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N521 Series Notebook User's Manual

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This manual guides you in setting up and using your new Notebook PC. Information in the manual has been carefully checked for accuracy and is subject to change without notice.

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Safety Instructions

Use the following safety guidelines to help protect yourself and your notebook.

When Using Your N521 Series Notebook Computer



CAUTION: Do not operate your portable computer for an extended period of time with the base resting directly on your body. With extended operation, heat can potentially build up in the base.

Allowing sustained contact with the skin could cause discomfort or, eventually, a burn.

- Do not attempt to service the notebook yourself. Always follow installation instructions closely.
- Do not carry a battery in your pocket, purse, or other container where metal objects (such as car keys) could short-circuit the battery terminals. The resulting excessive current flow can cause extremely high temperatures and may result in damage from burns.
- Be sure that nothing rests on your AC adapter's power cable and that the cable is not located where it can be tripped over or stepped on.
- Place the AC adapter in a ventilated area, such as a desktop or on the floor, when you use it to run the computer or to charge the battery. Do not cover the AC adapter with papers or other items that will reduce cooling; also, do not use the AC adapter while it is inside a carrying case.
- Do not push objects into air vents or openings of your notebook computer. Doing so can cause fire or electric shock by shorting out interior components.

- Use only the AC adapter and batteries that are approved for use with your notebook. Use of another type of battery or AC adapter may risk fire or explosion.
- Danger of explosion if battery is incorrectly replaced.
- Replace only with the same or equivalent type battery recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer's instructions.
- Before you connect your notebook to a power source, ensure that the voltage rating of the AC adapter matches that of the available power source.
 - 115 V/60 Hz in most of North and South America and some Far Eastern countries such as South Korea and Taiwan.
 - 100 V/50 Hz in eastern Japan and 100 V/60Hz in western Japan.
 - 230 V/50 Hz in most of Europe, the Middle East, and the Far East.
- If you use an extension cable with your AC adapter, ensure that the total ampere rating of the products plugged in to the extension cable does not exceed the ampere rating of the extension cable.
- To remove power from your notebook, turn it off, disconnect the AC adapter from the electrical outlet, and remove the battery.
- To help avoid the potential hazard of electric shock, do not connect or disconnect any cables or perform maintenance or reconfiguration of this product during an electrical storm.
- Do not dispose of batteries in a fire. They may explode. Check with local authorities for disposal instructions.
- When setting up your notebook for work, place it on a level surface.
- When traveling, do not check your notebook as baggage. You can put your notebook through an X-ray security machine, but never put your notebook through a metal detector. If you have your notebook checked by hand, be sure to have a charged battery available in



case you are asked to turn on your notebook.

- When traveling with the hard drive removed from your notebook, wrap the drive in a non-conducting material, such as cloth or paper. If you have the drive checked by hand, be ready to install the drive in your notebook. You can put the hard drive through an X-ray security machine, but never put the drive through a metal detector.
- When traveling, do not place your notebook in overhead storage compartments where it could slide around. Do not drop your notebook or subject it to other mechanical shocks.
- Protect your notebook, battery, and hard drive from environmental hazards such as dirt, dust, food, liquids, temperature extremes, and overexposure to sunlight.
- When you move your notebook between environments with very different temperature and/or humidity ranges, condensation may form on or within your notebook. To avoid damaging your notebook, allow sufficient time for the moisture to evaporate before using your notebook.

NOTICE: When taking your notebook from low-temperature conditions into a warmer environment or from high-temperature conditions into a cooler environment, allow your notebook to acclimate to room temperature before turning on power.

- When you disconnect a cable, pull on its connector or on its strain relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.
- Before you clean your notebook, turn it off, unplug it from its power source, and remove the battery.

- Handle components with care. Hold a component such as a memory module by its edges, not its pins.



CAUTION: When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water, for example, near a bathtub, washing bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord indicated in this manual.

WARNING: Possible voiding of Warranty

- * If the battery is not properly handled, there may be a risk of explosion; make sure you are using the same or equivalent battery.
- * Please dispose the used battery according to the instructions given by the manufacturer.
- * Please be aware that cracked, deeply scratched or other poor quality disk used in this drive may cause damage to the drive and data in the disk. Such discs may break at high-speed rotation. If full care is not exercised in relation to this matter you may void the warranty to this product.



Regulatory Notices

Federal Communications Commission PART 68 Warning

This equipment complies with Part 68 of the FCC Rules. On the bottom of the computer is a label that contains, among other information, the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

If your telephone equipment causes harm to the telephone network, the local telephone company may discontinue your service temporarily. If possible they will notify you in advance. But, if advance notice is not practical, you will be notified as soon as possible. You will also be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in this facilities, equipment, operations, or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If this equipment should fail to operate properly, disconnect the equipment from the phone line to determine if it is causing the problem. If the problem is with the equipment, discontinue use and contact your dealer or vendor.

TBR21

This equipment has been approved [Council Decision 98/482/EC – “TBR21”] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the

approval does not, of itself, give an unconditional assurance of successful operation on every PSTN termination point. In the event of problems, you should contact your equipment supplier in the first instance.

Important safety instructions

Read these instructions carefully. Save these instructions for future reference.

1. Follow all warnings and instructions marked on the product.
2. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use this product near water.
4. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
5. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or a heat register, or in a built-in installation unless proper ventilation is provided.
6. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
7. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
8. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension



cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed the fuse rating.

9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
10. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
11. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed
 - b. If liquid has been spilled into the product
 - c. If the product has been exposed to rain or water
 - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extension work by a qualified technician to restore the product to normal condition.
 - e. If the product has been dropped or the cabinet has been damaged
 - f. If the product exhibits a distinct change in performance, indicating a need for service.

EMC Regulatory Information

This product is designed and tested to comply with the following related EMC (Electromagnetic compatibility) standards.

Federal Communications Commission (FCC) “Declaration of Conformity Information”

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 that 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 of following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) This device may not cause harmful interference.
 - (2) This device must accept any interference received, including interference that may cause undesired operation.

UL Notice (USA and Canada)



CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS

Canadian Notice (Canada Only)

This digital apparatus does not exceed the Class B for radio noise emissions from digital apparatus as set out in the Radio Interference Regulation of the Canadian Department of Communications.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la class B est conforme à la norme NMB-003.

CE Notice (European Union)

Marking by the symbol  indicates compliance of this N521 Series computer to the EMC Directive and the Low Voltage Directive of the European Union. Such marking indicates that this N601 system meets the following technical standards:

- EN 55022 — “Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment.”
- EN 55024 — “Information technology equipment - Immunity characteristics - Limits and methods of measurement.”
- EN 61000-3-2 — “Electromagnetic compatibility (EMC) - Part 3: Limits - Section 2: Limits for harmonic current emissions (Equipment input current up to and including 16 A per phase).”
- EN 61000-3-3 — “Electromagnetic compatibility (EMC) - Part 3: Limits - Section 3: Limitation of voltage fluctuations and flicker in low-

voltage supply systems for equipment with rated current up to and including 16 A.”

- EN 60950 — “Safety of Information Technology Equipment.”



NOTE: EN 55022 emissions requirements provide for two classifications:

- Class A is for typical commercial areas.
- Class B is for typical domestic areas.

To determine which classification applies to your notebook, examine the FCC registration label located on the back panel of your notebook. If the label indicates a Class A rating, the following warning applies to your notebook:

RF INTERFERENCE WARNING: This is a Class A product. In a domestic environment this product may cause radio frequency (RF) interference, in which case the user may be required to take adequate measures.

This N521 Series notebook computer device is classified for use in a typical Class B domestic environment.

A “Declaration of Conformity” in accordance with the preceding directives and standards has been made and is on file at Gigabyte Computer Corporation.

BSMI Notice (Taiwan Only)

Most notebook computer computer products are classified by the Bureau of Standards, Meteorology and Inspection (BSMI) as Class B information technology equipment (ITE).



R33006

This symbol that must be marked on the product indicates the product complies with BSMI standard.

Macrovision License of Notice

This product incorporates copyright protection technology that is protected by methods and claims of certain U.S. patents and other intellectual rights owned by Macrovision Corporation, and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation and is intended for home and other limited viewing uses only unless authorized by Macrovision Corporation. Reverse engineering of disassembly is prohibited.



About Your N521 Series Notebook Computer

Congratulate on your purchase of the N521 Series Notebook Computer. Your notebook computer incorporates the strongest features, which integrate the latest technologies available in the notebook industry.

N521 Series Notebook Computer has the latest multimedia applications and capable for the future exciting new software. N521 Series Computer is easy to operate, flexible, reliable, and multifunction. This is one notebook that users are demanding for a long time.





About This User Manual

This Manual will help you to gain a complete understanding of N521 Series Professional Multimedia Notebook. This Manual is divided into eight chapters:

1. Illustrates N521 series notebook computer features.
2. Provides step-by-step instructions to help you begin using your N521 series notebook computer as quickly as possible.
3. Describes how to operate the standard features of your N521 notebook computer.
4. Explains how to use the System BIOS Setup program and upgrade your system.
5. Describes how to connect external device to N521 series notebook computer.
6. Offers instructions on how to care and maintain N521 series notebook computer.
7. Instructs you on how to deal with common system problems.



