

UltraMobilePC (UMPC)

Hardware User's Manual

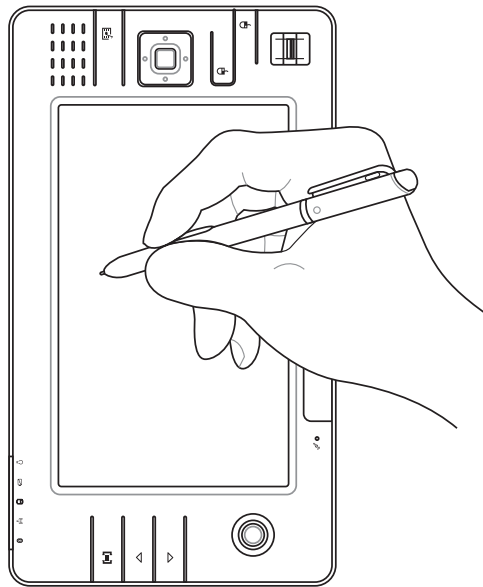
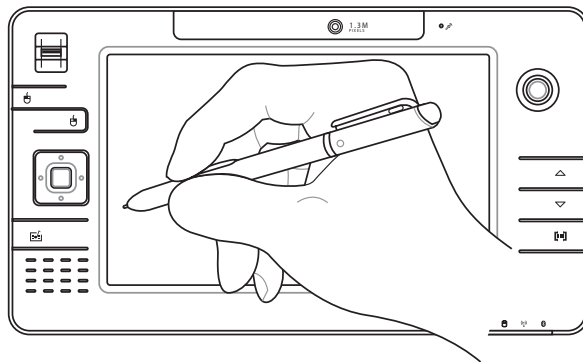


Table of Contents

1. Introducing the UltraMobilePC

About This User's Manual	6
Notes For This Manual.....	6
Safety Precautions	7
Transportation Precautions	8
Preparing your UltraMobilePC.....	9

2. Knowing the Parts

Front Side	12
Right Side	14
Top Side.....	16
Left Side	18
Bottom Side.....	19
Back Side	20

3. Getting Started

Power System	24
Using AC Power	24
Using Battery Power	25
Battery Care.....	25
Powering ON the UltraMobilePC	26
The Power-On Self Test (POST).....	26
Checking Battery Power	27
Charging the Battery Pack.....	28
Power Options	28
Power Management Modes.....	29
Sleep and Hibernate	29
Thermal Power Control.....	29
Status Indicators.....	30

4. Using the UltraMobilePC

Display Calibration 32
 MS Windows Vista 32
 MS Windows XP 33
Connections 34
 Network Connection 34
 Wireless LAN Connection (on selected models) 35
 Windows Wireless Network Connection 36
 ASUS Wireless LAN (on selected models) 38
 Bluetooth Wireless Connection (on selected models) 40
Operating System and Software 41
 Fingerprint Registration (on selected models) 42
 GPS Software (USA & Europe only) 44
 3G Watcher Software (on selected models) 45

Appendix

Optional Accessories 50
More Optional Accessories 53
Optional Connections 54
Glossary 57

1. Introducing the UltraMobilePC

About This User's Manual

Notes For This Manual

Safety Precautions

Preparing your UltraMobilePC



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.

About This User's Manual

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



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



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



TIP: Tips and useful information for completing tasks.



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



NOTE: Tips and information for special situations.

Safety Precautions

The following safety precautions will increase the life of the UltraMobilePC. 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 UltraMobilePC 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 UltraMobilePC.



DO NOT scratch the display panel. Do not place together with small items that may scratch or enter the UltraMobilePC vents.



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 UltraMobilePC 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 UltraMobilePC 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 UltraMobilePC and be sure that your power adapter complies with the rating.



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



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



Models with 3G⁽¹⁾: Produces radio wave emissions that may cause electrical interferences and must be used in places that do not prohibit such devices. Take precautions while using.



WARNING! The 3G function needs to be switched OFF in areas with potentially explosive atmospheres such as petrol (gas) stations, chemical storage depots, and blasting operations.

⁽¹⁾ (See end of Section 4 for definition)


UltraMobilePC

Transportation Precautions

To prepare the UltraMobilePC 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 UltraMobilePC while the power is still ON.

Cover Your UltraMobilePC

You can purchase an optional carrying case to protect it from dirt, water, shock, and scratches.

 **CAUTION:** The UltraMobilePC's surface is easily dulled if not properly cared for. Be careful not to rub or scrape the UltraMobilePC surfaces when transporting your UltraMobilePC.




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 UltraMobilePC is in use.

Airplane Precautions

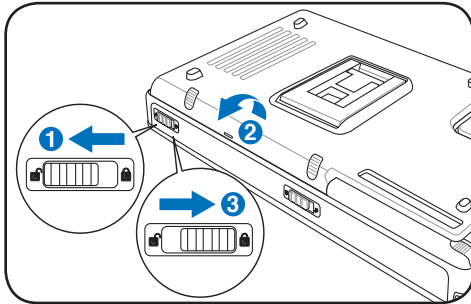
Contact your airline if you want to use the UltraMobilePC on the airplane. Most airlines will have restrictions for using electronic devices. Most airlines will allow electronic use only between and not during takeoffs and landings.

