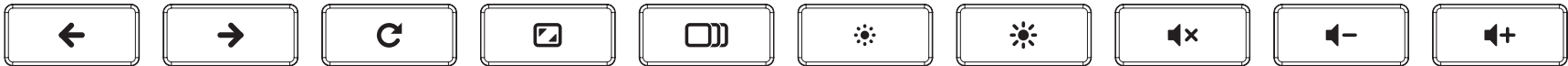
Shortcut Keys	Name	Function
←	Previous page	Turns back to the previous page.
→	Next page	Goes forward to the next page.
↻	Refresh	Refresh the current web page.
▱	Full screen mode	Displays the web page in full screen mode. To exit full screen mode, simply press the Full screen button again or click **Exit full screen** button, which pops up when you move a cursor to the top of a screen.

Keyboard

Shortcut Keys	Name	Function
	Switch windows	Switches between Windows.
	Screen Brightness Control	Control the screen brightness.
	Mute	Mutes the sound. In Mute mode, press the ◀+ key to cancel the Mute function.
	Volume control	Controls the volume.

Shift key

Hold the Shift key down to enter upper case letters.

shift

Touchpad

The touchpad provides the same function as a mouse, and the touchpad button plays the role of the left mouse button.

> • Use the Touchpad with your fingers. Using a sharp object may damage the Touchpad.
> • The pictures in this manual may differ from the actual screenshots and the appearance of the touchpad may differ depending on the model.

Touch Area

Use to move the cursor.
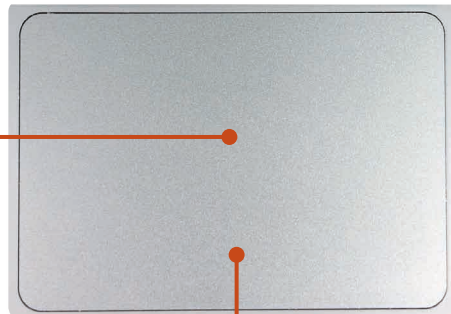
Touchpad Button

You can select or run a program using this button.

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.
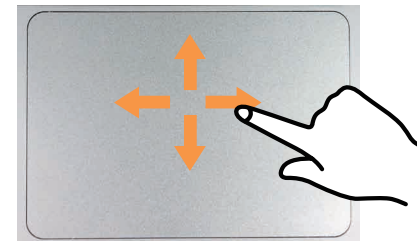
Click Function

Place a finger on the touchpad and click an item once.

Alternatively, briefly press the touchpad button once.

Tap   or   Click
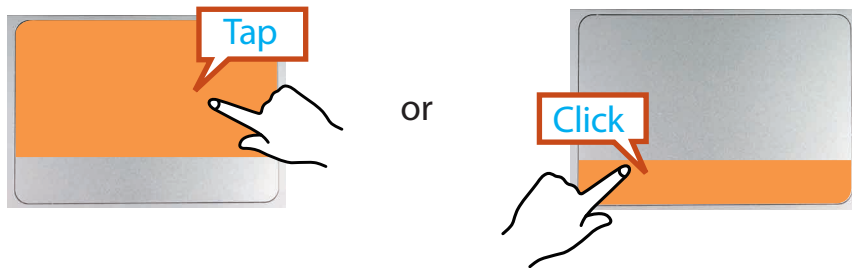
Double-Click Function

Put your finger on the touchpad and quickly tap twice with your finger on an item you want.

Alternatively, briefly press the touchpad button twice.

TapTap   or   ClickClick
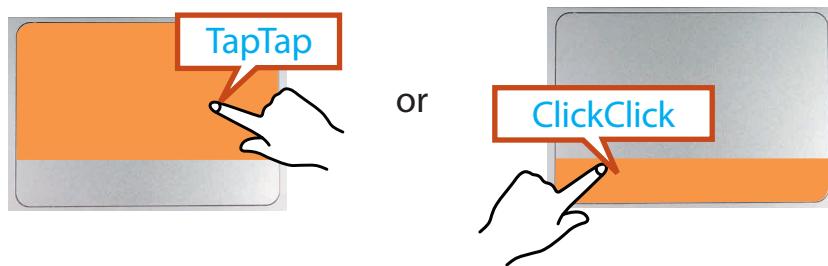
Right Button Function

This corresponds to clicking the right mouse button.