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English

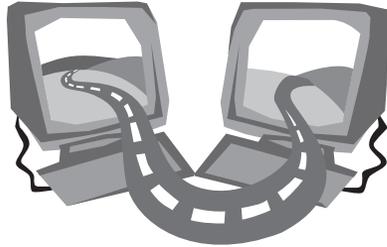


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1 Getting Started

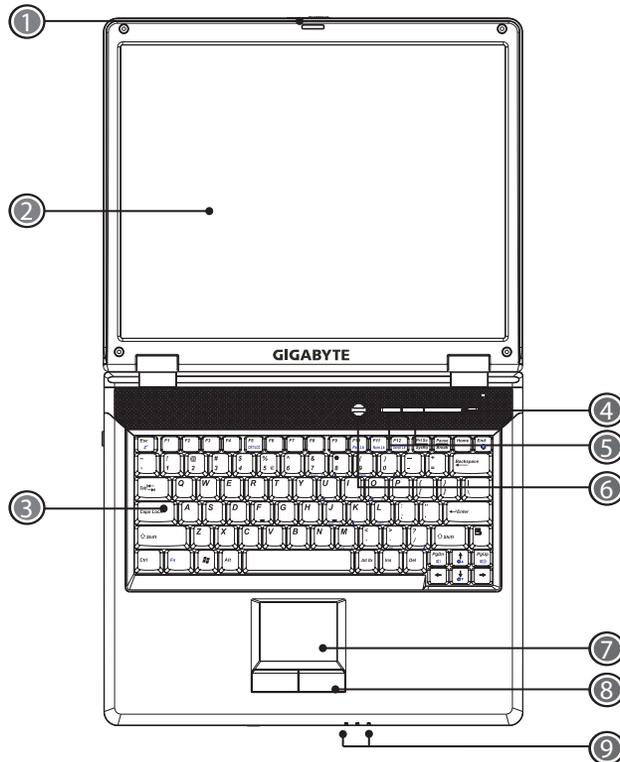


Chapter 1 Getting Started

Your N521 series notebook computer integrates the most advanced functions you can find to date in a portable personal computer. High performance, an ergonomics design and multimedia capability of N521 series notebook computer is ideal for variety of needs, from general business to personal usage. N521 series notebook computer is ideal choice for use in the office, at home, and on the road.

1.1 The Outside of N521 Series Notebook Computer

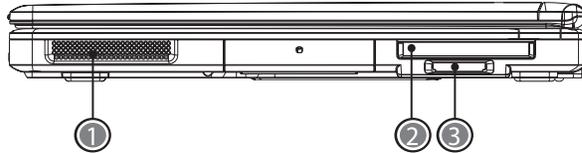
Front View



- 1 Display Latch
Locks for the lid.
- 2 LCD Display Screen
Also called Liquid-Crystal Display (LCD), displaying computer output.
- 3 Keyboard
Inputs data into your computer.
- 4 Status LED Indicator
Light-Emitting Diodes (LEDs) show the status of the computer's functions and components. These LEDs indicates the status of notebook hard disk activity, PC card activity, NUM lock, Caps lock, Scroll Lock and Touchpad Lock.
- 5 Launch Keys
Buttons for launching frequently used programs.
- 6 Power Button
Turn the computer on and off, or resumes whenever it is in Suspend mode.
- 7 TouchPad
Touch-sensitive pointing device helps to control the position of cursor and functions like a computer mouse.
- 8 Click Buttons
The left and right buttons function like the left and right mouse button. It support tapping and dragging functions.
- 9 Status LED Indicator
Light-Emitting Diodes (LEDs) show the status of the computer's functions and components. These LEDs indicates the status of notebook power source, battery life and wireless activity.

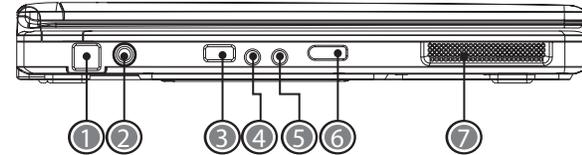
1 Getting Started

Right View



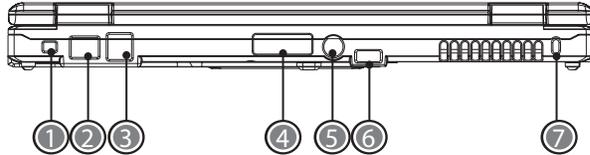
- 1 Speaker
Speaker delivers stereo audio output.
- 2 PC Card Slot
Accepts one Type II 16-bit PC card or 32-bit CardBus PC card with ZV support.
- 3 4-in-1 Cards Slot
Accepts SD/MMC/MS/MS-Pro modules.
Only one card can operate at any given time.

Left View



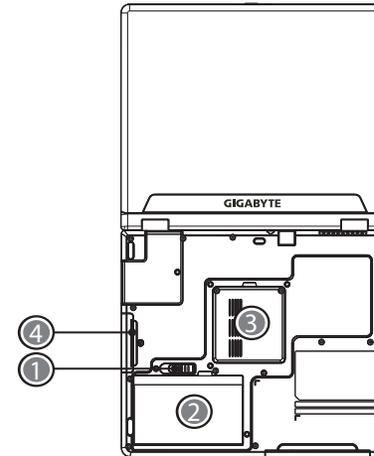
- 1 Modem Port
Connects to a phone line.
- 2 Power Port
Connects to an AC adapter.
- 3 USB Port
Connects to USB devices (e.g., USB mouse, USB camera).
- 4 Speaker/Headphone Jack
Connects to stereo headphone, speakers, or earphone set.
- 5 Microphone Jack
Connects to an external microphone for monophonic sound recording.
- 6 Wireless Communication Switch
Turns the Wireless Communication function on or off.
- 7 Speaker
Speaker delivers stereo audio output.

Rear View



- 1 IEEE 1394 Port
Connects to IEEE1394 devices.
- 2 LAN Port
Connects to an internal 10 Base-T/ 100 Base-TX LAN module connects your computer to other computers/networks through a local area network (LAN).
- 3 USB Port
Connects to USB devices (e.g., USB mouse, USB camera).
- 4 External Display Port
Connects to an external monitor.
- 5 S-Video Port
Connects to a television or display device with S-video input.
- 6 USB Port
Connects to USB devices (e.g., USB mouse, USB camera).
- 7 Security Cable Connector
Connects to a Kensington compatible security lock.

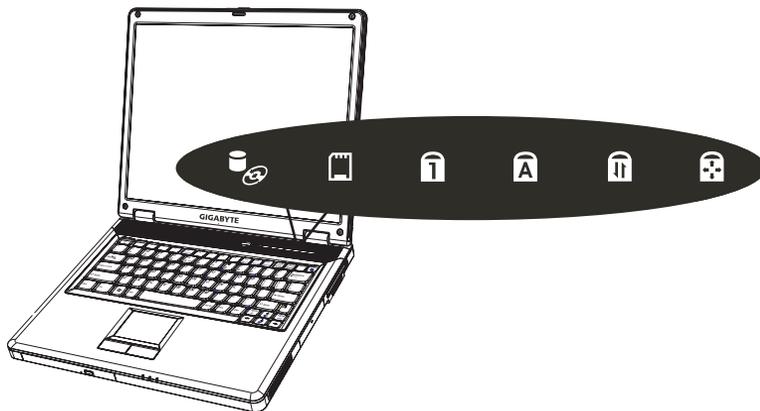
Bottom View



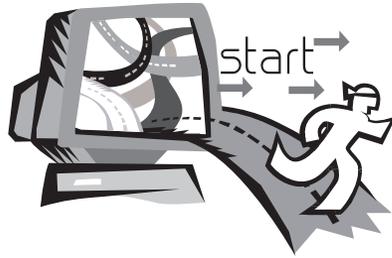
- 1 Battery Release Latch
Push latch to remove the battery pack.
- 2 Battery Bay
Equipped with a choice of Lithium-Ion (Li-Ion) battery pack.
- 3 Memory Compartment
Computer's main memory is located in this compartment (secured by a screw).
- 4 Hard Disk Compartment
Computer's hard disk is located in this compartment (secured by a screw).

1 Getting Started

1.2 Status LED Indicator



Icon	Function	Description
	Hard disk activity	Lights when the hard disk is activated.
	Card reader activity	Lights when the card reader is activated.
	Num Lock	Lights when Num Lock is activated.
	Caps Lock	Lights when Caps Lock is activated.
	Scroll Lock	Lights when Scroll Lock is activated.
	Touchpad Lock	Lights when Touchpad Lock is activated.



Chapter 2 How to Start

Your N521 series notebook computer is designed and pre-configured for easy setup and use. This chapter helps you to learn the basic of your N521 series notebook computer and all the installation steps. Contact local dealer if all the drivers for operating N521 series has not been pre-installed or if there is an update on the driver installation of your notebook computer.

2 How to Start

2.1 Using the Battery Pack

N521 series notebook computer is designed to operate with one of the following power sources:

*AC power (using the AC adapter connected to an electrical outlet)
Lithium-Ion (Li-Ion) battery pack*

You should use the AC adapter whenever it is possible, relying on the battery pack only when AC power is unavailable. The rechargeable Li-Ion battery pack allows you to operate N521 Series notebook computer without an external power source. When you connect the AC power adapter, the battery immediately starts to recharge. Normal battery charging time is 3 hours for Lithium-Ion (Li-Ion) battery pack when your computer is turned off. Normal battery life time is 4 hours. Your battery may last less time if you are running power-intensive programs, playing CDs or DVDs, using PC Cards or have high display-brightness setting.

Once the battery is fully discharged for the first time, use your notebook on battery power until the battery discharges completely. This will extend battery life, and help ensure accurate monitoring or battery capacity. You can leave the battery in your notebook as long as you like. The battery's internal circuitry prevents the battery from overcharging.

** Li-Ion Battery is vulnerable, do not charge it with other power adapter, or it may cause fire or explosion.*

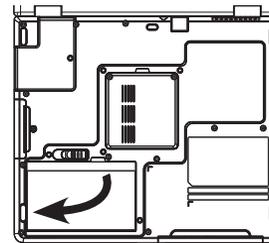
If you will not be using your notebook for a long period of time, remove the battery. Store battery packs in a cool, dry place, out of

direct sunlight. Fully charge the battery before using your notebook again.

** The battery will not be charged if it or your notebook is too hot, either from use or being in a hot environment. If this occurs the battery indicator  will light red. Disconnect your notebook from any electrical outlet, and allow it and the battery to cool to room temperature. You can then reconnect your notebook to the electrical outlet and charge the battery. The battery indicator  will also light red if the battery is bad and needs replacing.*

Installing the Battery Pack

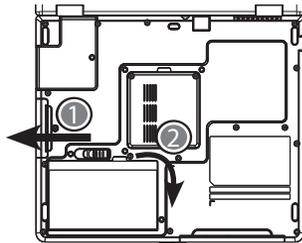
Your N521 series notebook computer provides the most convenient way to install the battery pack into your computer. To install the battery, first orient the extended nose directed toward the compartment, then slide the battery into the bay. Press it into place gently but firmly until the latch lock it into place.



