

Notebook PC

Hardware User Guide

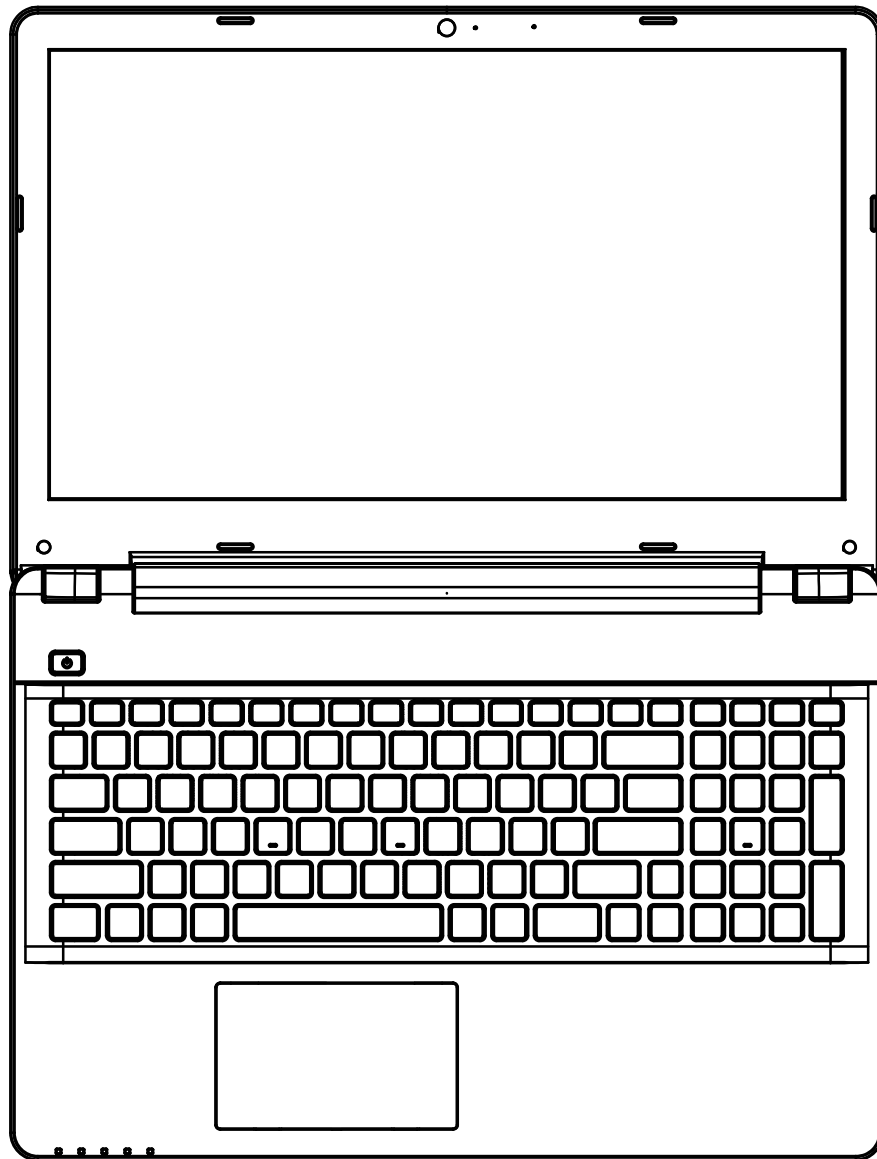


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1. Introducing the Notebook PC

About This User Guide

Safety Precautions

Transportation Precautions

Preparing your Notebook PC



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

1 Introducing the Notebook PC

General Overview



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

1. Introducing the Notebook PC
Introduces you to the Notebook PC and its documentation.
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 The User

A few notes and warnings in bold are used throughout this document 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 document, 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.

Introducing the Notebook PC 1



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.



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



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.



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 leave the Notebook PC on your lap or any part of the body in order to prevent discomfort or injury from heat exposure.



DO NOT expose to strong magnetic or electrical fields. The electromagnetic field may cause the computer to malfunction.



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



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



DO NOT expose to or use near liquids, rain, or moisture.



DO NOT expose to dirty or dusty environments. **DO NOT** operate during a gas leak. **DO NOT** use cut or damaged connection cables.



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



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.



Battery safety warnings:
DO NOT throw the battery in fire.
DO NOT disassemble the battery.
DO NOT short circuit the contacts.
DO NOT handle damaged or leaking batteries.



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



System Power Rating: 19V: 45W/2.37A or 65W/3.42A or 90W/4.74A



IMPORTANT: Listening to audio at full volume for long periods of time can damage the user's hearing, to prevent this please adjust audio levels to middle levels.



WARNING: To avoid bodily injury, **DO NOT** attempt to troubleshoot your notebook PC if any of the above conditions have damaged it, the battery, or the battery charger. Instead, unplug your notebook and contact a qualified computer technician.

1 Introducing the Notebook PC

Transportation Precautions

To prepare the Notebook PC for transport, you should turn it OFF and disconnect all external peripherals to prevent damage to the connectors. The hard disk drive's head retracts when the power is turned OFF to prevent scratching of the hard disk surface during transport. Therefore, you should not transport the Notebook PC while the power is still ON. Close the display panel and check that it is latched securely in the closed position to protect the keyboard and display panel.



IMPORTANT! The Notebook PC's surface is easily dulled if not properly cared for. Be careful not to rub or scrape the Notebook PC surfaces.

Cover Your Notebook PC

Purchase a carrying bag to protect the Notebook PC from dirt, water, shock, and scratches.



Charge Your Batteries

If you intend to use battery power, be sure to fully charge your battery pack and any optional battery packs before going on long trips. Remember that the power adapter charges the battery pack as long as it is plugged into the computer and an AC power source. Be aware that it takes much longer to charge the battery pack when the Notebook PC is in use.



Airplane Precautions

Contact your airline if you want to use the Notebook PC on the airplane. Most airlines will have restrictions for using electronic devices. Most airlines will allow electronic use only between and not during takeoffs and landings.



IMPORTANT! There are three main types of airport security devices: X-ray machines (used on items placed on conveyor belts), magnetic detectors (used on people walking through security checks), and magnetic wands (hand-held devices used on people or individual items). You can send your Notebook PC and diskettes through airport X-ray machines. However, it is recommended that you do not send your Notebook PC or diskettes through airport magnetic detectors or expose them to magnetic wands.

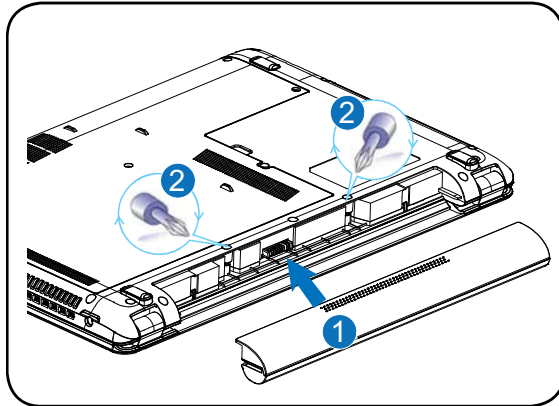
Preparing your Notebook PC

These are only quick instructions for using your Notebook PC. Read the later pages for detailed information on using your Notebook PC.

