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*W720-K7/ W720-P4 Series*  
***Notebook PC***  
***User's Guide***

*Previous Edition: May, 2003*  
*Second Edition: October, 2003*

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## **NOTICE**

Specifications and information found in this manual are subject to change **without** notice. Any changes therefore will be incorporated in future editions. The manufacturer assumes **no** responsibility for errors or omissions in this document.

## **TRADEMARKS**

**Windows® 2000** and **Window® XP** are the trademarks of Microsoft Corporation.

**AMD®** is the trademark of AMD Corporation.


Other trademarks are properties of their respective owners.

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## **Standards**

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The following standards are adopted throughout this manual:

- Notebook in **boldface** (with or without capitalization) refers to the notebook computer that you have purchased.
- **Boldface** type is also used to highlight **important information** in this document.
- The messages that appear on the **Notebook** screen will be boxed when they are referenced.
- Whenever extra caution is called for, the information will be boxed in a dark frame preceded by "**Note:**" or "**Warning:**"
- Usually after performing a step-by-step instruction, you will be asked to:
  - Press the **Esc** key
  - Which means you should press the  key located at the upper left-hand corner of the keyboard.

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# CONTENTS

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<b>CHAPTER 1 BEFORE YOU BEGIN .....</b>	<b>1-1</b>
1.1 CHECKING WHAT YOU RECEIVED .....	1-1
1.2 EXAMINING YOUR COMPUTER.....	1-2
1.3 THE TWO POWER LEDS.....	1-6
1.4 THE FIVE STATUS LEDS .....	1-7
1.5 THE SEVEN BUTTONS .....	1-8
1.6 HOT-KEYS .....	1-9
<b>CHAPTER 2 BATTERY .....</b>	<b>2-1</b>
2.1 BATTERY PACK.....	2-1
2.2 RECHARGING THE BATTERY PACK.....	2-1
2.3 QUESTIONS AND ANSWERS: .....	2-2
2.4 BATTERY MAINTENANCE.....	2-3
2.5 POWER CONSUMPTION.....	2-3
2.6 REDUCING POWER CONSUMPTION .....	2-4
2.7 REMOVING THE BATTERY PACK.....	2-4
<b>CHAPTER 3 MEMORY .....</b>	<b>3-1</b>
3.1 REMOVING MEMORY MODULE .....	3-2
<b>CHAPTER 4 MINI-PCI MODULE.....</b>	<b>4-1</b>
4.1 REMOVING MINI-PCI MODULE .....	4-1
<b>CHAPTER 5 THE HARD DISK DRIVE.....</b>	<b>5-1</b>
5.1 REMOVING THE HARD DISK DRIVE .....	5-1
<b>APPENDIX A - AGENCY REGULATORY NOTICES .....</b>	<b>A-1</b>
<b>APPENDIX B – PHYSICAL AND ENVIRONMENT.....</b>	<b>B-1</b>

## *Chapter 1 Before You Begin*

Please read this section before you start using your computer.

### *1.1 Checking What You Received*

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Your **notebook** package should contain the following items:

