

# USER'S MANUAL

TN120R

*notebook*





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### **FCC Statement (Federal Communications Commission)**

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the 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:

- Re orient 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 service representative or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment. Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.



**Warning**

Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not expressly approved by the manufacturer for compliance with the above standards could void your authority to operate the equipment.

If your purchase option includes both **Wireless LAN** and **3.5G** modules, then the appropriate antennas will be installed. Note that In order to comply with FCC RF exposure compliance requirements, the antenna must not be co-located or operate in conjunction with any other antenna or transmitter.

### **IMPORTANT SAFETY INSTRUCTIONS**

Follow basic safety precautions, including those listed below, to reduce the risk of fire, electric shock, and injury to persons when using any electrical equipment:

1. Do not use this product near water, for example near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
2. Avoid using this equipment with a telephone line (other than a cordless type) during an electrical storm. There may be a remote risk of electrical shock from lightning.
3. Do not use the telephone to report a gas leak in the vicinity of the leak.
4. Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
5. This product is intended to be supplied by a Listed Power Unit with an AC Input of 100 - 240V, 50 - 60Hz, DC Output of 19V, 3.42A (65 Watts) minimum AC/DC Adapter.

### **CAUTION**

Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment.

**TO REDUCE THE RISK OF FIRE, USE ONLY NO. 26 AWG OR LARGER,  
TELECOMMUNICATION LINE CORD**

**This Computer's Optical Device is a Laser Class 1 Product**

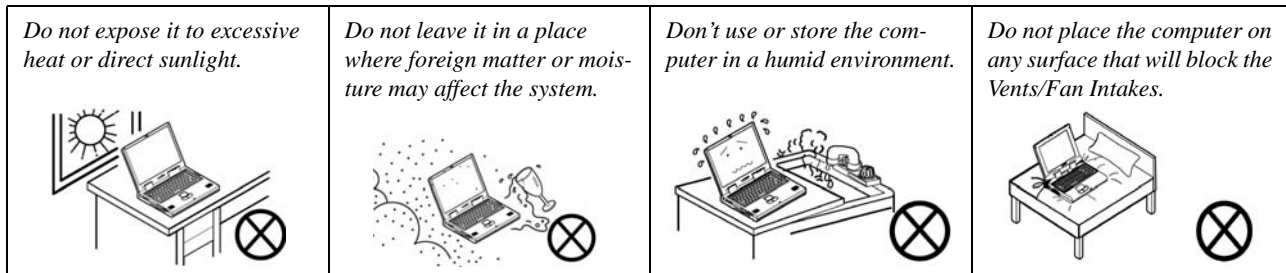
## Instructions for Care and Operation

The notebook computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

1. **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be damaged.

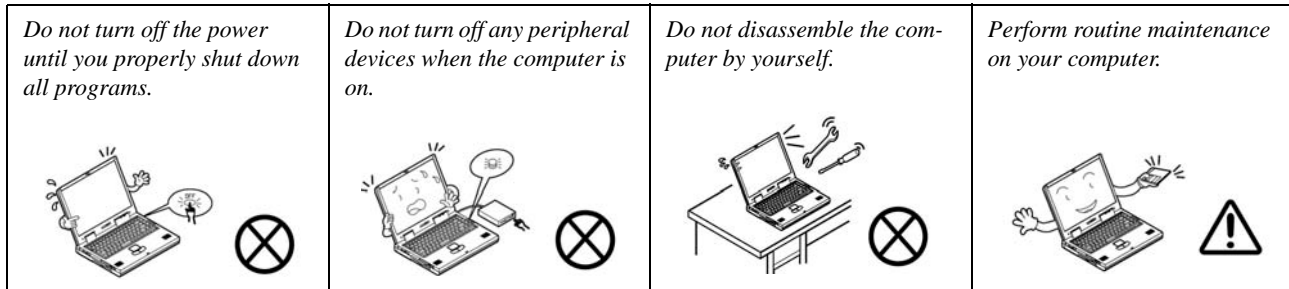


2. **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating element. This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.

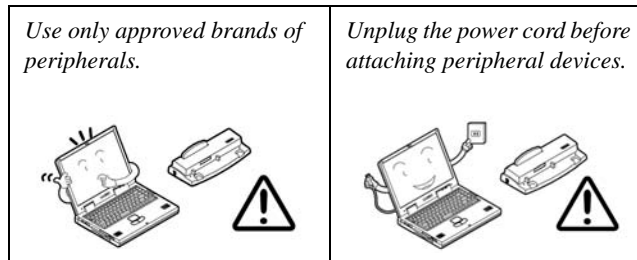


## Preface

- Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
- Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be lost if the battery is depleted.



- Take care when using peripheral devices.**





## Power Safety

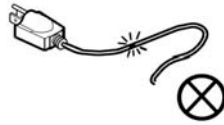
The computer has specific power requirements:

- Only use a power adapter approved for use with this computer.
- Your AC/DC adapter may be designed for international travel but it still requires a steady, uninterrupted power supply. If you are unsure of your local power specifications, consult your service representative or local power company.
- The power adapter may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
- When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
- Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
- Before cleaning the computer, make sure it is disconnected from any external power supplies (i.e. AC/DC adapter or car adapter).

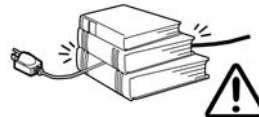
*Do not plug in the power cord if you are wet.*



*Do not use the power cord if it is broken.*



*Do not place heavy objects on the power cord.*



### Power Safety Warning

Before you undertake any upgrade procedures, make sure that you have turned off the power, and disconnected all peripherals and cables (including telephone lines). It is advisable to also remove your battery in order to prevent accidentally turning the machine on.

