

Diamond PCA46/47

Notebook

User Guide



Copyright©2010

All Rights Reserved - Printed in Taiwan

Notebook Computer User Guide

Original Issue: 2010/07

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

No part of this manual may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopy, recording, or otherwise, without prior written permission.

Trademarks

Product names used herein are for identification purposes only and may be the trademarks of their respective companies.

Microsoft, Windows XP, Windows MCE, Windows Vista, Windows 7, and Windows Sound System are trademarks of Microsoft Corporation.

Intel ®, Intel ® Arrandale are registered trademark of Intel Corporation.

Sound Blaster, Sound Blaster Pro are trademarks of Creative Technology.

All other brands or product names mentioned in this manual are trademarks or registered trademarks of their respective companies.

Safety and Care Instructions

No matter what your level of experience with computers, please make sure you read the safety and care instructions. This information can help protect you and your computer from possible harm.

Safety and Care Instructions

No matter what your level of experience with computers, please make sure you read the safety and care instructions. This information can help protect you and your computer from possible harm.

Important Safety Instructions

This section gives you detailed information about how to maintain a safe working environment while using the Notebook (Laptop). You can maintain its condition and performance by following these guidelines. Please read it carefully to ensure maximum safety.

1. Please read these safety instructions carefully.
2. Please keep this manual for later reference.
3. Please keep this equipment from humidity.
4. Do not use this product near water, for example, near a bathtub, wash bowl kitchen sink or laundry tub, in a wet basement or near a swimming pool.
5. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
6. Do not use the telephone to report a gas leak in a vicinity of the leak.
7. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
8. All cautions and warnings on the equipment should be noted.
9. Do not operate the Notebook (Laptop) with the cover removed. For safety reason, the equipment should only be opened by qualified service personnel.

10. Always disconnect all telephone lines & all power cords from the wall outlet before servicing or disassembling this product. To reduce the risk of personal injury from electrical shock or hot surfaces, disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching.
11. Refer your system for servicing to qualified service personal under the following conditions:
 - When the power cord or plug is damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to rain or water.
 - 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 extensive work by a qualified technician to restore the product to normal condition.
 - If the product has been dropped or the cabinet has been damaged.
 - If the product displays a distinct change in performance, it indicates a need for service.
 - If the equipment has obvious sign of breakage.
12. The unit can be operated at maximum ambient temperature of 40°C.
13. Li-Ion battery is vulnerable, do not charge it with other power adapter, or it may cause fire or explosion
14. 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.
15. Use only a power adapter approved for use with this Notebook (Laptop).
16. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
17. If the Notebook (Laptop) is not in use for a long time, disconnect it from mains to avoid possible damage by transient over-voltage.

-
18. The risk of ignition caused by small metallic objects, such as paper clips or staples, moving around inside TRANSPORTABLE EQUIPMENT during transportation shall be reduced objects entering the equipment, please do not remove dummy card from the product.

Installation Restrictions

1. 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.
2. 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 electronic shock. Never spill liquid of any kind on the product.
3. For electrical safety concerns, only use telephone cables rated 26AWG or higher.
4. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning. Ensure that no liquid enters the system.

Laser Compliance Statement

The CD-ROM/DVD-ROM/CD-RW/DVD-RW drive in this computer is a laser product. The CD-ROM/DVD-ROM/CD-RW/DVD-RW drive's classification label (shown below) is location on the drive.

CLASS 1 LASER PRODUCT

Caution: Use to any controls or adjustments or procedures other than those specified herein may result in hazardous radiate exposure. To prevent exposure to laser emanations (Harmful to Human eyes), do not attempt to disassemble this unit.

Battery (Lithium)

Note:

1. The following caution statement is located in the service and operating manual or on the label adjacent to the battery.
2. Risk of explosion if battery is replaced by an incorrect type.
3. Do not dispose of batteries in a fire.

English

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

French

IL Y A DANGER D'EXPLOSION S'IL Y A REMPLACEMENT INCORRECT DE LA BATTERIE. REMPLACER UNIQUEMENT AVEC UNE BATTERIE DU MÊME TYPE OU D'UN TYPE RECOMMANDÉ PAR LE CONSTRUCTEUR. METTRE AU RÉBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS DU FABRICANT.

German

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

Swedish

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

Danish

Lithiumbatteri- Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Lever det brugte batteri tilbage til leverandoren.

Norwegian

Eksplosjonsafe ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabriknten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

Finnish

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainostaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käyteen paristo valmistajan ohjeiden mukaisesti.