Tap the touchpad with two fingers simultaneously.

Tap   or   Click
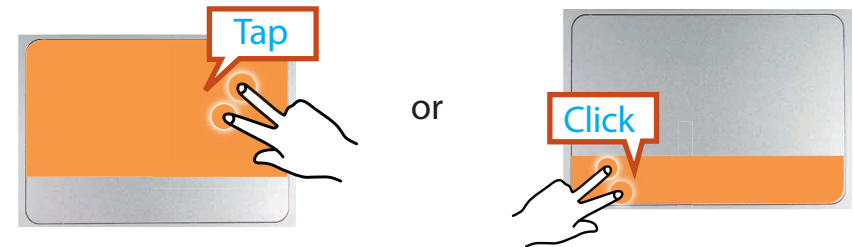
Drag Function

Dragging refers to moving an item to another place after selecting it.

To drag an item to a new location, press and hold the touchpad button over an item and drag it to the new location.

Move

While holding the touchpad button down
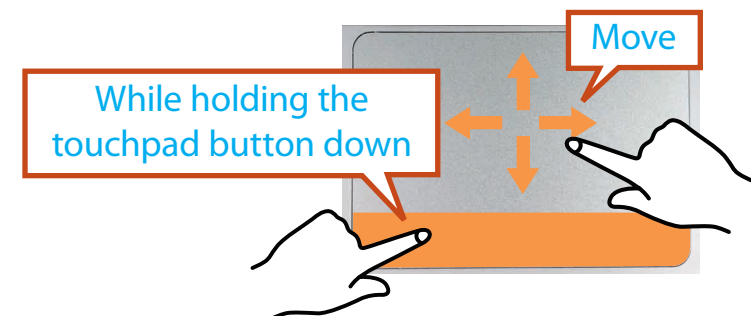
The Scroll Function

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 accordingly.

or
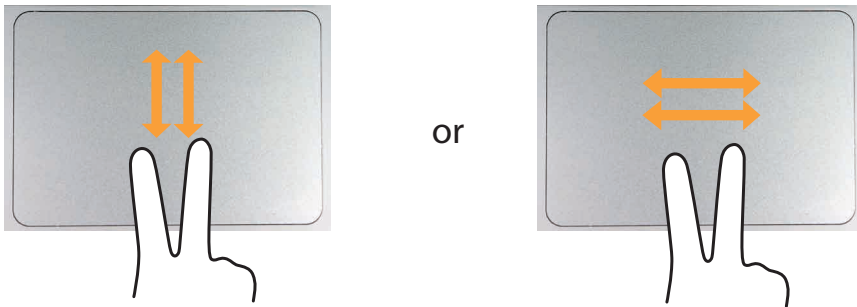
Setting the Touchpad Sensitivity

When the touchpad is too sensitive, adjust the touchpad sensitivity.

To set the touchpad sensitivity

Select the **Sensitivity** in 🔧 > **Settings** > **System** > **Touchpad** to the required level.

Multi Card Slot (Optional)

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

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..

- Supported Cards : SD Card, SDHC card, MMC card, SDXC card

- 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.

- The figures used for the description are of a representative model. Therefore the figures may differ from the real ones.

- If a slot protection dummy card is inserted into your computer, remove the dummy card before using the computer.

Using the card

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

Example) SD Card

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 recommend that you check the card is recognized correctly prior to purchasing.

To remove a memory card

Push the card in the slot lightly. Then the card pops up. Eject the card.

