

Notebook PC

Hardware User's Manual



E3842 / May 2008

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1. Introducing the Notebook PC

About This User's Manual

Notes For This Manual

Safety Precautions

Preparing your Notebook PC



There may be differences between your Notebook PC and the drawings shown in this manual. Please accept your Notebook PC as being correct.



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's Manual



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

- 1. Introducing the Notebook PC**
Introduces you to the Notebook PC and this User's 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.
- 5. Appendix**
Introduces you to optional accessories and gives additional information.

Notes For This Manual

A few notes and warnings in bold are used throughout this guide 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 warning:
DO NOT throw the battery in fire.
DO NOT short circuit the contacts.
DO NOT disassemble the battery.



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.

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.



CAUTION! 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.

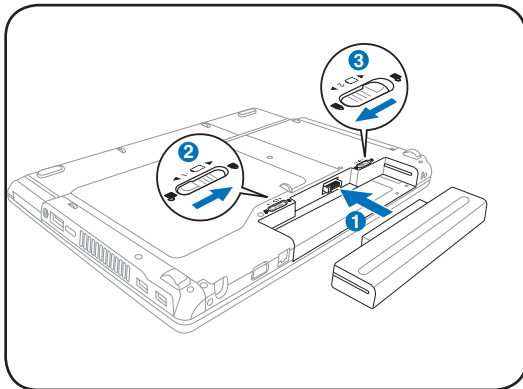


CAUTION! There are three main types of airport security devices: X-ray machines (used on items placed on conveyor belts), magnetic detectors (used on people walking through security checks), and magnetic wands (hand-held devices used on people or individual items). You can send your Notebook PC and diskettes 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.

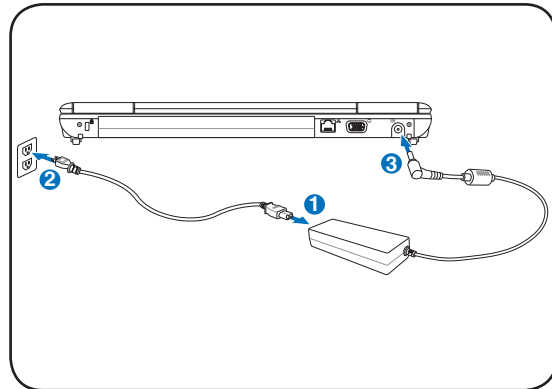
Preparing your Notebook PC

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

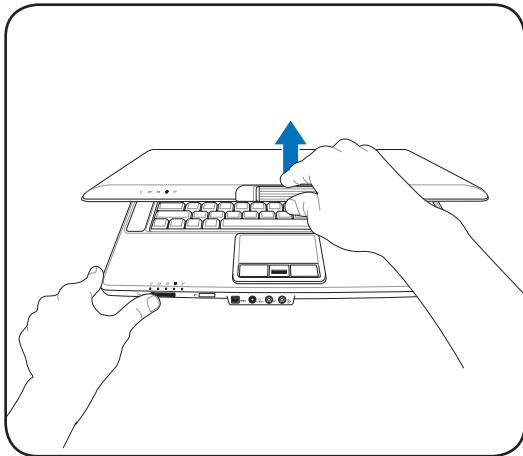
1. Install the battery pack



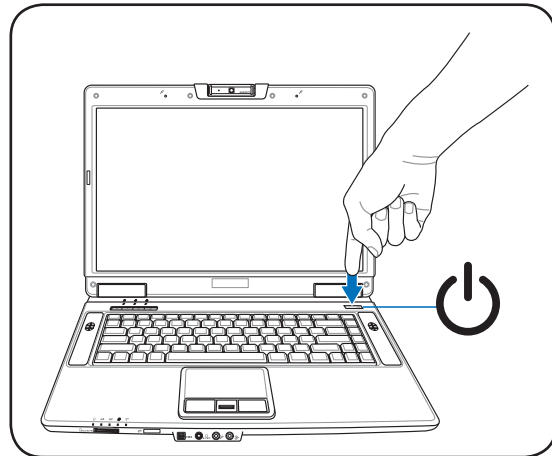
2. Connect the AC Power Adapter



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 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 > **System Settings**.

2. Knowing the Parts

Basic sides of the Notebook PC



There may be differences between your Notebook PC and the drawings shown in this manual. Please accept your Notebook PC as being correct.



