

MultiBook F24

User Manual

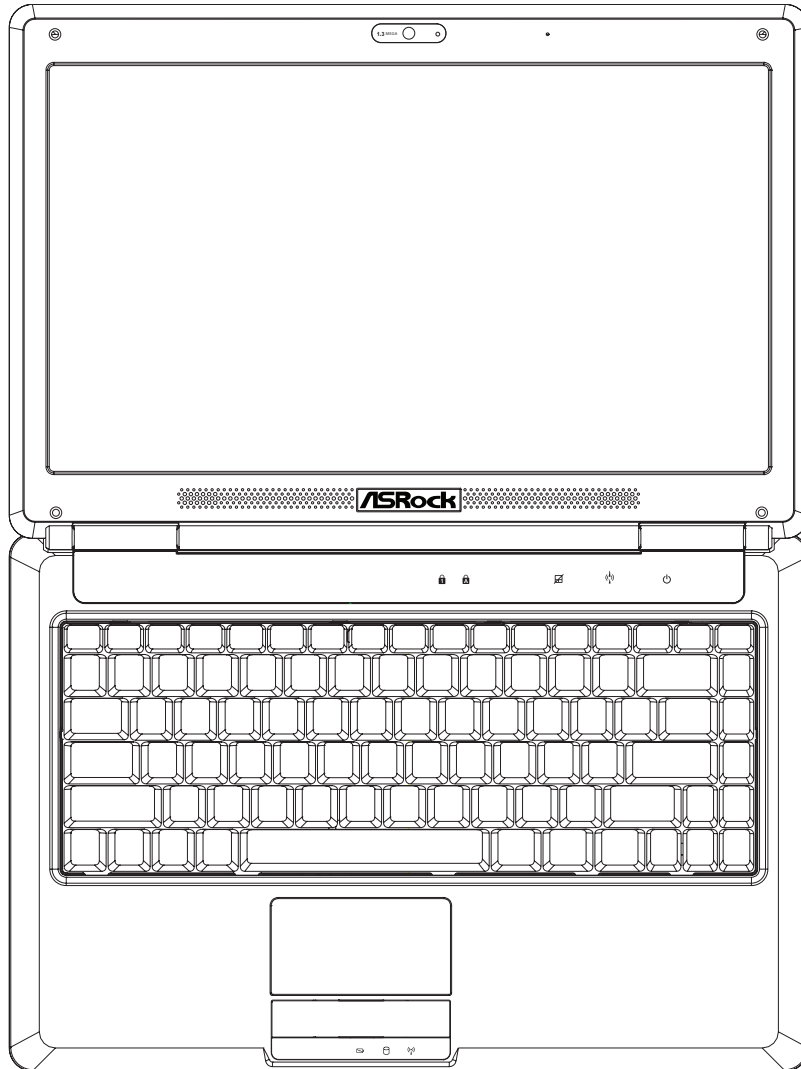


Table of Contents

1. Introducing the Notebook PC

About This User Manual	6
Notes For This Manual.....	6
Safety Precautions	7

2. Knowing the Parts

Top Side.....	10
Front Side.....	11
Rear Side.....	11
Right Side.....	12
Left Side	12

3. Getting Started

Power System	14
Using AC Power.....	14
Using Battery Power	15
Powering ON the Notebook PC	16
Checking Battery Power	17
Charging the Battery Pack.....	17
Power Options	18
Power Management Modes.....	19
Special Keyboard Functions.....	20
Colored Hot Keys.....	20
Microsoft Windows Keys.....	22
Keyboard as a Numeric Keypad	22
Keyboard as Cursors	22
Switches and Status Indicators	23
Switches.....	23
Status Indicators	24

Table of Contents (Cont.)

4. Using the Notebook PC

Pointing Device.....	26
Using the Touchpad	26
Multi-touch Gesture Usage	27
Caring for the Touchpad.....	28
Automatic Touchpad Disabling.....	28
Storage Devices	29
Hard Disk Drive.....	29
Memory (RAM).....	30
Optical Drive	31
Flash Memory Card Reader	33
Connections.....	34
Modem Connection.....	34
Network Connection	35
Wireless LAN Connection	36
Bluetooth Wireless Connection.....	38

1. Introducing the Notebook PC

About This User Manual

Safety Precautions

Transportation Precautions

Preparing your Notebook PC



NOTE: Photos and icons in this manual are used for artistic purposes only and do not show what is actually used in the product itself.

1 Introducing the Notebook PC

About This User Manual



You are reading the Notebook PC User Manual. This User Manual provides information on the various components in the Notebook PC and how to use them. The following are major sections of this User Manual:

1. Introducing the Notebook PC
Introduces you to the Notebook PC and this User Manual.
2. Knowing the Parts
Gives you information on the Notebook PC's components.
3. Getting Started
Gives you information on getting started with the Notebook PC.
4. Using the Notebook PC
Gives you information on using the Notebook PC's components.

Notes For This Manual

A few notes and warnings in bold are used throughout this manual that you should be aware of in order to complete certain tasks safely and completely. These notes have different degrees of importance as described below:



NOTE: Tips and information for special situations.



TIP: Tips and useful information for completing tasks.



IMPORTANT! Vital information that must be followed to prevent damage to data, components, or persons.



WARNING! Important information that must be followed for safe operation.

< > Text enclosed in < > or [] represents a key on the keyboard; do not actually type the [] < > or [] and the enclosed letters.

Safety Precautions

The following safety precautions will increase the life of the Notebook PC. Follow all precautions and instructions. Except as described in this manual, refer all servicing to qualified personnel. Do not use damaged power cords, accessories, or other peripherals. Do not use strong solvents such as thinners, benzene, or other chemicals on or near the surface.



IMPORTANT! Disconnect the AC power and remove the battery pack(s) before cleaning. Wipe the Notebook PC using a clean cellulose sponge or chamois cloth dampened with a solution of nonabrasive detergent and a few drops of warm water and remove any extra moisture with a dry cloth.



DO NOT place on uneven or unstable work surfaces. Seek servicing if the casing has been damaged.



DO NOT place or drop objects on top and do not shove any foreign objects into the Notebook PC.



DO NOT press or touch the display panel. Do not place together with small items that may scratch or enter the Notebook PC.



DO NOT expose to strong magnetic or electrical fields.



DO NOT expose to dirty or dusty environments. DO NOT operate during a gas leak.



DO NOT expose to or use near liquids, rain, or moisture. DO NOT use the modem during an electrical storm.



DO NOT leave the Notebook PC on your lap or any part of the body in order to prevent discomfort or injury from heat exposure.



Battery safety warnings:
DO NOT throw the battery in fire.
DO NOT disassemble the battery.
DO NOT short circuit the contacts.



SAFE TEMP: This Notebook PC should only be used in environments with ambient temperatures between 5°C (41°F) and 35°C (95°F).



INPUT RATING: Refer to the rating label on the bottom of the Notebook PC and be sure that your power adapter complies with the rating.



DO NOT throw the Notebook PC in municipal waste. Check local regulations for disposal of electronic products.



DO NOT carry or cover a Notebook PC that is powered ON with any materials that will reduce air circulation such as a carrying bag.



CAUTION! Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.

2. Knowing the Parts

Basic sides of the Notebook PC



NOTE: Photos and icons in this manual are used for artistic purposes only and do not show what is actually used in the product itself.