Removing the Battery Pack

Before removing the battery, ensure your notebook is turned off. To remove the battery, follow the sequence as shows in the figure below.

- 1 Slide and hold the battery release latch
- 2 Gently pry the battery from the computer chassis.



Replacing the Battery Pack

When your N521 Series notebook computer estimates that the battery only has enough charge to continue for a few minutes, it will alert you with a battery low warning beep. If you are consuming a lot of power by using the audio system, the PC Card slots, the hard drives, and optical disk drive, your notebook computer might run out of charge much sooner than you expect. You should always respond to the battery low indication by connecting to AC power or turning

off your notebook computer, or suspending to disk. If you do not do so, the notebook computer will automatically suspend to disk and turn off. The contents of the memory will store in the hard disk drive. You will be unable to restart your notebook computer until it has connected to the AC adapter or installed a charged battery. To replace the battery pack, refer to the previous sections on "Installing the Battery Pack" and "Removing the Battery Pack."

Note: Be sure to save your data before replacing the battery pack or connecting the AC adapter. Failure to do so can result in data loss.
Note: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Battery Status	Indicator  behavior
Charging	Blinking Green
Fully Charged	Solid Green
Discharging	Off
Battery Use	Off
Critical Low	blinks amber > approximately 3 minutes left; system beeps

2 How to Start

2.2 Connecting to the AC Power Source

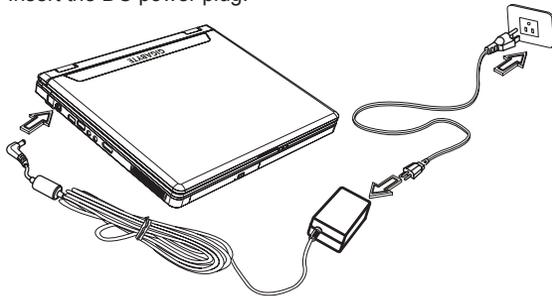
Connecting Power Adapter

The AC adapter provides external power source to your N521 series notebook computer and charges the internal battery pack at the same time. The AC adapter also has an auto-switching design that can connect to any 100V AC ~ 240V AC power outlets.

Note: While the AC adapter works with electrical outlets worldwide, power connectors and power strips vary from country to country. Ensure you use compatible cable or correctly connect the cable to the power strip or electrical outlet. Failure to do so may cause fire or damage to equipment.

To connect the power adapter:

- 1 Connect the end of the AC power cord to AC-DC converter.
- 2 Plug the other end of the AC power cord to into an electrical outlet.
- 3 Insert the DC power plug.



- Note: Whenever possible, it is advisable to always have the AC adapter connected to the notebook and the battery pack installed. This ensures continuous power supply and prevents any data loss incurring from sudden power breakdown.
- Note: For the power supply of this equipment, an approved power cord has to be used. 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 adapter).

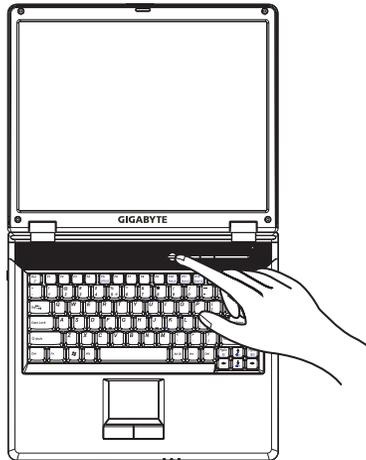
Maintenance of the AC Adapter:

- Do not connect the adapter to any other device.
- Do not step on the power cord or place heavy objects on top of it. Carefully route the power cord and any cables away from all potential traffic.
- When unplugging the power cord, do not pull on the cord itself but pull on the plug.
- The total ampere rating of the equipment plugged in should not exceed the ampere rating of the cord if you are using an extension cord. The total rating of all equipment plugged into a single wall outlet should not exceed the fuse rating.
- Make sure the voltage of the power source before connecting your notebook computer to the power outlet. If you are uncertain of your power specifications, consult local dealer or Electricity Company.

2.3 Starting N521 Series Notebook Computer

The Power/ Resume button is found on the top of the base unit. Press the button to start your notebook computer and check if the Power LED turns on.

** Do not turn off the computer until the operating system has loaded completely. Turning the computer off during its initial startup will result in an error the next time you start your computer.*



After a few seconds, the notebook's display will turn on and your notebook computer will begin to execute the Power On Self Test or POST to check if all system components are running properly. Any error found during the test will be displayed on the screen and may

generate short beep sound as well.

After the test, the screen will also display a message "press <F2> to enter SETUP". You don't need to run this program at the moment as your dealer already made the necessary settings for your notebook computer optimal operation. Refer to Chapter 5 on running the SETUP program later.

After the test has completed, your notebook computer will start to search and boot up the operating system from your hard drive. The notebook computer normally comes with a Windows operating system pre-installed in your hard drive. Consult the Windows manual on how to use the program. If not, contact your dealer for assistance.

2 How to Start

2.4 Adjusting the Display Control

The LCD brightness adjustment is controlled by <Fn> + <↑> and <Fn> + <↓> keys respectively. You need to power on the notebook computer in order to press these hot-key controls.

The Brightness hot-key control adjusts the brightness on the LCD. The brightness hot-key control will not set the LCD completely dark or bright; it provides sufficient lighting to the LCD to match the external lighting of the surrounding. The brighter the room, the more you need to increase the brightness of the LCD.

If you will leave a moment, you can also press <Fn> + <ESC> to turn off the LCD to save power. Press <Fn> + <ESC> again to turn on the LCD.

- * 65,536 or 64K colors is also equivalent to 16-bit high color while 16 million or 16M colors is equivalent to 32-bit true color.
- * You can use the <Fn> + <F5> hot-key to switch the display between LCD only, CRT only, or both LCD and CRT display.

2.5 Installing N521 Series Notebook Computer Device Drivers

If N521 Notebook Computer already have an operating system installed into your notebook computer, it is best to install the needed device drivers for using the built-in devices of your notebook computer. Before installing the drivers, check with your dealer first if they have already installed all the drivers along with the operating system. If not, follow the procedures below:

1. You can find one bundled Driver CD shown as follow.



2. Put the CD into the optical drive. It will get you through the Auto Run installation.

2.6 Turning Off Your Computer

If you are not going to use N521 series notebook computer for a while, it is best to turn off the power of the notebook computer for longer use. Before turning off the power, you need to close all application programs and then shutdown the operating system. Then follow the following steps:

Click Start → TURN OFF COMPUTER → TURN OFF

Your notebook will automatically turn off after the shutdown process is finished.

After turning off your N521 SERIES notebook computer, make it a habit to leave the LCD panel open for a while whenever used for an extended period of time. This allows the inside parts of your notebook computer to cool off. Closing the panel will force the heat up against the LCD screen, which may degrade the LCD when done regularly. More importantly, never close the LCD panel for a long period of time when computer is on while power-saving features are disabled.



Chapter 3 Introduction to Basic Function

This chapter describes how to operate the standard built-in features of your N521 series notebook computer that you normally would use in daily life. If you are new to computers and to the operating system, this chapter explains the basics features of your N521 series notebook computer. It is very important to be familiarized with the operating system. This chapter can guide you through the basics and try new exciting features.

3.1 Launch Keys

Launch keys are located at the upper-right corner. They are designated as the mail and Web browser under operating system.



Description	Launch Keys Default Application
F1	E-mail application
F2	Internet browser application

3.2 Keyboard Functions

Basic Keypad

Keypad	Function Description
	<Enter> key. Execute a command. Within many text editing application programs, the <Enter> key inserts a hard carriage return, just like what ordinary typewriter does.
	<Esc> key. Press this key to cancel or escape from a command or function.
	<PrtSc> key. Known as the Print Screen key. Press this key to map the whole screen to share memory for your specific usage.
	<Pause> key. Press this key to temporarily halt execution of a command. Pressing any other key to resume execution of a command.
 + 	<Fn>+<Break> key. Press this key to temporarily halt execution of a command. Pressing any other key to resume execution of a command.
	<Insert> key. Known as the Insert key. Press this key to keyboard data entry from insert to type over mode.
	<Delete> key. Known as the Delete key. Press this key to delete the character to the right of the cursor, or delete marked texts or items.

3 How to Start



<Backspace> key. Press this key to delete the character to the left of the cursor.



<Shift> key. Press this key in combination with alphabet letters to produce uppercase letters in typing. Use this key in combination with those two-character keys (found on the second row of the keyboard) to produce the upper marked keys. Also used in most application program in combination with other keys to execute a certain command.



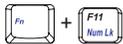
<Tab> key. Press this key to move the cursor to the next tab stop on the right. This key works much the same as in ordinary typewriter.



<Ctrl> key. Known as the Control key. Used in most application program in combination with other keys to execute a certain command.



<Alt> key. Known as the Alternate key. Used in most application program in combination with other keys to execute a certain command.



<Fn>+<Num Lk> key. Activates the embedded 15-key numeric keypad.



<Caps Lock> key. Used in most application program to always activate uppercase alphabet characters.



Up arrow key. Moves the cursor up one line at a time.



Down arrow key. Moves the cursor down one line at a time.



Left arrow key. Moves the cursor to the left one space at a time.



Right arrow key. Moves the cursor to the right one space at a time.



<Home> key. Moves the cursor to the beginning of a screen or line.



<PgUp> key. Moves the cursor up one screen at a time.



<PgDn> key. Moves the cursor down one screen at a time.



<End> key. Moves the cursor to the end of a screen or line.

Special Function Keys

■ Embedded Numeric Keypad

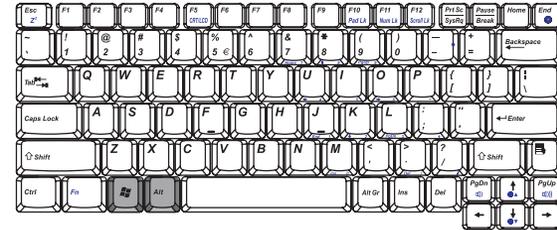


The embedded numeric keypad functions like a desktop numeric keypad. It is indicated by small characters located on the upper right corner of the keycaps.