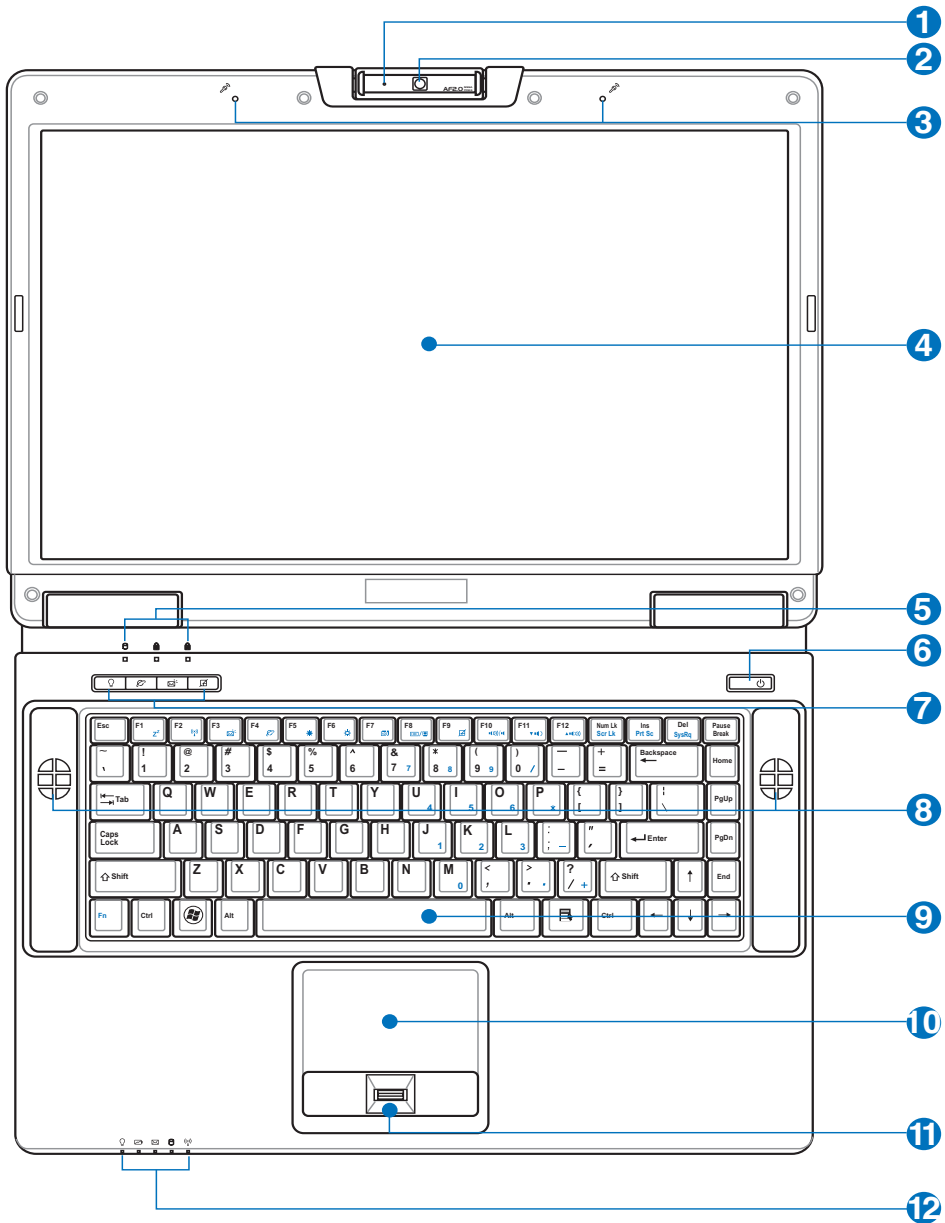
Photos and icons in this manual are used for artistic purposes only and do not show what is actually used in the product itself.

2 Knowing the Parts



Top Side



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


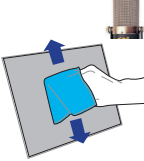
 The keyboard will be different for each territory.





1  **Camera Indicator**
 The camera indicator shows when the built-in camera is in use. The camera may be auto-activated by supported software. 



2  **Multi-Position Camera (on selected models)**
 The built-in camera allows picture taking or video recording. Can be used with video conferencing and other interactive applications. **CAUTION: The lens can be adjusted facing forward or facing backward but the lens can only flip through the bottom. Do not rotate the lens upward past 35 degrees.** 



3  **Array Microphone (on selected models)**
 The built-in array microphone is more clear and echo-free compared with traditional single microphones and can be used for video conferencing, voice narrations, audio recordings, and multimedia applications. 