 **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 UltraMobilePC and diskettes through airport X-ray machines. However, it is recommended that you do not send your UltraMobilePC or diskettes through airport magnetic detectors or expose them to magnetic wands.

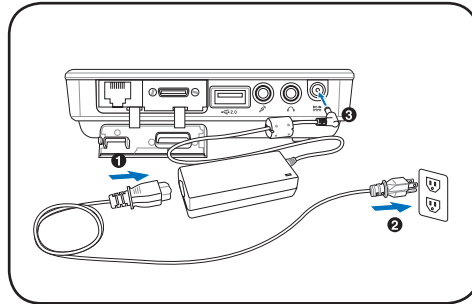
Preparing your UltraMobilePC

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

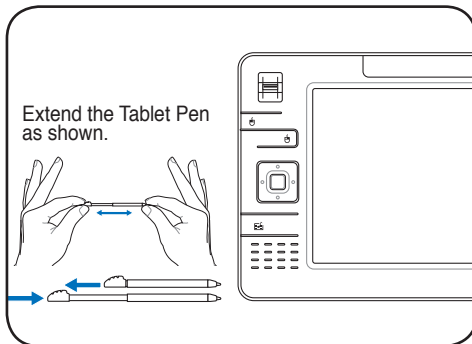
1. Install the battery pack



2. Connect the AC Power Adapter

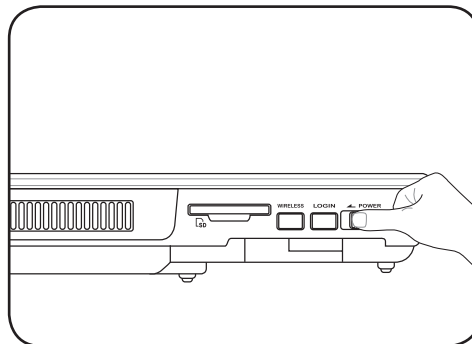


3. Remove the Tablet Pen



Then Tablet Pen can be inserted in the extended form and then contracted while pressing the Tablet Pen flush with the UltraMobilePC.

4. Turn ON the UltraMobilePC



Slide the power switch and release.

The power switch turns ON and OFF the UltraMobilePC or putting the UltraMobilePC 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

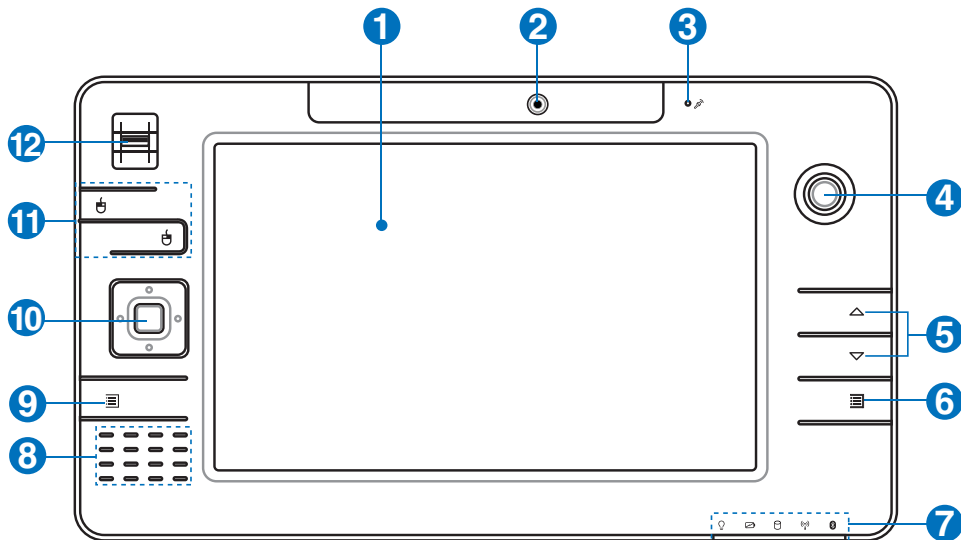
Basic sides of the UltraMobilePC



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.

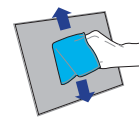
Front Side

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



1 Display Panel

The display panel functions the same as a desktop monitor. The UltraMobilePC uses an active matrix TFT LCD, which provides excellent viewing like that of desktop monitors. Unlike 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)



2 Camera

The built-in camera allows picture taking or video recording. Can be used with video conferencing and other interactive applications.



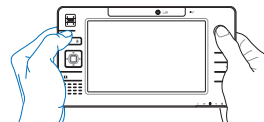
3 Microphone (Built-in)

The built-in mono microphone can be used for video conferencing, voice narrations, or simple audio recordings.