Connecting an External Display Device (Optional)

If you connect an external display device such as a monitor, TV, projector, etc., you can view the picture on the wider screen of the external device when you give a presentation or watch a video or movie.

> Before you start, check the port and cable of the external display device and then connect the display device to the computer.

About the connection cable

Users should additionally purchase the necessary connection cables.
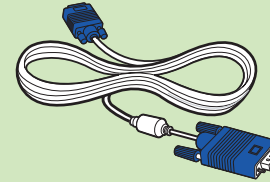
Analog Monitor (RGB) Cable

VGA Adapter (Optional)

Connecting to the monitor port

You can experience a wider screen by connecting the computer to a monitor, TV or projector with a monitor port.

You can give better presentations by connecting the computer to a projector.

1 Connect the **VGA adapter** to the monitor port of the computer.

External
Monitor

TV

Projector

VGA
Adapter
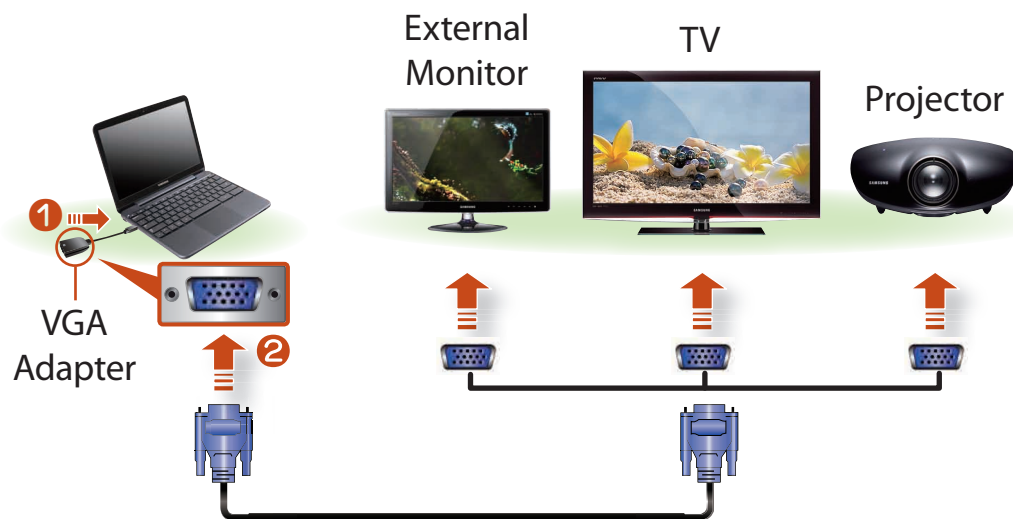
2 Connect the VGA cable (15-pin) to the connected VGA adapter and then connect the other end of the VGA cable to the VGA port of the monitor or the TV.

3 Connect the power cord of the connected monitor, TV or projector and turn the power on. Now you can use the computer connecting to an external display device.

> If the connected external display device is blank, reconnect the cable.

Adjusting the Volume

You can adjust the volume using the keyboard.

Adjusting the Volume using the Keyboard

　◀－　 Or 　◀＋
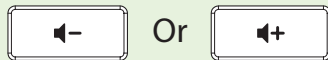
Alternatively, press the 　◀× 　 key to turn the volume off.

In Mute mode, press the 　◀＋ 　 key to cancel the Mute function.

Network (Optional)

Connecting to a Wireless LAN

If there is an AP nearby, you can easily connect to the network.