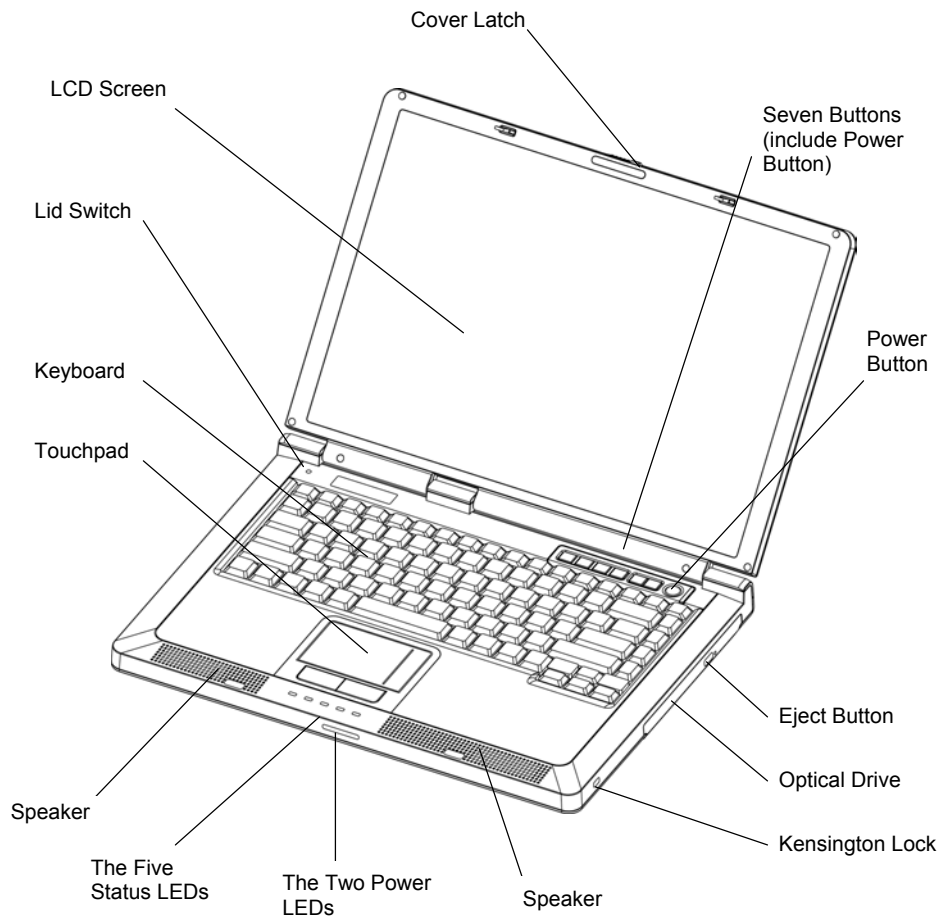


- a) **The Notebook** (includes battery pack).
- b) AC Adapter.
- c) AC Power Cord.
- d) CD ROM Discs.

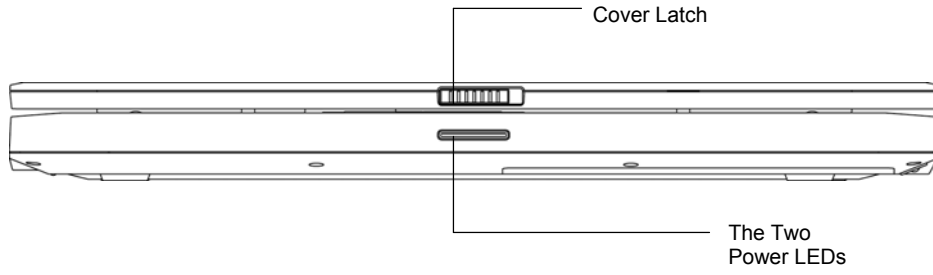
**Note:** You should keep the original factory carton and packing materials in case you need to ship the unit back for servicing.

## *1.2 Examining Your Computer*

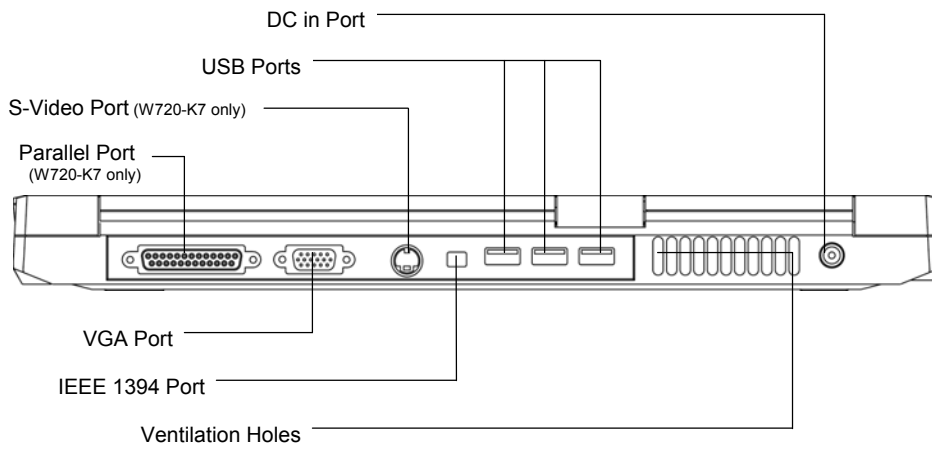
Before you start using your computer, you need to get acquainted with your **notebook's** main features and interfaces:



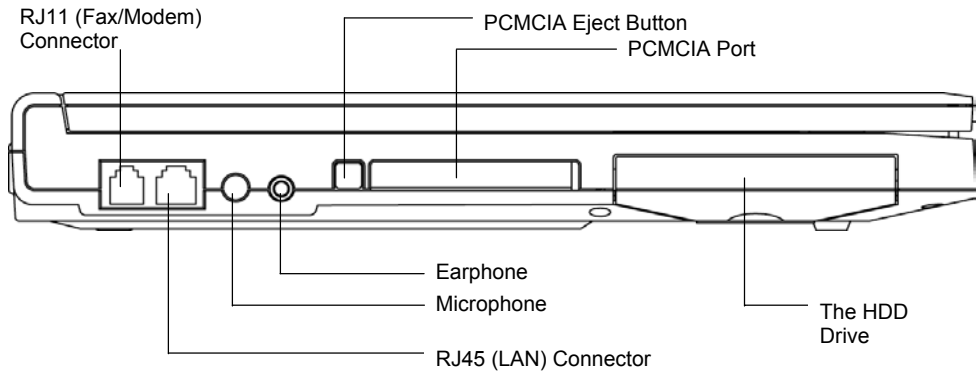
### **Panoramic View**



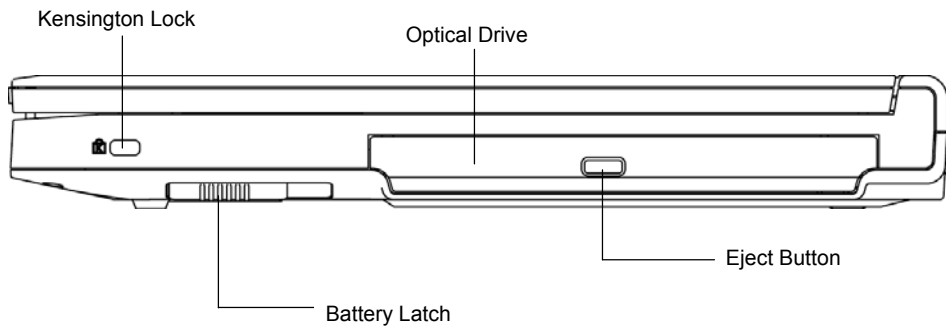
**Front View**



**Rear View**

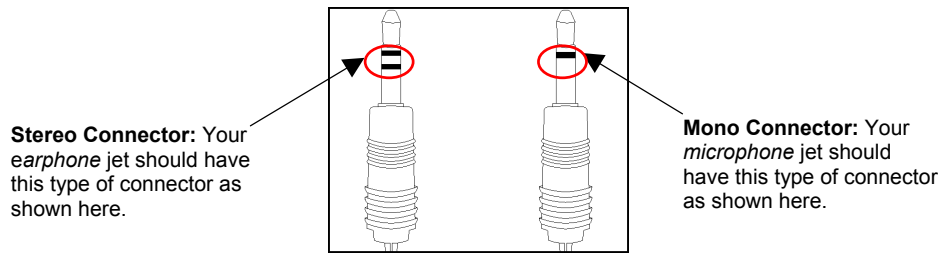
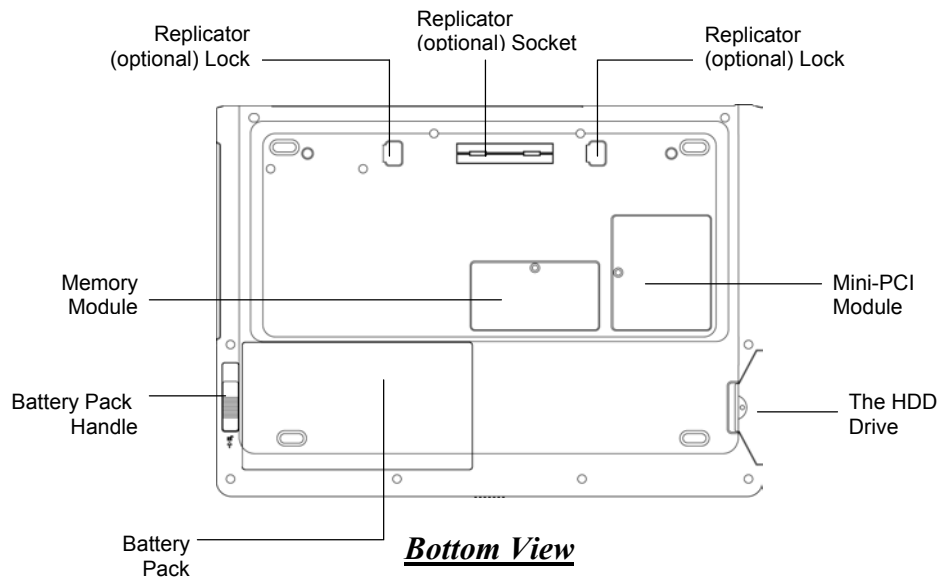


**Left View**



**Right View**





**Two Types for Audio Jet**

## 1.3 The Two Power LEDs



### **The Power On LED**

Below is how the LED would behave in different situations:

<b>Off</b>	System is powered off, or in <b>Hibernate</b> mode.
<b>On</b>	System is powered on.
<b>On Flashing</b>	System is in <b>Suspend</b> Mode.



### **The Battery Pack LED**

Below is how the LED would behave in different situations:

<b>On</b>	Battery pack is being recharged: fast-charge or pre-charge.
<b>On Flashing</b>	Battery pack is under low power capacity.
<b>Off</b>	Battery pack is not being recharged.

**Note:** The **Two Power LEDs** are underneath the five status LEDs immediately underneath the Touchpad. For exact location, please refer to the **Front View** and **Panoramic View** diagrams in *Chapter 1.2*.