4 Thumbstick Cursor Control

The thumbstick cursor control with its left and right cursor buttons is a pointing device that provides the same functions as a desktop mouse.



5 Page Up & Page Down

The Page Up and Page Down buttons act the same way as those on a keyboard.



6 UltraMobilePC Settings Button

The UltraMobilePC settings button bring up an easy menu to customize the UltraMobilePC to your desire.



7 Status Indicators

Status indicators represent various conditions. Details are described in section 3.



8 Audio Speaker

The built-in 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.

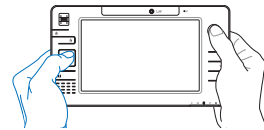


9 Microsoft Touch Pack Key

Pressing this button will launch a software built exclusively for UMPCs (Ultra Mobile Personal Computers) called Microsoft Touch Pack.

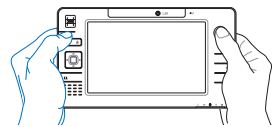
10 Direction & Enter Buttons

The direction (Up/Down, Left/Right) and Enter (center) buttons act the same way as those on a keyboard.



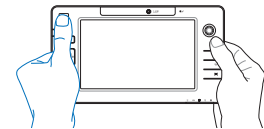
11 Thumbstick Cursor Buttons

The thumbstick cursor control with its left and right cursor buttons is a pointing device that provides the same functions as a desktop mouse.



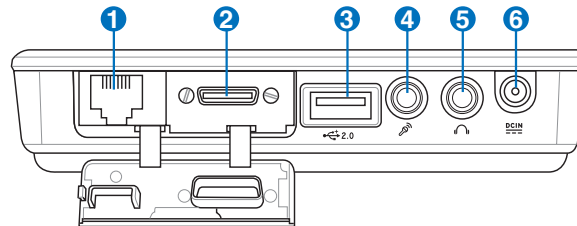
12 Fingerprint Scanner

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



Right Side

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



1 LAN Port (disabled when using PortBar)

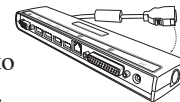
The RJ-45 LAN port with eight pins is larger than the RJ-11 modem port and supports a standard Ethernet cable for connection to a local network. The built-in connector allows convenient use without additional adapters.



 **Note:** An active LAN cable must be connected in order for Windows device manager to detect the built-in LAN. For the same reason, an active LAN cable must be connected when installing a LAN driver.

2 Expansion Port


The expansion port provides an easy-to-use PortBar docking solution to desktop peripherals and other accessories through a single connector.



↑

combo

↓

 **Notes:** (1) AC power adapter must be used. Cannot be used when UltraMobilePC is in battery mode. (2) Recommend using two AC power adapters (one on the UltraMobilePC and one on the PortBar) when using all ports on UltraMobilePC and PortBar. (3) Disables UltraMobilePC's LAN port when connected.

Display (Monitor) Output (with provided adapter)

The provided VGA adapter for the expansion port will provide a 15-pin D-sub analog output to support a standard VGA-compatible device such as a monitor or projector to allow displaying on a larger external monitor.



3  **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.



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  **Headphone Output Jack**

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



6  **Power (DC) Input**

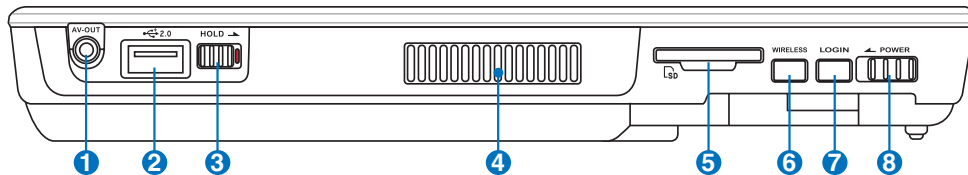
The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the UltraMobilePC and charges the internal battery pack. To prevent damage to the UltraMobilePC and battery pack, always use the supplied power adapter. **CAUTION: MAY BECOME WARM TO HOT WHEN IN USE. BE SURE NOT TO COVER THE ADAPTER AND KEEP IT AWAY FROM YOUR BODY.**



UltraMobilePC

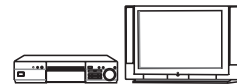
Top Side

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



1 AV-OUT

Audio/Video output port for connection to analog audio/video devices such as televisions or video recorders.



2 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.



3 HOLD Key

When enabled, the buttons and the touchscreen will be disabled but the UltraMobilePC will continue to function (such as playing music).



4 Air Vents

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



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



5 SD Memory Slot

This UltraMobilePC has a built-in SD memory card reader that can read SD flash memory cards from devices such as digital cameras, MP3 players, mobile phones, and PDAs. The built-in SD memory card reader is not only convenient, but also faster than most external SD memory card readers.



6 WIRELESS **Wireless Switch**

Enables or disables the built-in wireless LAN and Bluetooth (selected models). When enabled, the wireless status indicator will light. Windows software settings are necessary before use.