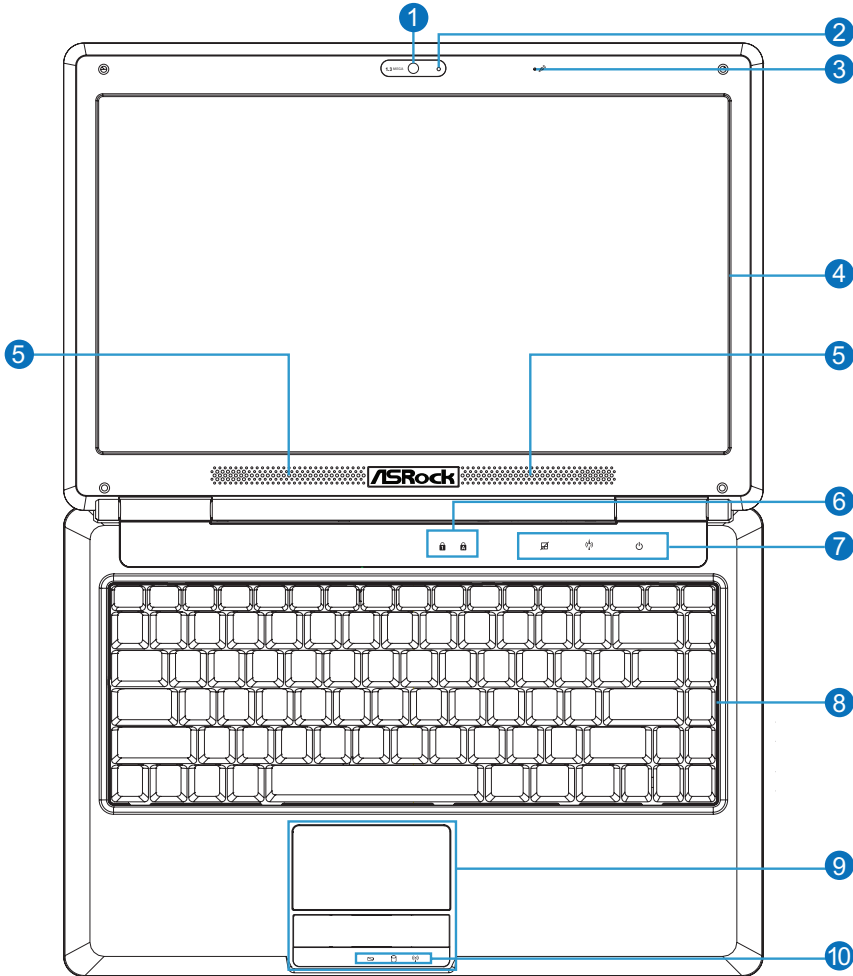
2 Knowing the Parts

Top Side

Refer to the diagram below to identify the components on this side of the Notebook PC.



NOTE: The keyboard will be different for each territory.



1 Camera

2 Camera Indicator

3 Microphone (Built-in)

4 Display Panel

5 Audio Speakers

6 Status Indicators (top)

7 Function Switches

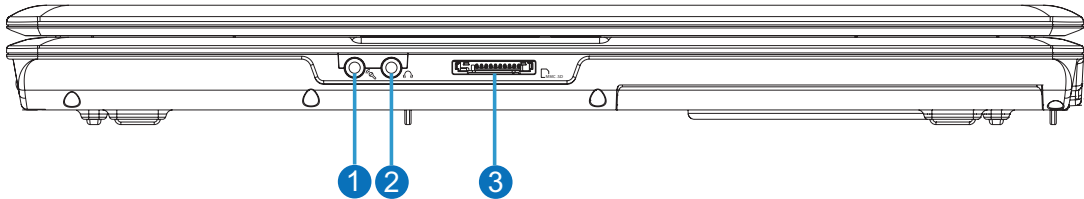
8 Keyboard




9 Touchpad and Buttons

10 Status Indicators (front)

Front Side

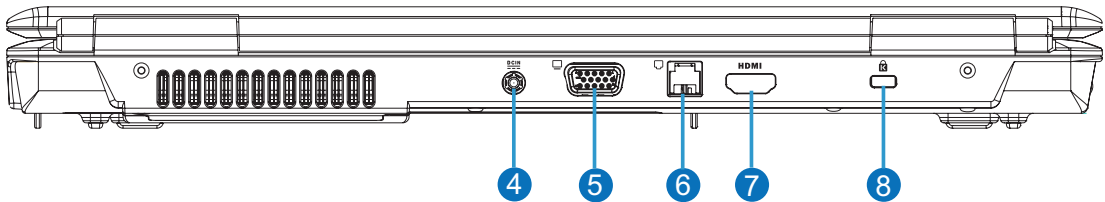
Refer to the diagram below to identify the components on this side of the Notebook PC.




- 1 Microphone Input Jack 
- 2 Headphone Output Jack 
- 3 Memory Card Reader (MMC/SD) 

Rear Side

Refer to the diagram below to identify the components on this side of the Notebook PC.



- 4 Power (DC) Input 
- 5 Display (Monitor) Output 
- 6 Modem Port 

 **IMPORTANT!** The built-in modem does not support the voltage used in digital phone systems. Do not connect the modem port to a digital phone system or else damage will occur to the Notebook PC.

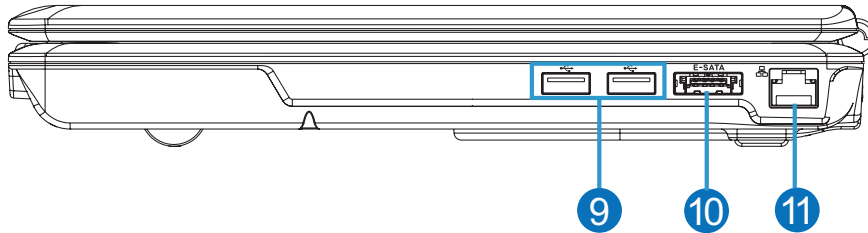


- 7 HDMI Port 
- 8 Kensington® Lock Port 

2 Knowing the Parts

Right Side

Refer to the diagram below to identify the components on this side of the Notebook PC.



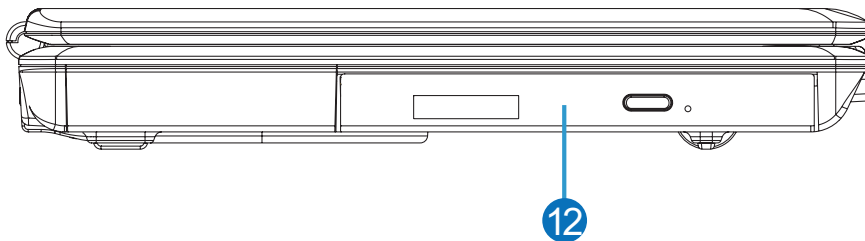
9 USB Ports (2.0/1.1)  2.0

10 E-SATA Port 

11 LAN Port 

Left Side

Refer to the diagram below to identify the components on this side of the Notebook PC.



12 Optical Drive 

3. Getting Started

Power System

Special Keyboard Functions

Switches and Status Indicators



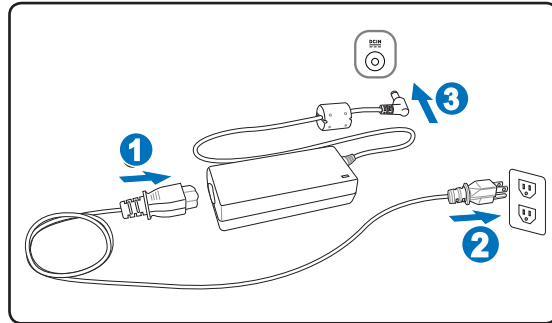
NOTE: Photos and icons in this manual are used for artistic purposes only and do not show what is actually used in the product itself.

Power System



Using AC Power

The Notebook PC power is comprised of two parts, the power adapter and the battery power system. The power adapter converts AC power from a wall outlet to the DC power required by the Notebook PC. Your Notebook PC comes with a universal AC-DC adapter. That means that you may connect the power cord to any 100V-120V as well as 220V-240V outlets without setting switches or using power converters. Different countries may require that an adapter be used to connect the provided US-standard AC power cord to a different standard. Most hotels will provide universal outlets to support different power cords as well as voltages. It is always best to ask an experienced traveler about AC outlet voltages when bringing power adapters to another country.



TIP: You can buy travel kits for the Notebook PC that includes power and modem adapters for almost every country.



IMPORTANT! Damage may occur if you use a different adapter to power the Notebook PC or use the Notebook PC's adapter to power other electrical devices. If there is smoke, burning scent, or extreme heat coming from the AC-DC adapter, seek servicing. Seek servicing if you suspect a faulty AC-DC adapter. You may damage both your battery pack(s) and the Notebook PC with a faulty AC-DC adapter.



NOTE: This Notebook PC may come with either a two or three-prong plug depending on territory. If a three-prong plug is provided, you must use a grounded AC outlet or use a properly grounded adapter to ensure safe operation of the Notebook PC.




WARNING! THE POWER ADAPTER MAY BECOME WARM TO HOT WHEN IN USE. BE SURE NOT TO COVER THE ADAPTER AND KEEP IT AWAY FROM YOUR BODY.