4  **Display Panel**
 The Notebook PC uses an active matrix TFT LCD, which provides excellent viewing like that of desktop monitors. Unlike traditional desktop monitors, the LCD panel does not produce any 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  **Status Indicators (top)**
 Status indicators represent various hardware/software conditions. See indicator details in section 3. 

6  **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.” 

7  **Instant Keys**
 Instant keys allow you to launch frequently used applications with one push of a button. Details are described in section 3. 

8  **Audio Speaker System**
 The built-in stereo speaker system allows you to hear audio without additional attachments. The multimedia sound system features an integrated digital audio controller that produces rich, vibrant sound (results improved with external stereo headphones or speakers). Audio features are software controlled. 

9  **Keyboard**
 The keyboard provides full-sized keys with comfortable travel (depth at which the keys can be depressed) and palm rest for both hands. Two Windows function keys are provided to help ease navigation in the Windows operating system. 

2 Knowing the Parts

10 **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.



11 **Fingerprint Scanner (on selected models)**

The built-in fingerprint scanner allows use of security software using your fingerprint as your identification key.



12 **Status Indicators (front)**

Status indicators represent various hardware/software conditions. See indicator details in section 3.

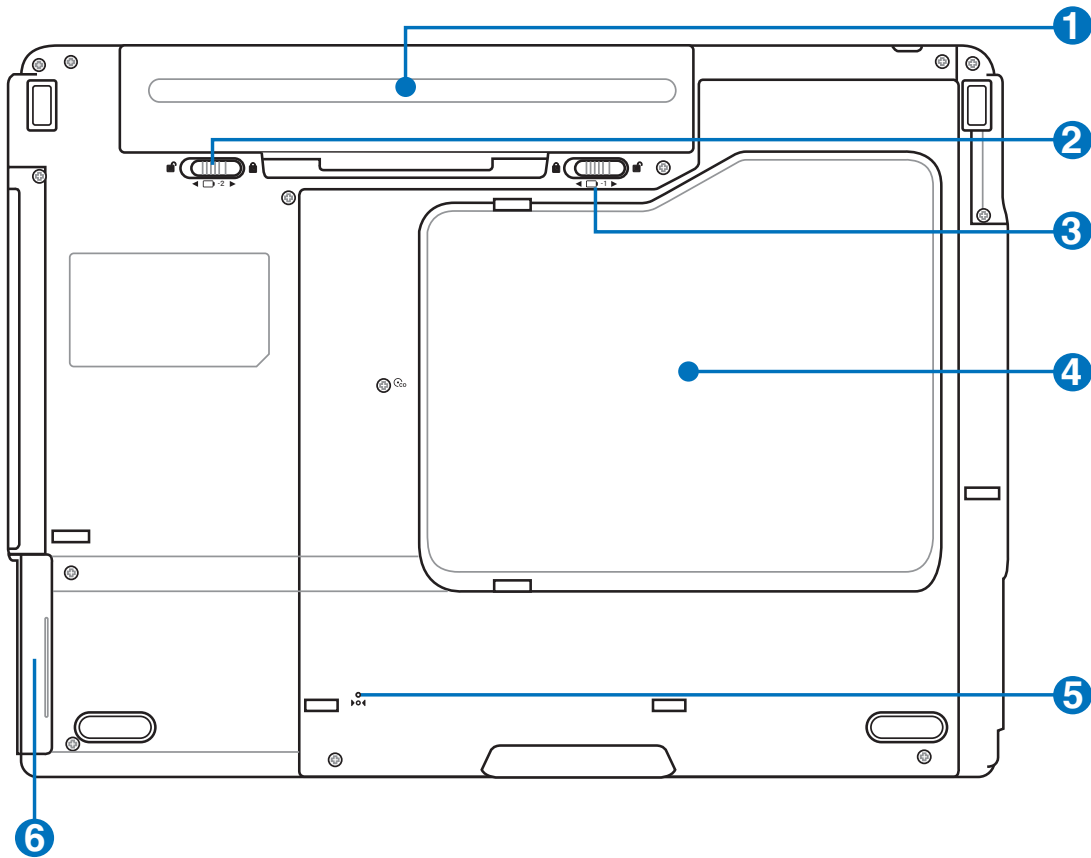



Bottom Side

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

 **The bottom side may vary in appearance depending on model.**

 **The battery pack size will vary depending on model.**



 **WARNING!** The bottom of the Notebook PC can get very hot. Be careful when handling the Notebook PC while it is in operation or recently been in operation. High temperatures are normal during charging or operation. Do not use on soft surfaces such as beds or sofas which may block the vents. **DO NOT PUT THE NOTEBOOK PC ON YOUR LAP OR OTHER PARTS OF THE BODY TO AVOID INJURY FROM THE HEAT.**

