

User Guide

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Start 



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Chapter 1.

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Q

The computer is not turning on or does not respond and displays a blank screen.

A

Restore the computer using **Samsung Recovery Solution**.

1. Turn the computer on and press the **F4** key when the booting screen (SAMSUNG logo) appears.
2. The computer will boot up in restore mode after a short while and **Samsung Recovery Solution** appears.
3. When the start menu screen appears, click **Restore**.

Q

Pressing Fn + shortcut keys (F1~F12) simultaneously does not work.

A1

Press **Fn Lock** key first, and then press **shortcut keys (F1~F12)** while **Fn Lock ON** appears.

A2

Install **Easy Settings**.

Q

I want to restore the computer to the state when it was purchased.

A

If you use the Samsung Recovery Solution function, you can easily and quickly restore the computer to a previous state even if you do not have a separate OS recovery DVD or recovery CD.

Q

I want to connect an external monitor, TV or projector.

A

Connect the display device and the computer with the monitor and repeatedly press the **F4** key while holding down the **Fn** key.

Q

When I turn the computer on for the first time after purchasing it, the computer does not turn on.

A

To turn the computer on for the first time, you have to connect the AC adapter and then press the power button. The power from the internal battery of the computer is cut when you purchase the computer for safety purposes.

Q

How can I extend the battery usage time?

A

The battery usage time may be shortened if you recharge the battery before it is completely discharged.

To resolve this problem, enter the **BIOS** Setup and select **Smart Battery Calibration** to discharge the battery completely and then recharge the battery.



For detailed information on a function, refer to the corresponding section of the User Manual.

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 describes procedures for using both the mouse and the touchpad.
- This manual has been written for the Windows 7 operating system. The descriptions and figures may differ depending on the installed operating system.
- The User guide supplied with this computer may vary depending on your model.



Using the software

- The software described in the main text can be launched using the following menu path.
 - **Start > All Programs**
 - **Start > All Programs > Samsung**
 - For some programs, you can launch them by selecting **Start > All Programs > Samsung > Software Launcher**.
- When the programs are not installed, select **Samsung Recovery Solution > System Software** to install the programs. (Only for models supplied with Samsung Recovery Solution)

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.

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

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

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

Precautions for Operating System Support

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

About the Product Capacity Representation Standard

About the capacity representation of the storage

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

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

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

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

About Memory Capacity Representation

The memory capacity reported in Windows is less than the actual capacity of memory.

This is because BIOS or a video adapter uses a portion of memory or claims it for further use.

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

For your security and to prevent damage, please read the following safety instructions carefully.



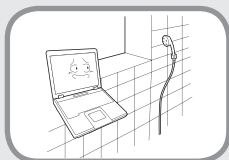
Since this is commonly applied to Samsung Computers, some pictures may differ from actual products.



Warning

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

Installation Related



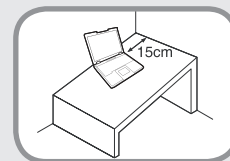
Do not install the product in places exposed to humidity such as a bathrooms.

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



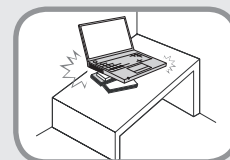
Keep the plastic bags out of the reach of children.

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.



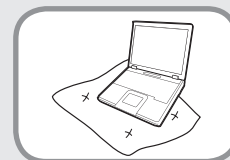
Do not install the computer on a slant or a place prone to vibrations, or avoid using the computer in that location for a long time.

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.



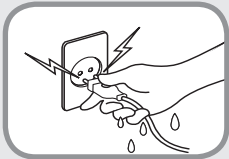
Warning

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

Power Related

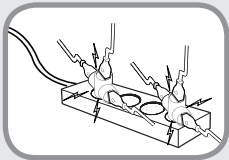


The power plug and wall outlet figures may differ depending on the country specifications and the product model.



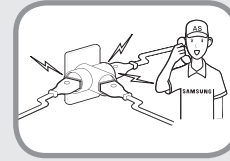
Do not touch the main plug or power cord with wet hands.

There is a danger of electric shock.



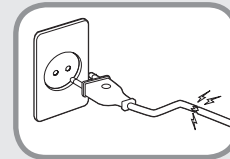
Do not exceed the standard capacity (voltage/current) of a multiplug or power outlet extension when using it for the product.

There is a danger of electric shock or fire hazard.



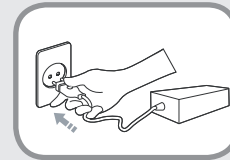
If the power cord or power outlet makes a noise, disconnect the power cord from the wall outlet and contact a service center.

There is a danger of electric shock or fire hazard.



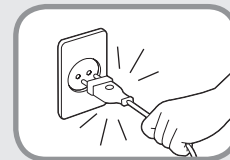
Do not use a damaged or loose main plug or power cord or power outlet.

There is a danger of electric shock or fire hazard.



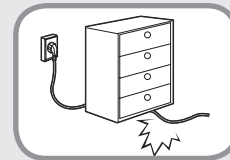
Plug the power cord firmly into the power outlet and AC adapter.

Failure to do so may cause fire hazard.



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

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

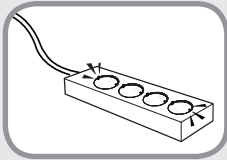


Do not bend the power cord excessively or do not place a heavy object over the power cord. It is especially important to keep the power cord out of reach of infants and pets.

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.

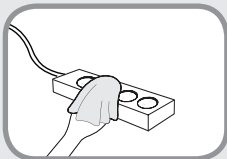
Failure to do so may result in electric shock. When the power supply is ungrounded, the current may leak resulting in electric shock.



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.

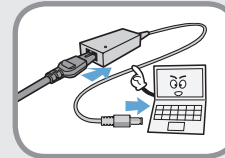
Damage to the device within the computer may cause electric shock or fire hazard.



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

Failure to do so may result in fire.