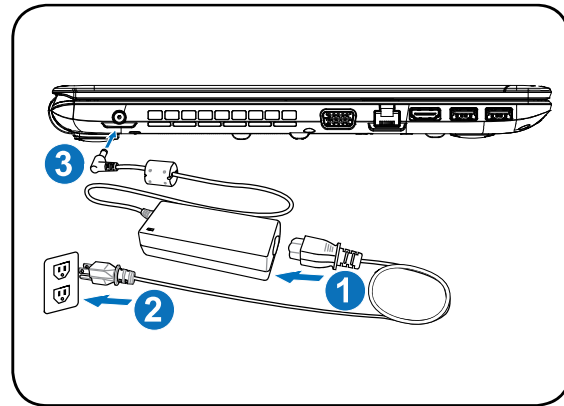


IMPORTANT! Selected models may feature display panels that do not fully open to a 180-degree angle, with such models do not attempt to force the display panel beyond its limit as it may cause damage to the device.

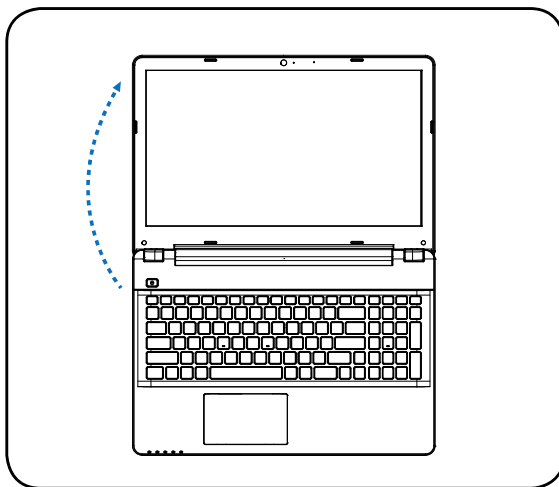
1. Install the battery pack



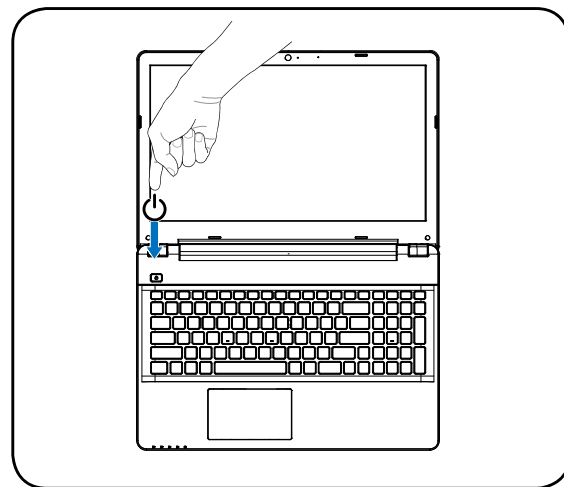
2. Connect the AC Power Adapter



3. Open the Display Panel



4. Turn ON the Notebook PC



IMPORTANT! When opening, do not force the display panel down to the table or else the hinges may break! Never lift the Notebook PC by the display panel!

The power switch turns the Notebook PC ON and OFF or puts the Notebook PC into sleep or hibernation modes. Actual behavior of the power switch can be customized in Windows Desktop > Settings > Control Panel > System and Security > Power Options.

2. Knowing the Parts

Basic sides of the Notebook PC




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

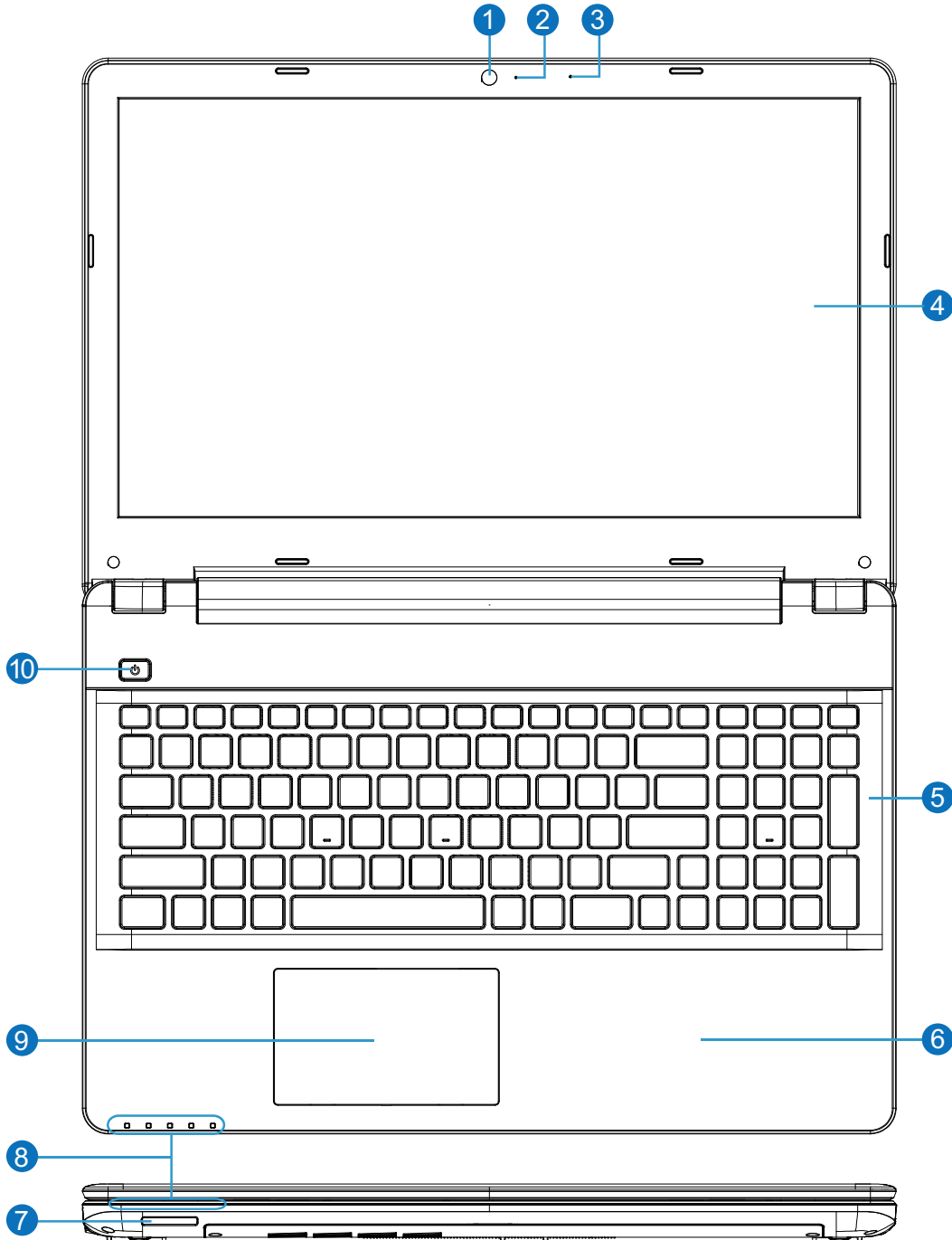
2 Knowing the Parts









Top and Front Sides

Refer to the diagram below to identify the components on these sides of the Notebook PC.

 **NOTE:** The keyboard will be different for each territory.

 **IMPORTANT!** Selected models may feature display panels that do not fully open to a 180-degree angle, with such models do not attempt to force the display panel beyond its limit as it may cause damage to the device.