7 LOGIN **LOGIN Button**

The LOGIN button sends a [Ctrl][Alt][Del] keyboard combination to the operating system to show Windows Security for logging in/off, locking, shutting down, showing task manager, or changing passwords. This special login feature is also known as Secure Attention Sequence (SAS).



8 POWER **Power Switch**

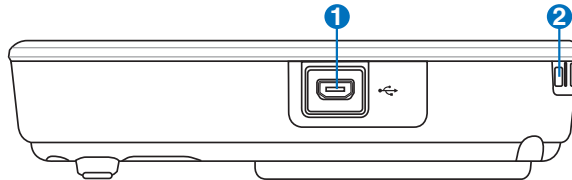
The power switch turns ON and OFF the UltraMobilePC or putting the UltraMobilePC into sleep or hibernation modes. Actual behavior of the power switch can be customized in Windows Control Panel “Power Options.”



UltraMobilePC

Left Side

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



1 Mini-USB Port (Type A)

The mini-USB (Universal Serial Bus) port is for connection to the optional external USB keyboard.



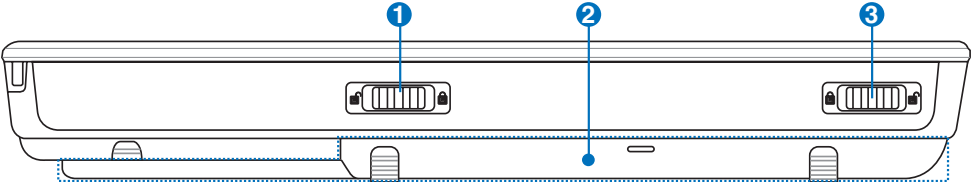
2 Wrist strap hook

The wrist strap hook is for use with the wrist strap to prevent accidentally dropping the UltraMobilePC when holding it in your hands.



Bottom Side

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



1 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.



2 Battery Pack

The battery pack is automatically charged when the UltraMobilePC is connected to an AC power source and maintains power to the UltraMobilePC 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 UltraMobilePC. The battery pack cannot be disassembled and must be purchased as a single unit from an authorized retailer.



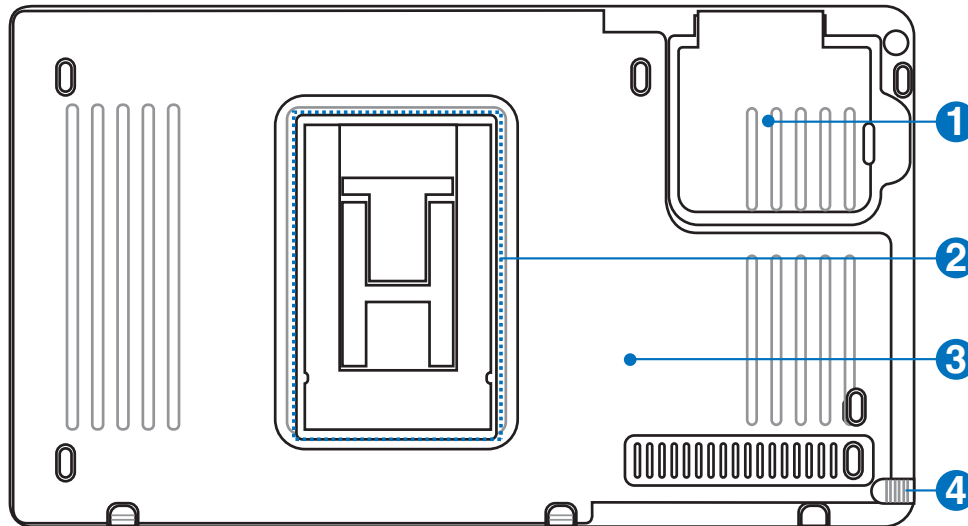
3 Battery Lock - Manual

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.



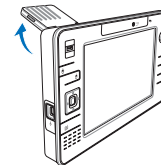
Back Side

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



1  **GPS Antenna (built-in)**

The GPS antenna can be flipped up for better reception or flipped down when not in use. The GPS antenna is used by the built-in SiRF3 GPS chipset. Together, the built-in GPS can be used with various navigation software applications without additional attachments.



2 **Support Stand**


The battery pack is equipped with a foldable support stand for the UltraMobilePC to stand up on a flat surface for easy viewing.

3  **Battery Pack**

The battery pack is automatically charged when the UltraMobilePC is connected to an AC power source and maintains power to the UltraMobilePC 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 UltraMobilePC. The battery pack cannot be disassembled and must be purchased as a single unit from an authorized retailer.