AC Adapter Usage Precautions

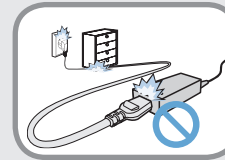


Connect the power cord to the AC adapter firmly.

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

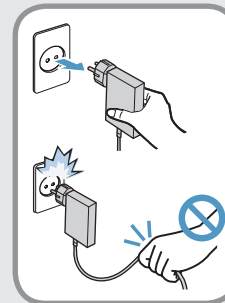
Use only the AC adapter supplied with the product.

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.



Unplug the wall-mount AC adapter (adapter and plug integrated type) from the wall outlet while holding the body and pulling it in the direction of the arrow.

If you unplug the adapter by holding and pulling the cable, the adaptor may be damaged and an electric shock, explosive sound or spark may occur as a result.



Warning

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

Battery Usage Related

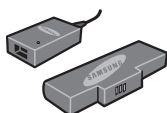


Please charge the battery fully before using the computer for the first time.



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.

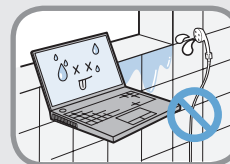
Please use an authorized battery and adapter approved by Samsung Electronics.

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



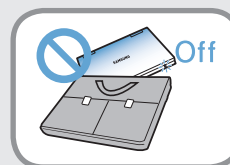
Do not use the computer in a badly ventilated location such as on bedding, on a pillow or cushion, etc, and do not use it in a location such as room with floor heating as it may cause the computer to overheat.

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 (10~32°C, 20~80% RH).



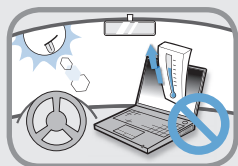
Do not close the LCD panel and put the computer into your bag to move it when it is still turned on.

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



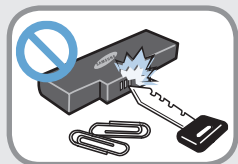
Warning

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.



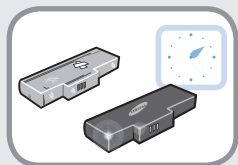
Take care not to allow metal objects such as a key or clip to touch the battery terminal (metal parts).

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.



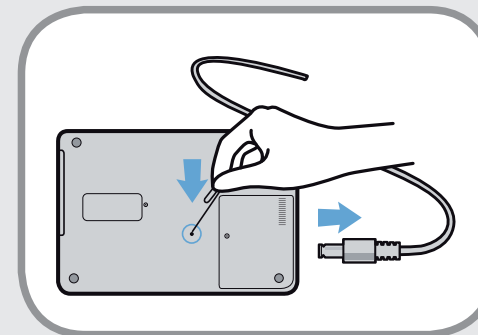
If liquid leaks out of the product(or battery) or there is a funny smell coming from the product(or battery), remove the the product(or battery) the computer and contact a service center.

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 to 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.

Warning

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

- 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.**



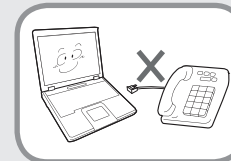
The location of the Emergency Hole may differ depending on the model.

Usage Related



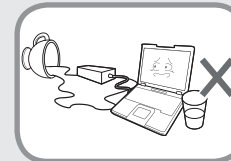
Disconnect all cables connected to the computer before cleaning it. If your notebook is external & removable battery type, remove the external battery.

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.

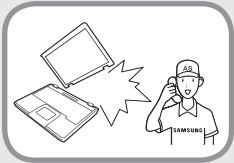


Do not place any container filled with water or chemicals over or near the computer.

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

Warning

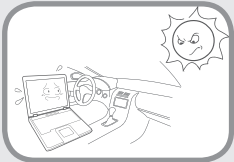
Failure to follow instructions marked with this symbol may cause personal injury and even fatality.



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.

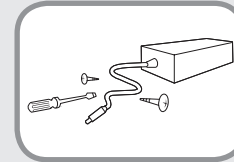
There is a danger of a fire hazard. The computer may overheat and also present opportunity to thieves.



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.

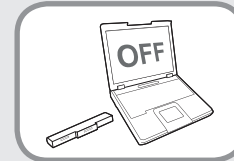
This may result in harming or burning your skin.

Upgrade Related



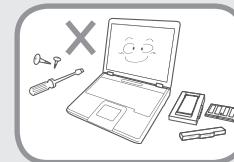
Never disassemble the power supply or AC adapter.

There is a danger of electric shock.



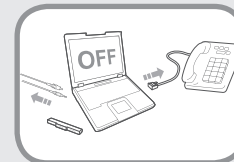
When removing the RTC (Real Time Clock) battery, keep it out of the reach of children as they could touch and/or swallow it.

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.

Failure to do so, may cause electric shock.



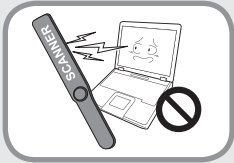
Warning

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

Security and Movement Related

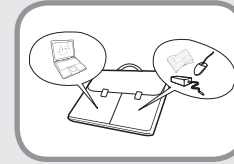


Follow the instructions for the relevant location (e.g. airplane, hospital, etc.) when using a wireless communication device (wireless LAN, Bluetooth, etc.).



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.



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.



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.



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 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.



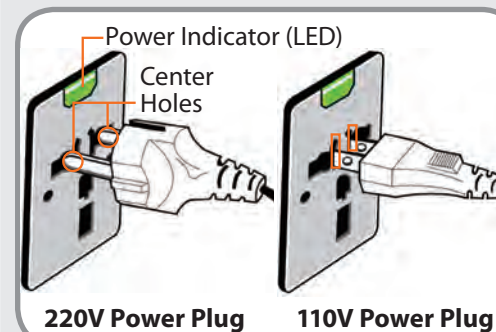
Since the representative figures of the power plug and the auto adapter are used, they may differ from the actual parts.