### Battery Precautions

- Only use batteries designed for this computer. The wrong battery type may explode, leak or damage the computer.
- Do not remove any batteries from the computer while it is powered on.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- Recharge the batteries using the notebook's system. Incorrect recharging may make the battery explode.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Keep children away from, and promptly dispose of a damaged battery. Always dispose of batteries carefully. Batteries may explode or leak if exposed to fire, or improperly handled or discarded.
- Keep the battery away from metal appliances.
- Affix tape to the battery contacts before disposing of the battery.
- Do not touch the battery contacts with your hands or metal objects.



#### Battery Disposal & Caution

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

## Cleaning

Do not apply cleaner directly to the computer; use a soft clean cloth.

Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

## Servicing

Do not attempt to service the computer yourself. Doing so may violate your warranty and expose you and the computer to electric shock. Refer all servicing to authorized service personnel. Unplug the computer from the power supply. Then refer servicing to qualified service personnel under any of the following conditions:

- When the power cord or AC/DC adapter is damaged or frayed.
- If the computer has been exposed to rain or other liquids.
- If the computer does not work normally when you follow the operating instructions.
- If the computer has been dropped or damaged (do not touch the poisonous liquid if the LCD panel breaks).
- If there is an unusual odor, heat or smoke coming from your computer.



### Removal Warning

When removing any cover(s) and screw(s) for the purposes of device upgrade, remember to replace the cover(s) and screw(s) before turning the computer on.

# Travel Considerations

## Packing

As you get ready for your trip, run through this list to make sure the system is ready to go:

1. Check that the battery pack and any spares are fully charged.
2. Power off the computer and peripherals.
3. Close the display panel and make sure it's latched.
4. Disconnect the AC/DC adapter and cables. Stow them in the carrying bag.
5. The AC/DC adapter uses voltages from 100 to 240 volts so you won't need a second voltage adapter. However, check with your travel agent to see if you need any socket adapters.
6. Put the notebook in its carrying bag and secure it with the bag's straps.
7. If you're taking any peripherals (e.g. a printer, mouse or digital camera), pack them and those devices' adapters and/or cables.
8. Anticipate customs - Some jurisdictions may have import restrictions or require proof of ownership for both hardware and software. Make sure your documents are prepared.



### Power Off Before Traveling

Make sure that your notebook is completely powered off before putting it into a travel bag (or any such container). Putting a notebook which is powered on in a travel bag may cause the vent(s)/fan intake(s)/outlet(s) to be blocked. To prevent your computer from overheating make sure nothing blocks the vent(s)/fan intake(s)/outlet(s) while the computer is in use.

## On the Road

In addition to the general safety and maintenance suggestions in this preface, and Chapter 8: Troubleshooting, keep these points in mind:

**Hand-carry the notebook** - For security, don't let it out of your sight. In some areas, computer theft is very common. Don't check it with normal luggage. Baggage handlers may not be sufficiently careful. Avoid knocking the computer against hard objects.

**Beware of Electromagnetic fields** - Devices such as metal detectors & X-ray machines can damage the computer, hard disk, floppy disks, and other media. They may also destroy any stored data - Pass your computer and disks around the devices. Ask security officials to hand-inspect them (you may be asked to turn it on). **Note:** Some airports also scan luggage with these devices.

**Fly safely** - Most airlines have regulations about the use of computers and other electronic devices in flight. These restrictions are for your safety, follow them. If you stow the notebook in an overhead compartment, make sure it's secure. Contents may shift and/or fall out when the compartment is opened.

**Get power where you can** - If an electrical outlet is available, use the AC/DC adapter and keep your battery(ies) charged.

**Keep it dry** - If you move quickly from a cold to a warm location, water vapor can condense inside the computer. Wait a few minutes before turning it on so that any moisture can evaporate.

### Developing Good Work Habits

Developing good work habits is important if you need to work in front of the computer for long periods of time. Improper work habits can result in discomfort or serious injury from repetitive strain to your hands, wrists or other joints. The following are some tips to reduce the strain:



- Adjust the height of the chair and/or desk so that the keyboard is at or slightly below the level of your elbow. Keep your forearms, wrists, and hands in a relaxed position.
- Your knees should be slightly higher than your hips. Place your feet flat on the floor or on a footrest if necessary.
- Use a chair with a back and adjust it to support your lower back comfortably.
- Sit straight so that your knees, hips and elbows form approximately 90-degree angles when you are working.
- Take periodic breaks if you are using the computer for long periods of time.

#### Remember to:

- Alter your posture frequently.
- Stretch and exercise your body several times a day.
- Take periodic breaks when you work at the computer for long periods of time. Frequent and short breaks are better than fewer and longer breaks.



## Lighting

Proper lighting and comfortable display viewing angle can reduce eye strain and muscle fatigue in your neck and shoulders.

- Position the display to avoid glare or reflections from overhead lighting or outside sources of light.
- Keep the display screen clean and set the brightness and contrast to levels that allow you to see the screen clearly.
- Position the display directly in front of you at a comfortable viewing distance.
- Adjust the display-viewing angle to find the best position.

## LCD Screen Care

To prevent **image persistence** on LCD monitors (caused by the continuous display of graphics on the screen for an extended period of time) take the following precautions:

- Set the *Windows* **Power Plans** to turn the screen off after a few minutes of screen idle time.
- Use a rotating, moving or blank screen saver (this prevents an image from being displayed too long).
- Rotate desktop background images every few days.
- Turn the monitor off when the system is not in use.






# Chapter 1: Quick Start Guide


## Overview

This Quick Start Guide is a brief introduction to the basic features of your computer, to navigating around the computer and to getting your system started.


## Advanced Users

If you are an advanced user you may skip over most of this Quick Start Guide. You may also find the notes marked with a  of interest to you.

## Beginners and Not-So-Advanced Users

If you are new to computers (or do not have an advanced knowledge of them) then the information contained in this Quick Start Guide should be enough to get you up and running. Eventually you should try to look through all the documentation (more detailed descriptions of the functions, setup and system controls are covered in the remainder of the User's Manual), but do not worry if you do not understand everything the first time. Keep this manual nearby and refer to it to learn as you go. You may find it useful to refer to the notes marked with a  as indicated in the margin.