Using Battery Power

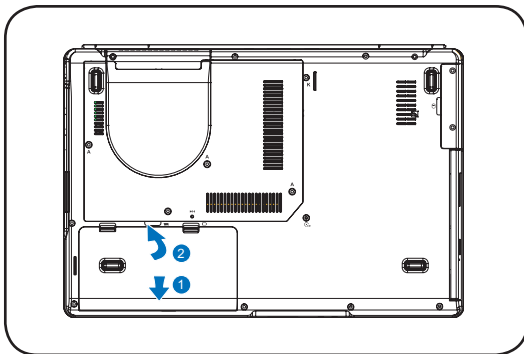
The Notebook PC is designed to work with a removable battery pack. The battery pack consists of a set of battery cells housed together. A fully charged pack will provide several hours of battery life, which can be further extended by using power management features through the BIOS setup. Additional battery packs are optional and can be purchased separately through a Notebook PC retailer.

Installing and Removing the Battery Pack

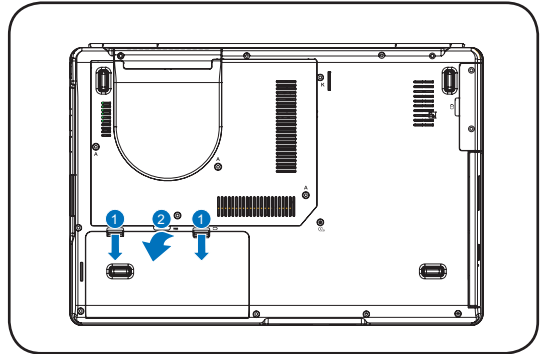
Your Notebook PC may or may not have its battery pack installed. If your Notebook PC does not have its battery pack installed, use the following procedures to install the battery pack.


 **IMPORTANT!** Never attempt to remove the battery pack while the Notebook PC is turned ON, as this may result in the loss of working data.


To install the battery pack:



To remove the battery pack:



 **IMPORTANT!** Only use battery packs and power adapters supplied with this Notebook PC or specifically approved by the manufacturer or retailer for use with this model, do not use incorrect battery types or else damage may occur to the Notebook PC.

 **WARNING!** For safety reasons, **DO NOT** throw the battery in fire, **DO NOT** short circuit the contacts, and **DO NOT** disassemble the battery. If there is any abnormal operation or damage to the battery pack caused by impact, turn OFF the Notebook PC and contact an authorized service center.



3 Getting Started

Powering ON the Notebook PC

The Notebook PC's power-ON message appears on the screen when you turn it ON. If necessary, you may adjust the brightness by using the hot keys. If you need to run the BIOS Setup to set or modify the system configuration, press [F2] upon bootup to enter the BIOS Setup. If you press [Tab] during the splash screen, standard boot information such as the BIOS version can be seen. Press [ESC] and you will be presented with a boot menu with selections to boot from your available drives.



NOTE: Before bootup, the display panel flashes when the power is turned ON. This is part of the Notebook PC's test routine and is not a problem with the display.



IMPORTANT! To protect the hard disk drive, always wait at least 5 seconds after turning OFF your Notebook PC before turning it back ON.




WARNING! DO NOT carry or cover a Notebook PC that is powered ON with any materials that will reduce air circulation such as a carrying bag.

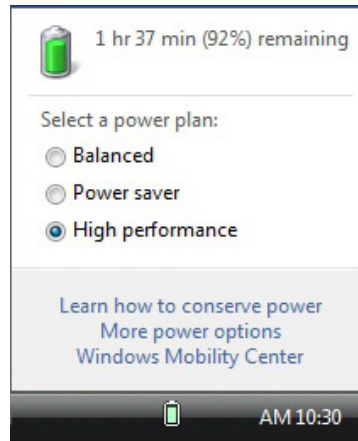


IMPORTANT! If warnings are still given during bootup after running a software disk checking utility, you should take your Notebook PC in for servicing. Continued use may result in data loss.

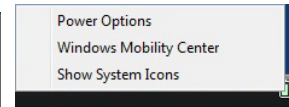
Checking Battery Power

The battery system implements the Smart Battery standard under the Windows environment, which allows the battery to accurately report the amount of charge left in the battery. A fully-charged battery pack provides the Notebook PC a few hours of working power. But the actual figure varies depending on how you use the power saving features, your general work habits, the CPU, system memory size, and the size of the display panel.

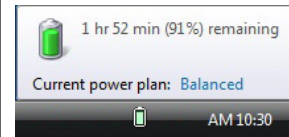
 **NOTE: Screen captures shown here are examples only and may not reflect what you see in your system.**



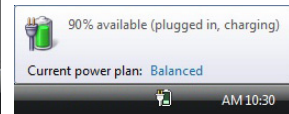
Left-click the battery icon



Right-click the battery icon



Cursor over the battery icon without power adapter.



Cursor over the battery icon with power adapter.

 **NOTE: You will be warned when battery power is low. If you continue to ignore the low battery warnings, the Notebook PC eventually enters suspend mode (Windows default uses STR).**



WARNING! Suspend-to-RAM (STR) does not last long when the battery power is depleted. Suspend-to-Disk (STD) is not the same as power OFF. STD requires a small amount of power and will fail if no power is available due to complete battery depletion or no power supply (e.g. removing both the power adapter and battery pack).

Charging the Battery Pack

Before you use your Notebook PC on the road, you will have to charge the battery pack. The battery pack begins to charge as soon as the Notebook PC is connected to external power using the power adapter. Fully charge the battery pack before using it for the first time. A new battery pack must completely charge before the Notebook PC is disconnected from external power. It takes a few hours to fully charge the battery when the Notebook PC is turned OFF and may take twice the time when the Notebook PC is turned ON. The battery status indicator on the Notebook PC turns OFF when the battery pack is charged.

 **NOTE: The battery stops charging if the temperature is too high or the battery voltage is too high.**



WARNING! Do not leave the battery pack discharged. The battery pack will discharge over time. If not using a battery pack, it must continued to be charged every three months to extend recovery capacity or else it may fail to charge in the future.

3 Getting Started

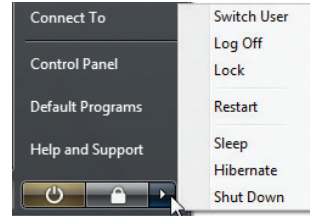
Power Options

The power switch turns ON and OFF the Notebook PC or putting the Notebook PC into sleep or hibernation modes. Actual behavior of the power switch can be customized in Windows Control Panel “Power Options.”

For other options, such as “Switch User, Restart, Sleep, or Shut Down,” click the arrowhead next to the lock icon.

Restarting or Rebooting

After making changes to your operating system, you may be prompted to restart the system. Some installation processes will provide a dialog box to allow restart. To restart the system manually, choose Restart.



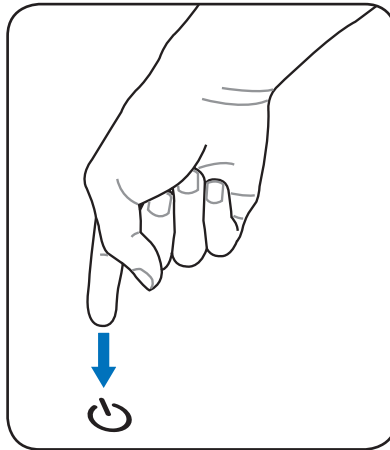
IMPORTANT! To protect the hard drive, wait at least 5 seconds after turning OFF your Notebook PC before turning it back ON.



Emergency Shutdown

In case your operating system cannot properly turn OFF or restart, there is a manual way to shutdown your Notebook PC:

Hold the power switch  over 4 seconds



IMPORTANT! Do not use emergency shutdown while data is being written; doing so can result in loss or destruction of your data.

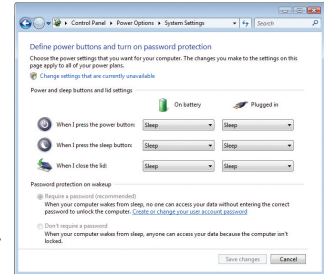


Power Management Modes

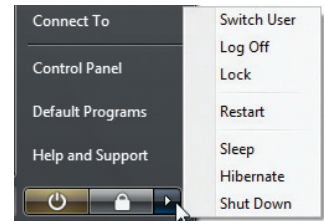
The Notebook PC has a number of automatic or adjustable power saving features that you can use to maximize battery life and lower Total Cost of Ownership (TCO). You can control some of these features through the Power menu in the BIOS Setup. ACPI power management settings are made through the operating system. The power management features are designed to save as much electricity as possible by putting components into a low power consumption mode as often as possible but also allow full operation on demand.