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.

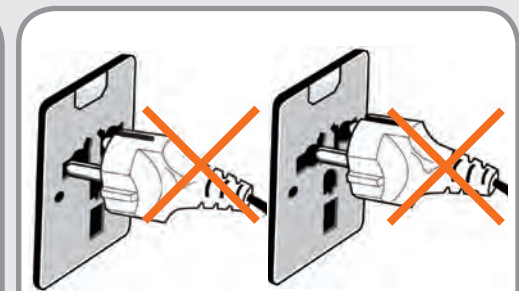
Otherwise, the power indicator (LED) is turned off. In this case, unplug the power, check if the power indicator (LED) is green, and then reconnect the power plug.



220V Power Plug

110V Power Plug

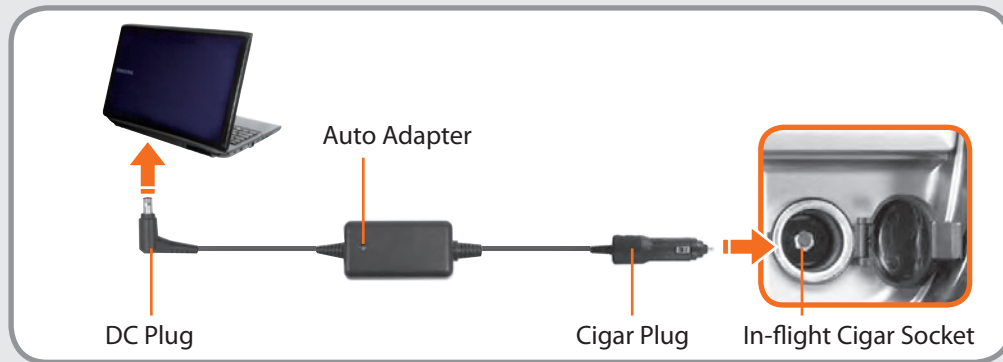
Good Example ○



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.



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.



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).



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 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.

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.
 - This may not be supported for some devices.



1	Camera (Optional)	Using this camera, you can take still pictures and record video.
2	Camera operating indicator	This indicates the camera operating status.
3	LCD	The screen images are displayed here.
4	Status indicators and sensors (Optional)	Shows the operating status of the computer. The corresponding operating LED is lit when the corresponding function operates.
5	Power Button / Power Button LED 	Turns the computer on and off. When the computer is on, the power button LED is lit.
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.



Using the camera, web cam (Optional)

Using the Cyberlink YouCam program (optional), you can take pictures or record video by using the computer's built-in camera by adding the balloon talk or frame effect.

Status indicators and sensors (Optional)



1

Charge Status



This shows the power source and the battery charge status.

- **Green:** When the battery is fully charged or the battery is not installed.
- /● **Red or orange:** When the battery is being charged.
- **Off:** When the computer is running on battery power without being connected to AC adapter.

2

Illumination Sensor (Optional)



This sensor detects the ambient illumination of the PC.

If the ambient illumination becomes dark, the LCD becomes dimmer and the keyboard backlight is lit.

On the contrary, if the ambient illumination becomes brighter, the LCD becomes brighter and the keyboard backlight is turned off.



Turning the illumination sensor on or off
Select **Easy Settings > Display > Screen Brightness** and select or unselect the **Use the auto brightness control depending on the ambient illumination** option to turn the illumination sensor on or off.

Right View

► For 13.3 inch models



1	Multi Card Slot 	A card slot supports multi cards.
2	Microphone 	You can use the built-in microphone.
3	Monitor Port 	A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface.  You can connect a VGA adapter (optional).
4	Ear-set / headset Jack 	This is the jack for connecting an ear-set or headset.
5	USB Port 	You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.

► For 15 inch models



1	Multi Card Slot 	A card slot supports multi cards.
2	Monitor Port 	A port used to connect a monitor, TV or projector supporting a 15pin D-SUB interface.  You can connect a VGA adapter (optional).
3	USB 3.0 Port 	You can connect USB devices to the USB port such as a keyboard/mouse, digital camera, etc.

Left View

► For 13.3 inch models



What is a chargeable USB port?

- USB device accessing and charging functions are supported.
- The USB charging function is supported regardless of whether the power is turned on or off.
- Charging a device through a chargeable USB port may take longer than general charging.
- Using the Chargeable USB function when the computer is running on battery power reduces the battery usage time.
- The user cannot evaluate the charging status of the USB device from the computer.
- This may not be supported for some USB devices.
- You can turn the Chargeable USB function **ON/OFF** by selecting the **Easy Settings > General > USB Charging** option. (Optional)

1	DC Jack 	A jack to connect the AC adapter that supplies power to the computer.
2	Chargeable USB 3.0 Port 	This is a chargeable USB port that can be used to connect and charge a USB device.  When the AC adapter is connected, it may be inconvenient to use the USB port. In this case, purchase and use a USB 3.0 extension cable or use the USB ports on the right side.
3	Micro Digital Video / Audio Port (Micro HDMI)  (Optional)	This is the port for a micro HDMI. You can enjoy digital video and audio by connecting the computer to a TV.
4	Wired LAN Port 	Connect the Ethernet cable to this port.  You can use wired LAN by using the LAN adapter (Optional).