## Warning Boxes

No matter what your level please pay careful attention to the warning and safety information indicated by the  symbol. Also please note the safety and handling instructions as indicated in the *Preface*.



### Notes

Check the light colored boxes with the mark above to find detailed information about the computer's features.

## Not Included

Operating Systems (e.g. *Windows Vista*) and applications (e.g. word processing, spreadsheet and database programs) have their own manuals, so please consult the appropriate manuals.

## System Software

Your computer may already come with system software pre-installed. Where this is not the case, or where you are re-configuring your computer for a different system, you will find this manual refers to the *Microsoft Windows Vista* operating system.



### Drivers

If you are installing new system software, or are re-configuring your computer for a different system, you will need to install the drivers on the CD supplied. Drivers are programs which act as an interface between the computer and a hardware component e.g. a wireless network module. You will be unable to use most advanced controls until the necessary drivers and utilities are properly installed. If your system is already configured your service representative may have already installed all the drivers for you.

## System Software

Your computer may already come with system software pre-installed. Where this is not the case, or where you are re-configuring your computer for a different system, you will find the following operating systems are supported.

Operating System & Version Supported	Note
*Windows XP Home or Professional Editions	In order to run <b>Windows XP</b> without limitations or decreased performance, your computer requires a minimum <b>512MB</b> of system memory (RAM)
Windows Vista ( <b>64-bit</b> ) Home Basic Edition	In order to run <b>Windows Vista</b> without limitations or decreased performance, your computer requires a minimum <b>1GB</b> of system memory (RAM).
Windows Vista ( <b>64-bit</b> ) Home Premium/Business/Enterprise/Ultimate Editions	

Table 1 - Operating Systems Supported

## System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Securely attach any peripherals you want to use with the notebook (e.g. keyboard and mouse) to their ports.
4. Attach the AC/DC adapter to the DC-In jack at the rear of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter.
5. Raise the lid/LCD and adjust it to a comfortable viewing angle (If you wish to operate the computer in **Tablet Mode** see page 1 - 5).
6. Slide the power switch to the left and then release it to turn the computer “on”.



### Touch Panel Input Device

Do not use any sharp or pointed objects as your input device e.g. the end of a pen or pencil. You should only use the provided stylus pen (PDA type) as your input device.



### Shutdown

Note that you should always shut your computer down by choosing the **Shut Down** command from the **Lock Button Menu** in **Windows Vista**. This will help prevent hard disk or system problems.



Figure 1 - AC/DC Adapter In

## Rotating The LCD Panel

You can use the computer either in **Notebook Mode**, or in **Tablet Mode**. To put the computer into **Tablet Mode**:


1. Raise the lid/LCD panel **1**.
2. Carefully rotate the lid/LCD panel fully in the (clockwise) direction indicated by the arrow **2**, until it is unable to rotate any further **3**.
3. Carefully push the lid/LCD panel down into **Tablet Mode** **4**, and use the stylus pen as an input device **5**.
4. Firmly press the screen rotation button  **6** to adjust the screen to the most comfortable viewing orientation (give the screen time to refresh).
5. The on-screen menu allows you to adjust settings, rotate the screen and turn the modules on/off etc.




Figure 2 - Rotating the LCD Panel Into Tablet Mode

## Tablet PC Input

Use the stylus pen provided to interact with the computer in the same way you would use the mouse. Before using the stylus pen you should calibrate the touch screen.

### Calibrating the Touch Screen

1. Double-click the **ENE Touch Screen Utility** icon  in the taskbar (the driver must be installed).  
OR **ENE TSC** folder in the **Programs/All Programs** group.
2. Click **Start**, and click **Programs/All Programs** and point to **ENE TSC** (folder), and then click **ENETSC**.
3. Click to choose the number of **Calibration Points**, and then click **Calibration** (button).

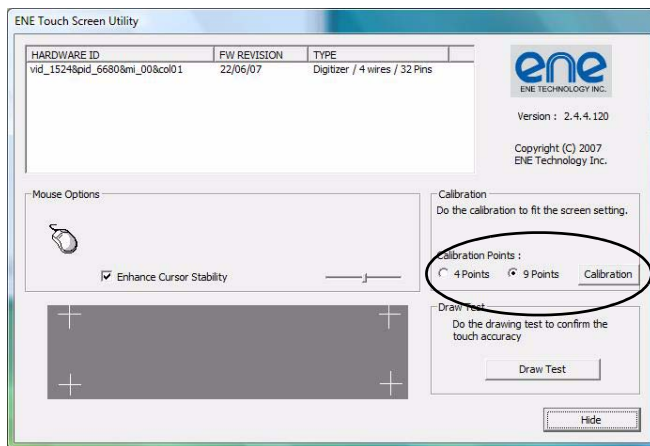


Figure 3 - Touch Screen Utility

### Screen Rotation & Re-Calibration

Note that you should re-calibrate the touch screen after you have **rotated** the screen to display in a different mode from that first calibrated.

4. Use the stylus pen to touch the blinking symbol until you hear a beep or the symbol stops blinking (maintain contact until the symbol stops blinking).
5. The plus (+) symbol will change from green to white after the reading has been obtained.