Power Cord Set Requirements

- 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).
- The power cord set (appliance coupler, flexible cord, and wall plug) you received with the Notebook (Laptop) meets the requirements for use in the country where you purchased the equipment.
- Power cord sets for use in other countries must meet the requirements of the country where you use the computer. For more information on power cord set requirement, contact your local authorized dealer, reseller, or service provider.

- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Power Lines

Do not locate the antenna near overhead light or power circuits, or where it could fall into such power or circuits.

Warning: When installing or realigning an outside antenna system, extreme care should be taken to keep from touch such power lines or circuits. Contact with them could be fatal.

Battery Pack



"Do not incinerate, (or) disassemble; may explode or release toxic materials. Do not short circuit; may cause burns."

Power Adapter



For indoor use only.



For use with information technology equipment.



Risk of electric shock do not open.

FCC Compliance Statement

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/TV technician for help.

Shielded Cables Notice

All connections to other computing devices must be made using shielded cables to maintain compliance with FCC regulations.

Peripheral Devices Notice

Only peripherals (input/output devices, terminals, printers, etc) certified to comply with Class B limits may be attached to this equipment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Declaration of conformity

Model No. : PCA46/PCA47 Series (依據DOC宣告的model name)

Responsible party: First International Computer, Inc.

Address: No. 300, Yang Guang St., Nei Hu, Taipei, Taiwan.

Telephone No.: 886-2-8751-8751

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.

Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC RF Radiated Exposure Statement

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

Regulatory information/Disclaimers

Installation and use of this Wireless LAN device must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or

attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

European Notice

For the following equipment: Notebook PC



Is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive (2004/108/EC), Low voltage Directive (2006/95/EC) and the Amendment Directive (93/68/EEC), the procedures given in European Council Directive (1999/5/EC) and (2004/108/EC).

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The test was performed according to the following European standards:

EN55022: 2006 + A1: 2007

EN61000-3-2: 2006

EN61000-3-3: 1995 + A1: 2001 + A2: 2005

EN55024: 1998 + A1: 2001 + A2: 2003

IEC61000-4-2: 1995 + A1: 1998 + A2: 2000;

IEC61000-4-3: 2006; IEC61000-4-4: 2004;

IEC61000-4-5: 2005; IEC 61000-4-6: 2003 + A1: 2004 + A2:2006;

IEC61000-4-8: 1993 + A1: 2000; IEC6100-4-11: 2004

EN 62311: 2008

EN 301 489-1 V1.8.1:2008; EN 301 489-17 V3.1.1: 2009

EN 300 328 V1.7.1 (2006)

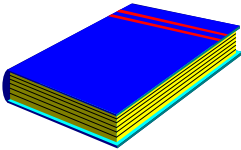
EN 60950-1: 2006

About Your Notebook Computer



Congratulation for having purchased your new Professional Multimedia Notebook. This notebook incorporates the newest features to serve all your computing needs.

About Your User Guide



Welcome to your Professional Multimedia Notebook User Guide. This manual introduces you to the basic concepts of your new computer.

This manual is divided into eight chapters.

- Chapter 1 Introduction
- Chapter 2 Getting Started
- Chapter 3 Using Your Notebook Computer
- Chapter 4 Connecting External devices
- Chapter 5 System BIOS Setup
- Chapter 6 Care and Maintenance

Appendix A System Specifications

Table of Contents

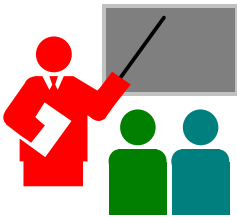
ABOUT YOUR NOTEBOOK COMPUTER.....	13
ABOUT YOUR USER GUIDE.....	14
1 INTRODUCTION.....	19
1.1 FEATURE HIGHLIGHT	20
1.2 UNPACKING THE COMPUTER.....	22
1.3 THE INSIDE OF THE NOTEBOOK.....	23
<i>Notebook Status Icons</i>	26
<i>The Function of Easy Sensor Bar</i>	27
1.4 THE REAR SIDE OF THE NOTEBOOK	29
1.5 THE LEFT SIDE OF THE NOTEBOOK	30
1.6 THE RIGHT SIDE OF THE NOTEBOOK	31
1.7 THE UNDERSIDE OF THE NOTEBOOK.....	33
1.8 NOTEBOOK ACCESSORIES.....	35
2 GETTING STARTED	37
2.1 USING THE BATTERY PACK.....	38
<i>Extending Battery Life</i>	40
2.2 CONNECTING THE AC POWER SOURCE.....	41
2.3 STARTING YOUR COMPUTER	42
2.4 ADJUSTING THE DISPLAY CONTROLS.....	43
2.5 INSTALLING THE NOTEBOOK DEVICE DRIVERS	43
<i>Installing Windows 7 from Optical Disk Drive</i>	44
<i>driver installation note:</i>	44
<i>Installing the Chipset Driver</i>	44
<i>Installing the VGA Device Driver</i>	45
<i>Installing the Audio Device Driver</i>	47
<i>Installing The IRST Driver</i>	48