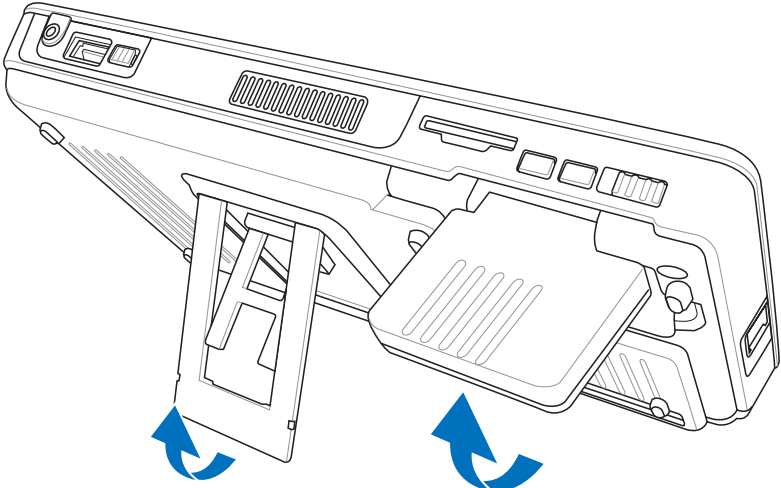
4  **Touchscreen Pen Compartment**

This compartment allows storage of the pen used on the touchscreen panel. Note: The touchscreen pen replicates cursor functions on the touchscreen and does not have electronic components. 

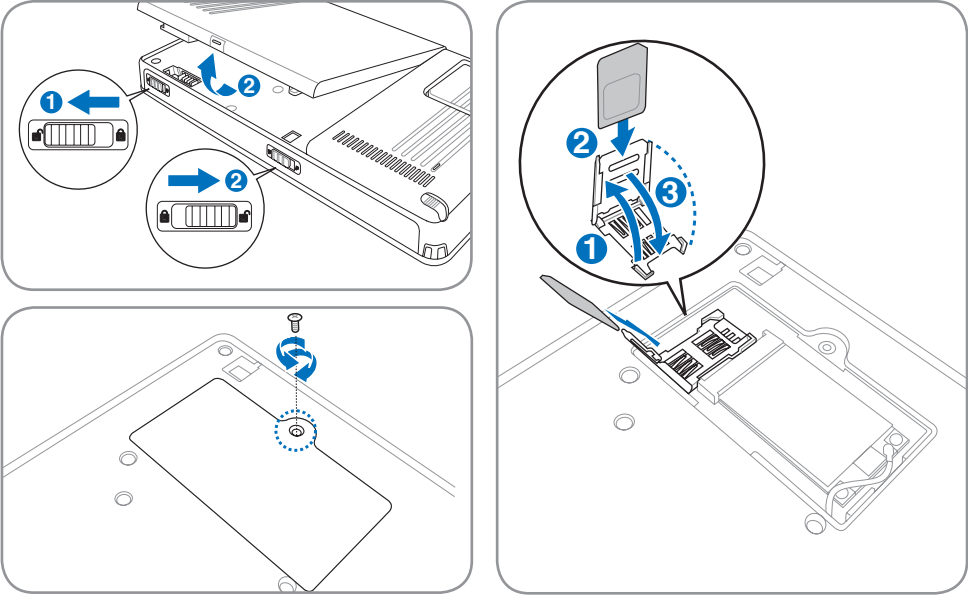


Back Side (cont.)

The support stand and GPS antenna can flip out as illustrated when using them. Flip them back in for easy handling or transport.



SIM card location and installation



3. Getting Started

Using AC Power

Using Battery Power

Powering ON the UltraMobilePC

Checking Battery Power

Restarting or Rebooting

Powering OFF the UltraMobilePC

Status Indicators

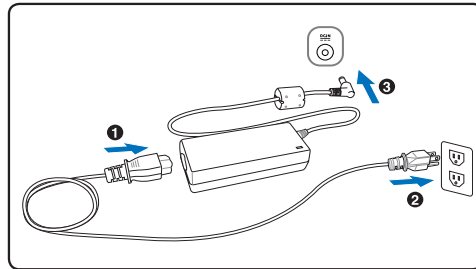


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Power System


Using AC Power

The UltraMobilePC 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 UltraMobilePC. Your UltraMobilePC 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 UltraMobilePC 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 UltraMobilePC. 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 UltraMobilePC. The power indicator on the adapter (if available) will light if the power is within accepted ranges.

 **IMPORTANT!** Damage may occur if you use a different adapter to power the UltraMobilePC or use the UltraMobilePC'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 UltraMobilePC with a faulty AC-DC adapter.