1 Click the network icon ￼ at the top right to view the list of available APs.

AP List
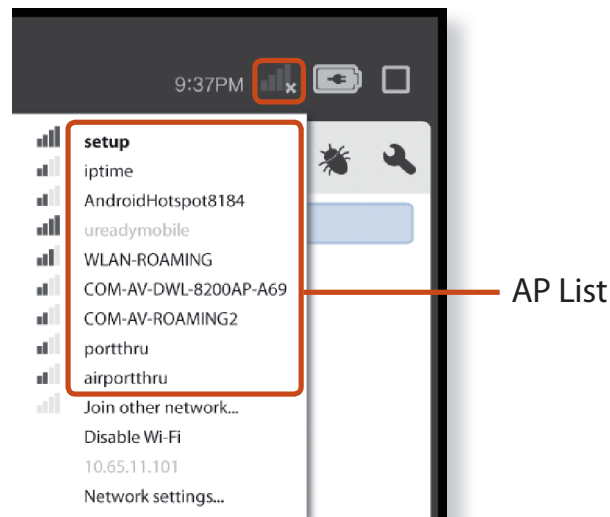
2 Click over an AP that you want to connect to the wireless network.

Connection to a Wired LAN

To connect to a wired LAN, use the USB Ethernet adapter.

For more information, refer to the Google Chrome OS Help.

> To connect to a wired LAN, you need to purchase USB Ethernet adapter additionally.

LCD Brightness Control

You can control the LCD brightness.

Controlling the Brightness Using the Keyboard

Adjust the LCD brightness by pressing the ☀ key or the ☀ key.

Whenever you press the ☀ key, the LCD brightness increases by one level.

• **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

Instructions for Cleaning the LCD

Clean the LCD panel with a soft cloth lightly moistened with computer cleansing detergent moving in one direction.

Cleaning the LCD panel with excessive force can damage the LCD.

Please refer to the following instructions when running the computer on battery power without connecting the AC power.

This computer is equipped with an internal battery.

> Before using your computer for the first time after purchasing it, charge the battery completely.

> ⚠ **Precautions**
>
> - **Users cannot remove or replace the internal battery.**
> - **To remove or replace the battery, use an authorized service center in order to protect the product and users. You will be charged for this service.**
> - Use only chargers specified in the User Manual.
> - Never heat the battery pack, put it near or in a fire or use at a temperature higher than 60°C, as this may cause fire.
> - Please refer to the system operation environment of this manual and operate and store the battery at room temperature.

The location of the internal battery

Charging the Battery

1 An internal battery is embedded. Connect the AC adapter to the power input jack of the computer. The battery will start charging.

2 When charging is complete, the Charge LED turns green.

Status		Charge LED
Charging		Red
Charging complete		Green
AC adapter not connected		Off

Battery

Measuring the Remaining Battery Charge

You can view the battery charge status by completing the following procedures.

Separate the AC adapter and move the mouse pointer over the battery icon at the top right to view the remaining battery charge.
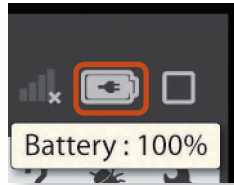
Battery Usage Time Information

A battery is an expendable supply, so when using it over a long time, the capacity/battery life is shortened. If the battery life is reduced to under half of its initial time, we recommend purchasing a new battery.

When not using the battery for a long time, store the battery after charging it to 30-40% of its capacity. This extends the battery life time.

Chapter 3.
Chrome OS

What is Google Chrome OS?

A Samsung Chrome notebook has been optimized for the Internet and web-based applications so that you can enjoy surfing the Internet easier and quicker. Using web-based applications provided by Google, you also can work on documents, presentations and spreadsheets.

Usage Precautions

*   Some functions and screenshots are subject to change depending on the Chrome version.

*   You can use Chrome notebook when the computer is connected to a network. To sign-in, you need a Google account.

*   If you do not have a Google account, you can connect with a guest account. In this case, some of the functions may not be available.

*   Chrome notebook includes device drivers. No additional driver installation is not required.

*   Chrome notebook can be updated to the latest version without the agreement of the user.

*   For more information on how to use Chrome notebook, refer to 🔧 **>** **Help**.

*   Chrome notebook has been designed for Chrome. If you change the operating system or install unsupported software, the company is not liable for technical support, refund or product exchange,and a Customer Service fee will be charged.