Left View

► For 15 inch models



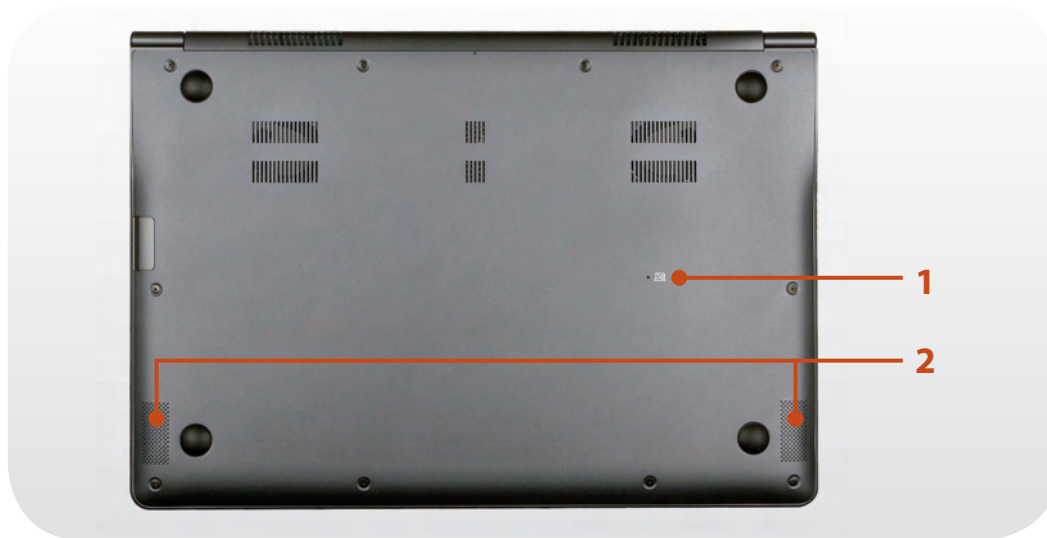
 What is a chargeable USB port?

- USB device accessing and charging functions are supported.
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- Charging a device through a chargeable USB port may take longer than general charging.
- Using the Chargeable USB function when the computer is running on battery power reduces the battery usage time.
- The user cannot evaluate the charging status of the USB device from the computer.
- This may not be supported for some USB devices.
- You can turn the Chargeable USB function **ON/OFF** by selecting the **Easy Settings > General > USB Charging** option. (Optional)

1	DC Jack 	A jack to connect the AC adapter that supplies power to the computer.
2	Chargeable USB 2.0 Port 	This is a chargeable USB port that can be used to connect and charge a USB device.  When the AC adapter is connected, it may be inconvenient to use the USB port. In this case, purchase and use a USB extension cable or use the USB ports on the right side.
3	Ear-set / headset Jack 	This is the jack for connecting an ear-set or headset.
4	Micro Digital Video / Audio Port (Micro HDMI)  (Optional)	This is the port for a micro HDMI. You can enjoy digital video and audio by connecting the computer to a TV.
5	Wired LAN Port 	Connect the Ethernet cable to this port.  You can use wired LAN by using the LAN adapter (Optional).
6	Microphone 	You can use the built-in microphone.

Bottom View

► For 13.3 inch models



► For 15 inch models



1 Battery Emergency Hole

This hole is to cut the power supply to the battery. Insert and press one end of an unfolded paper clip into the hole it to cut the power to the battery.

For more information, refer to **About the function to cut the power supply to the internal battery** in the Safety Precautions.

 The location of the Emergency Battery Hole may differ depending on the model.

2 Speaker

A device used to generate sound.

 If you replace the bottom of the product, the model name, serial number and some logos etched into the bottom of the product will no longer be there.

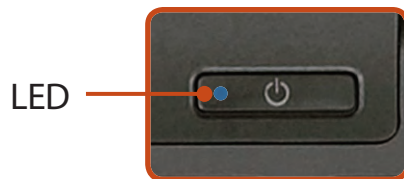
For more information, please ask for assistance from the service center.

Turning the computer on

- 1 Connect the **AC adapter**.
- 2 Lift the LCD panel up.
- 3 Press the **Power button** to turn the computer on.



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



About Windows Activation

When you turn the computer on for the first time, the Windows activation screen appears.

Follow the activation procedures according to the instructions on the screen to use the computer.

Adjusting the screen brightness

When the computer runs on battery power, the LCD brightness is automatically set to low.

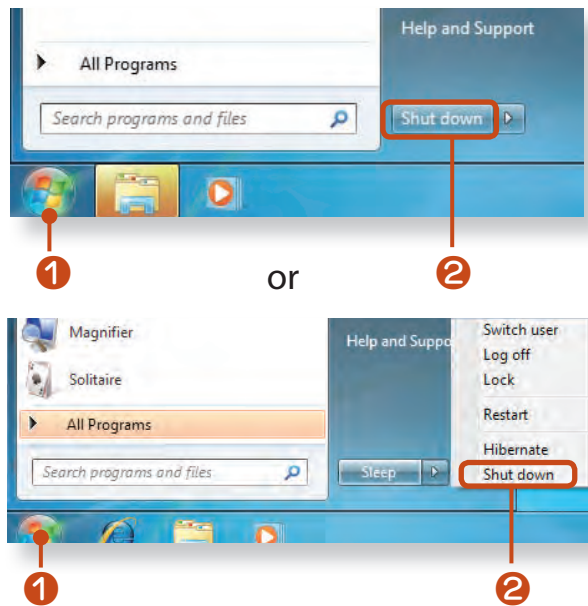
Press the **Fn** + **F3** key combination to increase the screen brightness.

Turning the computer off



- Since the procedures to turn the computer off may differ depending on the installed operating system, please turn the computer off according to the procedures for the purchased operating system.
- Save all your data before clicking on **Shut down**.
- If **Easy Settings** is installed, the system shutdown location may differ.

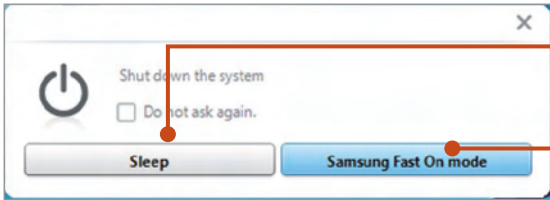
Click **1 Start** > **2 Shut down mode** **Shut down** to shutdown the computer.



Quickly turning the computer on and off (Optional)

Using the **Samsung Fast On** or **Sleep** mode functions, you can quickly turn the computer on and off.