Desired Access	Num Lock On	Num Lock Off
Number keys on embedded keypad	Type numbers in a normal manner	
Cursor-control keys / Embedded keypad	Hold Shift while using cursor-control keys	Hold Fn while using cursor-control keys
Main keyboard keys	Hold Fn while typing letters on embedded keypad	Type the letters in a normal manner.

Note: If an external keyboard or keypad is connected to your notebook, the Numlock feature automatically shifts from the internal keyboard to the external keyboard or keypad.

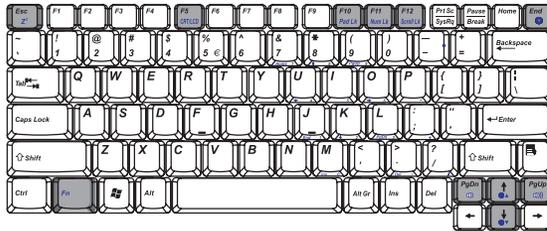
■ Window Keys



Key	Description
⊞+ E	Opens Windows Explorer.
⊞+ R	Opens the Run dialog box.
⊞+ F	Opens the Search Result dialog box.
⊞+ Ctrl+ F	Opens the Search Result-Computers dialog box (when your notebook is connected to a network).
⊞+ Pause	Opens the System properties dialog box.

3 How to Start

Hot Keys



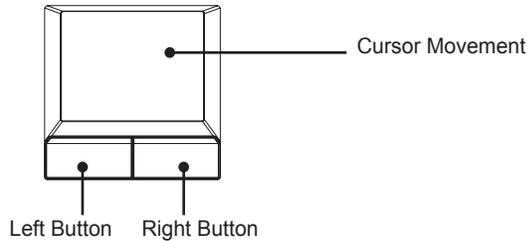
Key	Description
Fn+Esc	Suspend Key
Fn+F5	Switches Display mode. Switches the video image to the next display in the following sequence: the integrated display, an external monitor, and both displays simultaneously
Fn+F10	Pad Lock
Fn+F11	Num Lock
Fn+F12	Scroll Lock
Fn+End	Mute
Fn+☀️▲	Brightness Up

Fn+☀️▼	Brightness Down
Fn+PgUp	Volume Up
Fn+PgDn	Volume Down

3.3 Using the TouchPad

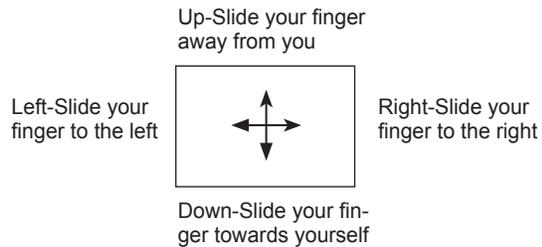
The TouchPad's primary function is to move the cursor around or select items displayed on the screen with the use of your fingertip. The following illustrations demonstrate proper use of the touchpad.

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



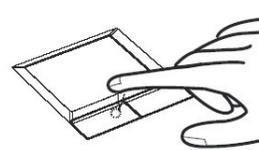
TouchPad Basic

■ Moving the Cursor

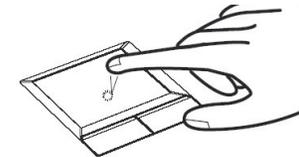


■ Clicking/Tapping Once

With the cursor over an item, press the left button or use your fingertip to do one quick tapping on the touchpad lightly (tapping too hard does not increase the responsiveness of the touchpad), keeping your finger on the touchpad until the item is selected.



Clicking
(Press the left button and release)



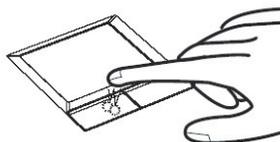
Tapping
(lightly but rapidly strike the touchpad)

This operation can be used under the following situation:
Executing "Yes" or "Cancel" or Selecting item (from the menu bar)

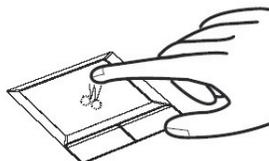
■ Double-clicking / Double-tapping

This is common for launching a program directly from the corresponding icon you select. Move the cursor over the icon you wish to execute, press the left button or tap the pad twice in rapid succession, and the system launches the corresponding program. If the interval between the clicks or taps is too long, the operation will not be executed.

3 How to Start



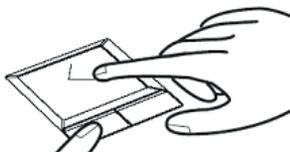
Double Clicking
(Press the left button twice and release)



Double-Tapping
(lightly but rapidly strike the touchpad)

■ Dragging

Dragging means to pick up an item and place it anywhere on the screen you wish. You can move the cursor over the item you select, and while keeping the left button depressed, moving the cursor to the desired location, then release the button. Or, you can simply double-tap on the item and hold while dragging the item with your fingertip.



Dragging-Clicking
(Hold left button and slide finger on touchpad)



Dragging-Tapping
(lightly strike the touchpad twice, sliding finger on touchpad during second strike)

This is used for dragging an icon or changing the size of window. For example, if you want to copy or move one file. Simply drag the file to another folder, window, or software icon; then release the left button.

** Make sure the touchpad does not come into contact with dirt, liquids or grease.*

** Do not touch the touchpad if your fingers are dirty or wet.*

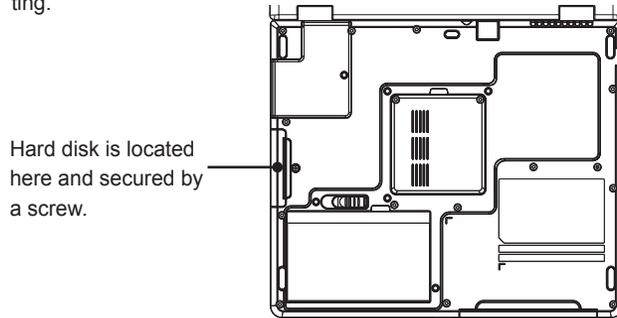
** Do not rest heavy objects on the touchpad or the touchpad buttons.*

** Do not scratch the touchpad with your finger nails or any hard objects.*

3.4 Storage

Hard Disk

N521 series notebook computer is equipped with a built-in large capacity 2.5 inch IDE hard disk drive where you store or install your computer operating system and all application software programs. The internal hard disk is normally assigned as Drive C after formatting.



- If you wish to replace your hard disk, contact your local dealer for more information about this dealer-installable device.
- You can increase the system's storage capacity by replacing the standard hard disk drive with a drive of greater storage capacity.
- Always turn off your notebook computer first before removing the hard disk drive. Failure to do so will damage the computer and the hard disk. Avoid jarring or moving your computer while the hard disk is still being accessed.

Optical Disk Drive

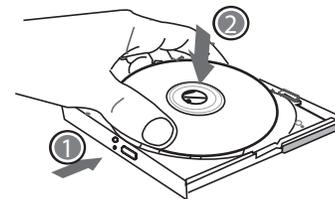
N521 series notebook computer with an optical drive which may be one of the following:

- DVD combo
- DVD Dual

You would normally use the drive for installing operating system and software application programs.

To insert and remove a disc on the drive:

1. Make sure your notebook computer is turned on. Press the eject button found on the door cover of the optical disk drive. The CD tray mechanism will pop-out slightly and slowly pull out the whole length of the tray.
2. Place the disc on top of the CD tray with the label side facing up. Gently press the compact disc onto the center spindle to secure the disc.
3. To remove the disc, press on the center spindle and pull up the disc from the side until the disc snaps out of the spindle lock.
4. To close the optical disk drive, simply push the CD tray inside. The optical disk drive LED will activate when the disc is detected. Wait until the LED has turned off and then start to read the disc

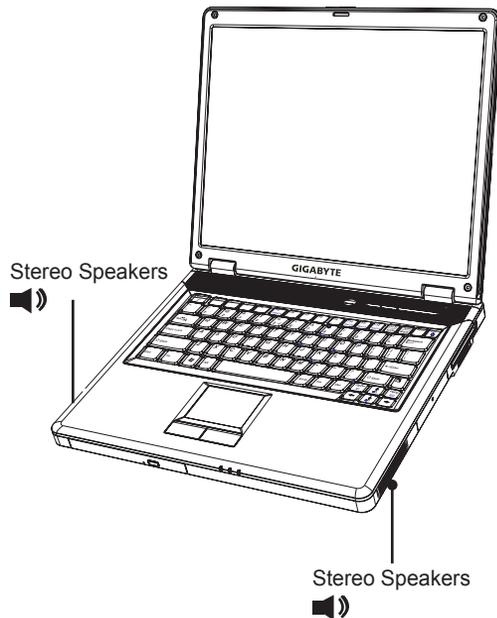


If the eject function is disabled by software or a power failure occurs, the Emergency Eject Hole allows you to manually remove a CD from the drive.

3 How to Start

3.5 Audio

The computer comes with 16-bit high-fidelity AC'97 stereo audio. The Built-in dual stereo speakers are easy to access. Pressing the hot keys to adjust the volume on the computer is quick and easy.



3.6 Disconnecting from External Accessories

■ Moving the Notebook Computer

Moving within short distances (for example, from your office to a meeting room)

- Before moving the computer, close and latch the display cover to set in Sleep Mode. Your N521 series notebook computer is now safe to move around. When you want to turn the computer back on, just open the display and press any keys. Computer may enter Hibernation mode after a period of time it is in Sleep mode. Turn the power on to wake up the computer from Hibernation mode.
- You can press Fn+ Esc, to set the computer in Sleep Mode.
- You may choose to shut down the computer:
 1. Click on START ⇨ TURN OFF COMPUTER
 2. Click on TURN OFF

■ Disconnecting From the External Accessories

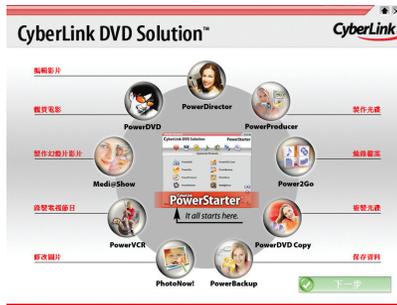
Please follow the steps below

1. Save all your works in progress
2. Remove any media or compact disc from the drive(s)
3. Shut down all the operating system
4. Turn off the computer
5. Disconnect the cord from the AC adapter
6. Disconnect the keyboard, mouse, printer, and other external devices
7. Disconnect the Kensington lock if you are using one to secure the computer.