	<i>Installing the Modem Device Driver (optional)</i>	48
	<i>Installing Touch Pad Device Driver</i>	49
	<i>Installing the LAN Device Driver</i>	50
	<i>Installing Hotkey Driver And Utility</i>	50
	<i>Installing Wireless LAN Device Driver</i>	51
	<i>Installing the Wireless LAN and Bluetooth Driver And Utility</i>	52
	<i>Installing the Camera Utility</i>	54
	<i>Installing the Fingerprint Driver And Utility (optional)</i>	55
	<i>Installing the 3G Card Driver And Utility (optional)</i>	56
	<i>Installing MEI Device Driver</i>	57
	<i>Installing Card reader Device Utility</i>	57
2.6	TURNING OFF YOUR COMPUTER	58
3	USING YOUR NOTEBOOK	59
3.1	STARTING YOUR OPERATING SYSTEM.....	60
3.2	UNDERSTANDING THE KEYBOARD FUNCTIONS	60
	<i>Basic Keyboard Functions</i>	62
	<i>Cursor Control Keys</i>	64
	<i>Screen Control Keys</i>	64
	<i>Windows Hot Keys</i>	65
	<i>Special Function Keys</i>	65
3.3	USING THE TOUCHPAD POINTING DEVICES	67
	<i>Using the Finger Print Device (optional)</i>	67
	<i>Using the Touchpad Pointing Device</i>	67
3.4	CONFIGURING YOUR SCREEN DISPLAY	69
	<i>Possible Display Configurations</i>	70
	<i>Changing the Display Properties under Windows</i>	70
3.5	KNOWING THE POWER SAVING FEATURES.....	71
3.6	WORKING WITH THE BUILT-IN HDD	72
3.7	HOW TO ACCESS THE OPTICAL DRIVE	72
3.8	USING FLASH MEMORY CARDS	74

<i>What is Flash Memory Card?</i>	74
3.9 USING SIM CARD (OPTIONAL)	76
4 CONNECTING TO PERIPHERALS	79
4.1 USING THE USB PORT	80
4.2 USING AN EXTERNAL MONITOR PORT	81
4.3 USING THE HDMI PORT	82
4.4 USING THE EXTERNAL AUDIO SYSTEM	83
4.5 USING THE LAN PORT	85
4.6 USING THE MODEM PORT (OPTIONAL)	86
4.7 USING THE WIRELESS LAN	87
5 CUSTOMIZING YOUR NOTEBOOK	89
5.1 RUNNING THE BIOS SETUP PROGRAM.....	90
5.2 USING THE MAIN MENU SETUP	92
5.2.1 <i>Internal Optical Drive Sub-Menu</i>	94
5.2.2 <i>Internal HDD Sub-Menu</i>	95
5.2.3 <i>External SATA Sub-Menu</i>	96
5.3 USING THE ADVANCED CMOS SETUP	97
5.4 SECURITY MENU SETUP.....	98
5.5 USING THE BOOT SETUP	100
5.6 HOW TO EXIT THE SETUP PROGRAM	101
6 CARING FOR YOUR NOTEBOOK	103
6.1 IMPORTANT SAFETY INSTRUCTIONS	104
6.2 CLEANING YOUR COMPUTER.....	106
6.3 MAINTAINING THE LCD QUALITY	106
6.4 MAINTAINING YOUR HARD DISK.....	107
6.5 BATTERY CARE GUIDELINES	108
6.6 WHEN YOU TRAVEL	109
APPENDIX A SYSTEM SPECIFICATION.....	111

<i>Processor Unit</i>	112
<i>System Memory</i>	112
<i>LCD Display</i>	112
<i>VGA System</i>	112
<i>Storage</i>	113
<i>Audio System</i>	113
<i>Touchpad</i>	113
<i>Keyboard</i>	113
<i>Flash BIOS</i>	114
<i>I/O Ports</i>	114
<i>WebCam</i>	114
<i>Wireless devices</i>	114
<i>AC/DC Power Supply Adapter</i>	114
<i>Battery</i>	114
<i>Weight and Dimension</i>	115

1 Introduction



Your Notebook PC is a fully Windows compatible portable personal computer. With the latest features in mobile computing and multimedia technology, this notebook makes a natural traveling companion. With leap of technology and compact, your Notebook PC runs on a whole wide range of general business, personal productivity, entertainment, and professional applications.