1 Press the **Power Button**. The power mode selection window appears.



Sleep Mode

Samsung Fast On Mode



You can configure the menus in the power mode selection window by selecting **Easy Settings > Power Management > Power Button Setting**.

2 Click on a mode.

Type	Description
Sleep	The LCD is turned off and the computer is turned on. This is a Windows power-saving mode and consumes some power.
Samsung Fast On	The LCD is turned off and the computer is in the logged off state so that almost no power is consumed. When you start the computer in this mode, it is quicker than turning the computer on.

3 The computer has entered **Samsung Fast On** or **Sleep** mode. If you press the computer's Power Button again, **Samsung Fast On** or **Sleep** mode is canceled and you can resume the previous operation.



Chapter 2. Using the computer

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



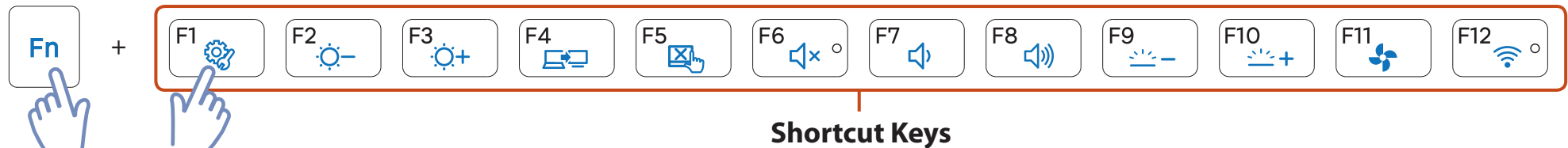
- The keyboard image may differ from the actual keyboard.
- The keyboard may differ depending on your country. The following mainly describes the shortcut keys.

Shortcut Keys

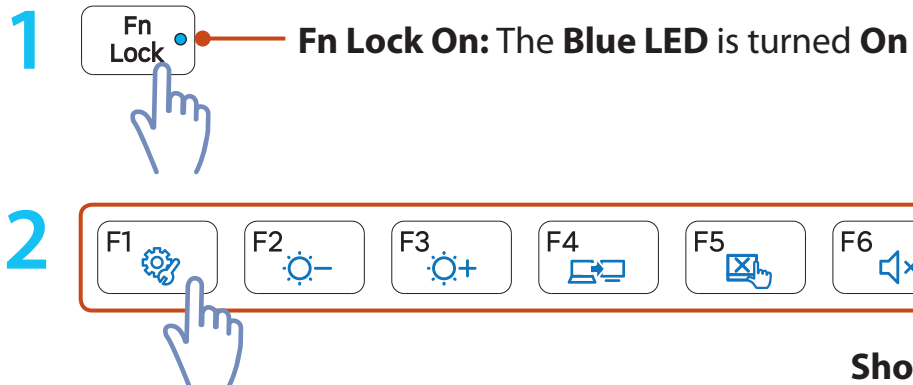
Press both the **Fn** key and hot key at the same time.

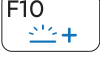
Alternatively, press the **Fn Lock** key as well as a hot key to use the hot key functions more easily.

► Method 1



► Method 2

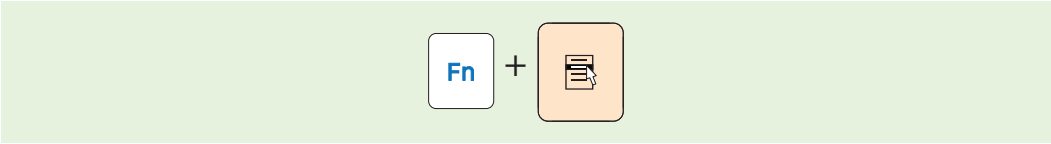


Shortcut Keys	Name	Function
	Easy Settings	The Samsung software control program, the Easy Settings , is launched.
 	Screen Brightness Control	Controls the screen brightness.
	LCD/External Monitor	Switches the screen output to the LCD or external monitor when an external monitor (or TV) is connected to the computer.
	Touchpad	Turns the Touchpad function on or off. When using an external mouse only, you can turn the Touchpad off.
	Mute	Press this button to turn the audio on or off.
 	Volume Control	Controls the volume.
 	Keyboard Backlight Brightness Control	When it is dark or when the illumination sensor is turned off, you can manually control the brightness of the keyboard backlight. • If you use the buttons in a bright location, the “The keyboard backlight brightness cannot be changed due to too bright ambient illumination” message appears. • When it is bright or the illumination sensor is turned on, select Easy Settings > General > Keyboard Backlight and adjust the backlight brightness.
	Silent Mode	Reduces the Fan noise so that users can use the computer without hearing noise.

Shortcut Keys	Name	Function
	Wireless network	You can easily turn multiple wireless network functions on or off at the same time. You can conveniently use this hot key to turn the wireless network functions off when you are on an airplane or other such location. • On: When the wireless network functions are turned on. • Off: When the wireless network functions are turned off.  You can control each individual wireless network function by selecting Easy Settings > Wireless Network.

Other Function Keys (Optional)

- Performs the right-click mouse function (touchpad).



- If you press the **Fn Lock** key, you can use the hot key functions without pressing the **Fn** key.



If the **Fn Lock** is turned **On**, **Fn Lock On** is displayed on the LCD screen and the LED is turned on **Blue**.

 If the hot keys do not work properly, you have to install the **Easy Settings**.

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

To use the touchpad, the touchpad driver is required.

A built-in Windows driver and a driver provided by the manufacturer are provided. For a better performance, using the driver provided by the touchpad manufacturer is recommended.