Sleep and Hibernate

Power management settings can be found in the Windows > Control Panel > Power Options. In System Settings, you can define “Sleep/Hibernate” or “Shut Down” for closing the display panel or pressing the power button. “Sleep” and “Hibernate” saves power when your Notebook PC is not in use by turning OFF certain components. When you resume your work, your last status (such as a document scrolled down half way or email typed half way) will reappear as if you never left. “Shut Down” will close all applications and ask if you want to save your work if any are not saved.



Sleep is the same as Suspend-to-RAM (STR). This function stores your current data and status in RAM while many components are turned OFF. Because RAM is volatile, it requires power to keep (refresh) the data. Click the Start button and the arrowhead next to the lock icon to see this option. You can also use the keyboard shortcut [Fn F1] to activate this mode. Recover by pressing any keyboard key except [Fn]. (NOTE: The power indicator will blink in this mode.)



Hibernate is the same as Suspend-to-Disk (STD) and stores your current data and status on the hard disk drive. By doing this, RAM does not have to be periodically refreshed and power consumption is greatly reduced but not completely eliminated because certain wake-up components like LAN needs to remain powered. “Hibernate” saves more power compared to “Sleep”. Click the Start button and the arrowhead next to the lock icon to see this option. Recover by pressing the power button. (NOTE: The power indicator will be OFF in this mode.)

Thermal Power Control

There are three power control methods for controlling the Notebook PC’s thermal state. These methods cannot be configured by the user and should be known in case the Notebook PC should enter these states. The following temperatures represent the chassis temperature (not CPU).

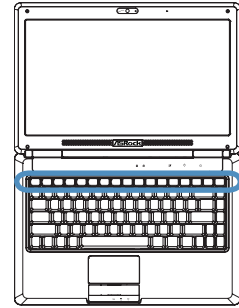
- The fan turns ON for active cooling when temperature reaches the safe upper limit.
- The CPU decreases speed for passive cooling when the temperature exceeds the safe upper limit.
- The system shuts down for critical cooling when temperature exceeds the maximum safe upper limit.





Special Keyboard Functions



Colored Hot Keys




The following defines the colored hot keys on the Notebook PC's keyboard. The colored commands can only be accessed by first pressing and holding the function key while pressing a key with a colored command.








NOTE: The Hot Key locations on the function keys may vary depending on model but the functions should remain the same.



  “Zz” Icon (F1): Places the Notebook PC in suspend mode (either Save-to-RAM or Save-to-Disk depending on sleep button setting in power management setup).

  Radio Tower (F2): Wireless Models Only: Toggles the internal wireless LAN ON or OFF with an on-screen-display. When enabled, the corresponding wireless indicator will light. Windows software settings are necessary to use the wireless LAN.



  Envelope Icon (F3): Pressing this button will launch your Email application while Windows is running. 



  “e” Icon (F4): Pressing this button will launch your Internet browser application while Windows is running. 

  Filled Sun Icon (F5):
Decreases the display brightness

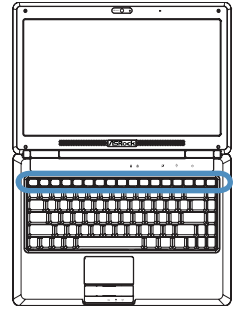
  Open Sun Icon (F6):
Increases the display brightness

  LCD Icon (F7): Toggles the display panel ON and OFF. (On certain models; stretches the screen area to fill the entire display when using low resolution modes.)

  LCD/Monitor Icons (F8): Toggles between the Notebook PC's LCD display and an external monitor in this series: Notebook PC LCD -> External Monitor -> Both. (This function does not work in 256 Colors, select High Color in Display Property Settings.) NOTE: Must connect an external monitor “before” booting up.

  Crossed-out Touchpad (F9): Toggles the built-in touchpad LOCKED (disabled) and UNLOCKED (enabled). Locking the touchpad will prevent you from accidentally moving the cursor while typing and is best used with an external pointing device such as a mouse. NOTE: Selected models have an indicator between the touchpad buttons will light when the touchpad is UNLOCKED (enabled) and not light when the touchpad is LOCKED (disabled).

Colored Hot Keys (cont.)



NOTE: The Hot Key locations on the function keys may vary depending on model but the functions should remain the same.



Speaker Icons (F10):

Toggles the speakers ON and OFF (only in Windows OS)



Speaker Down Icon (F11):

Decreases the speaker volume (only in Windows OS)



Speaker Up Icon (F12):

Increases the speaker volume (only in Windows OS)



Num Lk (Ins): Toggles the numeric keypad (number lock) ON and OFF. Allows you to use a larger portion of the keyboard for number entering.



Scr Lk (Del): Toggles the “Scroll Lock” ON and OFF. Allows you to use a larger portion of the keyboard for cell navigation.



3 Getting Started

Microsoft Windows Keys

There are two special Windows keys on the keyboard as described below.



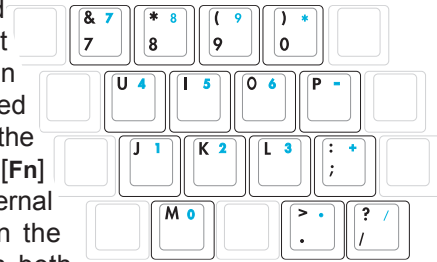
The key with the Windows Logo activates the Start menu located at the bottom left of the Windows desktop.



The other key, that looks like a Windows menu with a small cursor, activates the properties menu and is equivalent to pressing the right mouse button on a Windows object.

Keyboard as a Numeric Keypad

The numeric keypad is embedded in the keyboard and consists of 15 keys that make number intensive input more convenient. These dual-purpose keys are labeled in orange on the key caps. Numeric assignments are located at the upper right hand corner of each key as shown in the figure. When the numeric keypad is engaged by pressing [Fn] [Ins/Num LK], the number lock LED lights up. If an external keyboard is connected, pressing the [Ins/Num LK] on the external keyboard enables/disables the NumLock on both keyboards simultaneously. To disable the numeric keypad while keeping the keypad on an external keyboard activated, press the [Fn][Ins/Num LK] keys on the Notebook PC.

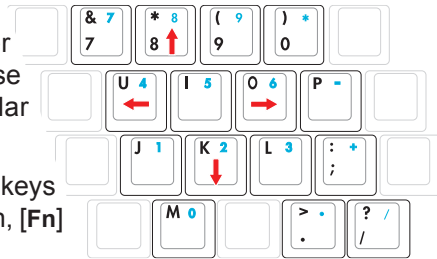


Keyboard as Cursors

The keyboard can be used as cursors while Number Lock is ON or OFF in order to increase navigation ease while entering numeric data in spreadsheets or similar applications.

With Number Lock OFF, press [Fn] and one of the cursor keys shown below. For example [Fn][8] for up, [Fn][K] for down, [Fn][U] for left, and [Fn][O] for right.

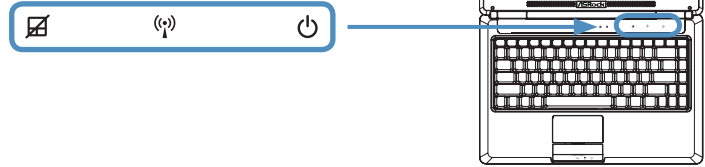
With Number Lock ON, use [Shift] and one of the cursor keys shown below. For example [Shift][8] for up, [Shift][K] for down, [Shift][U] for left, and [Shift][O] for right.



NOTE: The red arrows are illustrated here for your reference. They are not labeled on the keyboard as shown here.

Switches and Status Indicators

Switches



Touchpad Lock Switch

This switch locks/unlocks the built-in touchpad. Locking the touchpad will prevent you from accidentally moving the cursor while typing and is best used with an external mouse (pointing device).



Wireless Switch

Wireless Models Only: Toggles the internal wireless LAN or Bluetooth (on selected models) ON or OFF with an on-screen display. When enabled, the corresponding wireless indicator will light. Windows software settings are necessary to use the wireless LAN or Bluetooth.