For more details on **Suspend** and **Hibernate**, please refer to **Power Options** (for Windows Systems) in the **Control Panel** of your Microsoft Windows operating system.

## 1.4 The Five Status LEDs

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### **The AC Adapter LED**

This LED would be lit when the system unit is connected to an AC power outlet through the AC adapter.



### **The Caps Lock LED**

This LED would be lit when the keyboard is in **Caps Lock** mode. In this mode, all characters you type are in upper case.



### **The Num Lock LED**

This LED would be lit when the keyboard is in **Num Lock** mode. In this mode, the embedded numeric keypads can be used.



### **The Optical Drive/ Wireless LAN LED**

- If the system is not equipped with wireless LAN, the LED will light up when the system is accessing the optical drive.
- If the system is equipped with wireless LAN, the LED will light up when the wireless LAN is activated. Wireless LAN can be activated by pressing the (Fn+F2) hot key.



### **The HDD LED**

The LED would be lit system is accessing the HDD.

**Note:** The **Five Status LEDs** are located right below the touchpad. For exact location, please refer to the **Panoramic View** diagram in *Chapter 1.2*.

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## 1.5 The Seven Buttons

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**The Power Button**

This **Power Button** is programmable by user. For detail on how to program this button, please refer to the **Power Options** of **Control Panel** in **Windows Operating System**.

**Volume Up Button**

Press this button to increase the audio volume.

**Volume Down Button**

Press this button to decrease the audio volume.

**Music Button**

Press this button to activate Window's Media Player.

**Search Button**

Press this button to activate the search function.

**Email Button**

Press this button to activate the email function.

**Internet Button**

Press this button to activate the internet function.

**Note:** The **Seven Buttons** are located near the top right of keyboard. For exact location, please refer to the **Panoramic View** diagram in *Chapter 1.2*.

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## 1.6 Hot-Keys

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To use the **Hot Keys**, press and hold down <Fn> together with the key described below:



### **Wireless LAN**

Press this key combination ( $Fn+F2$ ) to activate the wireless LAN function.



### **Suspend**

Press this key combination ( $Fn+F3$ ) to have system enter the **Suspend** mode. In **Suspend** mode, the black light of the display panel would be turned off and a host of internal devices would enter into a stage of lower power consumption. Press any keycap on the keyboard to resume normal operation.



### **LCD/CRT/TV Switch**

Press this key combination ( $Fn+F4$ ) to switch between LCD only, CRT only, LCD/CRT simultaneously, and LCD/TV simultaneously.



### **Brightness Decrease**

Press this key combination ( $Fn+F7$ ) to decrease the brightness of the LCD display.



### **Brightness Increase**

Press this key combination ( $Fn+F8$ ) to increase the brightness of the LCD display.



**Play/Pause**

This hot-key is for audio CD disc playback. Press this key combination (*Fn+F9*) to play or pause audio play back.



**Stop**

This hot-key is for audio CD disc playback. Press this key combination (*Fn+F10*) to stop audio playback.



**Previous Track**

This hot-key is for audio CD disc playback. Press this key combination (*Fn+F11*) to skip to the previous track.



**Next Track**

This hot-key is for audio CD disc playback. Press this key combination (*Fn+F12*) to skip to the next track.

## Chapter 2 Battery

### 2.1 Battery Pack

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Your **notebook** is equipped with a high capacity **Lithium Ion (Li-Ion)** battery pack. In general, a fully charged battery pack can support around 2.0~2.5 hours of operation, with Windows' Power Management option enabled. However, difference in configuration (CPU, HDD, Memory, display panel etc.) and system utilization (especially I/O activities) can affect the operation time greatly.

### 2.2 Recharging the Battery Pack

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Your **notebook** supports both on-line and off-line recharge. Follow the procedure below to recharge battery:

- Make sure the battery pack is installed in the **notebook**.
- Connect the AC adapter to the **notebook** and to an electrical outlet.

When a battery pack is being recharged, its battery LED (visible in the front view of the system unit) would be lit up. For details on the LEDs, please refer to *Chapter 1.3*. When the notebook is OFF, a depleted Li-Ion battery will take three hours to recharge.

## 2.3 Questions and Answers:

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**Q:** I can feel the heat next to the **TouchPad** during recharge. Is it normal?

**A:** The battery will generate heat during recharging and discharging. There is a protection circuit inside the **notebook** to prevent overheating. User needs not to worry.

**Q:** My battery operation time is not as long as it should be. Why?

**A:** The battery is heat sensitive and can only be charged to its maximum if the battery and its environmental temperature remain within 15-25°C (59-77°F). The more the temperature deviates from this range during recharging, the less chance there is for the battery to be fully charged. In order to recharge the pack to its full capacity, users are requested to cool down the unit by unplugging the AC Adapter. Wait until it is cooled down. Then plug in the AC Adapter to start recharging again.