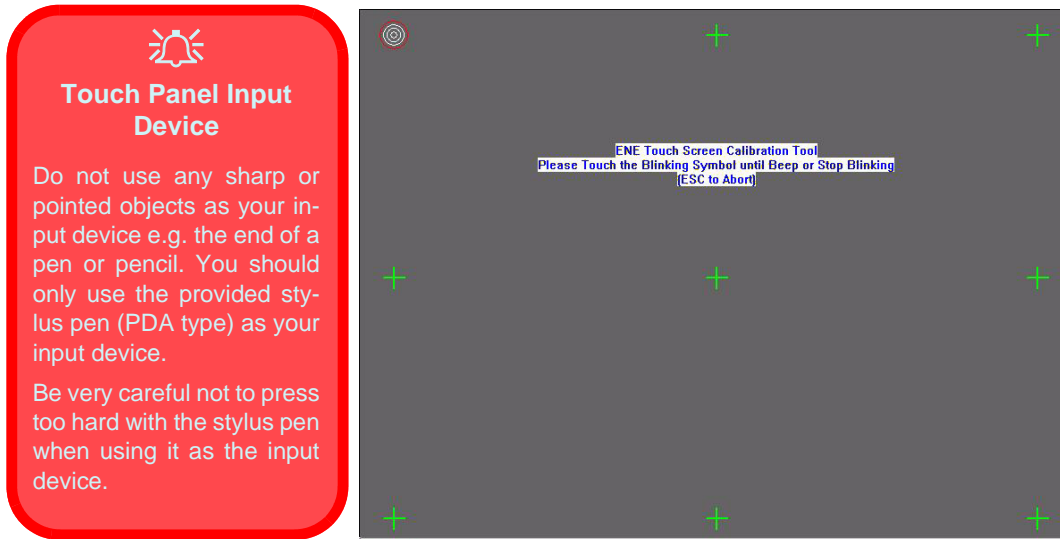



Figure 4 - ENE Touch Screen Calibration Tool

6. Repeat the process for all the remaining screen points.
7. Click **Draw Test** (button) to test the calibration.

## Stylus Pen Input

Touch the screen with the stylus pen and then release the touch and a mouse icon  will appear on screen. Touch the left mouse or right mouse on-screen buttons in order to perform the appropriate action. Touch the screen twice quickly to perform a double-click action.

## Tablet PC Input Panel

When not in use the **Tablet PC Input Panel** docks at the side of the screen (and may be docked at either side of the screen at any height) with just a small portion visible. Move the pen over the TIC and then tap it to activate it. The input panel allows you to input text without the use of a keyboard. You can use the writing pad (write continuously), character pad (write one character at a time) or on-screen keyboard to input text. Use the **Help** menu for further information.

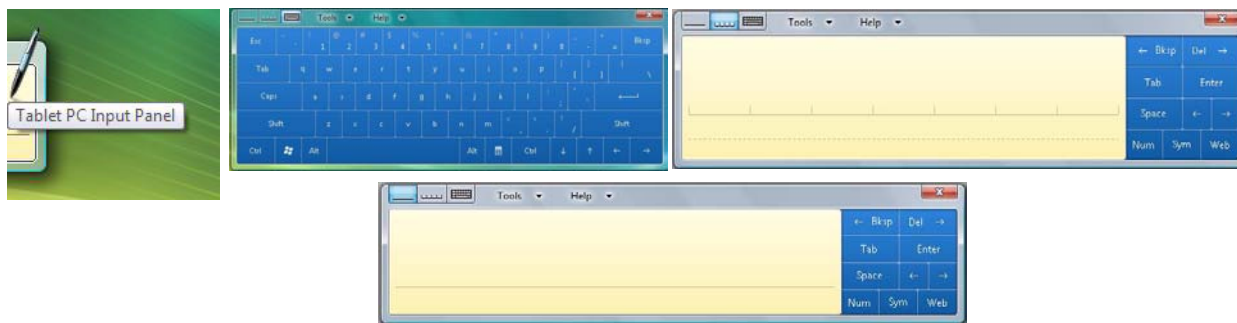



Figure 5 - Tablet PC Input Panel

You can also use the **Tablet PC Settings**  control panel in *Windows Vista* to adjust the advanced options.



## System Map: LCD Panel Open



### Wireless Device Operation Aboard Aircraft

The use of any portable electronic transmission devices aboard aircraft is usually prohibited. Make sure the module(s) are OFF if you are using the computer aboard aircraft.

Use the key combinations to toggle power to the **3.5G/WLAN/Bluetooth** modules, and check the LED indicator icon to see if the modules are powered on or not (see [Table 4, on page 1 - 12](#)/ [Table 3, on page 1 - 10](#)).



Figure 6  
LCD Panel Open

1. Built-In PC Camera (Optional)
2. LCD
3. Fingerprint Reader Module (Optional)
4. Menu & Screen Rotation Buttons
5. Speakers
6. Screen Hinge
7. LED Status Indicators
8. Keyboard
9. Touchpad & Buttons
10. LED Power & Communication Indicators
11. Power Switch
12. Built-In Microphone

## LED Indicators

The two sets of LED indicators (**LED Status Indicators** and **LED Power & Communication Indicators**) on the computer display helpful information about the current status of the computer.




Icon	Color	Description
	Green	Number Lock Activated
	Green	Caps Lock Activated
	Green	Scroll Lock Activated (to activate press Fn & Scr Lk)

Table 2 - LED Status Indicators






Icon	Color	Description
	Orange	DC Power is Plugged In
	Green	The Computer is On
	Blinking Green	The Computer is in Sleep Mode
	Orange	The Battery is Charging
	Green	The Battery is Fully Charged
	Blinking Orange	The Battery Has Reached Critically Low Power Status
	Green	Hard Disk Activity
	Green	The ( <b>optional</b> ) Wireless LAN Module is Powered On
	Orange	The ( <b>optional</b> ) Bluetooth Module is Powered On
	Green	The ( <b>optional</b> ) 3.5G Module is Powered On

Table 3 - LED Power & Communication Indicators

# Keyboard

The keyboard has a numerical keypad for easy numeric data input, and features function keys to allow you to change operational features instantly (see *Figure 7*). See *Table 4, on page 1 - 12* for details of the function/hot key indicators.