Power Switch

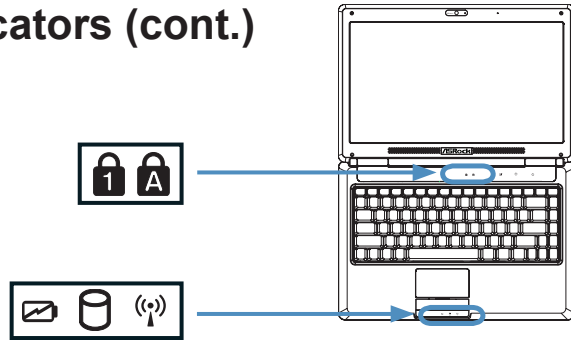
The power switch turns ON and OFF the Notebook PC or putting the Notebook PC into sleep or hibernation modes. Actual behavior of the power switch can be customized in Windows Control Panel “Power Options.”



Switches and Status Indicators (cont.)

Status Indicators

Top & Front



Number Lock Indicator

Indicates that number lock [Num Lk] is activated when lighted. Number lock allows some of the keyboard letters to act as numbers for easier numeric data input.



Capital Lock Indicator

Indicates that capital lock [Caps Lock] is activated when lighted. Capital lock allows some of the keyboard letters to type using capitalized letters (e.g. A, B, C). When the capital lock light is OFF, the typed letters will be in the lower case form (e.g. a,b,c).



Battery Charge Indicator

The battery charge indicator shows the status of the battery's power as follows:
ON: The Notebook PC's battery is charging when AC power is connected.
OFF: The Notebook PC's battery is charged or completely drained.
Blinking: Battery power is less than 10% and the AC power is not connected.



Drive Activity Indicator

Indicates that the Notebook PC is accessing one or more storage device(s) such as the hard disk. The light flashes proportional to the access time.



Wireless Indicator

This is only applicable on models with built-in wireless LAN. When the built-in wireless LAN is enabled, this indicator will light. (Windows software settings are necessary.)



4. Using the Notebook PC

Pointing Device
Storage Devices
Connections



NOTE: Photos and icons in this manual are used for artistic purposes only and do not show what is actually used in the product itself.

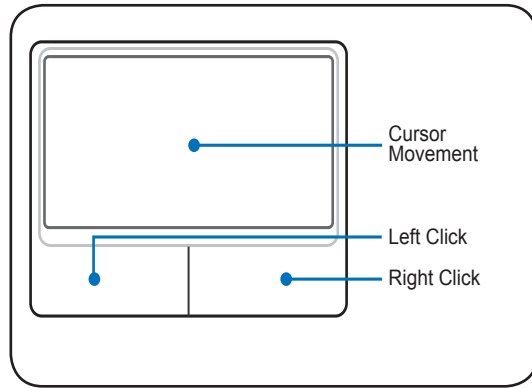
4 Using the Notebook PC

Pointing Device

The Notebook PC's integrated touchpad pointing device is fully compatible with all two/three-button and scrolling knob PS/2 mice. The touchpad is electrostatic sensitive and contains no moving parts; therefore, mechanical failures can be avoided. A device driver is still required for working with some application software.



IMPORTANT! Do not use any objects in place of your finger to operate the touchpad or else damage may occur to the touchpad's surface.

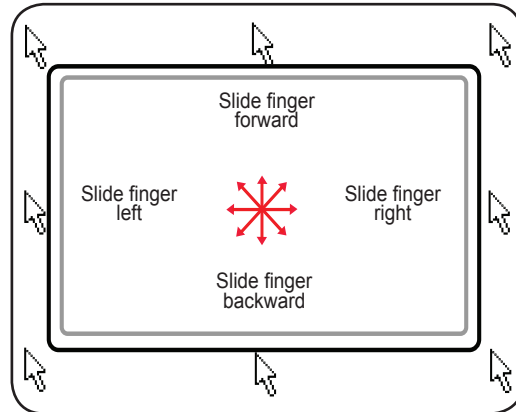


Using the Touchpad

Light pressure with the tip of your finger is all that is required to operate the touchpad. Because the touchpad is electrostatic sensitive, objects cannot be used in place of your fingers. The touchpad's primary function is to move the cursor around or select items displayed on the screen with the use of your fingertip instead of a standard desktop mouse. The following illustrations demonstrate proper use of the touchpad.

Moving The Cursor

Place your finger in the center of the touchpad and slide in a direction to move the cursor.

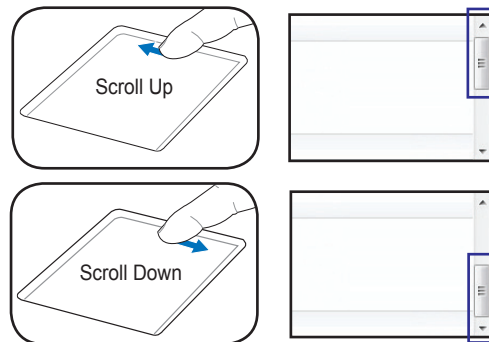


Scrolling (on selected models)

Slide your finger up or down on the right side to scroll a window up or down.



NOTE: A software-controlled scrolling function is available after setting up the included touchpad utility to allow easy Windows or web navigation.



Multi-touch Gesture Usage

Multi-touch recognizes multiple simultaneous touch points to allow advanced software actions using just two fingers.



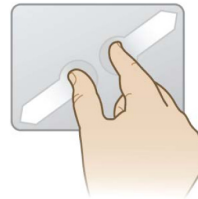
Chiral Scrolling

Touch the vertical scroll zone as shown and then slide your finger CW or CCW to scroll continuously. Convenient for scrolling a long document.



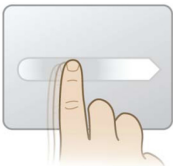
Chiral Rotate

Touch the left vertical zone as shown and then slide your finger CW or CCW for rotating an item, such as a photo.



Two Fingers Flick

Slide two fingers up/down/left/or right for enhanced navigation, such as browsing back on the web.



Two Fingers Pinch Zoom

Slide two fingers outwards to zoom in. Slide two fingers inwards to zoom out.



TIP: For detailed gesture usage, please refer to the video demonstration in “Mouse Properties” > “Device Settings”

Momentum Motion

Flick one finger for delivering smooth and fast cursor motion, like that of a trackball. Convenient for moving a window onto a secondary monitor.

4 Using the Notebook PC

□ Caring for the Touchpad

The touchpad is pressure sensitive. If not properly cared for, it can be easily damaged. Take note of the following precautions.

- Make sure the touchpad does not come into contact with dirt, liquids or grease.
- Do not touch the touchpad if your fingers are dirty or wet.
- Do not rest heavy objects on the touchpad or the touchpad buttons.
- Do not scratch the touchpad with your finger nails or any hard objects.

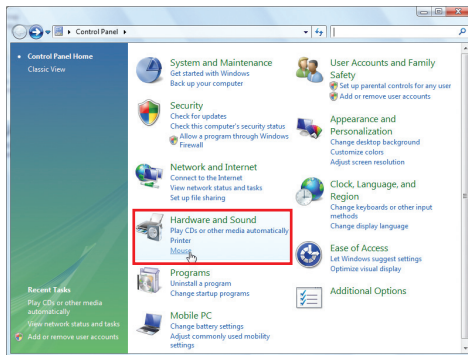


NOTE: The touchpad responds to movement not to force. There is no need to tap the surface too hard. Tapping too hard does not increase the responsiveness of the touchpad. The touchpad responds best to light pressure.

□ Automatic Touchpad Disabling

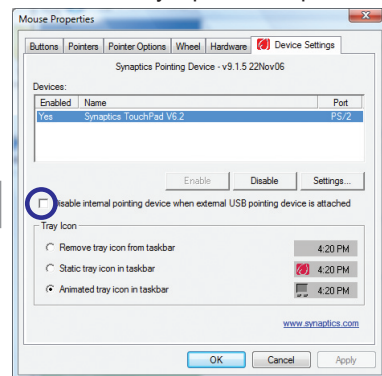
Windows can automatically disable the Notebook PC's touchpad when an external USB mouse is attached. This feature is normally OFF, to turn ON this feature, select the option in Windows Control Panel > Mouse Properties > Device Settings (or USB mouse connection).

Control Panel Home

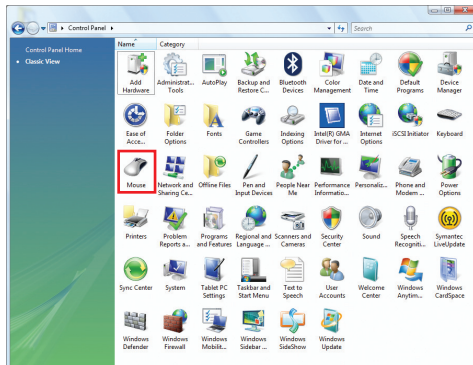


Select this option to enable this feature.