Using Browser
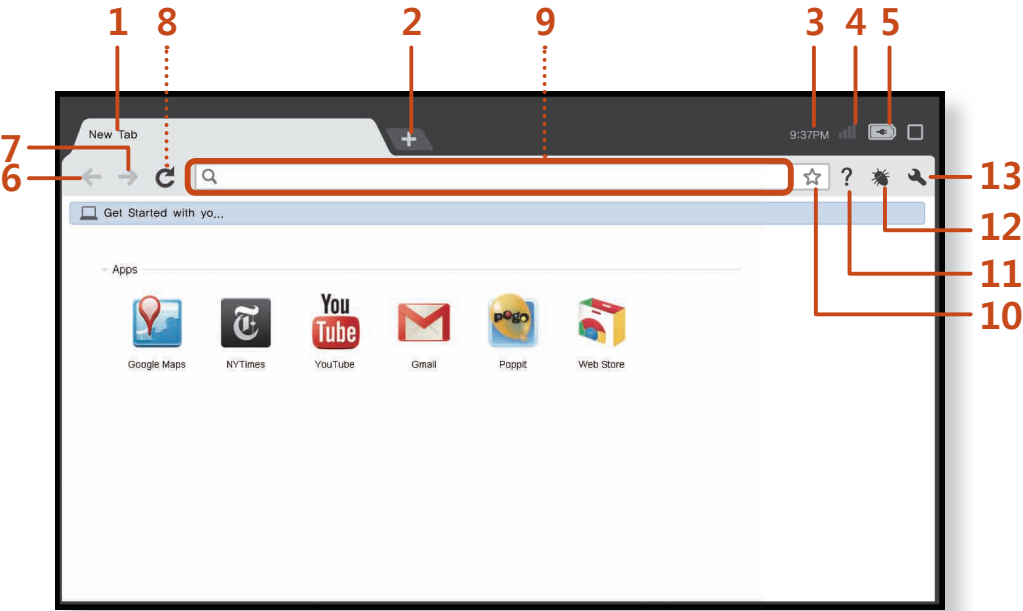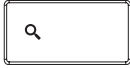
	Icon	Menu	Function
1	New Tab	**Tab**	You can open a new page.
2		**New Tab**	Click to open a new Tab.
3	9:37PM	**Time**	The current time is displayed.
4		**Network**	The current time is displayed. When the network is connected: When the network is not connected:
5		**Battery**	Shows the remaining battery charge.
6		**Back**	Click to go back, hold to see history.
7		**Forward**	Click to go forward, hold to see history.
8		**Refresh**	Click to reload the current page.
9		**Address line**	This shows the URL address of the current page. You can enter a website URL here to open it.
10		**Add a Bookmark**	Click to bookmark this page. If you bookmark a webpage, you can visit frequently visited pages quicker and easier.
11	?	**Help Center (Optional)**	Click to open the Chrome OS help page. You can view detailed information on how to use the Chrome OS.
12		**Report an Issue (Optional)**	Please report any feedback or suggestions for how we can improve Chrome OS for you.
13		**Settings**	You can customize and control Chrome OS.

Using Browser

Searching the web

The Chrome notebook provides multiple search methods that enable users to search the web more quickly.

Using the Search button

1 If you press the Search button [⌕] on the keyboard, a new tab opens.

2 Enter a keyword to search for in the address box and press **Enter**.

3 The search result will be displayed on the screen.

> For information on how to use the right-click, paste and search, and select and drag functions, refer to the Chrome OS Help Center.

Refreshing the screen

Press the Refresh Button [↻] on the keyboard.

Chrome provides the Chrome web store where users can purchase Apps, Extensions and Chrome browser themes.

> • To use the Web Store, you must have the latest version of the Chrome browser installed.
>
> • Some items purchased from the Web Store may not work depending on your computer specifications.
>
> • Apps : These are applications that can be executed on a browser. For example, users can install and use Apps for purposes such as writing emails, editing documents, playing music and editing photos.
>
> • Extensions : These are extended functions that you can use regardless of the website. For example, you can use a post-it or play a game while surfing the Internet.
>
> • Themes : These are images for the browser background.
>
> • You have to install an App or Extension that is supported by the Chrome OS to use it. Before downloading it, check if it is supported by the operating system.