 **NOTE:** This UltraMobilePC 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 UltraMobilePC.


 **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

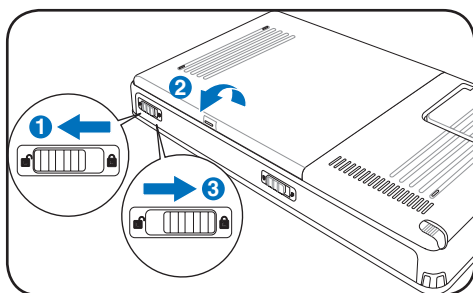
The UltraMobilePC is designed to work with a removable battery pack. The battery pack consists of a set of battery cells housed together. A fully charged pack will provide several hours of battery life, which can be further extended by using power management features through the BIOS setup. Additional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

Installing and Removing the Battery Pack

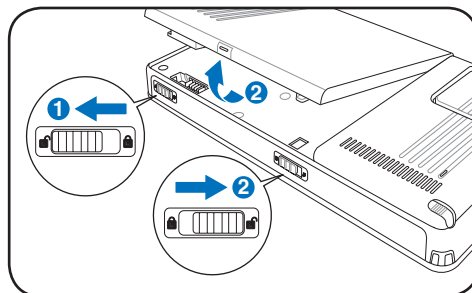
Your UltraMobilePC may or may not have its battery pack installed. If your UltraMobilePC does not have its battery pack installed, use the following procedures to install the battery pack.

 **IMPORTANT!** Never attempt to remove the battery pack while the UltraMobilePC 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 UltraMobilePC or specifically approved by the manufacturer or retailer for use with this model or else damage may occur to the UltraMobilePC.

Battery Care

The UltraMobilePC'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 UltraMobilePC 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 UltraMobilePC'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 UltraMobilePC. 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 UltraMobilePC and contact an authorized service center.



UltraMobilePC

Powering ON the UltraMobilePC

The UltraMobilePC's power-ON message appears on the screen when you turn it ON. If necessary, you may adjust the brightness by using the hotkey. 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 UltraMobilePC'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 UltraMobilePC before turning it back ON.



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

The Power-On Self Test (POST)

When you turn ON the UltraMobilePC, it will first run through a series of software-controlled diagnostic tests called the Power-On Self Test (POST). The software that controls the POST is installed as a permanent part of the UltraMobilePC's architecture. The POST includes a record of the UltraMobilePC's hardware configuration, which is used to make a diagnostic check of the system. This record is created by using the BIOS Setup program. If the POST discovers a difference between the record and the existing hardware, it will display a message on the screen prompting you to correct the conflict by running BIOS Setup. In most cases the record should be correct when you receive the UltraMobilePC. When the test is finished, you may get a message reporting "No operating system found" if the hard disk was not preloaded with an operating system. This indicates that the hard disk is correctly detected and ready for the installation of a new operating system.

The S.M.A.R.T. (Self Monitoring and Reporting Technology) checks the hard disk drive during POST and gives a warning message if the hard disk drive requires servicing. If any critical hard disk drive warning is given during bootup, backup your data immediately and run Windows disk checking program. To run Windows's disk checking program: (1) right-click any hard disk drive icon in "My Computer", (2) choose Properties, (3) click the Tools tab, (4) click Check Now, (5) select a hard disk drive, (6) select Thorough to also check for physical damages, and (7) click Start. Third party disk utilities such as Symantec's Norton Disk Doctor can also perform the same functions but with greater ease and more features.

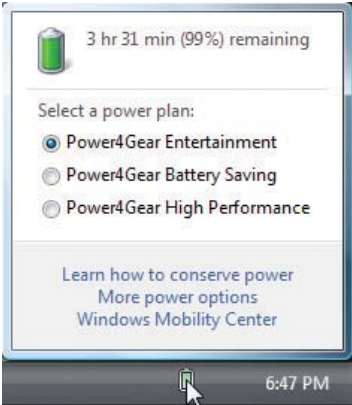


IMPORTANT! If warnings are still given during bootup after running a software disk checking utility, you should take your UltraMobilePC in for servicing. Continued use may result in data loss.

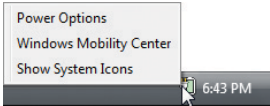
Checking Battery Power

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 UltraMobilePC 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.

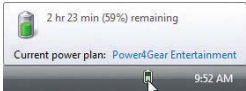
Note: Screen captures shown here are examples only and may not reflect what you see in your system.



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 UltraMobilePC 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).

UltraMobilePC

Charging the Battery Pack

Before you use your UltraMobilePC on the road, you will have to charge the battery pack. The battery pack begins to charge as soon as the UltraMobilePC 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 UltraMobilePC is disconnected from external power. It takes a few hours to fully charge the battery when the UltraMobilePC is turned OFF and may take twice the time when the UltraMobilePC is turned ON. The battery status indicator on the UltraMobilePC 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. BIOS provides a smart battery refreshing function. If the battery calibration process fails, stop charging and contact an authorized service center.**

 **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.**

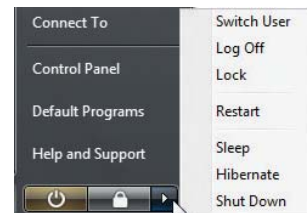
Power Options

The power switch turns ON and OFF the UltraMobilePC or putting the UltraMobilePC 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

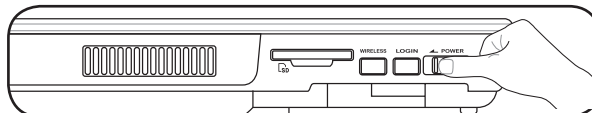
After making changes to your operating system, you may be prompted to restart the system. Some installation processes will provide a dialog box to allow restart. To restart the system manually, choose **Restart**.