**Q:** I did not use my spare battery for a few days. Even though it was fully recharged, there wasn't as much power left as a newly charged one. Why?

**A:** The batteries will self-discharge (1% per day for Li-Ion) when they are not being recharged. To make sure a battery pack is fully charged, recharge before use. Always keep the battery inside the **notebook** and have the AC adapter connected whenever possible.

**Q:** I did not use my spare battery for months. I have problem in recharging it.

**A:** If you happen to leave your battery pack to go through an extended period of self-discharge, say more than three months, the battery voltage level will become too low and needs to be **Pre-Charged** (to bring the battery voltage level high enough) before it automatically (for Li-Ion only) resumes its normal **Fast Charge**. **Pre-Charge** may take 30 minutes. **Fast Charge** usually takes 2~3 hours.



## 2.4 Battery Maintenance

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To maintain the battery pack's maximum capacity, you should occasionally let the **notebook** deplete its battery power completely before recharging.

To carry out a complete depletion of the battery, disconnect the AC adapter and let your **notebook** consume the remaining battery power. To speed up the depletion, use the HDD as much as possible, and the LCD should be set as bright as possible. When the battery is empty, wait for the **notebook** to cool down (especially the battery). The temperature should be within 15-25°C (59-77°F). Then insert the AC adapter to recharge the battery.

## 2.5 Power Consumption

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The **Windows® XP**, the latest Windows operating system, has incorporated the latest state-of-the-art **ACPI (Advanced Configuration Power Interface)** power management technology. In order to fully utilize the power of your battery pack, it would be a good idea for you to spend sometime to acquire a basic understanding of the power management concept from your operating system.

In **Windows® Operating Systems**, you can go through **Power Options** of the **Control Panel** of your **Windows® Operating System**. We shall not describe it in details. The **Power Options** in **Windows® XP** are further divided into as below:

- Power Schemes
- Alarms
- Power Meter
- Advanced
- Hibernate

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## 2.6 Reducing Power Consumption

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Although your **notebook** (together with the operating system) is capable of power conservation, there are measures you can take to reduce the power consumption:

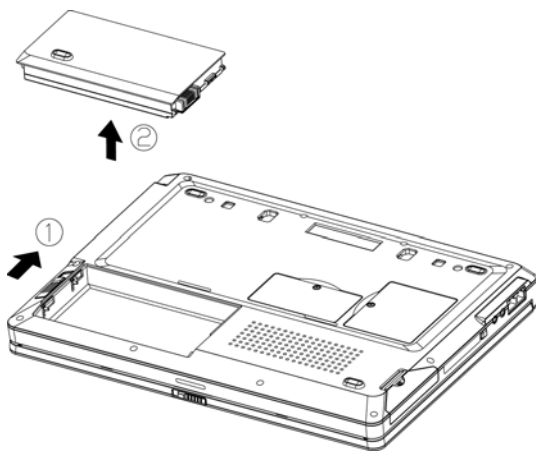
- Use the AC power whenever possible.
- Lower the intensity of the LCD backlight. A very bright screen translates to higher power usage.
- Try to use the HDD or the PCMCIA drive to read and write files, instead of using the external USB FDD.

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## 2.7 Removing The Battery Pack

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The battery pack can easily be removed and inserted. Make sure that the computer is properly shutdown before changing the battery pack. If you would like to change the battery pack while power is on, make sure the AC Adapter is inserted. Follow the steps.



- Flip the system upside down.
- To unlock the battery pack, push the latch all the way in the direction as shown by #1. The battery pack would pop up a little bit.
- Remove the battery pack as shown by #2.

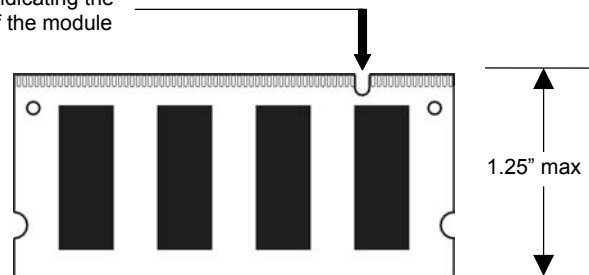
To insert the battery pack, reverse the steps above.

## Chapter 3 Memory

Your **notebook** is equipped with a configurable memory unit. Depending on configurations, your system is either equipped with an on-board memory of 256MB, or 512MB. One industry standard **DDR S.O.DIMM** memory module socket is available for memory upgrade to 768MB, or 1024MB. This memory socket is located on the bottom side of the system unit. The table below illustrates all the possible ways system memory can be configured.