2 Knowing the Parts

1 Battery Pack

The battery pack is automatically charged when the Notebook PC is connected to an AC power source and maintains power to the Notebook PC when AC power is not connected. This allows use when moving temporarily between locations. Battery time varies by usage and by the specifications for this Notebook PC. The battery pack cannot be disassembled and must be purchased as a single unit.



2 Battery Lock - Manual

The manual battery lock is used to keep the battery pack secured. Move the manual lock to the unlocked position to insert or remove the battery pack. Move the manual lock to the locked position after inserting the battery pack.



3 Battery Lock - Spring

The spring battery lock is used to keep the battery pack secured. When the battery pack is inserted, it will automatically lock. To remove the battery pack, this spring lock must be held in the unlocked position.



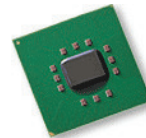
4 Memory (RAM) Compartment

The memory compartment provides expansion capabilities for additional memory. Additional memory will increase application performance by decreasing hard disk access. The BIOS automatically detects the amount of memory in the system and configures accordingly. There is no hardware or software (including BIOS) setup required after the memory is installed. 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.



Central Processor Unit (CPU) Compartment

Some Notebook PC models feature a socketed-processor design to allow upgrading to faster processors in the future. Some models feature a ULV design for compactness and may not be upgraded. Visit an authorized service center or retailer for information on upgrades.



WARNING! End-user removal of the CPU or hard disk drive will void the warranty.

5 Shutdown Button (Emergency)

In case your operating system cannot properly turn OFF or restart, the shutdown button can be pressed with a straightened paper clip to shutdown the Notebook PC.



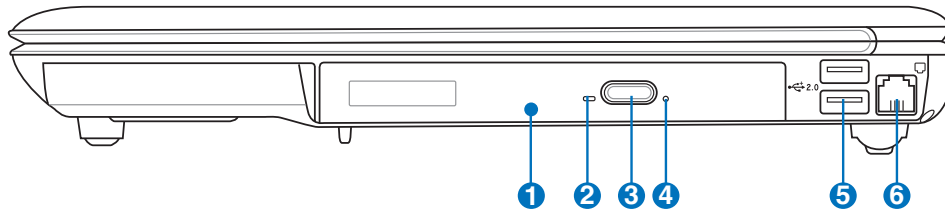
6 Hard Disk Drive Compartment

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.



Right Side

Refer to the illustration below to identify the components on this side of the Notebook PC. The components vary by model.



1  **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.



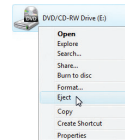
2  **Optical Drive Activity Indicator (location varies by model)**

The optical drive activity indicator shows when data is being transferred by the optical disk drive. This indicator will light in proportion to the data size transferred.



3  **Optical Drive Electronic Eject**

The optical drive eject has an electronic eject button for opening the tray. You can also eject the optical drive tray through any software player or by right clicking the optical drive in Windows "Computer" and selecting **Eject**.



4  **Optical Drive Emergency Eject (location varies by model)**

The emergency eject 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.



5  **USB Port (2.0/1.1)**

The USB (Universal Serial Bus) port is compatible with USB 2.0 or USB 1.1 devices such as keyboards, pointing devices, cameras, hard disk drives, printers, and scanners connected in a series up to 12Mbits/sec (USB 1.1) and 480Mbits/sec (USB 2.0). USB 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.



2 Knowing the Parts

6 Modem Port

The RJ-11 modem port with two pins is smaller than the RJ-45 LAN port and supports a standard telephone cable. The internal modem supports up to 56K V.90 transfers. The built-in connector allows convenient use without additional adapters.