Note: Never walk your notebook through a metal detector. Send it through an X-ray machine, or have it manually inspected.

3.7 Introduce CyberLink DVD Solution™

CyberLink DVD Solution™ is an integrated solution for all your DVD creativity and burning needs. CyberLink DVD Solution™ offers easy-to-use interface, full range of audio/video, disc, and data-related functions, including DVD playback, photo retouching, disc authoring and burning, slideshow creation, video editing, music ripping, and data backup.



Feature Highlights:

- Burns all media files: data, music, photos and videos
- Creates movies and slideshows onto DVDs with professional looking menus
- Rips MP3s, edit videos and fix photos
- Backs up important data and make copies of DVD movies
- Supports all media formats: DVD+R/RW, DVD-R/RW, DVD-RAM, DVD-VR

4 Personalize Your N521 Series Notebook Computer



Chapter 4 Personalize Your N521 Series Notebook Computer

N521 series notebook computer uses the Insyde BIOS Setup program that allows you to set several system configurations, to help you customize the performance of N521 Series notebook computer. Options include system time and date, disk drive configuration and password setup which are stored in the CMOS RAM and will remain permanent unless you change it again.

This chapter discusses on how you will activate the BIOS Setup program and change the system configuration to suit your desired operation. You must be careful to set the configuration properly in order for your notebook computer to run smoothly.

In this chapter, you will also learn how to upgrade components for better performance. If you are not sure of any settings, contact your dealer.

4.1 Recovery Update: XR2 Lite Utility

How to restore your notebook to factory defaults?

Time to restore:

When your computer is infected by virus or there is any other reason that you want to restore your operation system to the factory defaults.

Execute Xpress Recovery2 Lite (XR2 Lite) Professional Recovery Utility. Please take the following procedures:

1. Start up your computer first. Restart your computer if it has already booted into system.
2. Right after you see the startup screen (such as trademark, logo or text), the DOS screen will appear. Press F9.
 - F9 is a typical hotkey to restore professional settings. Please consult with your computer manufacture if your hotkey doesn't function.

How to Enter the Xpress Recovery Utility

3. There are three options on the menu: "RESTORE" (to restore data), "ABOUT" (to display XR2 Lite related information) and "REBOOT" (to cancel the recovery and restart the computer). We recommend you to select "RESTORE" to restore factory defaults.



4. Then the prompt "Restore Image?" will appear on the menu. We recommend you to select "YES" to restore an image file.
 - "Image file" is a compressed file that compresses all the Windows operation system data. Recovery an image file allows you to restore your operation system to factory defaults.



4 Personalize Your N521 Series Notebook Computer

5. After all the selections have been made, the screen shows “RESTORE NOW...”, indicating your computer is now recovering the operation system data. When the recovery is complete, the computer will automatically restart and restore to factory defaults.



4.2 BIOS Setup

Your N521 series notebook computer is likely to have been properly setup and configured by your dealer prior to delivery. However, you may find it necessary to use your notebook computer’s BIOS (Basic Input-Output System) Setup program to change system configuration information, such as the current date and time, or your hard disk drive type. The Setup program can be accessed when you power on the system and pressing the <F2> function key.

The settings that you specify within the Setup program are recorded in a special area memory called the CMOS RAM. This memory is backed up by a battery so that it will not be erased when you turn off or reset the system. Whenever you turn on the computer, the system will read the settings stored in the CMOS RAM and compare them to the equipment check conducted during the Power On Self Test (POST). If an error occurs, an error message will be displayed on the screen, and you will then be prompted to run the Setup Program.

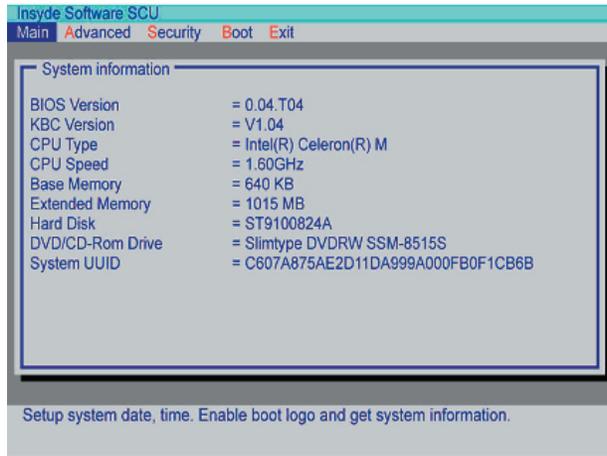
As the POST (Power-On Self Test) executes during the boot up process, the screen will display the following message:

Press <F2> to Enter SETUP

Press the <F2> key to run the BIOS Setup program. The BIOS Setup program is organized into five menus which you can select using the <--> and <--> keys.

To move from one option to another, you use the up and down arrow keys while using the <F5> and <F6>, or <+> and <-> keys to change the settings. On the right hand side of the screen are some brief help descriptions of each item you want to change.

On the BIOS Setup program, you will find the following parts on the screen:



The Menu Bar The top of the Setup screen has a menu bar with the following selections:

- Main** Use this menu to make changes to the basic system configuration.
- Advanced** Use this menu to enable and make changes to the advanced features available on your system.
- Security** Use this menu to set User and Supervisor passwords.

Boot Use this menu to specify the order in which the Notebook is to check for a device to boot the system.

Exit Use this menu to specify how to exit the Setup program.

To move between menu bar items, use the [◀] and [▶] arrow keys until the desired item is highlighted. For example, if you want to move from the Main menu to the Advanced menu, press the right arrow key [▶] once.

Item Specific Help At the bottom of the Setup screen, you will notice an item specific help bar. For each item that you select on the menu, the bar informs of its specific function as well as the hot keys related specifically to that item and/or submenu.

4 Personalize Your N521 Series Notebook Computer

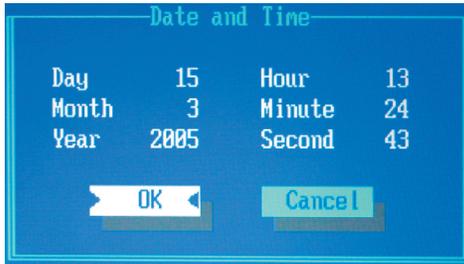
The Main Menu

When the Setup program is accessed, the Information screen appears. Use the down key to select the Main Menu.

Enter the Main Menu of the BIOS setup program to make changes to the Notebook's basic system configuration. Each of the fields displayed in this menu is covered below in detail.

Date and Time

Sets your system to the time that you specify (usually the current time). The format is hour, minute, and second, using the 24-hour clock. Insert the appropriate information. Use the mouse to move between the hour, minute, and second fields.



Enable/Disable Quiet Boot

When Quiet Boot is enabled, the computer boots without displaying the Customer logo. The startup system check sequence is displayed.

Use the [Enter] key to enable or disable the Quiet Boot option.

Date and Time

√ Enable/Disable Quiet Boot

The Advanced Menu

Selecting Advanced from the menu bar displays the System Devices Menu. This menu allows you to configure the Notebook's ports options. Each field on this menu is covered below.

USB Supports by BIOS

Enables or disables legacy USB device support.

Use the [SPACE] bar to select the Legacy USB option or not

√ USB Supports by BIOS

The Security Menu

The Notebook's advanced system of security allows you to set a password to prevent unauthorized access to system resources, data, and the BIOS Setup program. This section covers each parameter of the Security Menu. Selecting Security from the menu bar displays the following menu:

Each field of the Security Menu is covered in detail below.

A Note about Passwords

The BIOS Setup program allows you to specify passwords in the Security menu. The passwords control access to the BIOS and certain Security menu options during system startup.

The passwords are not case sensitive. In other words, a password can be entered using either upper or lower case letters; it makes no difference.

Passwords should be composed of characters A-Z, 0-9 and ten characters in length.

The administrator password must be set before the user password can be set.

Set User Password / Set Administrator Password



These fields allow you to set the System Password. The System Password allows full access to the BIOS Setup menus. To set the ADMIN password, highlight this field and press [Enter].

Type the password and press the [Enter] key. You can type up to ten alphanumeric characters. Symbols are ignored.

To confirm the password, type the password again and press the [Enter] key. The Administrator or user password is now set, and now you can choose when to verify the password – either when you the boot the system, or when a person enters Setup.

To change or clear a password, enter the submenu again. You will need to enter the Administrator password, after which you can create a new one or set the password verification options.

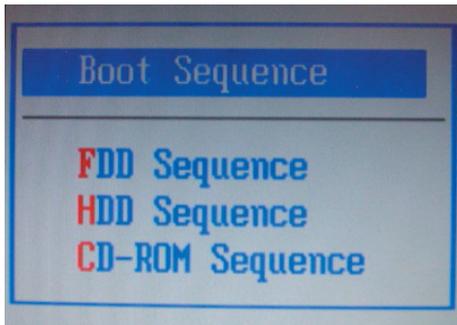
4 Personalize Your N521 Series Notebook Computer

The Boot Menu

The Boot Menu allows the user to specify the order in which the Notebook is to check for a device to boot the system. To make changes, select Boot from the menu bar. The following screen appears:

Boot Device

The Boot Menu allows you to decide the order of boot devices to load the operating system.



The Exit Menu

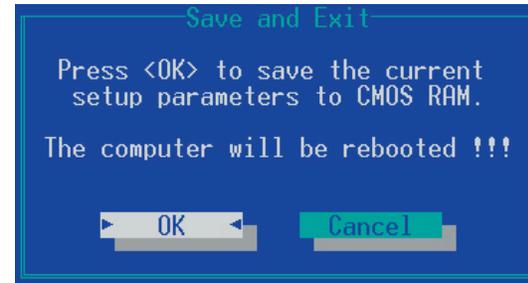
Once you have made all of your selections from the various menus in the Setup program, you should save your changes and exit Setup. Select Exit from the menu bar to display the following menu:

Pressing the [Esc] key can be used to close an open menu or submenu. Pressing it again saves the current parameters and reboots the computer.