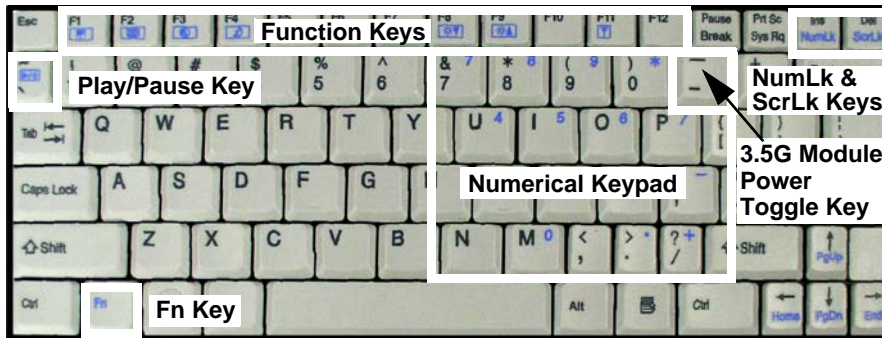


Figure 7 - Keyboard


## Special Characters

Some software applications allow the number-keys to be used with **Alt** to produce special characters. These special characters can only be produced by using the numeric keypad. Regular number keys (in the upper row of the keyboard) will not work. Make sure that **NumLk** is on.

## Other Keyboards

If your keyboard is damaged or you just want to make a change, you can use any standard USB keyboard. The system will detect and enable it automatically. However special functions/hot-keys unique to the system's regular keyboard may not work.

## Function Keys & Visual Indicators

The **function keys** (F1 - F12 etc.) will act as **hot keys** when pressed while the **Fn** key is held down. In addition to the basic function key combinations; visual indicators (see the table below) are available when the hot key utility is installed. After installing the driver an icon  will appear in the taskbar.












Keys	Function/Visual Indicators	Keys	Function/Visual Indicators
Fn + ~	Play/Pause (in Audio/Video Programs)	Fn + F7	Display Toggle
Fn + 	3.5G Module Power Toggle	Fn + F8/F9	Brightness Decrease/Increase 
Fn + F1	TouchPad Toggle 	Fn + F10	PC Camera Power Toggle 
Fn + F2	Turn LCD Backlight Off (Press a key to or use TouchPad to turn on)	Fn + F11	WLAN Module Power Toggle 
Fn + F3	Mute Toggle 	Fn + F12	Bluetooth Module Power Toggle 
Fn + F4	Sleep Toggle	Fn + NumLk	Number Lock Toggle
Fn + F5/F6	Volume Decrease/ Increase 	Fn + ScrLk	Scroll Lock Toggle

Table 4 - Function Keys & Visual Indicators

## On-Screen Menu

Pressing the **Menu** button  on the computer will bring up the on-screen menu buttons (make sure you install the pop menu driver provided). Use the stylus pen to touch any of the buttons to activate the control. If the **PC Camera** (optional), **Bluetooth** (optional), **WLAN** (optional) or **3.5G** (optional) modules are **on** the indicator will appear **green** ; if the modules are **off** then the indicator will appear **black** .






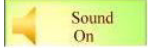


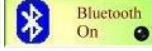










On-Screen Menu	Function	On-Screen Button	Function	On-Screen Button
	Brightness Decrease/ Increase	 	PC Camera Module Power Toggle	 
	Mute Toggle	 	Bluetooth Module Power Toggle	 
	Volume Decrease/ Increase	 	WLAN Module Power Toggle	 
	LCD Toggle	 	3.5G Module Power Toggle	 
	Screen Rotation		Note that you can also use the screen rotation button  to rotate the screen.	
	<b>Note:</b> Use the stylus pen to tap the appropriate on-screen button to adjust the setting.			

Table 5 - On-Screen Menu Buttons

## System Map: Front & Rear Views

Figure 8

### Front & Rear Views

1. LED Power & Communication Indicators
2. Power Switch
3. S/PDIF-Out Jack
4. Microphone-In Jack
5. Headphone-Out Jack
6. 7-in-1 Card Reader
7. Stylus Pen Holder
8. Security Lock Slot
9. 2 \* USB 2.0 Ports
10. DC-In Jack
11. Docking Station Port
12. Battery

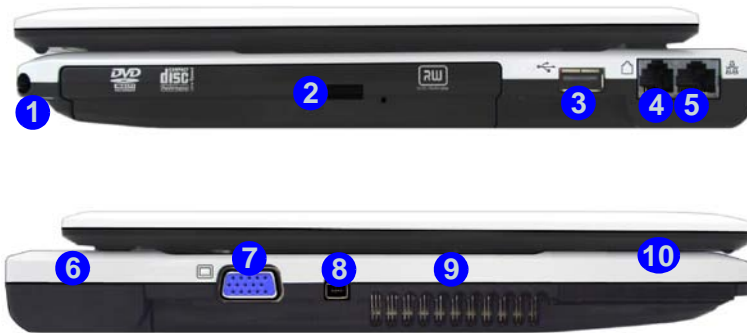


### 7-in-1 Card Reader

The card reader allows you to use the most popular digital storage card formats:

MMC (MultiMedia Card) / SD (Secure Digital) / MS (Memory Stick) /  
 MS Pro (Memory Stick Pro) / MS Duo (requires PC adapter) /  
 Mini SD (requires PC adapter) / RS MMC (requires PC adapter)

## System Map: Left & Right Views



### Mini-IEEE 1394 Port

The Mini-IEEE 1394 port only supports **SELF POWERED** IEEE 1394 devices.

Figure 9  
Left & Right Views

1. Stylus Pen Holder
2. Optical Device Drive Bay (for CD/DVD Device)
3. 1 \* USB 2.0 Port
4. RJ-11 Phone Jack
5. RJ-45 LAN Jack
6. Battery
7. External Monitor Port
8. Mini-IEEE 1394 Port
9. Vent/Fan Intake/Outlet
10. ExpressCard Slot



### Overheating

To prevent your computer from overheating make sure nothing blocks the vent(s)/fan intake(s) while the computer is in use.