Using the web store

1 Click the Web Store icon   .

2 Click the item you want to buy in the web store.

3 Click the Install button.

4 The installation is completed.

> • If you have installed an **App**, the installed App appears in a list in a new tab.
>
> • If you have installed an **Extension**, the icon of the installed Extension appears in the toolbar at the top of the browser.
>
> • If you have installed a **Theme**, the selected theme is applied to the background of the browser.

Cloud Print (Optional)

Chrome notebook provides the Google Cloud Print printing service. By connecting your printer to the Google Cloud, you can print to your printer from any computer. You do not need to directly connect a printer to a notebook computer or install a printer driver to print to your printer.

> • When you set up the service for the first time, you need to install the printer driver on the computer that is running Windows and is connected to the printer.
>
> • You can use the computer connected to the printer under Windows XP/Vista/7. For more information on supported operating systems, refer to the Chrome OS Help.

Recovery (Optional)

Using the Recovery function, you can restore your computer when a problem occurs with your computer. You can restore your computer after creating an update image and using a USB flash drive. For more information, refer to the Chrome OS Help.

Performing the update from a USB flash drive

1 Save the recovery image to be updated onto the USB flash drive.

> For the procedures to save a recovery image onto the USB flash drive, refer to the Chrome OS Help.

2 Open the LCD panel and press the power button to turn the power off.

3 Insert the USB flash drive into the USB port. (3-1)Unfold a paper clip and insert it into the hole at the top left at the back and (3-2)hold it while turning the power on.
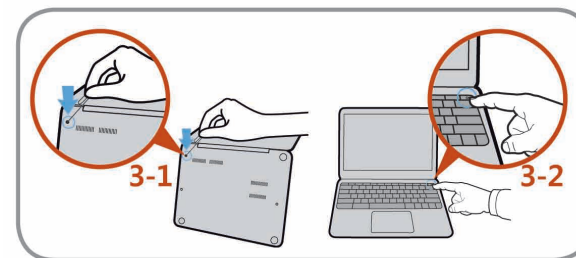
4 If you complete the update according to the instructions on the screen, the system restarts.

5 Remove the USB flash drive.

6 When the system has restarted, the update is successfully completed.

Chapter 4.
Appendix

Important Safety Information

Safety Instructions

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

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

Setting Up your System

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.

- Do not use this product near water or a heat source such as a radiator.

- Set up the system on a stable work surface.

- The product should be operated only with the type of power source indicated on the rating label.

- Ensure that the electrical outlet you are using to power your equipment is easily accessible in case of fire or short circuit.

- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area.

- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.

- Ensure that the fan vents on the bottom of the casing are clear at all times. Do not place the computer on a soft surface, doing so will block the bottom vents.

- If you use an extension cord with this system, make sure that the total power rating on the products plugged into the extension cord does not exceed the extension cord power rating.

- For Notebooks with glossy display bezels the user should consider the placement of the Notebook as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

Important Safety Information

Care During Use

- 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

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.

Replacement Parts and Accessories

Connecting and Disconnecting the AC adapter

The socket-outlet should be installed near the equipment and should be easily accessible.

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

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

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 use may not be allowed.

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

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.

Regulatory Compliance Statements

> - 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

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

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. If not installed and used in accordance with the instructions, it may cause harmful interference. 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

(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.

Regulatory Compliance Statements

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.

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.)

This equipment compiles 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.

Regulatory Compliance Statements

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

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

The user must use the accessories and cables supplied by the manufacturer to get optimum performance from the product. No repairs may be done by the customer.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to party line service is subject to state tariffs.