Each of the options on this menu is described below.

Save and Exit

Once you are finished making your selections, choose this option from the Exit Menu to ensure the values you selected are saved to Non-Volatile RAM. Changes you made to the Setup program must be changed to Non-Volatile RAM in order to make them operative. Non-Volatile RAM differs from standard RAM memory in that it is sustained by an on-board battery and stays on even when the Notebook is turned off.



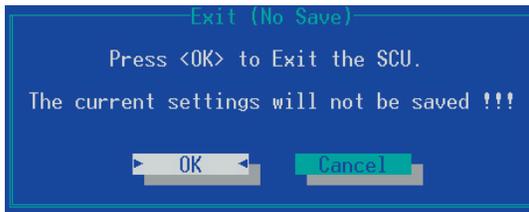
Once your selections have been saved, the Setup program asks you to confirm your choice, and then reboot the computer. System will reboot if OK is selected and will stay in Setup if Cancel is selected.

The next time you boot up the Notebook, the BIOS will attempt to load the values you saved in Non Volatile memory. If these values cause the system boot to fail, reboot and press [F2] to enter the Setup program. Once in Setup, you can try to change the values that caused the system boot to fail. If the problem persists, load the default values (see Get Default Values below).

If you attempt to exit the Setup program without saving your changes, the program will prompt you with a message asking if you want to save your changes before exiting.

Exit (No Save)

This option can be used if you do not want to save the changes you have made to the Setup program. The default is set to No. If you have made changes to the fields other than system date, system time and password, the system will ask for confirmation when choosing Exit (No Save).



The system reboots using the original Setup values.

Default Settings

This option allows you to load the default values for each of the parameters on the Setup Menu. When this option is selected, a confirmation message appears.

The system will remain in Setup after either selection.



You can now select Save and Exit or make other changes before saving the values to Non Volatile RAM.

Restore Settings

Restores the Setup program's values to the ones it had when you entered the program during the boot sequence.



4 Personalize Your N521 Series Notebook Computer

4.3 How to Upgrade the BIOS

N521 notebook computer uses EPROM Flash BIOS chip that allows you to easily upgrade the BIOS program.

When you update the BIOS, any customized settings you made are lost. Please go to Gigabyte website at <http://tw.giga-byte.com/> for the latest BIOS upgrade utility.

To upgrade the BIOS on DOS:

1. Insert the disk with BIOS updated into the diskette drive. (USB FDD, USB Flash Disc, or Floppy Disc)
2. Power on the system with the diskette in the diskette drive.
3. On the DOS prompt, type the following command.

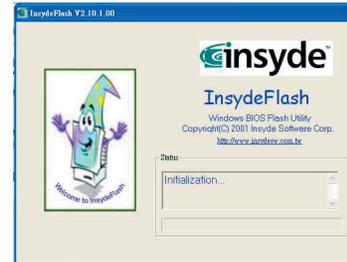
```
A:\> Phlash016 XXXXXX.ROM (BIOS filename) /allb  
/c or  
A:\>XXXXXX.BAT (Batch file for BIOS file)
```

4. The system is now automatically running the BIOS upgrade.
5. The system will shut down automatically when the upgrade is completed.

To upgrade the BIOS on Windows:

1. Please go to Gigabyte website at <http://www.gigabyte.com.tw> (Home > Support > Notebook > BIOS > BIOS of N521) to download ❶ BIOS upgrade tool (InsydeFlash) and ❷ the latest BIOS upgrade utility.
2. Unzip the file you have downloaded.

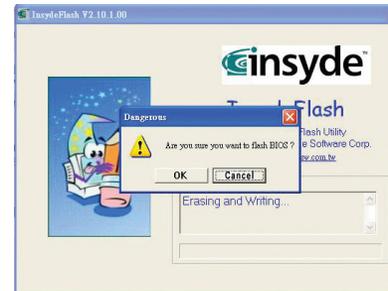
3. Run the setup10b.exe in your unzipped folder.
4. The BIOS flash tool is now initializing.



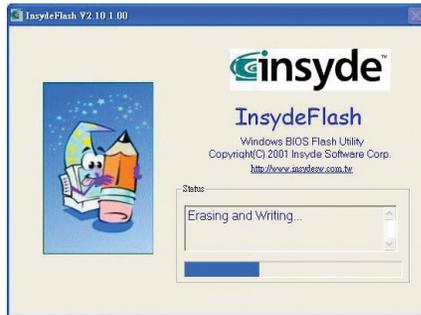
5. Please make sure that you use the AC power, otherwise the following message will appear.



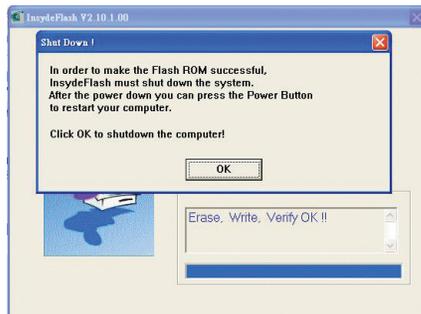
6. Click "OK" to start running the flash program.



7. The flash program is now executing. The message will be shown on the status window.



8. The system now will be shut down for the program to be successfully completed. You may press the power button to restart your notebook computer.



4.4 System Upgrade

You can upgrade your memory size to your system for specific requirements. This section provides an easy step to upgrade your system.

Please contact your local dealer if you decide to perform component. To perform these procedure without consulting local dealer or certified technician may cause damage of your system. The damage of changing hard disk or installing memory module resulting from users is not under warranty.

Your notebook computer offers two memory slots using 200-pin SO-DIMM (Small Outline Dual Inline Memory Module) at least 128MB DDR SDRAM. One of them is for on board memory module, you can use another to add and upgrade.

Installing Memory Module

1. Make sure the system is powered off, the battery also is removed and that no peripheral devices are attached.
2. Turn your notebook computer upside-down and remove the screw that secures the memory module cover at the underside of your notebook computer.
3. Lift off the Memory Module cover and place the new memory module in the slot.
4. Hold the memory module at a 30-degree angle and matching up the notch along its connector rim with the tooth in the connection slot.
5. When the module has been securely seated, press down gently

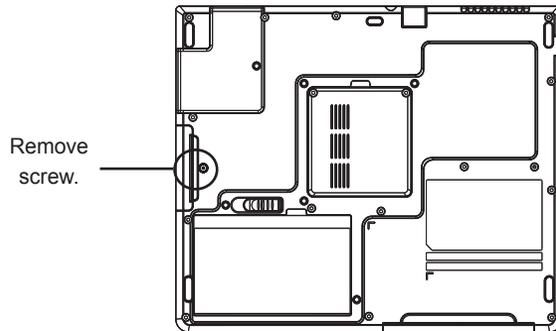
4 Personalize Your N521 Series Notebook Computer

on it until it snaps into place. Put the memory module cover back and secure it with screws.

Upgrade Hard Disk

Your notebook computer offers one 2.5" format, 9.5mm height hard disk. If the volume does not fit your need or it is crashed, you can upgrade it by replacing with new hard disk. Please do the following steps to change it.

1. Turn off the computer, unplug the AC adapter (if connected) and remove battery pack. Then turn the computer over to access its base. Remove the screw.



2. Take out the hard disk case from the compartment by pulling it leftward.
3. Remove the 4 screws located at each side of the hard disk case.
4. Remove the the hard disk gently and put the new hard disk into the case. Then tighten the 4 screws back.

5. Place the hard disk back to the compartment.
6. Secure it with the screw.

Set the boot device as optical disk drive (CD, DVD...) and Primary Master as Auto on BIOS setup menu. Please refer to Chapter 4.2 about the setting of BIOS setup menu. Then, boot the system by using WinXP CD-ROM and the system will detect the hard disk automatically and prompt you how to format the new disk.

Note: Please tighten the screws located at each side of the hard disk before operating the hard disk. Any vibration may cause damage for the running hard disk. Please contact dealer or certified technician for changing the hard disk drive. The damage of changing HDD resulting from users may not be under warranty.

Note: Contact your local dealer if you decide to perform component upgrade.

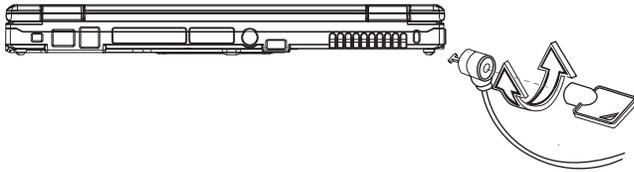
Note: Avoid touching the exposed components inside the system. Doing so may damage the system.

4.5 Protecting Your N521 Series Notebook Computer

N521 Notebook Computer offers both hardware and software locks security features to protect it.

Using a computer security lock:

A security keylock notch located on the rear panel of the computer lets you connect a Kensington-compatible computer security lock.



Setting a Password:

1. Supervisor Password secures your computer against unauthorized entry to and use of the BIOS Utility.
2. Users Password secures your computer against unauthorized use.
3. Hard Disk Password protects your data by preventing unauthorized access to your hard disk.

Do not forget your setup and Hard Disk Password. If you forget your password, please contact an authorized service center.

5 Connecting to Peripherals

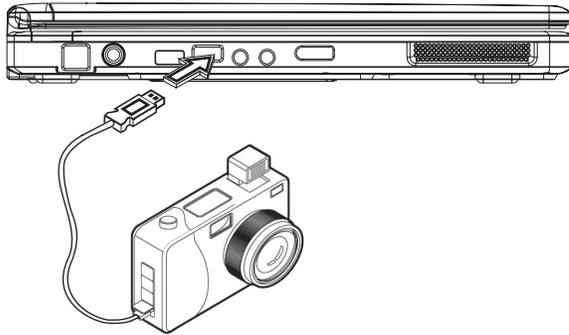


Chapter 5 Connecting to Peripherals

This chapter describes how to connect peripheral devices to your N521 series notebook computer with step-by-step instructions.