On-Board Memory	Memory Socket	Total Memory
256MB	0MB	256MB
256MB	128MB	384MB
256MB	256MB	512MB
256MB	512MB	768MB
512MB	0MB	512MB
512MB	128MB	640MB
512MB	256MB	768MB
512MB	512MB	1024MB

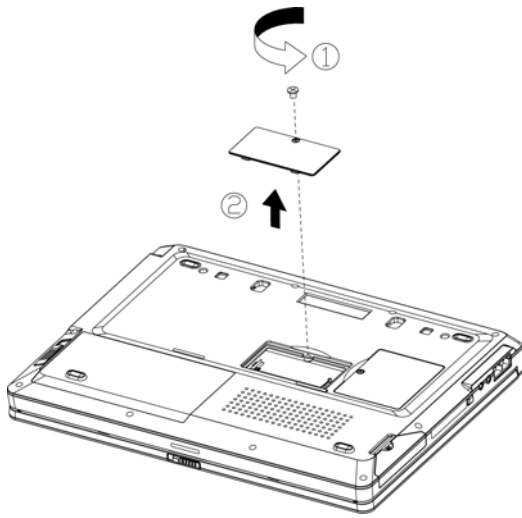
**Groove** for indicating the orientation of the module



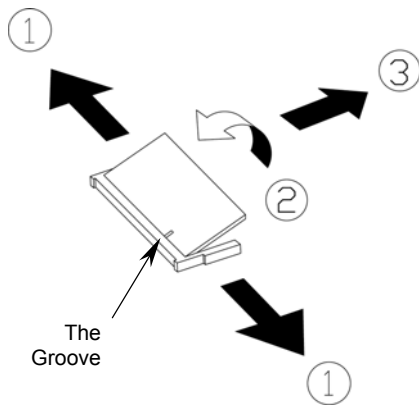
**DDR S.O. DIMM Memory Module**

### 3.1 Removing Memory Module

Below is the procedure on how to remove the memory module.



- Make sure the system is properly shutdown.
- Flip the system upside down.
- Remove the screw as shown by #1.
- Remove the compartment door as shown by #2.



- Press the spring-locks sideways as shown by #1.
- The memory module would pop up as shown by #2.
- Remove the module as shown by #3.

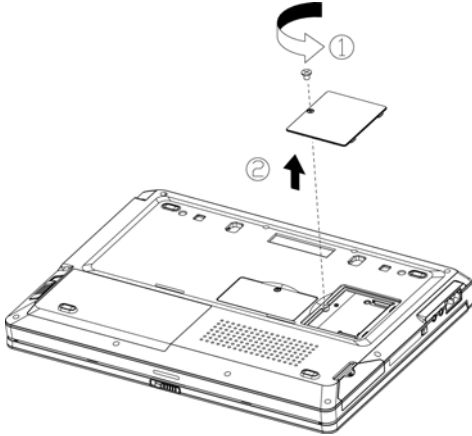
To insert the memory module, reverse the steps above.

## Chapter 4 Mini-PCI Module (Optional)

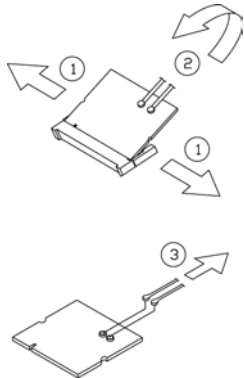
Depending on model, your **notebook** may be equipped with an optional **Mini-PCI** module. The **Mini-PCI** module supports wireless LAN function.

### 4.1 Removing Mini-PCI Module

Below is the procedure on how to remove the Mini-PCI module.



- Make sure the system is properly shutdown.
- Flip the system upside down.
- Remove the screw as shown by **#1**.
- Remove the compartment door as shown by **#2**.



- Press the spring-locks sideways as shown by **#1**.
- The Mini-PCI module would pop up as shown by **#2**.
- Disconnect the two cables as shown by **#3**. There are two types of Mini-PCI module. Externally, they look slightly different; especially on the locations of the cable connections.

To insert the Mini-PCI module, reverse the steps above.



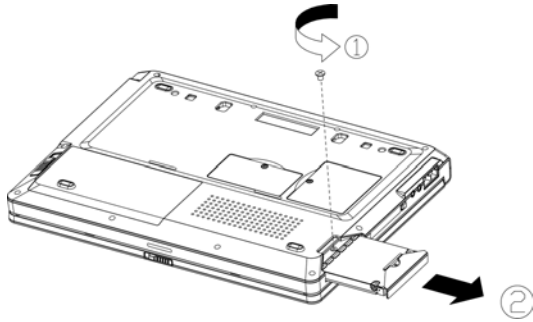
## Chapter 5 The Hard Disk Drive

Your **notebook** is equipped with an industry standard 2.5"/9.5mm hard disk drive.

### 5.1 Removing The Hard Disk Drive

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Below is the procedure on how to remove the hard disk drive.



- Make sure the system is properly shutdown.
- Flip the system upside down.
- Remove the screw as shown by #1.
- Remove the hard disk drive as shown by #2.