Models with Synaptics touchpad.

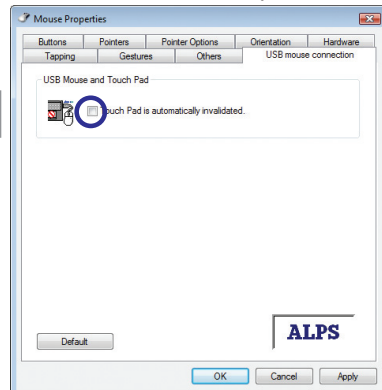


Control Panel - Classic View



Select this option to enable this feature.

Models with ALPS touchpad.



Storage Devices

Storage devices allow the Notebook PC to read or write documents, pictures, and other files to various data storage devices. This Notebook PC has the following storage devices:

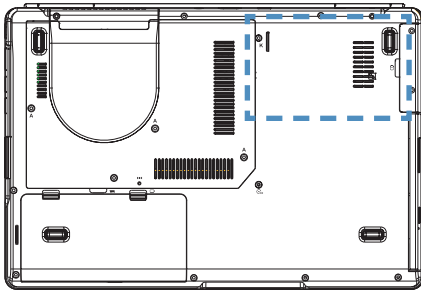
- Hard Disk Drive
- Memory (RAM)
- Optical Drive
- Flash Memory Card Reader

Hard Disk Drive

Hard disk drives have higher capacities and operate at much faster speeds than floppy disk drives and optical drives. The Notebook PC comes with a replaceable hard disk drive. Current hard drives support S.M.A.R.T. (Self Monitoring and Reporting Technology) to detect hard disk errors or failures before they happen. When replacing or upgrading the hard drive, always visit an authorized service center or retailer for this Notebook PC.



IMPORTANT! Poor handling of the Notebook PC may damage the hard disk drive. Handle the Notebook PC gently and keep it away from static electricity and strong vibrations or impact. The hard disk drive is the most delicate component and will likely be the first or only component that is damaged if the Notebook PC is dropped.



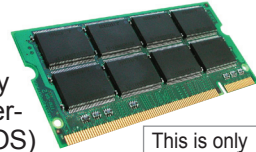
Hard Disk Drive Compartment

The hard disk drive is secured in a compartment. Visit an authorized service center or retailer for information on hard disk drive upgrades for your Notebook PC. Only purchase hard disk drives from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

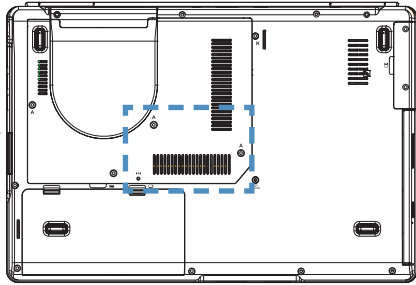
4 Using the Notebook PC

Memory (RAM)

Additional memory will increase application performance by decreasing hard disk access. The BIOS automatically detects the amount of memory in the system and configures CMOS accordingly during the POST (Power-On-Self-Test) process. There is no hardware or software (including BIOS) setup required after the memory is installed.

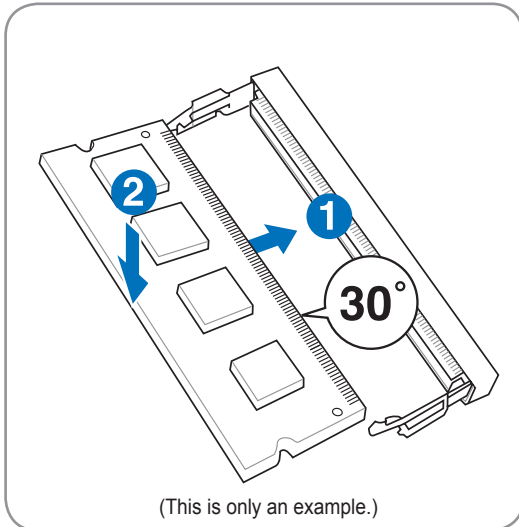


This is only an example.

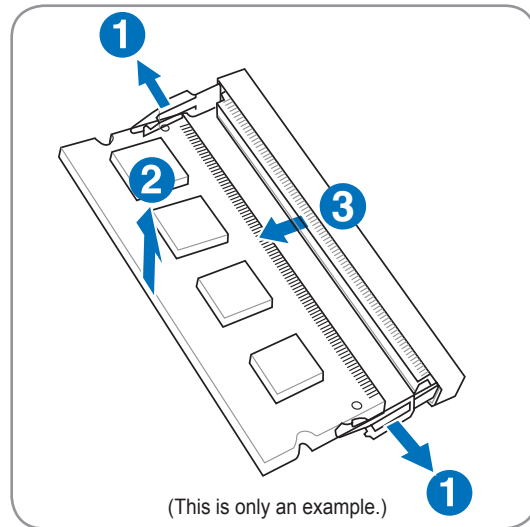


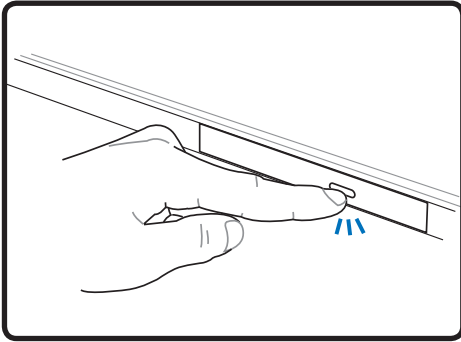
The memory compartment provides expansion capabilities for additional memory. Visit an authorized service center or retailer for information on memory upgrades for your Notebook PC. Only purchase expansion modules from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

Installing a Memory Module:

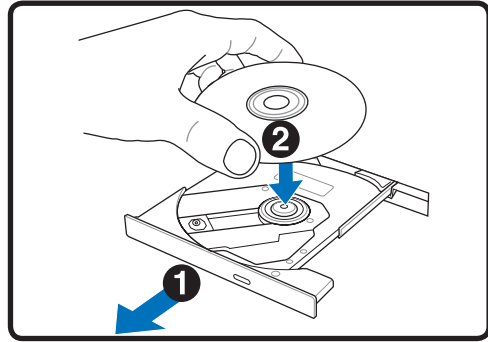


Removing a Memory Module:

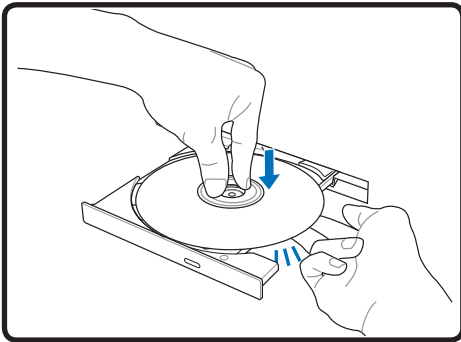


Optical Drive**Inserting an optical disc**

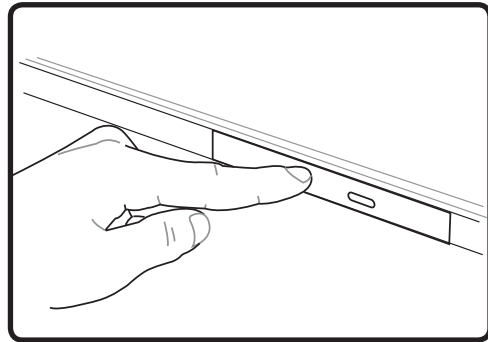
1. While the Notebook PC's power is ON, press the drive's eject button and the tray will eject out partially.



2. Gently pull on the drive's front panel and slide the tray completely out. Be careful not to touch the drive lens and other mechanisms. Make sure there are no obstructions that may get jammed under the drive's tray.



3. Hold the disc by the edge and face the disc's printed side up. Push down on both sides of the disc's center until the disc snaps onto the hub. The hub should be higher than the disc when correctly mounted.

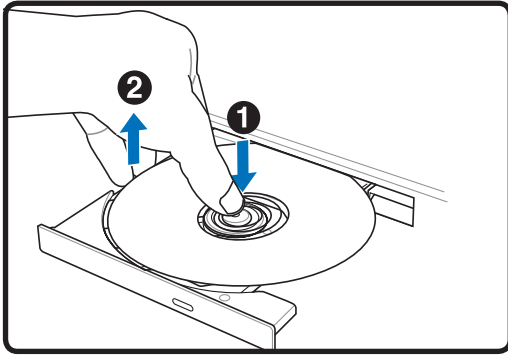


4. Slowly push the drive's tray back in. The drive will begin reading the table of contents (TOC) on the disc. When the drive stops, the disc is ready to be used.