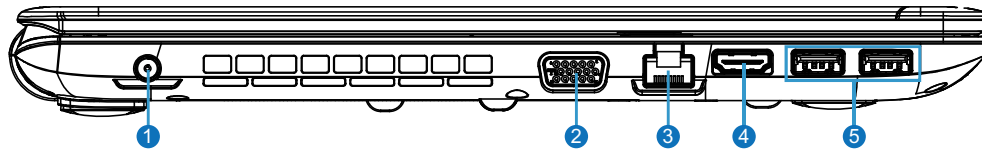


- 1**  **Camera**
 The built-in camera allows picture taking or video recording. Can be used with video conferencing and other interactive applications. 
- 2**  **Camera Indicator**
 The camera indicator indicates whether the built-in camera is in operation or not. 
- 3**  **Microphone (Built-in)**
 The built-in mono microphone can be used for video conferencing, voice narrations, or simple audio recordings. 
- 4**  **Display Panel (*Touchscreen on selected models*)**
 The Notebook PC uses an ultra-clear flat panel which provides excellent viewing like that of desktop monitors without any harmful radiation or flickering, so it is easier on the eyes. Use a soft cloth without chemical liquids (use plain water if necessary) to clean the display panel. 
- 5**  **Keyboard**
 The keyboard provides keys with comfortable travel (depth at which the keys can be depressed) and palm rest for both hands. A Windows function key is provided to help ease navigation in the Windows operating system. 
- 6**  **NFC (Near Field Communication) (On selected models)**
 NFC allows your Notebook PC to share content with NFC-enabled smart phones or tablets, using wireless communication when your smart phones or tablet is placed on the NFC sensor. It is similar to Bluetooth but no software pairing is necessary.
- 7** **Flash Memory Card Reader** 
 This Notebook PC has a built-in high-speed memory card reader that can conveniently read from and write to many flash memory cards used in devices such as digital cameras, MP3 players, mobile phones, and PDAs. 
- 8**  **Status Indicators**
 Status indicators represent various hardware/software conditions. See indicator details in Section 3. 
- 9**  **Touchpad and Buttons**
 The touchpad with its buttons is a pointing device that provides the same functions as a desktop mouse. A software-controlled scrolling function is available after setting up the included touchpad utility to allow easy Windows or web navigation. 
- 10**  **Power Switch**
 The power switch turns the Notebook PC ON and OFF or puts the Notebook PC into sleep or hibernation modes. Actual behavior of the power switch can be customized in Windows Control Panel "Power Options." 

2 Knowing the Parts

Left Side

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



1 Power (DC) Input

The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the Notebook PC and charges the internal battery pack. To prevent damage to the Notebook PC and battery pack, always use the supplied power adapter.



CAUTION: The adapter may become warm to hot when in use. Be sure not to cover the adapter and keep it away from your body.

2 Display (Monitor) Output (On selected models)

The 15-pin D-sub monitor port supports a standard VGA-compatible device such as a monitor or projector to allow viewing on a larger external display.



3 LAN Port

The RJ-45 LAN port with eight pins is larger than the RJ-11 modem port and supports a standard Ethernet cable for connection to a local network. The built-in connector allows convenient use without additional adapters.



4 HDMI Port

HDMI (High-Definition Multimedia Interface) is an uncompressed all-digital audio/video interface between any audio/video source, such as a set-top box, DVD player, and A/V receiver and an audio and/or video monitor, such as a digital television (DTV). Supports standard, enhanced, or high-definition video, plus multi-channel digital audio on a single cable. It transmits all ATSC HDTV standards and supports 8-channel digital audio.



5 High-Powered USB 3.0 Port (On selected models)

USB (Universal Serial Bus) allows many devices to run simultaneously on a single computer, with some peripherals acting as additional plug-in sites or hubs. USB supports hot-swapping of devices so that most peripherals can be connected or disconnected without restarting the computer.

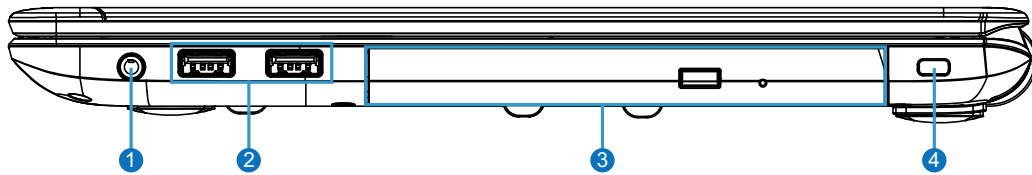


The High-Powered USB Port function allows the USB port to charge at a higher current (with a maximum current of 2.5A) than traditional USB ports when the notebook PC is in Suspend/Hibernate mode or when it is powered OFF.

- When the notebook PC is powered ON and in a normal power state, the port will function as a traditional USB port with normal charging (with a maximum of 500mA) and normal data transmission.
- The High-Powered charging function will not activate if the battery level is critically low and the AC adapter is not plugged in.
- The High-Powered charging function can be enabled or disabled in BIOS setup.

Right Side

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



1 Headphone Output / Microphone Input Combo Jack

The stereo combo jack (3.5mm) is used to connect the Notebook PC to amplified speakers, headphones, or a microphone. Using this jack automatically disables the built-in speakers.



2 USB Ports (2.0/1.1)

USB (Universal Serial Bus) allows many devices to run simultaneously on a single computer, with some peripherals acting as additional plug-in sites or hubs. USB supports hot-swapping of devices so that most peripherals can be connected or disconnected without restarting the computer.



3 Optical Drive

The Notebook PC comes in various models with different optical drives. The Notebook PC's optical drive may support compact discs (CD) and/or digital video discs (DVD) and may have recordable (R) or re-writable (RW) capabilities. See the marketing specifications for details on each model.



4 Kensington® Lock Port

The Kensington® lock port allows the Notebook PC to be secured using Kensington® compatible Notebook PC security products. These security products usually include a metal cable and lock that prevent the Notebook PC to be removed from a fixed object. Some may also include a motion detector to sound an alarm when moved.



3. Getting Started

Power System

Special Keyboard Functions

Status Indicators



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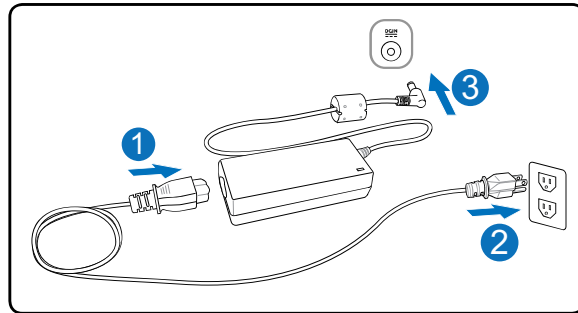
3 Getting Started

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.



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

With the AC power cord connected to the AC-DC converter, connect the AC power cord to an AC outlet (preferably with surge-protection) and then connect the DC plug to the Notebook PC. Connecting the AC-DC adapter to the AC outlet first allows you to test the AC outlet's power and the AC-DC converter itself for compatibility problems before connecting the DC power to the Notebook PC. The power indicator on the adapter (if available) will light if the power is within accepted ranges. If you use a power strip with your AC adapter, ensure that the total ampere rating of the products plugged in to the power strip does not exceed the ampere rating of the power strip.



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. DO NOT remove the grounding prong from the power cable plug. If you use a power extension cable, use the appropriate type, two-prong or three-prong, to mate with the AC adapter power cable.



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.




IMPORTANT! When in use plug the AC adapter cord into an AC outlet that is easily accessible at all times and place the adapter in a ventilated area, such as a desk top or on the floor. DO NOT place heavy objects on the AC adapter or cover it with papers or other items that will reduce cooling; also, DO NOT use the AC adapter inside a carrying case.