5.1 Using USB Port

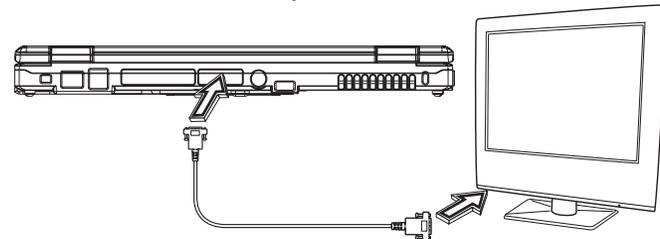
USB port allows multiple devices to run simultaneously on a computer, with peripherals such as floppy drive, mouse, digital cameras, scanners, printers, optical disk drive, keyboards, games devices and acting as additional plug-in sites, or hubs.



5.2 Connecting an External Monitor Port

Your notebook computer has one VGA port for supporting any external CRT or LCD color monitor. One end of the cable must have a 15-pin connector for the system. To connect an external monitor:

1. Turn off your notebook computer and make sure the monitor power switch is turned off.
2. Connect the connector cable of the monitor to the VGA port at the back of your notebook computer. Secure the cable connection with the screws provided.
3. Connect the monitor power cable and plug it into a properly grounded wall outlet.
4. Turn on the monitor.
5. Turn on your notebook computer. Both the LCD panel and the monitor screen will show the display. Your notebook computer is set at default to run at simultaneous display mode.
6. If you only want to show the display on the external monitor (CRT/LCD) and shut off the LCD display, you can use the <Fn> + <F5> hot-key to switch display type between LCD and CRT. Keep pressing the hot-key until you get the display to external CRT/LCD only.

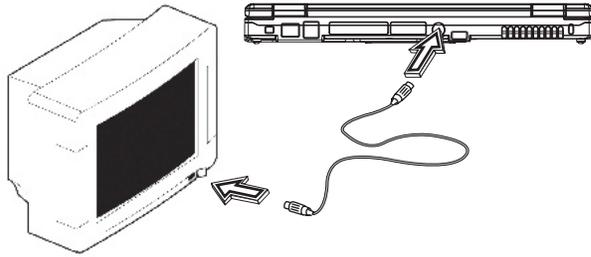


Your Notebook must be power off or suspended while the monitor is being connected. It's harmful to both devices and could shorten the life of these devices.

5 Connecting to Peripherals

5.3 Connecting to S-Video Port

The S-video port allows you to output to a television or display devices that support S-video input. This is important if you want to do some presentations.

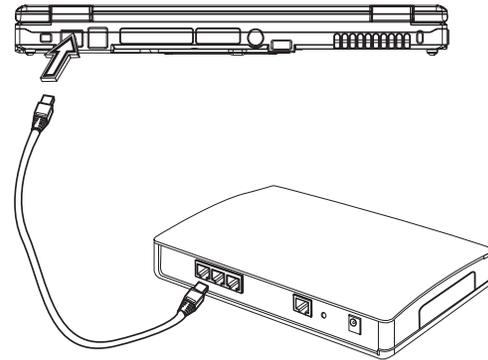


1. Turn off your N521 series notebook computer and plug one end of the RCA jack cable to the end to the input video jack of your television set.
2. Set the TV standard as you want (NTSC, PAL, SECAM, BIOS Default).
3. Turn on your notebook computer and the television set.
4. Click the Start button, then point to Settings, and click Control Panel.
5. Double-click on the Display icon and point to Setting tab.
6. Double-click Advanced button and point to Intel® Extreme Graphics tab and then click Graphics Properties.
7. In the Device tab, select the Television icon and change the related detail setting if you want. Click OK finally. Windows now automatically detect the TV out port and enable this function.

5.4 Using the LAN Port

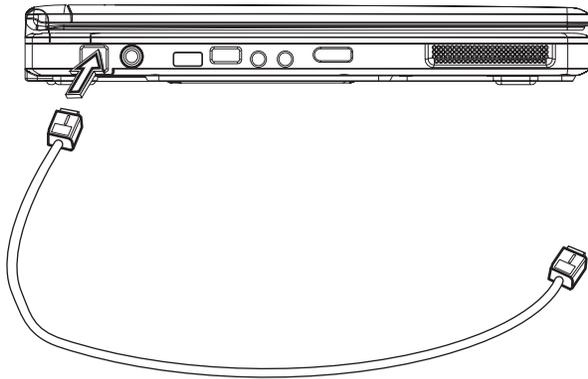
To connect the twisted-pair cable to your LAN port:

1. Locate the twisted-pair cable in the accessories box in notebook shipping carton. Each end of the cable has a RJ-45 connector.
2. Connect one end of the cable into the network wall outlet or HUB.
3. Connect the other end of the cable into the computer RJ-45 LAN port.



5.5 Using the Modem Port

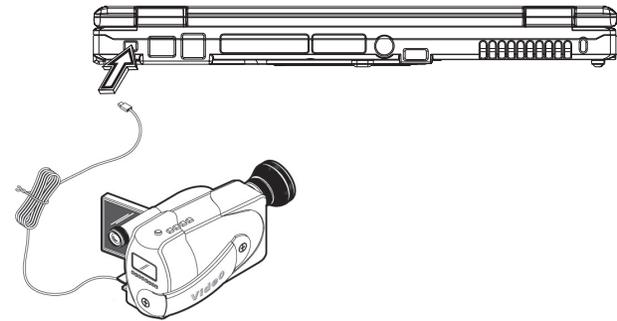
The built-in fax/data modem provides on standard phone connector.



5.6 IEEE 1394 Port

With built-in IEEE 1394 port, your notebook computer enables the peripheral devices in transmitting digital video data or data backup. The Windows system will automatically recognize it in installing a suitable driver for it.

Moreover, you should install the driver of peripheral device to connect with the IEEE 1394 port, for details please refer to the manual that comes with your peripheral devices.



5 Connecting to Peripherals

5.7 PC Card Slot

There is one PC Card slot found on the right side of the computer. These credit-card-sized Cards enhance the performance of the computer. PC Cards (formerly PCMCIA) are add-on cards for portable computers, giving you expansion possibilities long afforded by desktop PCs. Popular type II cards include flash memory, SRAM, fax/data modem, LAN and SCSI cards. CardBus improves on the 16-bit PC card technology by expanding the data path to 32 bits.

PC Cards may be 'hot-swapped', which means you can install a card while your notebook is running. The card will be detected automatically.

Usually PC Cards have a mark or symbol to show which end to insert into the slot. Cards are keyed to prevent incorrect insertion. Check the documents that came with your card if the orientation is unclear.

Inserting PC Cards

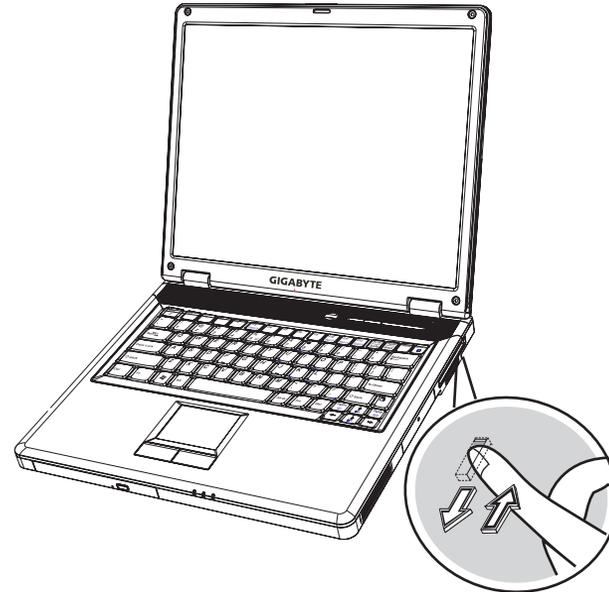
1. Hold the card with its orientation symbol pointing into the slot and the topside of the card facing up. The push-button latch may need to be in before inserting the card.
2. Slide the card into the slot until it clicks into the connector.
3. If you encounter too much resistance, do not force the card. Check the card orientation and try again.

Your notebook will recognize most PC Cards and automatically load the appropriate device driver. If the configuration program tells you to load the manufacturer's drivers, use the floppy disk or CD that came with the PC Card.

Ejecting PC Cards

Before removing a PC Card, stop it running from the configuration utility on the taskbar. Failure to do so could result in data loss. Never try to remove a PC Card by pulling on its cable, if one is attached.

1. Press the release latch.
2. Press the latch again to eject the card.
3. Remove the card.





Chapter 6 Cleaning and Maintenance

Your notebook computer is a valuable investment that you need to take care of. This chapter helps you to learn tips about how to take care of your notebook computer.

6 Cleaning and Maintenance

6.1 Taking Care of Your N521 Series Notebook Computer

- The openings on the enclosure are for air convection hence your notebook computer can be protected from overheating.
DO NOT COVER THE OPENINGS.
- Do not expose your notebook to direct sunlight. Do not place it near sources of heat, such as a radiator.
- Do not expose your notebook to temperatures below 5°C (41°F) or above 40°C (104°F).
- Do not subject your notebook to magnetic fields.
- Do not expose your notebook to rain or moisture.
- Do not spill water or any liquid on your notebook.
- Do not subject your notebook to heavy shock and vibration.
- Do not expose your notebook to dust and dirt.
- Never place objects on top of your notebook to avoid damaging your notebook.
- Never place your notebook on uneven surfaces.
- Use only a power adapter approved for use with your notebook computer.
- If your notebook computer is not in use for a long time, disconnect it from mains to avoid possible damage by transient over-voltage.
- Never open the body of your notebook computer. For safety reason, your notebook computer should only be opened by qualified service personnel.

6.2 Cleaning and Maintenance

When cleaning N521 series notebook computer, follow these steps:

1. Power off your notebook computer and remove the battery pack.
2. Disconnect the AC adapter.
3. Use a soft cloth moistened with water. Do not use liquid or aerosol cleaners.
4. Leave your notebook computer's cover open for about ten minutes while the heat disperses. Heat plays a big part on maintaining the screen. You should enable the power management of your notebook to turn off the LCD power and display when the system is not activated for some time. Adding screen savers is also another good idea to maintain your screen.
5. Users must make it a habit of doing hard disk maintenance every week or so. Here's some tips you could do:
 - Make sure you backup all data files before traveling.
 - Install the virus detecting program to prevent damaging.
 - Use SCANDISK once in a while to correct any errors found in the directory and File Allocation Table. This will also free up space from any unused sectors.
 - Never move or raise the computer while the hard disk is being accessed, most especially don't jar the hard disk as this may cause a hard disk crash.
 - Use hard disk maintenance programs like Disk Defragmenter of Windows. These reorganize your hard disk by eliminating fragmentation and improving your hard disk access time.
 - Install a system password in your computer so others won't be able to use the hard disk.