### Disk Eject Warning

Don't try to eject a CD/DVD while the system is accessing it. This may cause the system to "crash". Stop the disk first then eject it, or press the stop button twice.

### CD/DVD Emergency Eject

If you need to manually eject a CD/DVD (e.g. due to an unexpected power interruption) you may push the end of a straightened paper clip into the emergency eject hole. Do not use a sharpened pencil or any object that may break and become lodged in the hole. Don't try to remove a floppy disk/CD/DVD while the system is accessing it. This may cause the system to "crash".



### Changing DVD Regional Codes

Go to the **Control Panel** and double-click **Device Manager (Hardware and Sound)**, then click the **+** next to **DVD/CD-ROM drives**. Double-click on the DVD-ROM device to bring up the **Properties** dialog box, and select the **DVD Region** (tab) to bring up the control panel to allow you to adjust the regional code.

DVD region detection is device dependent, not OS-dependent. You can select your module's region code **5** times. The fifth selection is permanent. This cannot be altered even if you change your operating system or you use the module in another computer.



## System Map: Bottom View



### CPU

The CPU is not a user serviceable part. Opening this compartment, or accessing the CPU in any way, may violate your warranty.

### Overheating

To prevent your computer from overheating make sure nothing blocks the Vent/Fan Intake while the computer is in use.

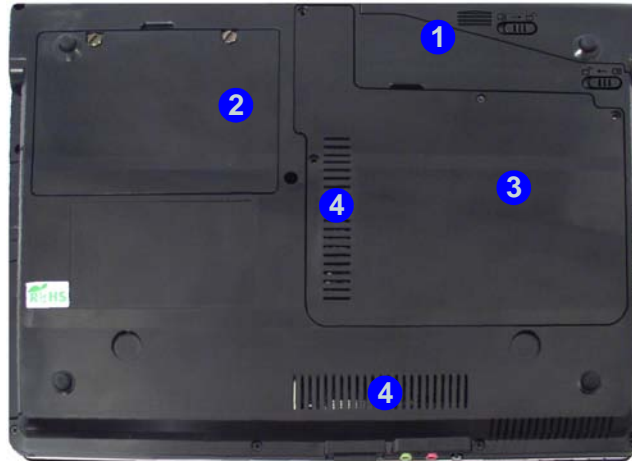


Figure 10  
Bottom View

1. Battery
2. Hard Disk Bay Cover (3.5G Module Location)
3. RAM & CPU Bay Cover
4. Vent/Fan Intake/Outlet



### Battery Information

Always completely discharge, then fully charge, a new battery before using it. Completely discharge and charge the battery at least once every 30 days or after about 20 partial discharges.

## Windows Vista Start Menu & Control Panel


Most of the control panels, utilities and programs within *Windows Vista* (and most other *Windows* versions) are accessed from the **Start** menu. When you install programs and utilities they will be installed on your hard disk drive, and a shortcut will usually be placed in the **Start** menu and/or the desktop. Right-click the **Start** menu icon , and then select **Properties** if you want to customize the appearance of the **Start** menu.




Figure 11 - Start Menu & Control Panel

In many instances throughout this manual you will see an instruction to open the **Control Panel**. The **Control Panel** is accessed from the **Start** menu, and it allows you to configure the settings for most of the key features in *Windows* (e.g. power, video, network, audio etc.). *Windows Vista* provides basic controls for many of the features, however many new controls are added (or existing ones are enhanced) when you install the drivers provided. To see all controls it may be necessary to toggle to Classic View on.

## Video Features

You can switch display devices, and configure display options, from the **Display Settings** control panel (in **Personalization**) in *Windows Vista* as long as the appropriate **Intel video driver** is installed.

To access Display Settings in *Windows Vista*:

1. Click **Start**, and click **Control Panel** (or point to **Settings** and click **Control Panel**).
2. Click **Adjust screen resolution** under the **Appearance and Personalization** menu (or double-click **Personalization > Display Settings**).
3. Move the slider to the preferred setting in **Resolution**: ① (*Figure 12 on page 1 - 20*).
4. Click the arrow, and scroll to the preferred setting in **Colors**: ② (*Figure 12 on page 1 - 20*).
5. Click **Advanced Settings** (button) ③ (*Figure 12 on page 1 - 20*) and click **Intel(R) GMA Driver for mobile** (tab).
6. Click **Graphics Properties** (button) ④ (*Figure 12 on page 1 - 20*) to access the **Intel GMA** control panel (this control panel can also be accessed by double-clicking **Intel(R) GMA Driver for mobile** in **Classic View**).
7. The **Intel GMA** control panel can also be accessed by clicking the icon  in the taskbar and selecting **Graphics Properties** from the menu.

## Display Devices & Options

Besides the built-in LCD, you can also use an **external VGA monitor** (CRT) or **external Flat Panel Display** connected to the external monitor port as your display device.