Using Battery Power

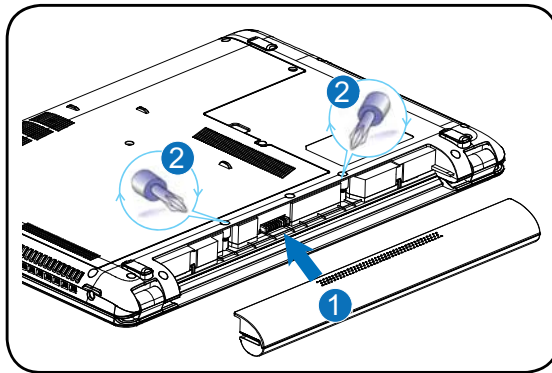
The Notebook PC is designed to work with a removable battery pack. The battery pack consists of a set of battery cells housed together. A fully charged pack will provide several hours of battery life, which can be further extended by using power management features through the BIOS setup. Additional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

Installing and Removing the Battery Pack

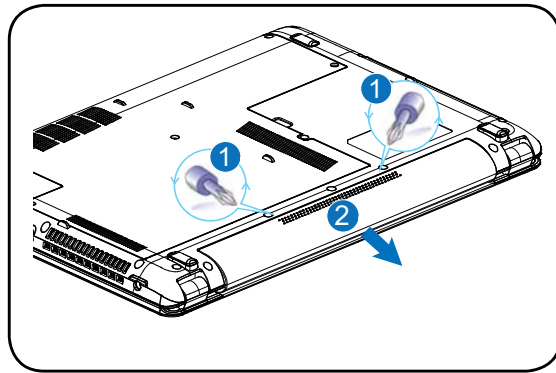
Your Notebook PC may or may not have its battery pack installed. If your Notebook PC does not have its battery pack installed, use the following procedures to install the battery pack.

 **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 or else damage may occur to the Notebook PC.

Battery Care

The Notebook PC's battery pack, like all rechargeable batteries, has a limit on the number times it can be recharged. The battery pack's useful life will depend on your environment temperature, humidity, and how your Notebook PC is used. It is ideal that the battery be used in a temperature range between 5°C and 35°C (41°F and 95°F). You must also take into account that the Notebook PC's internal temperature is higher than the outside temperature. Any temperatures above or below this range will shorten the life of the battery. But in any case, the battery pack's usage time will eventually decrease and a new battery pack must be purchased from an authorized dealer for this Notebook PC. Because batteries also have a shelf life, it is not recommended to buy extras for storing.



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.

Power Options

The power switch turns ON and OFF the Notebook PC or puts 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 "Restart, Sleep, or Shut Down," click the power icon in the Settings menu of the Windows sidebar.

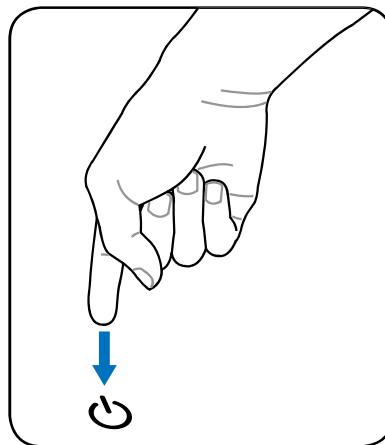
Restarting or Rebooting


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.

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 button  over 4 seconds

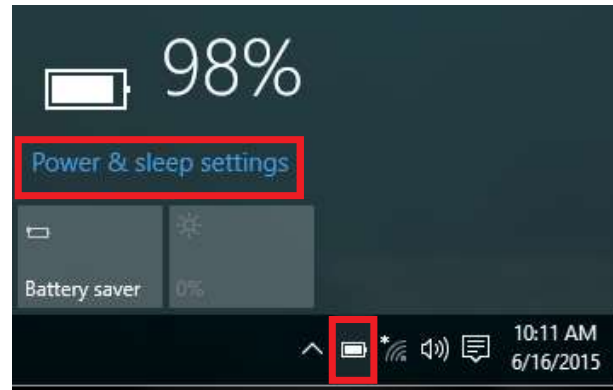


 **IMPORTANT!** Do not use emergency shutdown while data is being written; doing so can result in loss or destruction of your data.


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.





 **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



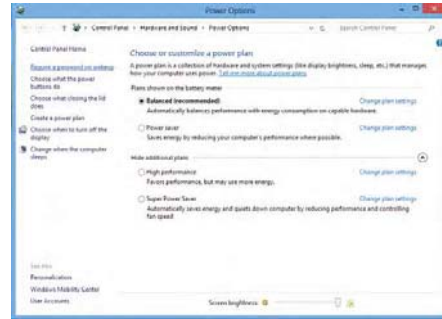
Power Management Modes

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 Windows Desktop > Settings > Control Panel > System and Security > 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 power icon in the Settings menu of the Windows sidebar to see this option. You can also use the keyboard shortcut [Fn F1] to activate this mode. Recover by pressing any keyboard key. (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 power icon in the Settings menu of the Windows sidebar 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.



Power Manager Utility

The Power Manager Utility provides the user with an integrated power management tool that:

- Features an integrated user interface which lets the user easily control/set a power plan.
- Provides a battery maintenance tool to extend battery life.
- Provides an add-on value tool, such as the peak-shift utility, for saving electricity.

Power Plans (*for monitoring power consumption*)

Power Plans shows real-time power consumption for the power mode selected by the user.

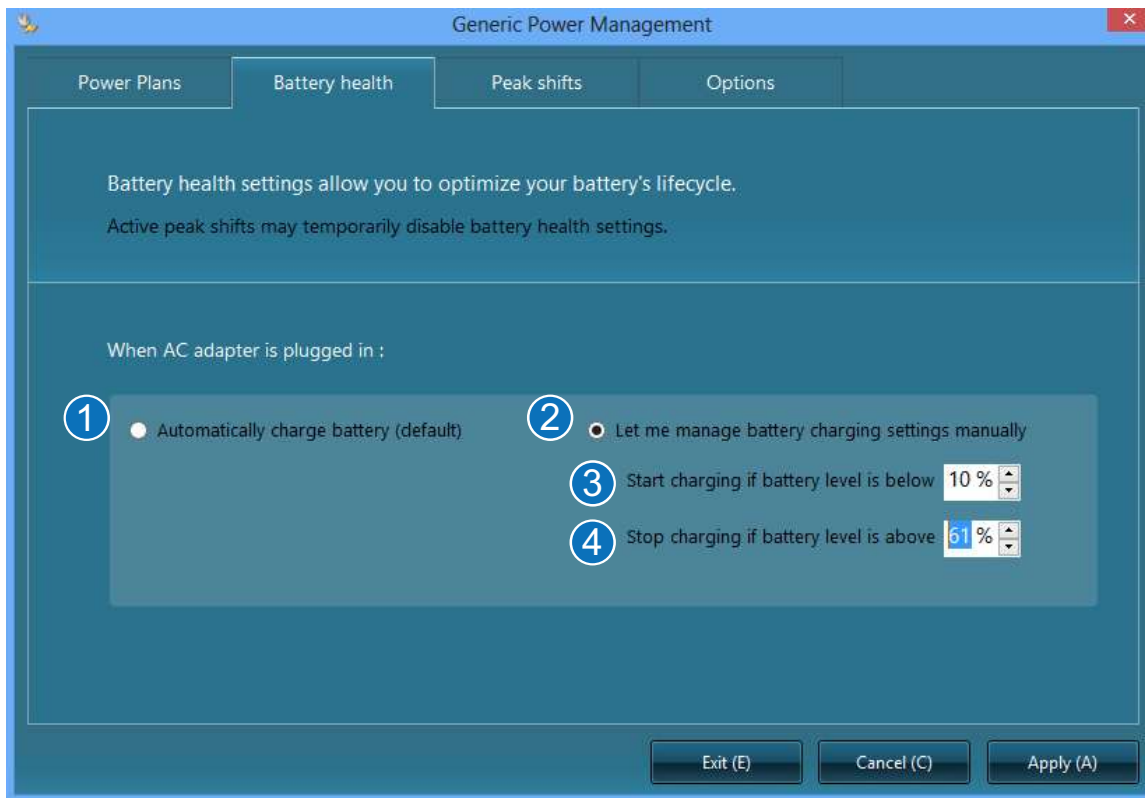


- 1 Choose the specific power plan you want to view the power consumption chart for here.
- 2 Choose the time frame you want for the power consumption chart here.
- 3 The power consumption chart will be displayed in this area.