To insert the hard disk drive, reverse the steps above.





## Appendix A - Agency Regulatory Notices

### A.1 Safety Instructions

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**CAUTION:** Please read these safety instructions carefully.

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**CAUTION:** Please keep this User's Manual for future reference.

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**CAUTION:** Please disconnect this equipment from AC outlet before cleaning. DO NOT use liquid or sprayed detergent for cleaning. Use a clean moistened cloth.

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**CAUTION:** The wall socket used should be positioned near the equipment and should be easily accessible.

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**CAUTION:** Please keep this equipment free from humidity.

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**CAUTION:** Place the equipment on a reliable surface at all times. A drop or fall can cause severe damage.

---



**WARNING:** The openings of the enclosure are for air ventilation and are meant to protect the equipment from overheating. DO NOT COVER THE VENTILATION OPENINGS.

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**CAUTION:** Verify the voltage of the power source before connecting the unit to any power outlet.

---



**WARNING:** DO NOT step on or place anything over the power cord.

---



**CAUTION:** All cautions and warnings on the equipment should be noted.

---



**WARNING:** If the equipment is not used for a long period of time, disconnect the equipment from the power source to avoid damage from power spikes.

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**WARNING:** NEVER pour any liquid into any openings; a fire or electrical shock is possible.

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**WARNING:** For safety reasons, other than pre-designated ports, doors, and the equipment should be opened only through qualified service personnel.

---



**CAUTION:** If one of the following situations should arise, the equipment should be checked by an authorized technician:

- a. The power cord or plug is damaged.
  - b. Liquid has penetrated into the equipment.
  - c. The equipment has been exposed to excessive moisture.
  - d. The equipment does not work well, or you fail to get it to work according to user's manual.
  - e. The equipment has been dropped or damaged.
  - f. The equipment has obvious signs of breakage.
- 
-



**CAUTION:** DO NOT LEAVE THE EQUIPMENT IN TEMPERATURES BELOW -20°C(-4°F) OR ABOVE 60°C(140°F). IT MAY CAUSE DAMAGE TO THE EQUIPMENT.

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**WARNING:** Never install modem/telephone wiring during a lightning storm.

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**WARNING:** Never install modem/telephone jacks in wet locations unless the jack is specially designed for wet locations.

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**WARNING:** Never touch un-insulated modem/telephone wires or terminals unless the modem/telephone line has been disconnected at the network interface.

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**CAUTION:** Use caution when installing or modifying modem/telephone lines.

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**WARNING:** Avoid using a modem/telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

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**WARNING:** This computer contains an internal lithium battery-powered real-time circuit. There is a risk of explosion and injury if the battery is incorrectly replaced or handled. Do not attempt to recharge, disassemble, immerse in water, or dispose of it in fire. Replacement should be done through your notebook dealer.

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**WARNING:** THE CD-ROM/DVD-ROM IN THIS NOTEBOOK EMPLOYS A LASER SYSTEM.

- a. To ensure proper use of this product, please read the relevant instructions carefully and retain for future reference.
  - b. Should the unit ever require maintenance, contact your local dealer.
  - c. Use of controls, adjustments or the performance of procedures other than those specified may result in hazardous radiation exposure.
  - d. To prevent direct exposure to Laser Beam, do not try to open the enclosure.
- 



**CAUTION:** The internal CD-ROM/DVD-ROM drive is classified as a **CLASS 1 LASER PRODUCT**. Label is located on the outside of the CD-ROM/DVD-ROM drive with the following wordings:

**CLASS 1 LASER PRODUCT  
KLASSE 1 LASER PRODUKT**

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**WARNING:** 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.

Explosionsgefahr bei unsachgemäßen Austausch der Batterie. Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

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**WARNING:** Your notebook contains a Ni-MH or Li-Ion battery pack. There is a risk of fire and chemical burn if the battery pack is handled improperly. Do not disassemble, crush, puncture, short external contact, dispose of in water or fire, or expose it to temperature higher than 60°C.

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**WARNING:** Handle the battery pack very carefully. Avoid touching the metal leads on the connector of the battery case.

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**CAUTION:** Use only approved AC Adapter with your notebook. Using the wrong type of AC Adapter may cause serious damage to your notebook.

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**CAUTION:** The AC Adapter can accept a line voltage ranging from 100V to 240V and is compatible with most international power sources. If you are unsure whether your power source is compatible, please contact the local dealer for assistance.

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**CAUTION:** To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.

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**CAUTION:** For Continued Protection Against Risk of Fire, Replace Only with same Type and Rating of Fuse.

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**CAUTION:** If the computer is not sold to German area, please use only the local recognized power supply cords that are recommended by the manufacturer.

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## A.2 Agency Notice

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### **Federal Communications Commission Notice**

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:

- 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 or television technician for help.