NOTE: It is normal to hear as well as feel the disc spinning with great intensity in the optical drive while data is read.

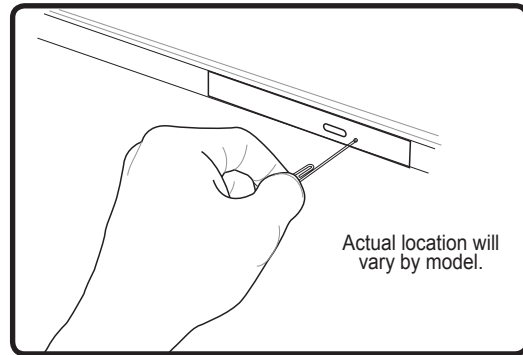
⊙ Optical Drive (Cont.)

Removing an optical disc



Eject the tray and gently pry the edge of the disc upwards at an angle to remove the disc from the hub.

Emergency eject



The emergency eject is located in a hole on the optical drive and is used to eject the optical drive tray in case the electronic eject does not work. Do not use the emergency eject in place of the electronic eject. Note: Make sure not to stab the activity indicator located in the same area.

Using the Optical Drive

Optical discs and equipment must be handled with care because of the precise mechanics involved. Keep in mind the important safety instructions from your disc suppliers. Unlike desktop optical drives, the Notebook PC uses a hub to hold the disc in place regardless of the angle. When inserting a disc, it is important that the disc be pressed onto the center hub or else the optical drive tray will scratch the disc.



WARNING! If the disc is not properly locked onto the center hub, the disc can be damaged when the tray is closed. Always watch the disc closely while closing the tray slowly to prevent damage.

A optical drive letter should be present regardless of the presence of a disc in the drive. After the disc is properly inserted, data can be accessed just like with hard disk drives; except that nothing can be written to or changed on the disc. Using the proper software, a CD-RW drive or DVD+CD-RW drive can allow CD-RW discs to be used like a hard drive with writing, deleting, and editing capabilities.

Vibration is normal for high-speed optical drives due to unbalanced discs or prints. To decrease vibration, use the Notebook PC on an even surface and do not place labels on the disc.

Listening to Audio CD

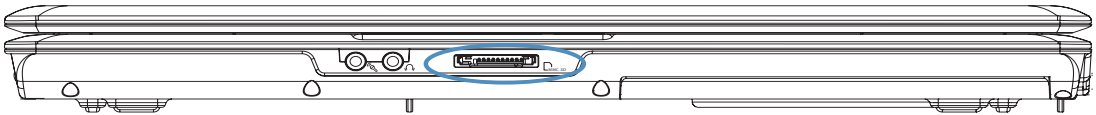
The optical drives can play audio CDs, but only the DVD-ROM drive can play DVD audio. Insert the audio CD and Windows automatically opens an audio player and begins playing. Depending on the DVD audio disc and installed software, it may require that you open a DVD player to listen to DVD audio. You can adjust the volume using hotkeys or Windows speaker icon on the taskbar.

Flash Memory Card Reader

Normally a memory card reader must be purchased separately in order to use memory cards from devices such as digital cameras, MP3 players, mobile phones, and PDAs. This Notebook PC has a built-in memory card reader that can use many flash memory cards as shown in the example below. The built-in memory card reader is not only convenient, but also faster than most other forms of memory card readers because it utilizes the internal high-bandwidth PCI bus.

IMPORTANT! Flash memory card compatibility varies depending on Notebook PC model and flash memory card specifications. Flash memory card specifications constantly change so compatibility may change without warning.

Flash Memory Card Examples



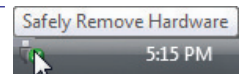
MMC (Multimedia Card)
MMC Plus
RS-MMC (Reduced Size) (with MMC adapter)

SD (Secure Digital)
miniSD (with SD adapter)

SDHC (Secure Digital High Capacity)
microSD (with SD adapter)

IMPORTANT! Never remove cards while or immediately after reading, copying, formatting, or deleting data on the card or else data loss may occur.

WARNING! To prevent data loss, use “Windows Safely Remove Hardware” on the taskbar before removing the flash memory card.



Connections



NOTE: The built-in modem and network cannot be installed later as an upgrade. After purchase, modem and/or network can be installed as an expansion card.

Modem Connection

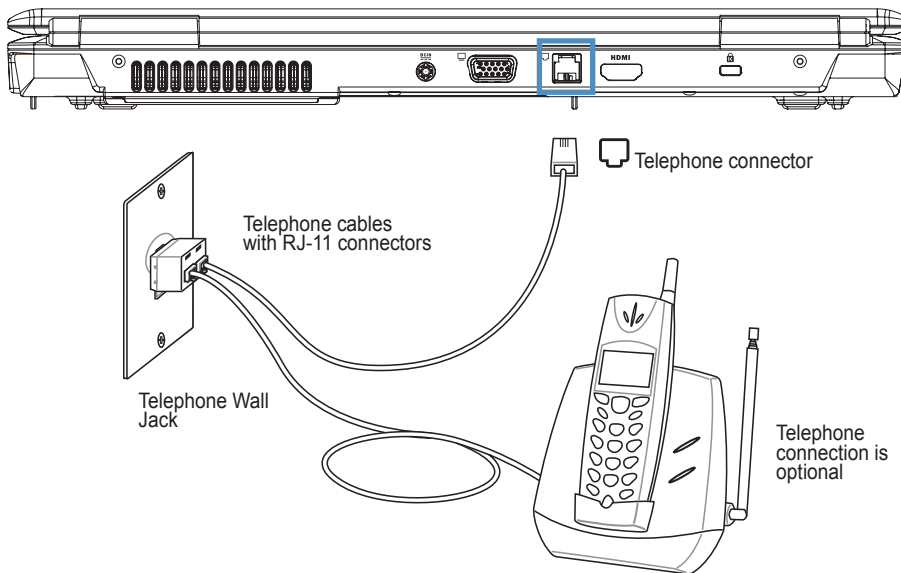
The telephone wire used to connect the Notebook PC's internal modem should have either two or four wires (only two wires (telephone line #1) is used by the modem) and should have an RJ-11 connector on both ends. Connect one end to the modem port and the other end to an analog telephone wall socket (the ones found in residential buildings). Once the driver is setup, the modem is ready to use.



NOTE: When you are connected to an online service, do not place the Notebook PC in suspend (or sleep mode) or else you will disconnect the modem connection.



Example of the Notebook PC connected to a telephone jack for use with the built-in modem:



WARNING! Only use analog telephone outlets. The built-in modem does not support the voltage used in digital phone systems. Do not connect the RJ-11 to digital phone systems found in many commercial buildings or else damage will occur!



CAUTION: For electrical safety concerns, only use telephone cables rated 26AWG or higher.

Network Connection

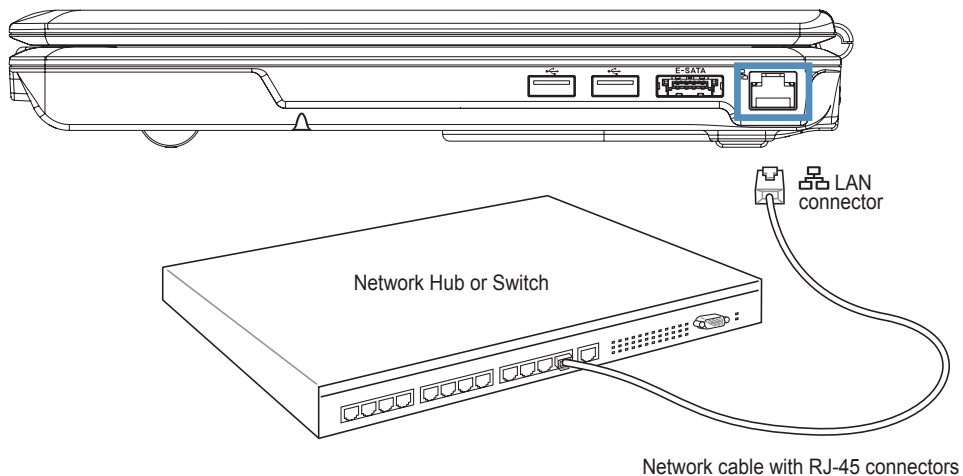
Connect a network cable, with RJ-45 connectors on each end, to the modem/network port on the Notebook PC and the other end to a hub or switch. For 100 BASE-TX / 1000 BASE-T speeds, your network cable must be category 5 or better (not category 3) with twisted-pair wiring. If you plan on running the interface at 100/1000Mbps, it must be connected to a 100 BASE-TX / 1000 BASE-T hub (not a BASE-T4 hub). For 10Base-T, use category 3, 4, or 5 twisted-pair wiring. 10/100 Mbps Full-Duplex is supported on this Notebook PC but requires connection to a network switching hub with “duplex” enabled. The software default is to use the fastest setting so no user-intervention is required.