3 Getting Started

Battery Health

Battery Health provides the user with tools to extend the life of the battery by allowing the user to select battery charging behavior when the AC adapter is plugged in. When peak-shift is enabled by the user, this option will not function.



- 1 Choose this option if you want the battery to continuously charge until full.
- 2 Choose this option if you want to manually set battery charging behavior.
- 3 Set the battery level at which to start charging here. This field cannot be over 96% and cannot be lower than the low battery warning level set by the operating system.
- 4 Set the battery level at which to stop charging here.

Peak Shift

Peak shift allows the user to set specific time periods in which the PC will only use battery power even when the AC adapter is plugged in, in order to stop the PC from using energy from the power socket during periods of peak power demand. When the adapter is plugged in and peak shift is activated, Windows will still show that the adapter is plugged in.

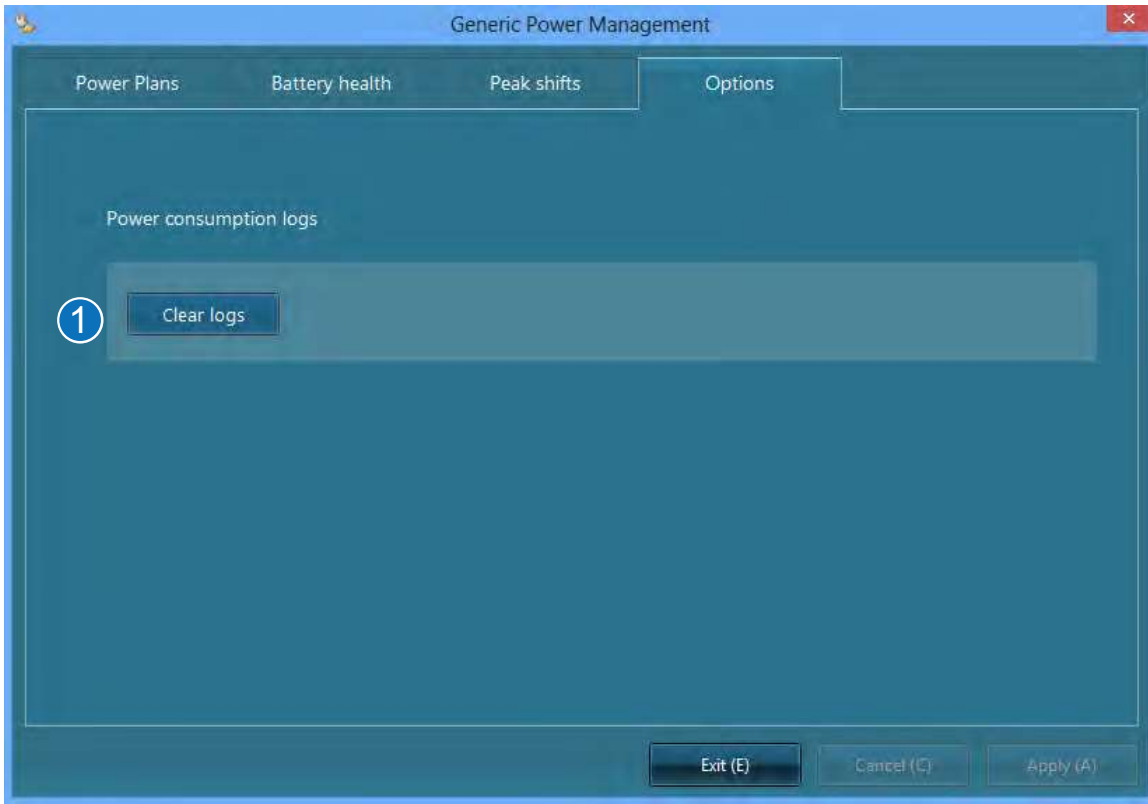


- 1 Choose an individual peak shift you want to activate or edit.
- 2 Choose this option if you want the selected peak shift to only be activated for a specific time span. A menu to select start and end dates will open if this option is chosen.
- 3 Choose the start and end time for the selected peak shift, you may choose up to two different time periods for each individual peak shift.
- 4 Choose how frequently the selected peak shift will occur.
- 5 Choose the minimum battery level at which the battery will start charging during the peak shift.
- 6 Choose whether to activate or reset the selected peak shift.

3 Getting Started

Options

Options allows the user additional functions:

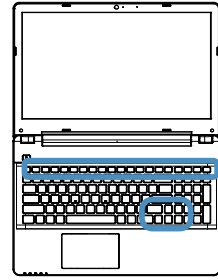


1 You can clear your power consumption logs here.

















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.



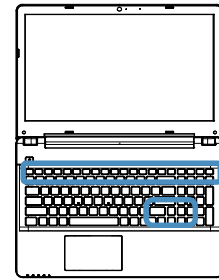
 **NOTE:** The Hot Key locations on the function keys may vary depending on model but the functions should remain the same.

-
-   “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).
-
-   Airplane Icon (F2): Toggles Airplane mode ON or OFF. When enabled, Airplane mode disables wireless features such as Wi-Fi and Bluetooth to reduce potential interference with aircraft operation.
-
-   Lightning Icon (F4): Displays various power management modes for you to select using the cursor. Power management controls many aspects of the device to maximize performance versus battery time.
-
-   Dim Sun Icon (F5):
Decreases the display brightness
-
-   Bright 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.
-



(continued on the next page)



3 Getting Started



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 Crossed Icon (F10):**
Toggles the speakers ON and OFF (only in Windows OS)



  **Speaker Small Icon (F11):**
Decreases the speaker volume (only in Windows OS)


  **Speaker Large Icon (F12):**
Increases the speaker volume (only in Windows OS)



  **Ins (Del): “Insert” key.** When enabled, **insert mode** inserts characters at the current position, pushing characters away while typing. When disabled, **overtyping mode** overwrites characters in its path while typing.

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

  **Stop Icon (↑):**
Stops a media player during playback.


  **Play/Pause Icon (↓):**
Plays or pauses media in the media player.


  **Previous Icon (←):**
Moves the media to the previous section/track during playback.

  **Next Icon (→):**
Moves the media to the next section/track during playback.

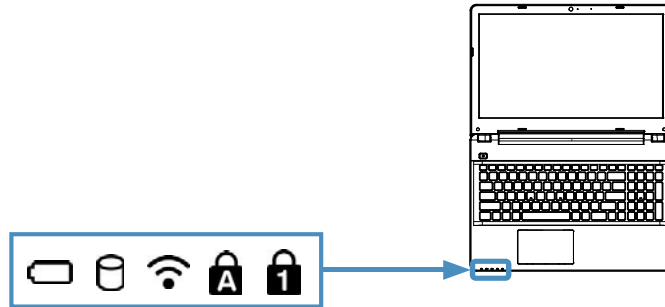
Microsoft Windows Keys

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

 The key with the Windows Logo toggles between the Windows Start screen and the most recently opened window.

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

Status Indicators



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.)



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).



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.