## Quick Start Guide

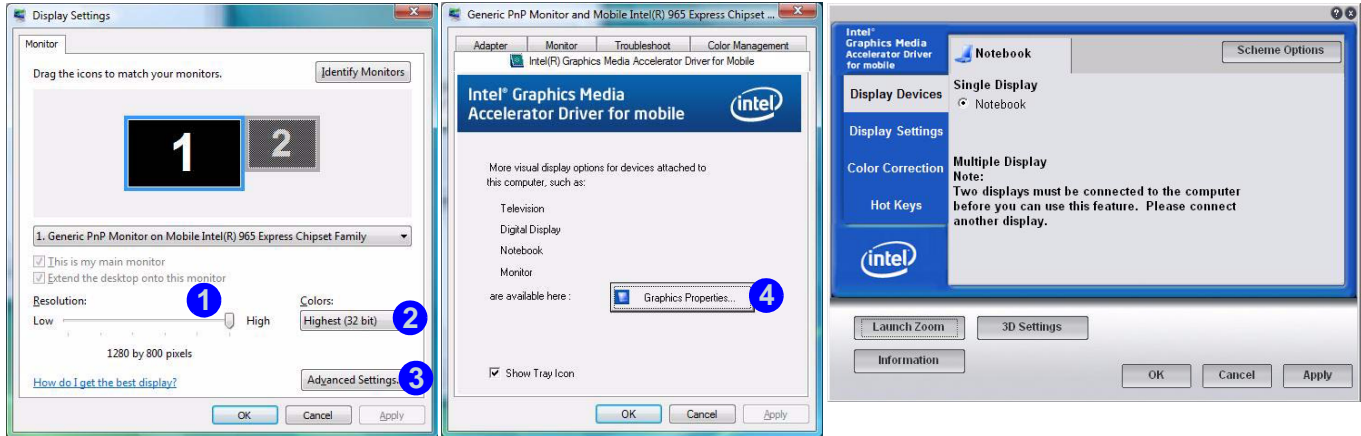


Figure 12 - Display Properties Desktop

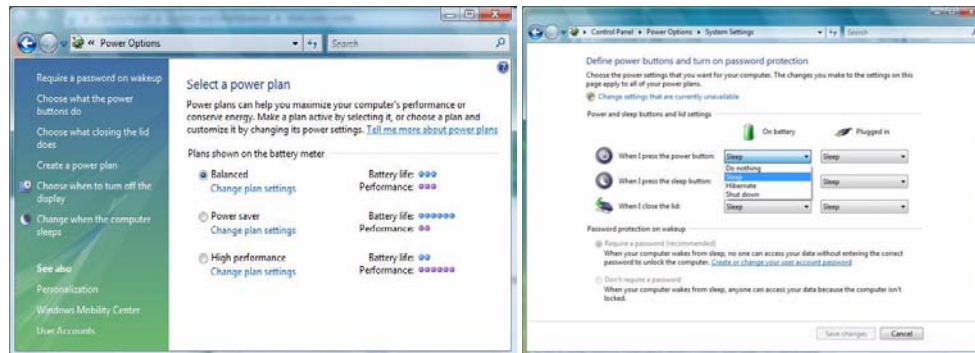
Intel Display Mode	Description
Single Mode	One of the connected displays is used as the display device
Intel(R) Dual Display Clone Mode	Both connected displays output the same view and may be configured independently
Extended Desktop Mode	Both connected displays are treated as separate devices, and act as a virtual desktop

Table 6 - Display Options

## Power Options

The **Power Options** (**Hardware and Sound** menu) control panel icon in *Windows* (see page 18) allows you to configure power management features for your computer. You can conserve power by means of **power plans** and configure the options for the **power button**, **sleep button**, **computer lid (when closed)**, **display** and **sleep mode** from the left menu. Note that the **Power saver** plan may have an affect on computer performance.

Click to select one of the existing plans, or click *Create a power plan* in the left menu and select the options to create a new plan. Click *Change Plan Settings* and click *Change advanced power settings* to access further configuration options.



**Note:** Sleep is the default power saving state in *Windows Vista*

Figure 13 - Power Options



# Appendix A: Specifications



## Latest Specification Information

The specifications listed in this Appendix are correct at the time of going to press. Certain items (particularly processor types/speeds and CD/DVD device types) may be changed, delayed or updated due to the manufacturer's release schedule. Check with your service center for details.

## Specifications

A

Feature	Specification
<b>Processor</b>	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P <b>T7100/ T7250</b> 65nm (65 Nanometer) Process Technology 2MB On-die L2 Cache & 800MHz FSB 1.8/ 2.0 GHz
	Intel® Core™2 Duo Processor (478-pin) Micro-FC-PGA Package, Socket P <b>T7300/ T7500/ T7700/ T7800</b> 65nm (65 Nanometer) Process Technology 4MB On-die L2 Cache & 800MHz FSB 2.0/ 2.2/ 2.4/ 2.6 GHz
	Intel® Celeron® M Processor (478-pin) Micro-FCPGA Package, Socket P <b>530/ 540/ 550</b> 65nm (65 Nanometer) Process Technology 1MB On-die L2 Cache & 533MHz FSB 1.73/ 1.86/ 2.0 GHz
<b>Core Logic</b>	Intel® GM965 + ICH8M Chipset
<b>LCD</b>	12.1" WXGA (1280 * 800) TFT LCD Touch Panel
<b>Memory</b>	Two 200 Pin SO-DIMM Sockets Supporting <b>DDRII (DDR2)</b> 667 MHz 64-bit Wide <b>DDRII (DDR2)</b> Data Channel Memory Expandable up to 4GB (512/ 1024/ 2048 MB <b>DDRII</b> Modules)
	<b>512MB</b> Or <b>1GB</b> Intel® Turbo Memory Module ( <b>Option</b> )
<b>Video Adapter</b>	Intel GM965 Integrated Video Shared Memory Architecture - Supports up to <b>256MB</b> of Video Memory (dynamically allocated from system memory where needed) Supports DirectX9.0 3D Graphics Engine Accelerator Supports DualView™