1000BASE-T (or Gigabit) is only supported on selected models.



Example of the Notebook PC connected to a Network Hub or Switch for use with the built-in Ethernet controller.



Wireless LAN Connection

The optional built-in wireless LAN is a compact easy-to-use wireless Ethernet adapter. Implementing the IEEE 802.11 standard for wireless LAN (WLAN), the optional built-in wireless LAN is capable of fast data transmission rates using Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM) technologies on 2.4GHz/5GHz frequencies. The optional built-in wireless LAN is backward compatible with the earlier IEEE 802.11 standards allowing seamless interfacing of wireless LAN standards.

The optional built-in wireless LAN is a client adapter that supports Infrastructure and Ad-hoc modes giving you flexibility on your existing or future wireless network configurations for distances up to 40 meters between the client and the access point.

To provide efficient security to your wireless communication, the optional built-in wireless LAN comes with a 64-bit/128-bit Wired Equivalent Privacy (WEP) encryption and Wi-Fi Protected Access (WPA) features.

Ad-hoc mode

The Ad-hoc mode allows the Notebook PC to connect to another wireless device. No access point (AP) is required in this wireless environment.

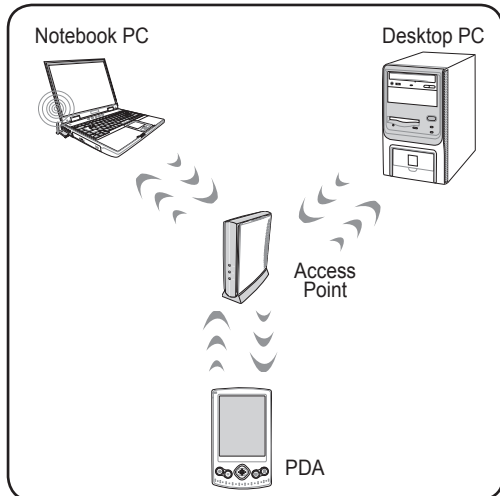
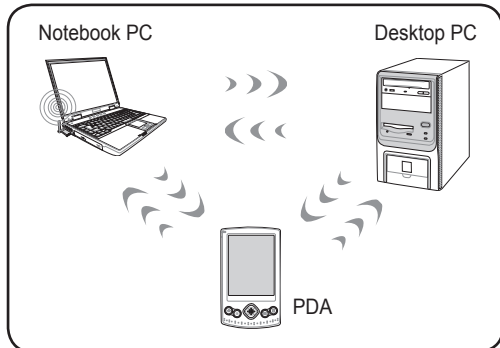
(All devices must install optional 802.11 wireless LAN adapters.)

Infrastructure mode

The Infrastructure mode allows the Notebook PC and other wireless devices to join a wireless network created by an Access Point (AP) (sold separately) that provides a central link for wireless clients to communicate with each other or with a wired network.

(All devices must install optional 802.11 wireless LAN adapters.)

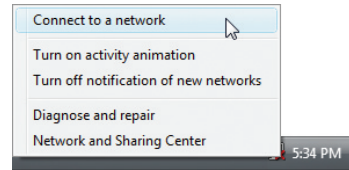
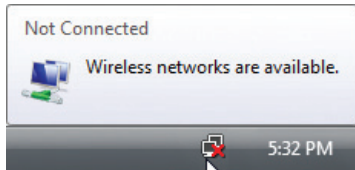
These are examples of the Notebook PC connected to a Wireless Network.



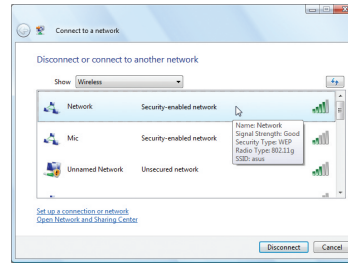
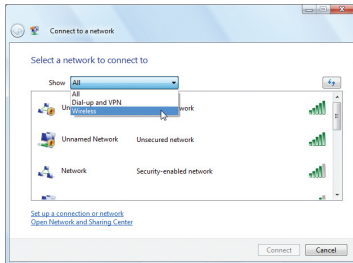
Windows Wireless Network Connection

Connecting to a network

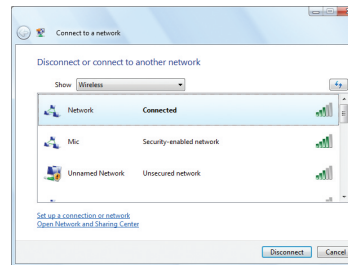
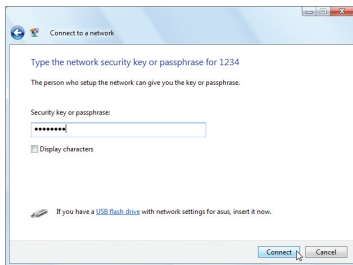
1. Switch ON the Wireless function if necessary for your model (see switches and/or special keyboard functions in Section 3).



2. You should see the “Not Connected” network icon.
3. Right click on the network icon and select **Connect to a network**.



4. Select “Show **Wireless**” if you have many networks in your area.
5. Select the wireless network you want to connect to.



6. When connecting, you may have to enter a password.
7. After connection has been established, “Connected” will be shown.

4 Using the Notebook PC

Bluetooth Wireless Connection

Notebook PCs with Bluetooth technology eliminates the need for cables for connecting Bluetooth-enabled devices. Examples of Bluetooth-enabled devices may be Notebook PCs, Desktop PCs, mobile phones, and PDAs.



Note: If your Notebook PC did not come with built-in Bluetooth, you need to connect a USB or ExpressCard Bluetooth module in order to use Bluetooth.

Bluetooth-enabled mobile phones

You can wireless connect to your mobile phone. Depending on your mobile phone's capabilities, you can transfer phone book data, photos, sound files, etc. or use it as a modem to connect to the Internet. You may also use it for SMS messaging.



Bluetooth-enabled computers or PDAs

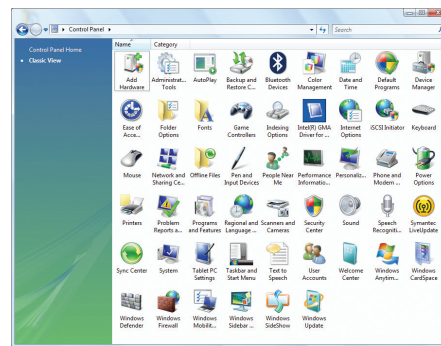
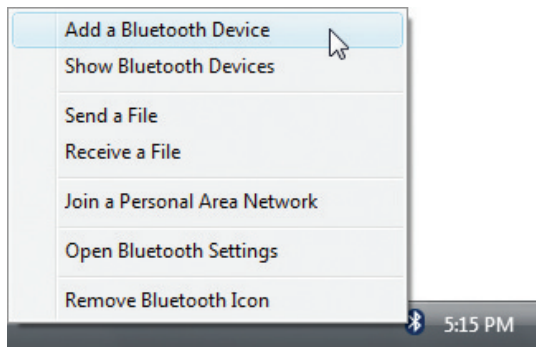
You can wireless connect to another computer or PDA and exchange files, share peripherals, or share Internet or network connections. You may also make use of Bluetooth-enabled wireless keyboard or mouse.



Turning ON and Launching Bluetooth Utility

This process can be used to add most Bluetooth devices.

1. Switch ON the Wireless function if necessary for your model (see switches and/or special keyboard functions in Section 3).



2. Select **Add a Bluetooth Device** on the taskbar menu.
- 2b. Or Launch **Bluetooth Devices** from the Windows Control Panel.