4. Using the Notebook PC

Pointing Device
Storage Devices
Connections



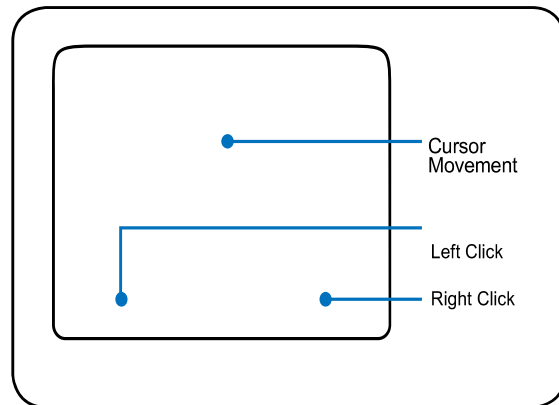
NOTE: Photos and icons in this document are used for artistic purposes only and do not show what is actually used in the product itself.

4 Using the Notebook PC

☐ Pointing Device

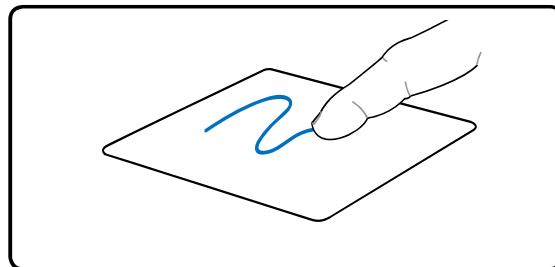
Using the Touchpad

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

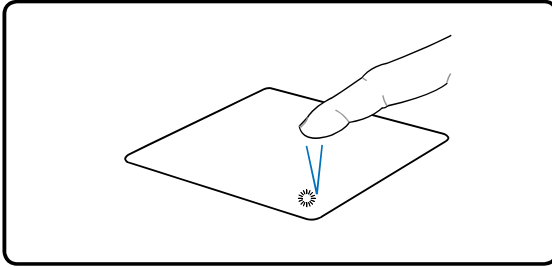
Place your finger in the center of the touchpad and slide in a direction to move the cursor.



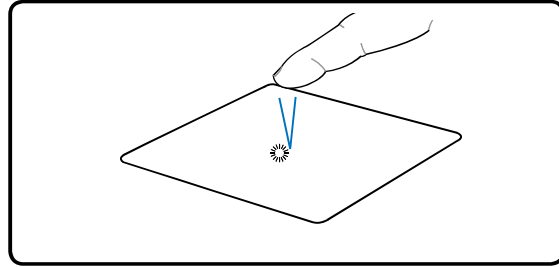
IMPORTANT! Do not use any objects in place of your finger to operate the touchpad or else damage may occur to the touchpad's surface.

Touchpad Usage Illustrations

Clicking Function

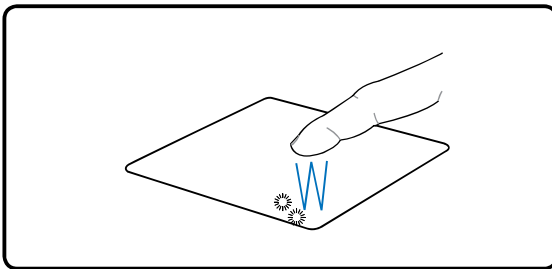


Press the left cursor button and release.

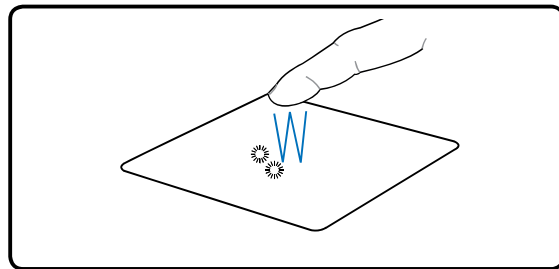


Lightly but rapidly strike the touchpad.

Double-Clicking Function

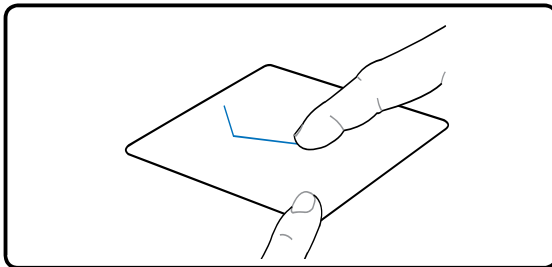


Press the left button twice and release.

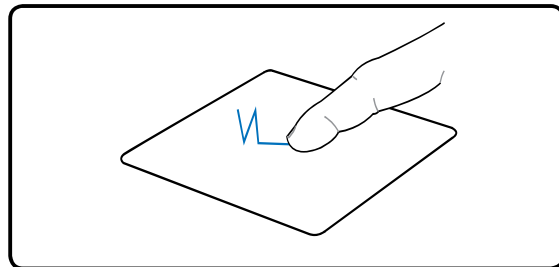


Lightly but rapidly strike the touchpad twice.

Dragging-Clicking Function

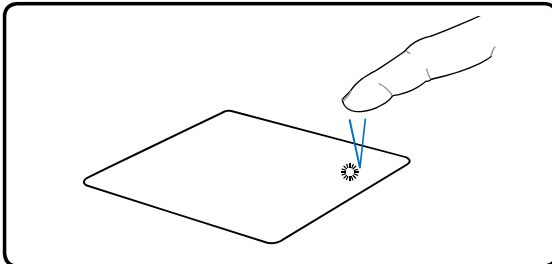


Hold left button and slide finger on touchpad.



Lightly strike the touchpad twice, sliding finger on touchpad during second strike.

Right-Clicking Function

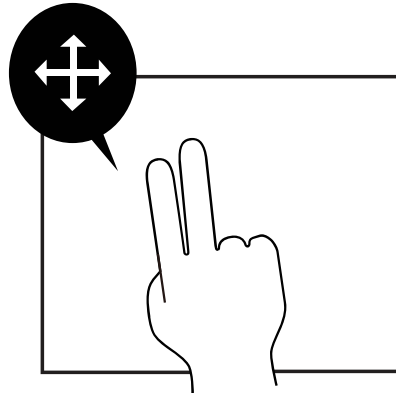


Press the right cursor button and release.

4 Using the Notebook PC

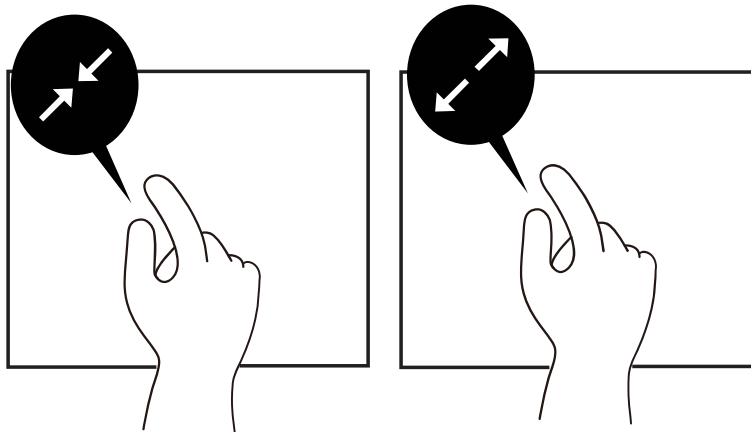
☐ Multi-touch gesture usage

Multi-touch recognizes multiple simultaneous touch points to allow advanced software actions using your fingers. Gesture availability depends on notebook model.



Two Finger Scrolling

Slide two fingers up/down/left/right to scroll within an application window.



Two Fingers Pinch Zoom

Slide two fingers outwards to zoom in. Slide two fingers inwards to zoom out. Convenient for viewing photos.

☐ 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.

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:

- Optical Disc Drive
- Flash Memory Card Reader

Optical Drive

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.