The driver provided by the touchpad manufacturer is already installed in this product by default when you purchase this product. **When you reinstall Windows or change the operating system, using the driver provided by the corresponding manufacturer is recommended.**



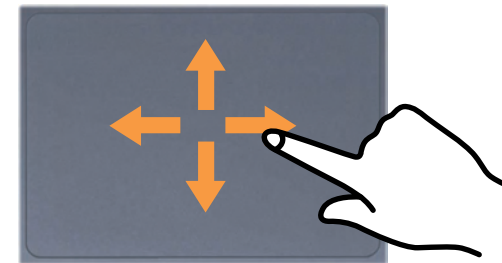
- Touch the touchpad with your fingers only. Anything other than your fingers, such as a ball-point pen, will not be recognized by the touchpad.
- If you touch the Touchpad or press the Touchpad buttons while booting up, the Windows boot time may be extended.
- Checking the touchpad manufacturer Click the **Start > Control Panel > Hardware and Sound > Mouse > Hardware** tab and check the device (E.g. Elan, Synaptics, etc.).
- The Windows driver provides basic touchpad functions (moving the pointer, clicking, etc.) but the gesture function is not supported.

Basic Touchpad Functions

Moving the cursor on the screen

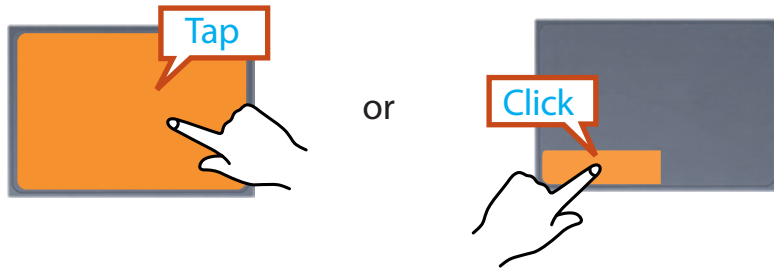
Place your finger on the touchpad slightly and move your finger.

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



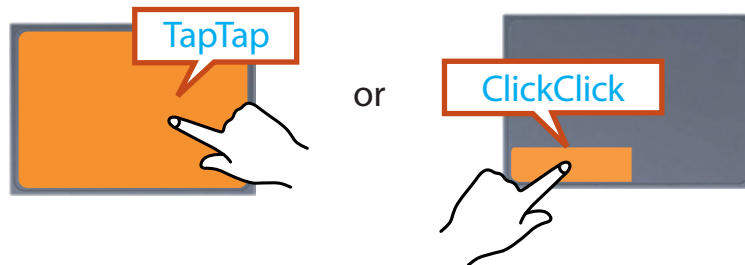
Click Function

Place a finger on the touchpad and click on an item once.
Alternatively, press the left button once quickly and release it.



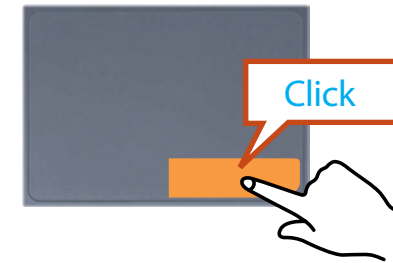
Double-Click Function

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



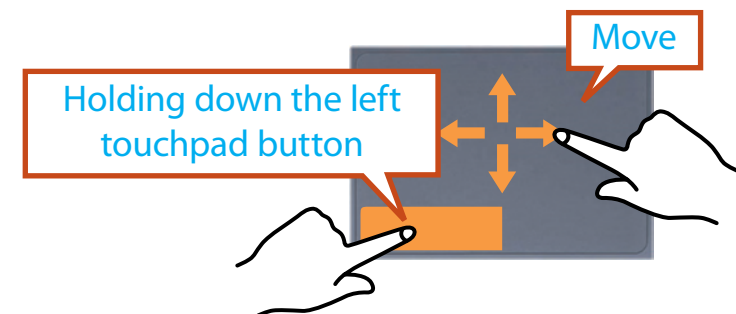
Right Button Function

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



Drag Function

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



The Gesture Function of the Touchpad (Optional)



- The Touchpad Gesture function may not be provided and the version of the function may differ depending on the model. Some usage procedures may differ depending on the version.
- For detailed usage procedures, refer to the description in the Touchpad Settings window.

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

- **Scroll function**
- **Zoom functions**
- **Page Move Function**

Configuring the Gesture Function

Some gesture functions may not be configured.

In this case, you can configure them using the following path.

1

► When using the Elan driver

Click the **Start > Control Panel > Hardware and Sound > Mouse > ELAN > Options** button.

► When using the Synaptics driver

Click the **Start > Control Panel > Hardware and Sound > Mouse > Device Settings** tab > **Settings** button.

2

The Touchpad Settings window appears. Click over the corresponding item to select the item in the **Select an item** and click **OK**.

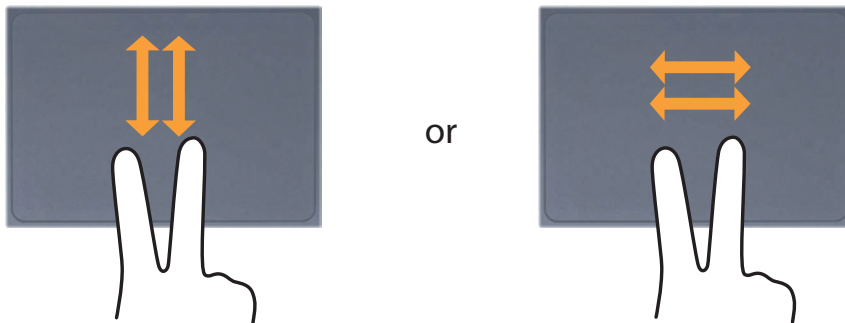


To cancel the Gesture function, unselect the corresponding item in the Touchpad Settings window and click **OK**.

The Scroll Function

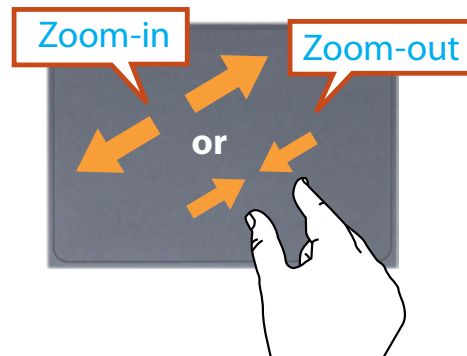
This function is the same as the scroll area of the Touchpad.