## A - 2 Specifications

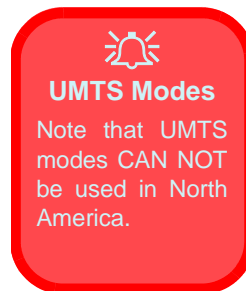


Feature	Specification	
<b>Security</b>	Security (Kensington® Type) Lock Slot Fingerprint ID Reader Module ( <b>Factory Option</b> )	BIOS Password Trusted Platform Module ( <b>Factory Option</b> )
<b>BIOS</b>	One 8Mb SPI Flash ROM	Phoenix™ BIOS
<b>Storage</b>	One Changeable 12.7mm(h) Optical Device (CD/DVD) Type Drive (see <i>“Optional” on page A - 6</i> ) Easy Changeable 2.5" 9.5 mm (h) <b>SATA</b> (Serial) HDD	
<b>Audio</b>	Integrated Azalia Compliant Interface 3D Stereo Enhanced Sound System Sound-Blaster PRO™ Compatible	2 * Built-In Speakers Built-In Microphone One S/PDIF Out Jack
<b>Keyboard &amp; Pointing Device</b>	Winkey Keyboard Stylus Pen for Touch Panel	Built-In TouchPad with Scrolling Function
<b>Interface</b>	Three USB 2.0 Ports One Headphone-Out Jack One Microphone-In Jack One S/PDIF Out Jack One Internal Microphone One CIR Port	One RJ-11 Modem Jack One RJ-45 LAN Jack One DC-in Jack One External Monitor Port One Docking Port One Mini-IEEE 1394 Port 2 Built-In Instant Keys (Menu, Rotation)
<b>Card Reader</b>	Embedded 7-in-1 Card Reader (MS/ MS Pro/ SD/ Mini SD/ MMC/ RS MMC/ MS Duo) <b>Note:</b> MS Duo/ Mini SD/ RS MMC Cards require a PC adapter	

## Specifications

A

Feature	Specification
<b>Card Slots</b>	One ExpressCard/34(54) Slot One MiniCard Slot Supporting USB and PCIe Interfaces Second MiniCard Slot Supporting USB and PCIe Interfaces ( <b>Factory Option</b> )
<b>Communication</b>  <b>*Note:</b> The <b>Bluetooth</b> and <b>3.5G Optional Modules</b> cannot coexist. If one of these factory options is included in your purchase option, then the other is <b>unavailable</b> .	1000/100/ 10 Mb Fast Ethernet LAN Azalia 56K Plug and Play Fax Modem V.90 & V.92 Compliant  <b><u>Wireless LAN Module Options:</u></b> 802.11 b/g MiniCard USB Wireless LAN Module ( <b>Option</b> ) Intel PRO/Wireless 3945ABG MiniCard PCIe Wireless LAN Module ( <b>Option</b> ) Intel PRO/Wireless 4965AGN MiniCard PCIe Wireless LAN Module ( <b>Option</b> )  1.3M or 2.0M Pixel USB <b>PC Camera</b> Module ( <b>Factory Option</b> )  <b><u>Bluetooth OR 3.5G Module Options:</u></b> *Bluetooth 2.0 + EDR (Enhanced Data Rate) Module ( <b>Factory Option</b> ) <b>OR</b> *UMTS/HSPDA-based 3.5G Module with MiniCard Interface ( <b>Factory Option</b> ) Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz) UMTS WCDMA FDD (2100 MHz)
<b>Power Management</b>	Supports ACPI 3.0  Supports Wake on LAN Supports Wake on USB Supports Resume from Modem Ring




## Specifications

Feature	Specification						
<b>Power</b>	Full Range AC/DC Adapter AC input 100 - 240V, 50 - 60Hz, DC Output 19V, 3.42A ( <b>65 Watts</b> )						
<b>Battery</b>	4 Cell Smart Lithium-Ion Battery Pack, 14.8V/2.4AH 8 Cell Smart Lithium-Ion Battery Pack, 14.8V/4.4AH ( <b>Option</b> )						
<b>Environmental Spec</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Temperature</td> <td style="width: 50%;">Relative Humidity</td> </tr> <tr> <td>    Operating:           5°C ~ 35°C</td> <td>    Operating:           20% ~ 80%</td> </tr> <tr> <td>    Non-Operating:   -20°C ~ 60°C</td> <td>    Non-Operating:   10% ~ 90%</td> </tr> </table>	Temperature	Relative Humidity	Operating:           5°C ~ 35°C	Operating:           20% ~ 80%	Non-Operating:   -20°C ~ 60°C	Non-Operating:   10% ~ 90%
Temperature	Relative Humidity						
Operating:           5°C ~ 35°C	Operating:           20% ~ 80%						
Non-Operating:   -20°C ~ 60°C	Non-Operating:   10% ~ 90%						
<b>Dimensions &amp; Weight</b>	306mm (w) * 224mm (d) * 35 - 37.5mm (h)                      2.1 kg With 4 Cell Battery and ODD						

**A**

## Specifications

A

Feature	Specification
<p><b>Optional</b></p> <p>*<b>Note:</b> The <b>Bluetooth</b> and <b>3.5G Optional Modules</b> cannot coexist. If one of these factory options is included in your purchase option, then the other is <b>unavailable</b>.</p>	<p><b><u>Optical Drive Module Options:</u></b>            DVD/CD-RW Combo Drive Module            Super Multi Drive Module</p> <p><b><u>Wireless LAN Module Options:</u></b>            802.11 b/g MiniCard USB Wireless LAN Module            Intel PRO/Wireless 3945ABG MiniCard PCIe Wireless LAN Module            Intel PRO/Wireless 4965AGN MiniCard PCIe Wireless LAN Module</p> <p>8 Cell Smart Lithium-Ion Battery Pack</p> <p>1.3M or 2.0M Pixel USB PC Camera Module  <b>(Factory Option)</b></p> <p>Fingerprint ID Reader Module <b>(Factory Option)</b></p> <p>Trusted Platform Module <b>(Factory Option)</b></p> <p>MCE Remote Control Unit</p> <p>*Bluetooth 2.0 + EDR (Enhanced Data Rate) Module <b>(Factory Option)</b>  <b>OR</b>            *UMTS/HSPDA-based 3.5G Module with MiniCard Interface <b>(Factory Option)</b>            Quad-band GSM/GPRS (850 MHz, 900 MHz, 1800 MHz, 1900 MHz)            UMTS WCDMA FDD (2100 MHz)</p> <div data-bbox="927 477 1474 698" style="border: 2px solid red; border-radius: 15px; padding: 10px; text-align: center;">   <b>UMTS Modes</b>            Note that UMTS modes CAN NOT be used in North America.         </div> <p><b>512MB Or 1GB Intel® Turbo Memory Module</b></p>