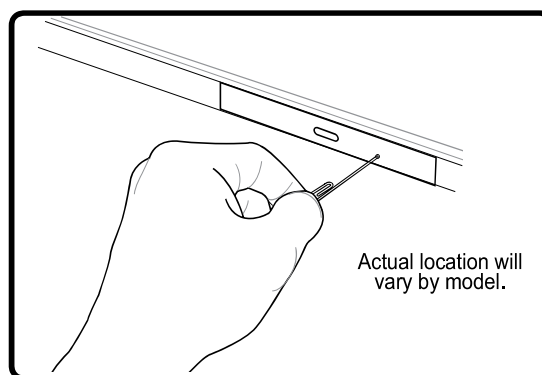


WARNING! If the disc is not properly locked onto the center hub, the disc can be damaged when the tray is closed. Always watch the disc closely while closing the tray slowly to prevent damage. DO NOT exert pressure on ODD tray.

An 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.

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.

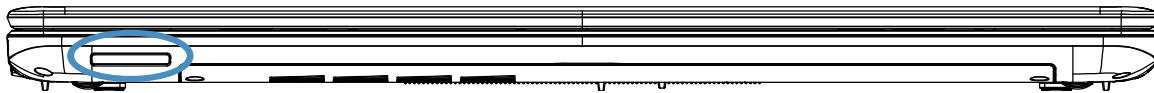
4 Using the Notebook PC

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)

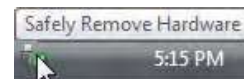
SD (Secure Digital)
miniSD (with SD adapter)

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

SDXC (Secure Digital eXtended Capacity)

 **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.



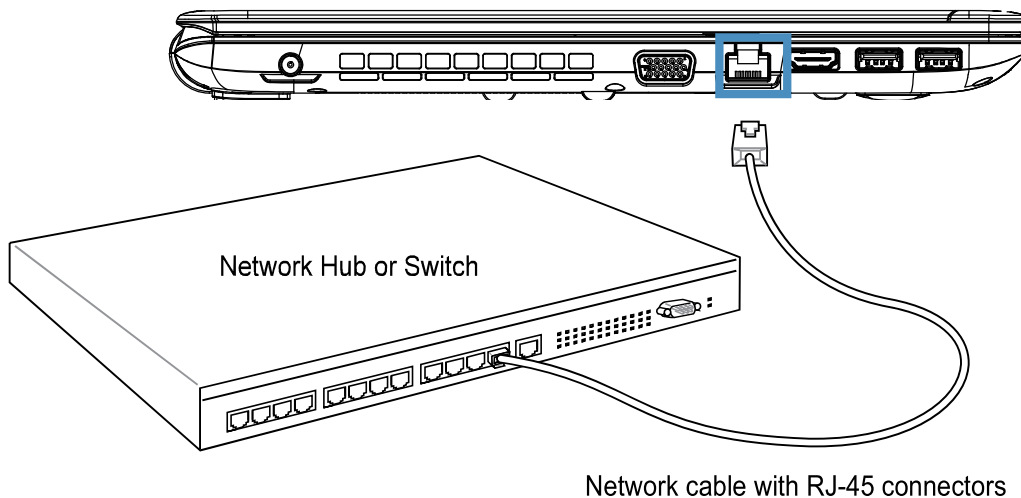
Network Connection

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.



CAUTION: To reduce the risk of electric shock, fire, or damage to the equipment, **DO NOT** plug a modem cable or telephone cable into the RJ-45 (network) jack.

4 Using the Notebook PC

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 an Infrastructure mode giving you flexibility on your existing or future wireless network configurations for distances up to 40 meters between the client and the access point.

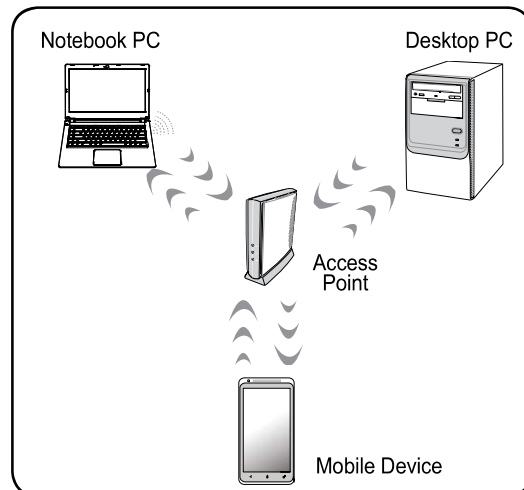
To provide efficient security to your wireless communication, the optional built-in wireless LAN comes with a 64-bit/128-bit Wired Equivalent Privacy (WEP) encryption and Wi-Fi Protected Access (WPA) features.

This is an example of the Notebook PC connected to a Wireless Network.

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.)



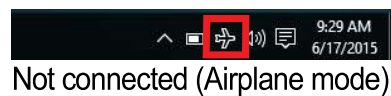
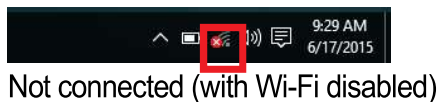
CAUTION: DO NOT use wireless LAN on hospital premises or near a pacemaker, doing so may cause medical devices to malfunction. DO NOT use wireless LAN on an aircraft, as doing so may cause the aircraft's equipment to malfunction.

Windows Wireless Network Connection

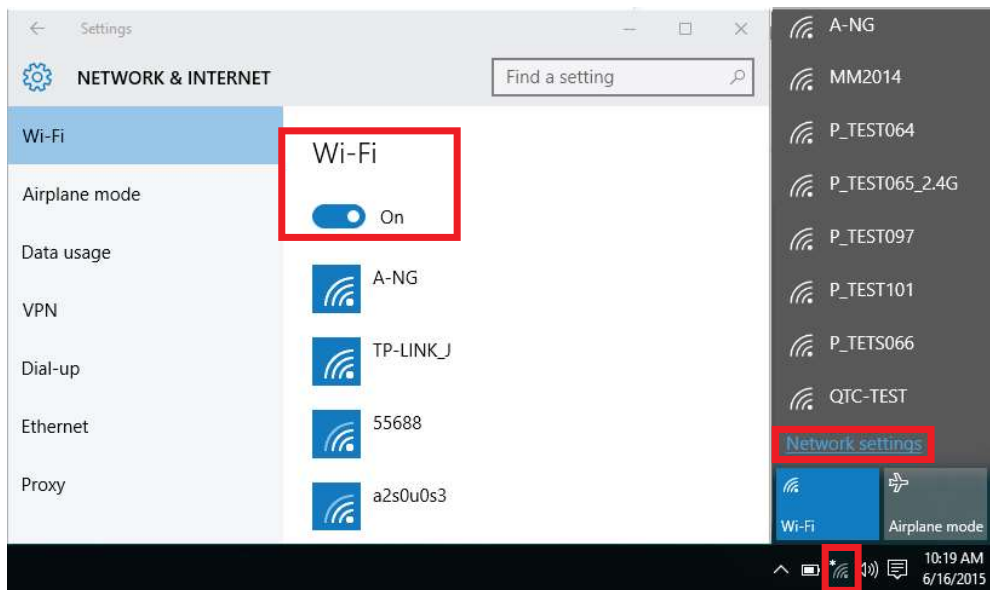
Connecting to a network

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

1. Switch ON the Wireless function if necessary for your model.
2. A network icon will appear in the Taskbar depending on your network status:



3. Clicking on the network icon will open the network connection panel. If the wireless function on your device has not been switched on you will not see any AP names. Make sure the wireless function is switched on and try again.