### **Modifications**

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by the manufacturer responsible for compliance may void the user's authority to operate the equipment.

### **Cables**

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

### **Canadian Notice**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

### **Avis Canadien**

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## FCC RF Radiation Exposure Statement

- This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- This equipment complies with FCC RD radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

## European Union Notice

Product with the CE Marking complies with the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community and if this product has telecommunication functionality, the R&TTE Directive (1999/5/EC).

Compliance with these directives implies conformity to the following European Norms (in parentheses are the equivalent international standards and regulations):

- EN55022 (CISPR 22)— Electromagnetic Interference
- EN55024 (IEC61000-4-2,3,4,5,6,8,11)— Electromagnetic Immunity
- EN61000-3-2— (IEC61000-3-2)- Power Line Harmonics
- EN61000-3-3— (IEC61000-3-3)- Power Line Flicker
- EN60950 (IEC60950)— Product Safety

For devices with built-in wireless equipment, the following additional standards apply:

- ETSI301489-17: General Emissions for Radio Equipment
- EN60950: Safety
- ETSI300328-2: Technical Requirements for Radio Equipment

## Japanese Notice

本装置は、第二種情報装置（住宅地域またはその隣接した地域において使用されるべき情報装置）で住宅地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。  
しかし、本装置をラジオ、テレビジョン受信機に、近接してご使用になると、受信障害の原因となることがあります。本書の説明にしたがって正しい取り扱いをしてください。

## U.S. Regulations Governing the Use of Modems

This equipment complies with Part 68 of the FCC Rules. On this equipment 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 harms the telephone network, the Telephone Company may discontinue your service temporarily. If possible, they will notify in advance. But, if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

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

The FCC prohibits this equipment to be connected to party lines or coin-telephone service.

In the event that 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.

The FCC also requires the transmitter of a FAX transmission be properly identified (per FCC Rules Part 68, Sec 68.381 (C) (3)).

#### Japanese Modem Notice

本製品を日本で使用する場合は必ず日本国モードでご使用ください。  
他国のモードをご使用になると電気通信事業法(技術基準)に違反する  
行為となります。なお、ご購入時は初期値が日本国モードとなっており  
ますので、そのままご利用ください。

#### U.K. Modem Compliance Information

This modem is approved by the secretary of state at the Department of Trade and Industry for connection to a single exchange line of the public switched telephone network run by certain licensed public telecommunication operators or system connected there to (Direct exchange lines only, not shared service or 1-1 carrier systems).

This modem is also suitable for connection to Priate Automatic Branch Exchange (PABX), which return secondary proceeding indication.

If this modem is to be used with a PBX which has extension wiring owned by BT, connection of the modem the PBX can only be carried out by BT; or by the authorized maintainer of the PBX unless the authorized maintainer has been given 14 days written notice that the connection is to be made by another person; and that period of notification has expired.

This modem is suitable for use only on telephone lines proved with Loop Disconnect or Multi-Frequency Dialing Facilities.



Users of this modem are advised that the approval is for connection to the **PSTN** via the telephone line interface supplied with it. Connection of a modem to the **PSTN** by any other means will invalidate the approval.

There is no guarantee of correct working in all circumstances. Any difficulties should be referred to your supplier.

Some network operators require that intended users of their network request permission to connect and for the installation of an appropriate socket.

The **R**inger **E**quivalence **N**umber (**REN**) of this modem is 1. **REN** is guide to the maximum number of apparatus that can simultaneously be connected to one telephone line. The **REN** value of each apparatus is added together, and should not exceed 4. Unless otherwise marked, a telephone is assumed to have a **REN** of 1.

This modem is only approved for use of the following facilities:

- Storage of telephone numbers for retrieval by a predator mined code.
- Initial proceed indication detection.
- Automatic calling / automatic answering.
- Tone detection.
- Loud-speaking facility.

This modem is not approved for connection to U.K./private speech-band services. This modem does not support an automatic re-dial function. Any other usage will invalidate the approval of your modem, if as a result, it then ceases to conform to the standards against which approval was granted. The approval of this modem is invalidated if the apparatus is subject to modification in any material way not authorized by the **BABT** or if it is used with, or connected to external software that have not been formally accepted by **BABT**.



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## Appendix B – Physical And Environment

### PHYSICAL

Weight	: 2.70kg, including one battery pack.
Length/Width/Height	: 354.5mm/254.0mm/33.5mm.

**Note:** Weight and height might change due to different configurations and models.

### ENVIRONMENT

Operating Temperature	: 10°C to 35°C.
Non-Operating Temperature	: -20°C to 60°C.
Humidity	: 20% to 80% non-condensing.
Shock	: 5G operating, 60G non-operating.
Vibration	: 3-200Hz @ 1.0G operating. : 3-200Hz @ 1.5G non-operating.