6.3 Traveling with N521 Series Notebook Computer

For safety and convenience when traveling, please follow these instructions:

- Backup all needed files on your hard disk before traveling.
- Recharge your battery overnight to ensure full battery power before you leave.
- Don't forget to bring along the AC adapter and extra battery pack.
- Try to bring backup software as well.
- Check the voltage rating and the outlet type of your destination. If the power cord of the adapter is different, then you need to purchase a suitable one. Consult your dealer.
- Carry your notebook computer in its carrying case or in a briefcase. Never check-in the computer as a luggage.
- Remember to apply those power saving features and techniques to save battery power.

7 Troubleshooting



Chapter 7 Troubleshooting

This chapter instructs you on how to deal with common system problems. Read it before calling a technician if a problem occurs. Solutions to more serious problems require opening up your N521 notebook computer.

Do not attempt to open notebook computer by yourself. Contact your dealer or an authorized service center for assistance.

7.1 Frequently Asked Questions

- ❓ I press the power switch, but my notebook computer does not start or boot-up.

Look at the Power indicator:

- ➡ If it is not lit, no power is being applied to your notebook computer. Check the following:

1. If you are running on battery power, it may be low and unable to power your notebook compute. Connect the AC adapter to recharge the battery pack.
2. Make sure the AC adapter is plugged in properly to your notebook computer and to the power outlet.

- ➡ If it is lit, check the following:

1. If the Standby indicator is lit, your notebook is in Standby mode. Press any key or tap on the touchpad to resume.
2. Is a non-bootable (non-system) diskette in the floppy drive? Remove or replace it with a system diskette and press Ctrl-Alt-Del to restart the system.

The operating system files may be damaged or missing. Insert the startup disk you created during Windows setup into the floppy drive and press Ctrl-Alt-Del to restart the system. This will diagnose your system and make necessary fixes.

- ❓ Nothing appears on the screen.
Power management system automatically blanks the screen to save power. Press any key to turn the display back on.

If pressing a key does not turn the display back on, two things might be the cause:

1. The brightness level might be too low. Press Fn- and Fn- to adjust the brightness level.
2. The display device might be set to an external monitor. Press the display toggle hot key Fn-F5 to toggle the display back to your notebook computer.

- ❓ Image is not full screen.

Make sure the resolution is set to a resolution your system supports. Right-click on your Windows desktop and select Properties to bring up the Display Properties dialog box. Then click on the Settings tab to make sure the resolution is set to the appropriate resolution. Resolutions lower than the specified resolution are not full-screen on your notebook computer or on an external monitor.

- ❓ External microphone does not work.
Check the following:

1. Make sure the external microphone is connected to the microphone-in jack on your notebook computer.
2. If you cannot hear playback, the speakers may be muted.

7 Troubleshooting

❓ No audio from my computer.

Check the following:

1. If you are running on battery power, it may be low and unable to power your notebook computer. Connect the AC adapter to recharge the battery pack.
1. The volume may be muted. In Windows, look at the volume control icon on the taskbar. If it is crossed-out, click on the icon and deselect the Mute option.
2. The speakers may be turned off. Press Fn-F6 to turn the speakers on (this hotkey also turns the speakers off).
3. The volume level may be too low. In Windows, look at the volume control icon on the taskbar. Click on the icon and adjust the level.
4. If headphones, earphones or external speakers are connected to the line-out port on the rear panel of your notebook computer, the internal speakers automatically turn off.

❓ The keyboard does not respond.

Try attaching an external keyboard to the USB connector on the rear side of your notebook computer. If it works, contact your dealer or an authorized service center as the internal keyboard cable may be loose.

❓ I want to set up my location to use the Internet modem.

To properly use your communications software (e.g., HyperTerminal), you need to set up your location:

1. Open the Windows Control Panel and double-click on the Modems icon.

2. Click on Dialing Properties and begin setting up your location.

Refer to the Windows Manual.

❓ Why can't I change my battery to 100% charged when it is 99-95% charged?

To preserve the life of the battery, the system only lets you charge the battery when its capacity falls below 95%. However, it is recommended that you bring an extra battery and let the battery in the system use up its power before charging it.



Appendix A System Information

This appendix gives information on technical and hardware specifications of N521 series notebook computer. Please note that the information mentioned here may not be exactly the same with your notebook computer as specification is subject to change without notice or modifying this manual.

Designed with an advanced modular architecture, your N521 series notebook computer also allows you for several levels of customization and expansion that are previously available only on desktop PCs.

A PPENDIX A -System Information

Microprocessor

- Intel® new generation Celeron-M 90NM Dothan Processor 1.73~2.13 GHz or higher with FSB 400/533 MHz

Core Logic

- Intel® Alviso 915GM/ ICH6-M for N521U
- Intel® Alviso 915PM/ ICH6-M for N521A

Memory

- 256/512 MB/1GB of DDR-II 533 SDRAM standard, upgradeable to 2GB with dual SODIMM modules.
- 512K flash ROM BIOS

Data Storage

- 2.5", 9.5mm, UltraDMA-100 hard disk, available in 40GB/60GB/80GB/100GB/120GB
- One internal optical drive (DVD-Combo/ DVD-Dual)
- 4-in-1 SD/ MMC/ MS/ MSPRO Card Reader

Display and Video

- Thin-Film Transistor (TFT) displaying at: 15" WXGA (1024X768) resolution
- Intel® Graphic Media Accelerator 900 for N521U
- ATI MOBILITY™ RADEON® X600 with 128 MB of Video memory for N521A
- Simultaneous LCD and CRT display support
- Dual independent display

Connectivity

- Integrated 10/100/1000 Mbps Fast Ethernet connection for

N521A

- Integrated 10/100 Mbps Fast Ethernet connection for N521U
- Build-in 56Kbps fax/data modem
- Three Universal Serial Bus (USB) 2.0 ports
- Intel® 802.11b/g /802.11a+b+g dual-band Wireless LAN (Option)

Audio

- AC'97 stereo audio
- Dual Speakers and one internal microphone
- Separate audio ports for headphone-out, line-in and microphone-in devices

Keyboard and pointing devices

- 88/89-key Windows keyboard
- Ergonomically-centered touchpad pointing device with scroll function

I/O ports

- One Type II PC Card slot
- One RJ-11 phone jack (V.92, 56Kbps modem)
- One RJ-45 network jack
- One DC-in jack (AC adapter)
- One VGA port
- One speaker/headphone-out jack (3.5mm mini jack)
- One microphone-in jack (3.5mm mini jack)
- One S-video port
- One IEEE 1394 Port
- 4 USB 2.0 ports
- 4-in-1 SD/ MMC/ MS/ MC Pro card reader

Wireless

- Wireless on/off switch

Weight(with battery and optical drive)

- N521A model: about 2.86 Kg
- N521U model: about 2.81 Kg

Dimensions

- 333.6(W)x276(D)x32.1mm (max=35.8mm includes battery)

Power

- Rechargeable Li-on 2150mAh, 8-cell battery
- 65W AC adapter 19V 3.42A

A PPENDIX B -Service Centers



Appendix B Service Center

This appendix gives information about world wide service of your N521 series notebook computer.

Taiwan (Headquarters) GIGA-BYTE TECHNOLOGY CO., LTD.

Address: No.6, Bau Chiang Road, Hsin-Tien, Taipei 231, Taiwan
TEL: +886 (2) 8912-4888
FAX: +886 (2) 8912-4004

How to submit a question?

Technical Issues about using GIGABYTE products.
Non-technical Sales and marketing issues

WEB Address(English): <http://www.gigabyte.com.tw/>
WEB Address(Chinese): <http://www.gigabyte.tw/>

U.S.A. G.B.T. INC.

TEL: +1 (626) 854-9338
FAX: +1 (626) 854-9339
WEB Address: <http://www.gigabyte.us>

Japan NIPPON GIGA-BYTE CORPORATION

TEL: +81-3-5791-5438
FAX: +81-3-5791-5439
WEB Address: <http://www.gigabyte.co.jp/>

China G.B.T. TECH. TRADING CO., LTD.

Shanghai
TEL: +86-21-63410999
FAX: +86-21-63410100

GuangZhou
TEL: +86-20-87586074
FAX: +86-20-85517843

Beijing
TEL: +86-10-62102838
FAX: +86-10-62102848

Chengdu
TEL: +86-28-85236930
FAX: +86-28-85256822

Wuhan
TEL: +86-27-87851061
FAX: +86-27-87851330

Xian
TEL: +86-29-85531943
FAX: +86-29-85539821

Shenyang
TEL: +86-24-23960918
FAX: +86-24-23960918-809

WEB Address: <http://www.gigabyte.com.cn/>

A PPENDIX B -Service Centers

Australia GIGA-BYTE TECHNOLOGY CO., LTD.

TEL: +61 3 85616288

FAX: +61 3 85616222

WEB Address: <http://www.giga-byte.com.au/>

Singapore GIGABYTE SINGAPORE PTE. LTD.

WEB Address: <http://www.gigabyte.com.sg/>

Russia
Moscow Representative Office Of Giga-Byte Technology Co., Ltd.

WEB Address: <http://www.gigabyte.ru/>

Poland
Office of GIGA-BYTE TECHNOLOGY Co., Ltd. in POLAND

WEB Address: <http://www.gigabyte.pl/>

Czech Republic Representative Office Of GIGA-BYTE Technology Co., Ltd. in CZECH REPUBLIC

WEB Address: <http://www.gigabyte.cz/>

Romania Representative Office Of GIGA-BYTE Technology Co., Ltd. in Romania

WEB Address: <http://www.gigabyte.com.ro/>

Serbia & Montenegro Representative Office Of GIGA-BYTE Technology Co., Ltd. in SERBIA & MONTENEGRO

WEB Address: <http://www.gigabyte.co.yu/>