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



Zoom Functions

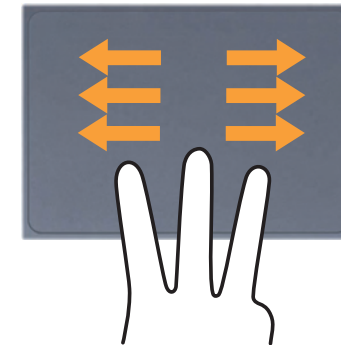
If you place two fingers over the Touchpad together or apart, the current image or text is zoomed in or out.



Page Move Function

You can move to the previous or next page when you are looking at a photo or surfing the Internet.

For example, if you lightly brush three fingers to the left while you are looking at a web site, you will return to the previous page.



Touchpad On/Off Function

Locking with shortcut keys

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

To lock the touchpad function, press the  +  keys.

Alternatively, press the  key and then press the  key to turn the touchpad function off.



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

Auto-locking when connecting USB mouse

► When using the Elan driver

Click **Start > Control Panel > Hardware and Sound > Mouse > ELAN**, and check the **Disable When external USB mouse plug in** option. This will turn the touchpad off when a USB mouse is connected.

► When using the Synaptics driver

Click **Start > Control Panel > Hardware and Sound > Mouse > Device Settings**, and check the **Disable internal pointing device when external USB pointing device is attached** in option. This will turn the touchpad off when a USB mouse is connected.



In case of some touch-screen model, checking option locks touchpad even though you did not connect a USB mouse.



This auto-locking function is not provided for some models.

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

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

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

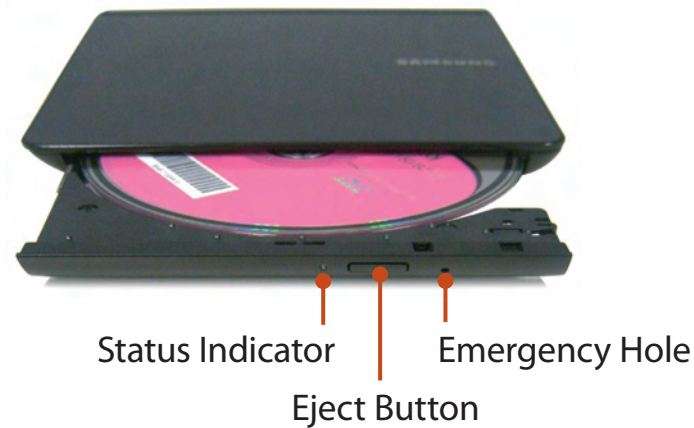
Connecting the CD Drive

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



Inserting and Ejecting a CD

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



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



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

Using the multi card slot, you can read and write data to cards.

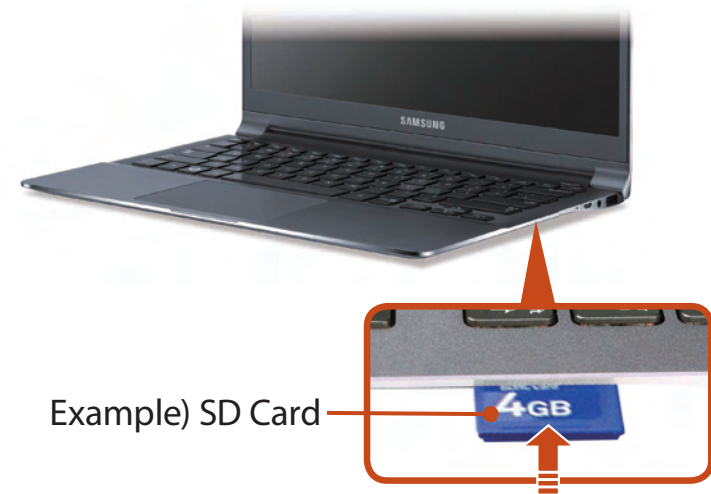
You can use a card as a removable disk and conveniently exchange data with digital devices such as a digital camera, digital camcorder, MP3, etc..



- Supported Cards : SD Card, SDHC Card, 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 the card into the multi card slot in the indicated direction.



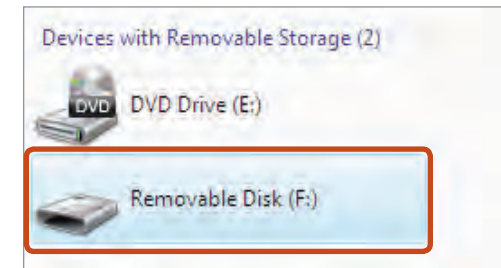
Example) SD Card

- 2 The card drive appears. Click **Open folder and view files**.
If the window does not appear, click **Start > Computer**.



If a window asking to scan and change appears, click **Continue Without Scanning**. This will proceed to Step 2 above.

- 3 You can save, move and delete data by double-clicking the corresponding drive.
You can only use the card after formatting it.



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

Using a Mini SD

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.

To remove a memory card

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

To format a memory card

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

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

- 1 Click **Start** > **Computer**.
- 2 Right-click over a card drive with the touchpad and select **Format**.
- 3 Click **Start** to the formatting.



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

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.

There is an analog monitor port (RGB) and a micro digital video and audio port (Micro HDMI).

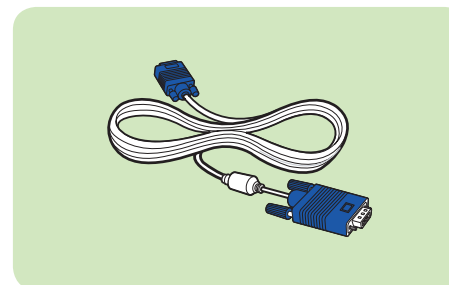
Since the visual quality is higher for Micro HDMI than VGA, if more than one port is available, connect the port that provides the higher visual quality.