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

Emergency Shutdown

In case your system cannot properly turn OFF or restart, 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.**

Power Management Modes

Power Options

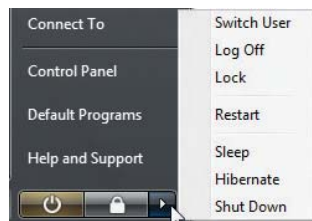
The UltraMobilePC has a number of automatic or adjustable power saving features that you can use to maximize battery life and lower Total Cost of Ownership (TCO). You can control some of these features through the Power menu in the BIOS Setup. ACPI power management settings are made through the operating 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 UltraMobilePC 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. (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 UltraMobilePC’s thermal state. These power control cannot be configured by the user and should be known in case the UltraMobilePC should enter these states. The following temperatures represent the chassis temperature (not CPU).

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



Status Indicators



Power Indicator

The power indicator lights when the UltraMobilePC is turned ON and blinks slowly when the UltraMobilePC is in the Suspend-to-RAM (Standby) mode. This indicator is OFF when the UltraMobilePC is turned OFF or in the Suspend-to-Disk (Hibernation) mode.

Battery Charge Indicator

The battery charge indicator shows the status of the battery's power as follows:

ON: The UltraMobilePC's battery is charging when AC power is connected.

OFF: The UltraMobilePC'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 UltraMobilePC is accessing one or more storage device(s) such as the hard disk. The light flashes proportional to the access time.

Wireless LAN Indicator

When the built-in wireless LAN is enabled, this indicator will light. (Windows software settings are necessary to use this function.)

Bluetooth Indicator

This is only applicable on models with internal Bluetooth. This indicator will light to show that the UltraMobilePC's built-in Bluetooth function is activated.

4. Using the UltraMobilePC

Display Calibration

Connections

Network Connection

Wireless LAN Connection

Bluetooth Wireless Connection

Power Management Modes

Fingerprint Scanner

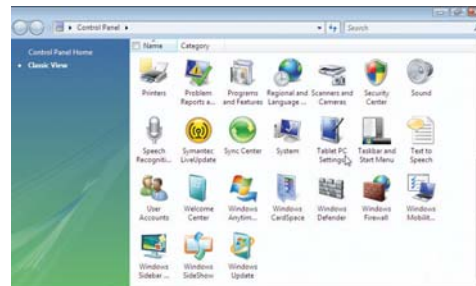
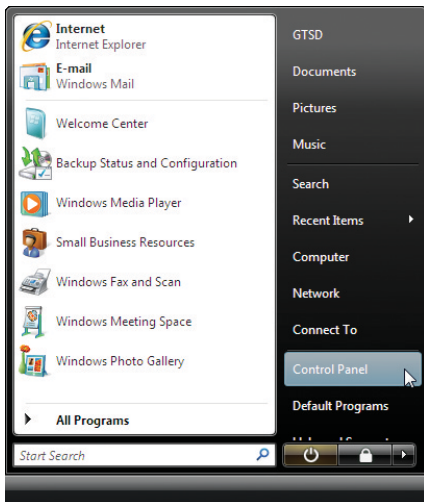
GPS Software



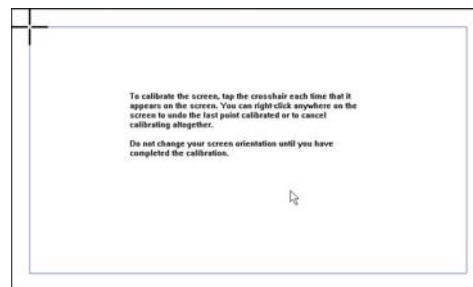
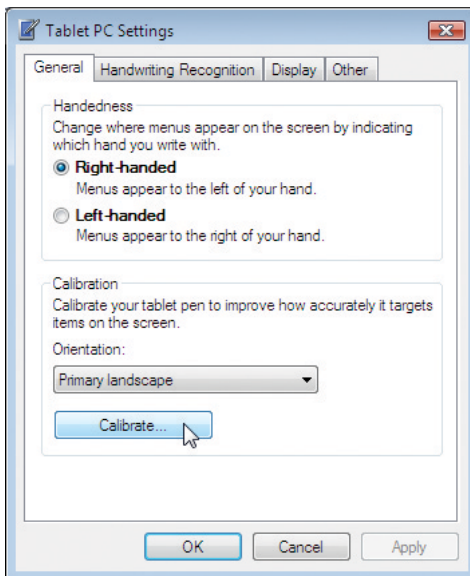
NOTE: Photos and icons in this manual are used for artistic purposes only and do not show what is actually used in the product itself.