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

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

Canada

Unintentional Emitter per ICES-003

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

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

Intentional Emitter per RSS 210

This device complies with RSS 210 of Industry Canada. Operation is subject to the following two onditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device."

L ' utilisation de ce dispositif est autorisée seulement aux conditions suivantes : (1) il ne doit pas produire de brouillage et (2) l' utilisateur du dispositif doit étre prêt à accepter tout brouillage

radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

The term "IC" before the equipment certification number only signifies that the Industry Canada technical specifications were met. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication. To prevent radio interference to the licensed service, this device is intended to be operated indoors and away from windows to provide maximum shielding. Equipment (or its transmit antenna) that is installed outdoors is subject to licensing.

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

(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.

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)

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.

Regulatory Compliance Statements

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

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 ⟨ ⟩

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

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.

Regulatory Compliance Statements

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

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

Česky [Czech]	Samsung tímto prohlašuje, že tento Notebook PC je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede Samsung erklærer herved, at følgende udstyr Notebook PC overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [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.
Eesti [Estonian]	Käesolevaga kinnitab Samsung seadme Notebook PC vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, Samsung, declares that this Notebook PC is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [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.

Regulatory Compliance Statements

	Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Samsung ΔΗΛΩΝΕΙ ΟΤΙ Notebook PC ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
	Français [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.
	Italiano [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.
	Latviski [Latvian]	Ar šo Samsung deklarē, ka Notebook PC atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
	Lietuvių [Lithuanian]	Šiuo Samsung deklaruoja, kad šis Notebook PC atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
	Nederlands [Dutch]	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.
	Malti [Maltese]	Hawnhekk, Samsung, jiddikjara li dan Notebook PC jikkonforma mal-ħtiāijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
	Magyar [Hungarian]	Alulírott, Samsung nyilatkozom, hogy a Notebook PC megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
	Polski [Polish]	Niniejszym Samsung oświadcza, Ŝe Notebook PC jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
	Português [Portuguese]	Samsung declara que este Notebook PC está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
	Slovensko [Slovenian]	Samsung izjavlja, da je ta Notebook PC v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
	Slovensky [Slovak]	Samsung týmto vyhlasuje, že Notebook PC spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
	Suomi [Finnish]	Samsung vakuuttaa täten että Notebook PC tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
	Svenska [Swedish]	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.

	Íslenska [Icelandic]	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.
no	**Norsk [Norwegian]**	Samsung erklærer herved at utstyret Notebook PC er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.
	Türkiye [Türkçe]	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.

Regulatory Compliance Statements

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

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

(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 re-use, 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 (Maganese 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."

Dispose unwanted electronics through an approved recycler.

To find the nearest recycling location, go to our website:www.samsung.com/recyclingdirect Or call, (877) 278-0799

Product Specifications

The system specifications may differ depending on the derived models.

For detailed system specifications, refer to the product catalogue.

CPU	Intel ATOM™ Processor
Main Memory	Memory type: DDR3 SDRAM on board
Main Chipset	Intel NM10
HDD	SSD
Graphics	Intel GMA 3150 (Internal)
Operating Environment	Temperature: -5~40°C for storage, 10~32°C when operating Humidity: 5~90% for storage, 20~80% when operating
AC/DC Rating (Optional)	Input) 100-240VAC, 50/60Hz, Output) 19VDC 2.1A
PC Rating (Optional)	19VDC 2.1A (40W)

⚠ • Optional components may not be provided or different components may be provided depending on the computer model.
   • The system specifications are subject to change without notice.
   • The amount of memory that Windows can use may be smaller than the actual amount of memory available.
   • For this product, you cannot install an additional or replace the existing memory module.

Registered Trademarks

Samsung is a registered trademark of Samsung Co., Ltd.

Intel, ATOM are registered trademarks of the Intel Corporation.

Chrome and Google are registered trademarks of the Google Corporation.

Chrome OS Software License

The software included in this product contains copyrighted software that is licensed under the GPL/LGPL.