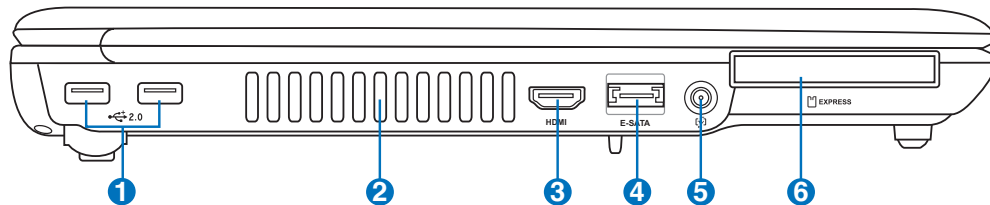


IMPORTANT! The built-in modem does not support the voltage used in digital phone systems. Do not connect the modem port to a digital phone system or else damage will occur to the Notebook PC.



Left Side

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



1 USB Port (2.0/1.1)

The USB (Universal Serial Bus) port is compatible with USB 2.0 or USB 1.1 devices such as keyboards, pointing devices, cameras, hard disk drives, printers, and scanners connected in a series up to 12Mbps/sec (USB 1.1) and 480Mbps/sec (USB 2.0). USB 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.



2 Air Vents

The air vents allow cool air to enter and warm air to exit the Notebook PC.

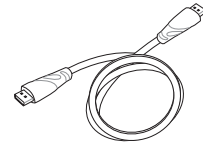


IMPORTANT! Make sure that paper, books, clothing, cables, or other objects do not block any of the air vents or else overheating may occur.



3 HDMI HDMI Port (on selected models)

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, with bandwidth to spare to accommodate future enhancements or requirements.



4 ESATA E-SATA Port (on selected models)

External SATA or eSATA allows external connection of Serial-ATA devices originally designed for use inside the computer. It is up to six times faster than existing USB 2.0 and 1394 for external storage solutions and is also hot pluggable.

5 TV-Out Port (on selected models)

The TV-Out port is an S-Video connector that allows routing the Notebook PC's display to a television or video projection device. You can choose between simultaneously or single display. Use an S-Video cable (not provided) for high quality displays or use the provided RCA to S-Video adapter for standard video devices. This port supports both NTSC and PAL formats.



6 ExpressCard Slot

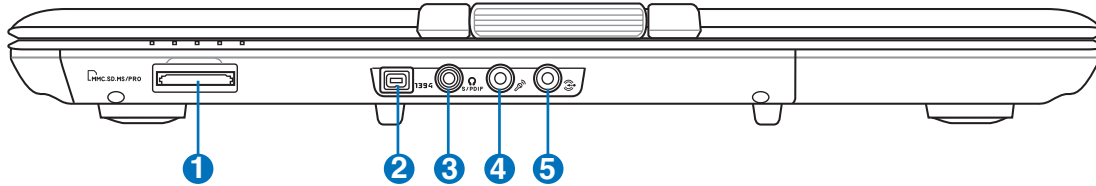
One 26pin Express card slot is available to support one ExpressCard/34mm or one ExpressCard/54mm expansion card. This new interface is faster by using a serial bus supporting USB 2.0 and PCI Express instead of the slower parallel bus used in the PC card slot. (Not compatible with previous PCMCIA cards.)



2 Knowing the Parts

Front Side

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



1 Flash Memory Slot

Normally an external 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 high-speed memory card reader that can conveniently read from and write to many flash memory cards as mentioned later in this manual.



2 IEEE1394 Port (on selected models)

IEEE1394 is a high speed serial bus like SCSI but has simple connections and hot-plugging capabilities like USB. The interface IEEE1394 has a bandwidth of 100-400 Mbits/sec and can handle up to 63 units on the same bus. IEEE1394 is also used in high-end digital equipment and should be marked “DV” for Digital Video port.



3 SPDIF Output Jack

This jack provides connection to SPDIF (Sony/Philips Digital Interface) compliant devices for digital audio output. Use this feature to turn the Notebook PC into a hi-fi home entertainment system.



Headphone Output Jack

The stereo headphone jack (1/8 inch) is used to connect the Notebook PC’s audio out signal to amplified speakers or headphones. Using this jack automatically disables the built-in speakers.



4 Microphone Input Jack

The mono microphone jack (1/8 inch) can be used to connect an external microphone or output signals from audio devices. Using this jack automatically disables the built-in microphone. Use this feature for video conferencing, voice narrations, or simple audio recordings.



5 Audio Input Jack

The stereo input jack (1/8 inch) can be used to connect a stereo audio source to the Notebook PC. This feature is used mainly to add audio to multimedia applications.