Display Calibration

MS Windows Vista



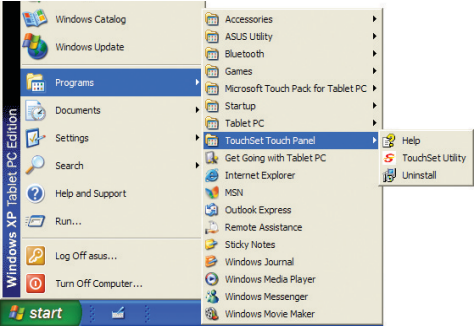
1. Launch **Control Panel** from Windows **Start**.
2. Double click **Tablet PC Settings** icon.



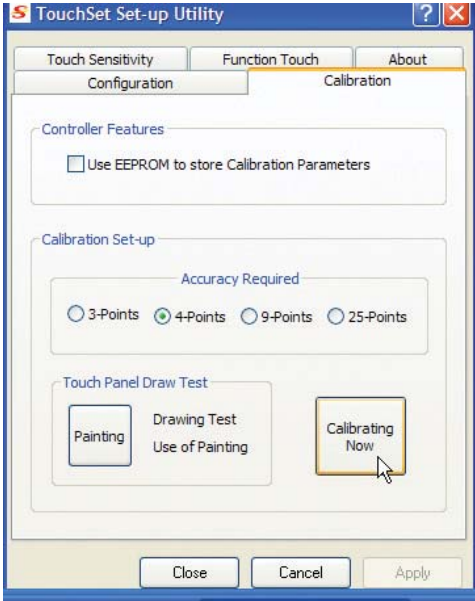
3. Click the **Calibrate** button on the "General" page.
4. Carefully tap the center of each cross hair that appears near each corner to complete the calibration process.

Display Calibration (cont.)

MS Windows XP



1. Double click the **TouchSet Utility** icon on the desktop.
2. Or launch **TouchSet Utility** through Windows Start.



3. Click the **Calibration** tab and click the **Calibrating Now** button.
4. Carefully tap the center of each cross hair that appears near each corner to complete the calibration process.

Connections

Network Connection

Connect a network cable, with RJ-45 connectors on each end, to the modem/network port on the UltraMobilePC 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 UltraMobilePC 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.



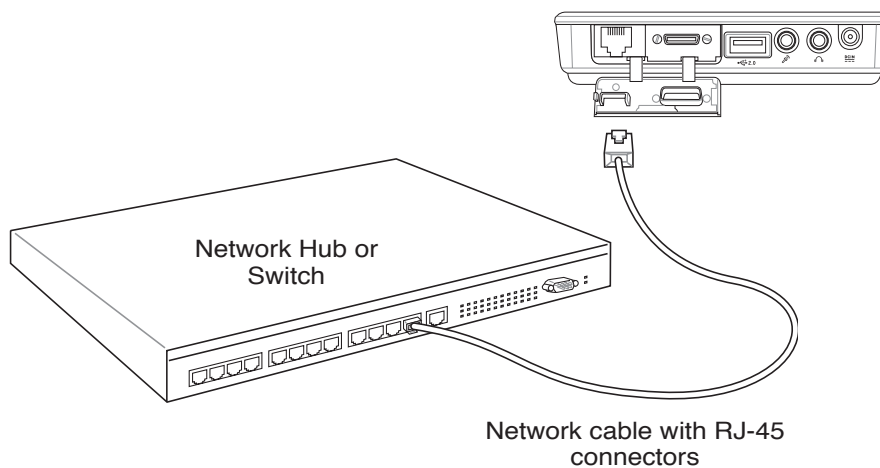
1000BASE-T (or Gigabit) is only supported on selected models.

Twisted-Pair Cable

The cable used to connect the Ethernet card to a host (generally a Hub or Switch) is called a straight-through Twisted Pair Ethernet (TPE). The end connectors are called RJ-45 connectors, which are not compatible with RJ-11 telephone connectors. If connecting two computers together without a hub in between, a crossover LAN cable is required (Fast-Ethernet model). (Gigabit models support auto-crossover so a crossover LAN cable is optional.)



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



Wireless LAN Connection (on selected models)

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.

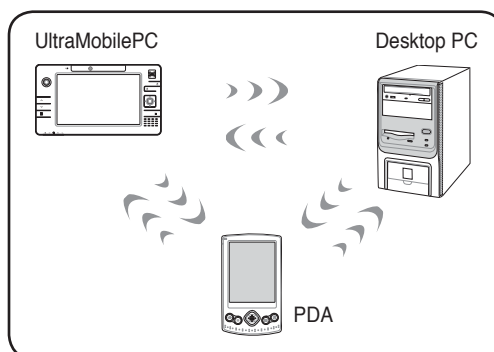
To provide efficient security to your wireless communication, the optional built-in wireless LAN comes with a 64-bit/128-bit Wired Equivalent Privacy (WEP) encryption and Wi-Fi Protected Access (WPA) features.

These are examples of the UltraMobilePC connected to a Wireless Network.

Ad-hoc mode

The Ad-hoc mode allows the UltraMobilePC 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 UltraMobilePC 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.)