You may obtain the complete Corresponding Source code from website: http://git.chromium.org/gitweb/

This offer is valid to anyone in receipt of this information.

ENERGY STAR® Partner

As an ENERGY STAR® Partner, SAMSUNG has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Glossary

The Glossary lists the terminologies used in this User Guide. For terminologies other than these, look in Windows Help.

Backup

A way to save the current data to restore it later if necessary. A backup is a way to restore computer data when the data or computer is damaged.

DDR SDRAM
(Double Data Rate Synchronous Dynamic Random Access Memory)

DRAM is a memory type whose cells consist of a capacitor and transistor manufactured at a low price. SDRAM is a memory type whose performance has been improved by synchronizing the clock with the external CPU clock. DDR SDRAM is a memory type whose performance has been improved by doubling the operating speed of the SDRAM and is widely used nowadays. This computer uses DDR SDRAM.

DHCP (Dynamic Host Configuration Protocol)

This refers to automatically allocating IP addresses to the users on the network by the network administrators.

D-sub (D-subminiature)

This is the cable connecting a general CRT monitor and the computer. Analog video is output through this cable.

Firewall

A security system used to protect an internal network or intranet from external networks through an authentication procedure.

LAN (Local Area Network)

A communications network connecting computers, printers and other devices within a local area such as within a building. A LAN enables all connected devices to interact with other devices on the network. The current LAN uses the Ethernet media access control method developed in the early 1980s. To connect to an Ethernet, a network card called a LAN card, Ethernet card or network interface card is required. To exchange data between computers, a protocol is required besides the hardware equipment. Windows Vista uses TCP/IP as the default protocol.

LCD (Liquid Crystal Display)

There are Passive Matrix and Active Matrix LCD types. This computer uses the Active Matrix type LCD called a TFT LCD. Since an LCD is implemented by transistors instead of a cathode-ray tube unlike a CRT, its size can be slim. And because it does not blink, it reduces eye strain.

MMC (MultiMedia Card) **card**

This is an external-type flash memory used for mobile devices such as mobile phones or digital cameras.

Glossary

Network

A group of computers and devices, such as printers and scanners, connected by a communications link. A network can be either small or large and can be connected permanently through cables or temporarily through telephone lines or wireless links. The biggest network is the Internet, a worldwide network.

PCMCIA (Personal Computer Memory Card International Association) card

This is an extended card slot specification for mobile computers such as a notebook computer. Not only a memory, device but also most peripherals such as hard disk drives, LAN cards, etc. can be connected to this card slot.

Protocol

A protocol is a set of rules used by computers to communicate with each other across a network. A protocol is a convention or standard that controls or enables the connection, communication, and data transfer between computing endpoints. It defines the data transmission procedures and the transmission medium for more efficient network functions.

SD (Secure Digital) card

An SD card is a flash (non-volatile) memory card developed for mobile devices by improving on the MMC card. Although an MMC card can be used in an SD card slot, an SD card is not recognized when inserted into an MMC card.

SDHC (Secure Digital High Capacity) card

This is the extension of the SD card that supports over 2GB bytes.

Sleep Mode

A power mode that enables computers to save power consumption when they are not being used. When a computer is in Sleep Mode, the data on the computer memory is not saved to the hard disk. If the power is turned off, the data in memory will be lost.

TCP/IPv4

This is a 4 byte (32 bit) address system separated into each byte (8 bits) by a dot and each byte is represented as a decimal number.

USB (Universal Serial Bus)

This refers to a serial interface standard developed to replace the conventional interface standards such as Serial and PS/2. While USB 1.1 supports 12Mbps (12 million bits per second), USB 2.0 supports a data rate that is 40 times (480Mpbs) faster than that of USB 1.1. The data rate of USB 2.0 is equivalent to that of IEEE1394. Therefore USB 2.0 is used for A/V devices supported by IEEE 1394 and a 2nd HDD and CDRW that require a high data rate.