Left-click taskbar wireless icon

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

(continued on the next page)

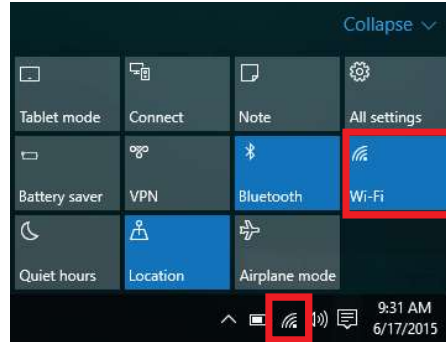
4 Using the Notebook PC

Windows Wireless Network Connection (cont.)

- Click on an AP name to connect. When connecting, you may have to enter a password:
- When Wi-Fi is enabled and you have successfully connected you will see the connected icon in the Taskbar:

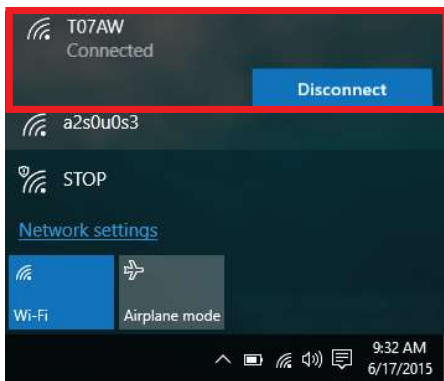


Left-click taskbar wireless icon



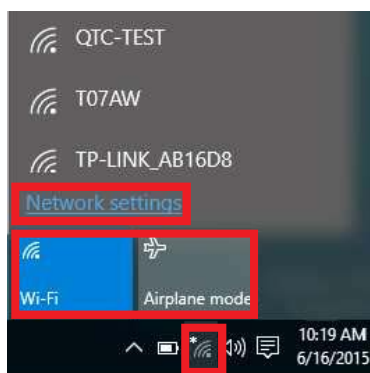
Left-click taskbar wireless icon

- To disconnect, click on the network icon and select "Disconnect".

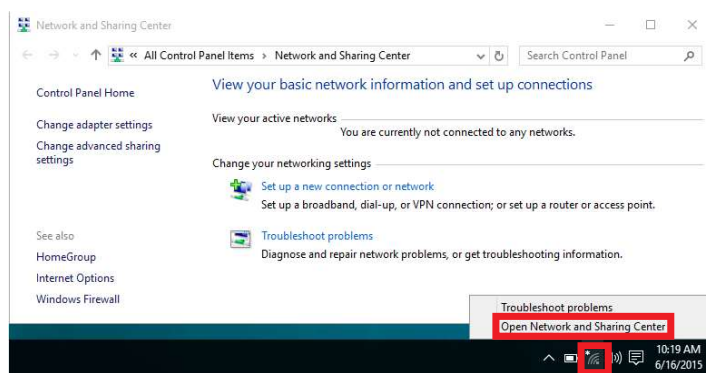


Left-click taskbar wireless icon

- For more options, click the wireless icon in the taskbar and select "Network settings" or "Open Network and Sharing Center".



Left-click taskbar wireless icon



Right-click taskbar wireless icon

A. Appendix

Declaration and Safety Statements

Federal Communications Commission Statement



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

Declarations and Safety Statements

FC Federal Communications Commission Statement

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



WARNING! The use of a shielded-type power cord is required in order to meet FCC emission limits and to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used. Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

(Reprinted from the Code of Federal Regulations #47, part 15.193, 1993. Washington DC: Office of the Federal Register, National Archives and Records Administration, U.S. Government Printing Office.)

FC FCC Radio Frequency Interference Requirements

This device is restricted to INDOOR USE due to its operation in the 5.15 to 5.25GHz frequency range. FCC requires this product to be used indoors for the frequency range 5.15 to 5.25GHz to reduce the potential for harmful interference to co-channel of the Mobile Satellite Systems.

High power radars are allocated as primary user of the 5.25 to 5.35GHz and 5.65 to 5.85GHz bands. These radar stations can cause interference with and / or damage this device.

IMPORTANT: This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.



FCC Radio Frequency (RF) Exposure Caution Statement

This equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instructions in the user guide. This equipment is for operation within 5.15 GHz and 5.25GHz frequency ranges and is restricted to indoor environments only.



FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. "The manufacturer declares that this device is limited to Channels 1 through 11 in the 2.4GHz frequency by specified firmware controlled in the USA."

FCC RF Exposure Guidelines (Wireless Clients)

This device has been tested for compliance with FCC RF Exposure (SAR) limits in typical portable configurations. In order to comply with SAR limits established in the ANSI C95.1 standards, it is recommended when using a wireless LAN adapter that the integrated antenna is positioned more than [20cm] from your body or nearby persons during extended periods of operation. If the antenna is positioned less than [20cm] from the user, it is recommended that the user limit the exposure time.

R&TTE Directive (1999/5/EC)

The following items were completed and are considered relevant and sufficient for the R&TTE (Radio & Telecommunications Terminal Equipment) directive:

- Essential requirements as in [Article 3]
- Protection requirements for health and safety as in [Article 3.1a]
- Testing for electric safety according to [EN 60950]
- Protection requirements for electromagnetic compatibility in [Article 3.1b]
- Testing for electromagnetic compatibility in [EN 301 489-1] & [EN 301 489-17]
- Testing according to [489-17]
- Effective use of the radio spectrum as in [Article 3.2]
- Radio test suites according to [EN 300 328-2]

CE Mark Warning

This is a Class B product, in a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

A Appendix

Optical Drive Safety Information

Laser Safety Information

Internal or external optical drives sold with this Notebook PC contains a CLASS 1 LASER PRODUCT. Laser classifications can be found in the glossary at the end of this user guide.



WARNING: Making adjustments or performing procedures other than those specified in the user guide may result in hazardous laser exposure. Do not attempt to disassemble the optical drive. For your safety, have the optical drive serviced only by an authorized service provider.

Service warning label



CAUTION: INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

 **DVD-ROM Drive Information**

The Notebook PC comes with an optional DVD-ROM drive or a CD-ROM drive. In order to view DVD titles, you must install your own DVD viewer software. Optional DVD viewer software may be purchased with this Notebook PC. The DVD-ROM drive allows the use of both CD and DVD discs.

Regional Playback Information

Playback of DVD movie titles involves decoding MPEG2 video, digital AC3 audio and decryption of CSS protected content. CSS (sometimes called copy guard) is the name given to the content protection scheme adopted by the motion picture industry to satisfy a need to protect against unlawful content duplication.

Although the design rules imposed on CSS licensors are many, one rule that is most relevant is playback restrictions on regionalized content. In order to facilitate geographically staggered movie releases, DVD video titles are released for specific geographic regions as defined in “Region Definitions” below. Copyright laws require that all DVD movies be limited to a particular region (usually coded to the region at which it is sold). While DVD movie content may be released for multiple regions, CSS design rules require that any system capable of playing CSS encrypted content must only be capable of playing one region.



NOTE: The region setting may be changed up to five times using the viewer software, then it can only play DVD movies for the last region setting. Changing the region code after that will require factory resetting which is not covered by warranty. If resetting is desired, shipping and resetting costs will be at the expense of the user.

Region Definitions**Region 1**

Canada, US, US Territories

Region 2

Czech, Egypt, Finland, France, Germany, Gulf States, Hungary, Iceland, Iran, Iraq, Ireland, Italy, Japan, Netherlands, Norway, Poland, Portugal, Saudi Arabia, Scotland, South Africa, Spain, Sweden, Switzerland, Syria, Turkey, UK, Greece, Former Yugoslav Republics, Slovakia

Region 3

Burma, Indonesia, South Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand, Vietnam

Region 4

Australia, Caribbean (Except US Territories), Central America, New Zealand, Pacific Islands, South America

Region 5

CIS, India, Pakistan, Rest of Africa, Russia, North Korea

Region 6

China