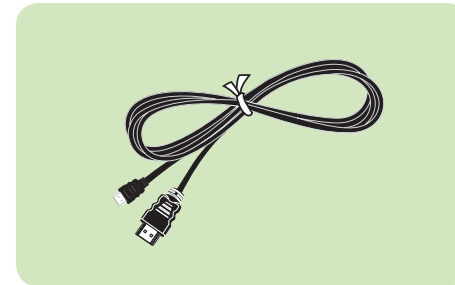
- Before you start, check the port and cable of the external display device and then connect the display device to the computer.
- Due to restrictions of the operating system the DualView function is not supported for Windows 7 Starter.

About the connection cable

Users should additionally purchase the necessary connection cables.



Analog Monitor (RGB) Cable



HDMI to micro HDMI Cable

Connecting to the monitor port (Optional)

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.

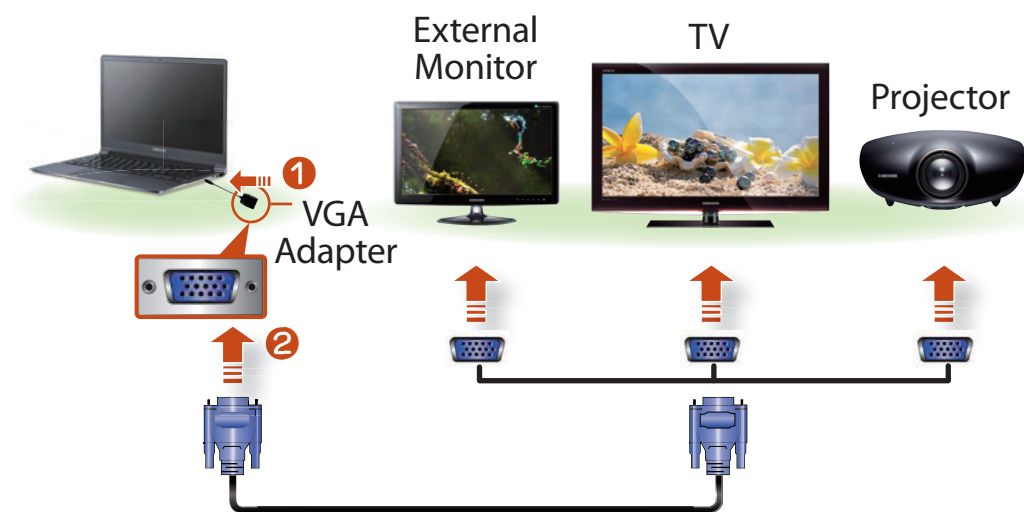


The VGA adapter is optional and may not be provided depending on the model.

1

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

- 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.

- 4 Press the **Fn** + **F4** key combination once. Then the setting screen appears where you can select the monitor mode.

Since pressing the **F4** key while holding down the **Fn** key changes the selection, select a display device.

LCD	
CRT	
LCD+CRT Clone	
LCD+CRT Dual View	



- If the screen is not switched even if you press the **Fn** + **F4** key combination, you have to install the **Easy Settings** program.
- Alternatively, to set up dual view:**
Open the **Display Settings** window in the Control Panel, select **Monitor 2** and select the **Expand to fit to this monitor** checkbox to set dual view. For more detailed information, refer to the Windows online help.

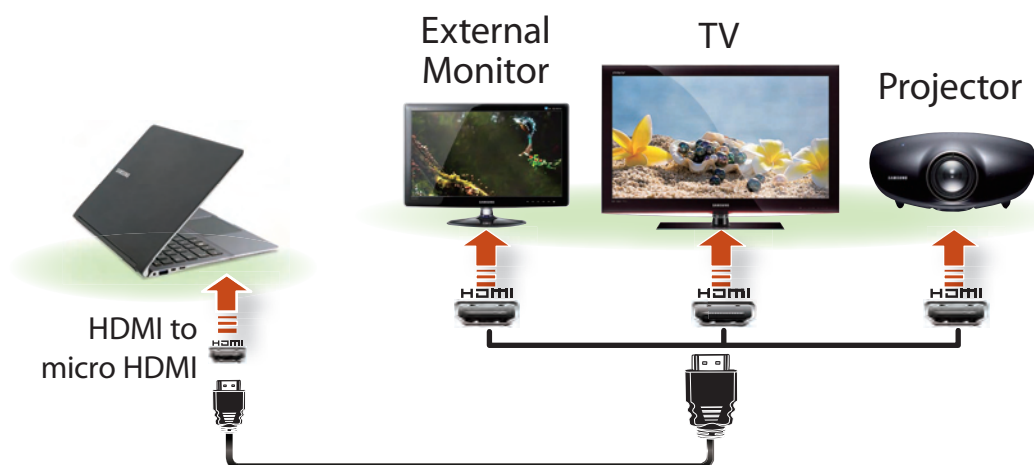
Connecting through the Micro HDMI port (Optional)

By connecting the computer to a TV with a HDMI port, you can enjoy both a high visual quality and a high sound quality.

After connecting a TV through HDMI, you have to configure the screen and sound.

 You have to additionally purchase the HDMI to micro HDMI cable.

- 1 Connect the HDMI to micro HDMI cable to the HDMI port of the TV.



-  This is only supported for models that support a TV output port (HDMI).
- When a TV provides more than one HDMI port, connect the computer to the **DVI IN** port.
- When connecting the computer to a TV, switch the external input mode of the TV to **HDMI**.

- 2 Press the **Fn** + **F4** key combination once. Then the setting screen appears where you can select the monitor mode.

Since pressing the **F4** key while holding down the **Fn** key changes the selection, select a display device.

HDMI	
LCD+HDMI Clone	
LCD+HDMI Dual View	