Your Notebook PC makes an ideal choice for use in the office, the schoolroom, at home, on the road and all other occasions.

1.1 Feature Highlight

Before we go to identify each part of your Notebook PC, we will first introduce you to other notable features of your computer.

Processing Unit

- Your notebook runs on Intel® Arrandale Processor that is integrated with up to 3MB L3 Cache, respectively. Check with your dealer on the CPU type and speed.
- Fully compatible with an entire library of PC software based on operating systems such as Windows 7.

Memory

This notebook provides two memory slots for installing DDR3 SDRAM 204-pin SODIMM modules up to 8GB using 512MB, 1024MB or 2048MB DDR SDRAM modules.

Wide Screen LCD Display

Provides extraordinary 14" 1366 x 768 (16:9) wide screen LCD display for you to watch DVD movie.

Wireless LAN

IEEE 802.11b/g/n, Half Mini-PCIE card or USB Interface

Bluetooth (Option)

Provides Bluetooth function with USB Interface.

HSPDA 3.5G (Optional)

Provides greatly expand transfer capacity for data, audio and video transmission. It is always working with SIM card.

Webcam

Provides Webcam function with 1.3M pixels.

Graphic System

Provides blazing graphics controller embedded with Arrandale CPU or with ATI Radeon HD5430 DDR3 up to 1GB graphic engine.

Optical Disk Drive

Provides DVD/CD-RW Combo, DVD Super-Multi or Blu-ray (option) optical disk drive.

USB 2.0

Provides three USB2.0 ports (two USB2.0 ports and one ESATA/USB2.0 port) for I/O data transmission.

Audio System

Compliant with Intel HD Audio (Azalia 2 channels)

PCI Local Bus Architecture

32-bit PCI Enhanced IDE optimizes the data transfer between the CPU and SATA hard disk drives. Support ultra DMA ATA-150 PIO Mode up to PIO Mode 4, bus mastering for LBA Scheme.

Serial ATA (SATA) Controller

Supports data transfer rates of up to 3.0 Gb/s (300MB/s)

Flash BIOS

Flash BIOS allows you to easily upgrade the System BIOS using the Intel Flash utility program.

Power and System Management

- Integrated SMM (System Management Mode) on system chipset that shuts down components not in use to reduce power consumption. To execute power management, you can set up the parameter in Power Options properties by pointing your mouse to Control Panel of Windows.
- Closing the Notebook computer (lowering the cover) allows you to suspend the system operation instantly and resume at the press of the power button or by opening the LCD panel.
- System Password for User and Supervisor included on the BIOS SETUP Program to protect unauthorized use of your computer.

1.2 Unpacking the Computer

Your computer comes securely packaged in a sturdy cardboard shipping carton. Upon receiving your computer, open the carton and carefully remove the contents. The shipping carton should also contain the following items:

- The Notebook Computer
- An AC Adapter and AC Power Cord
- Li-Ion Battery Pack
- DVD with Driver Utility and User Guide
- Quick Setup Manual

Carefully inspect each component to make sure that nothing is missing and/or damaged. If any of these items is missing or damaged, notify your dealer immediately. Be sure to save the shipping materials and the carton in case you need to ship the computer or if you plan to store the computer away sometime in the future.

1.3 The Inside of the Notebook

The notebook computer is compact with features on every side. First, look at the inside of the system. The following sections describe inside features.



- | | |
|----------------------------|---------------------------------|
| 1. Webcam | 2. Color Widescreen LCD Display |
| 3. Power On/Resume Button | 4. LED Indicators |
| 5. Integrated Microphone | 6. Easy Sensors |
| 7. Keyboard | 8. Touchpad Pointing Device |
| 9. Finger Print (optional) | |

- Webcam

The Webcam is 1.3M pixels. It can be used as a communication device that transmits instant image through network for conference.
- Color Widescreen LCD Display

The notebook computer comes with a color LCD that you can adjust for a comfortable viewing position. The LCD is 14" TFT color LCD with 1366x768 (Wide XGA with ratio 16:9) resolution panels. The features of the Color LCD Display are summarized as follows:

 - ▶ TFT color LCD with Widescreen 14" 1366x768 (Wide XGA) resolution panels.
 - ▶ Capable of displaying 16M colors (32-bit true color) on either size panels.
 - ▶ LCD display control hot-keys allows you to adjust the brightness of the LCD.
 - ▶ Simultaneous display capability for LCD and external desktop computer monitor.
- Power On/Resume Button

Switches the computer power on and off, or resumes whenever it is in Suspend mode.
- LED Indicators

Keeps you informed of your notebook computer's current power status and operating status. Description of the status icons appears in the latter part of this section.
- Integrated Microphone

Integrated mono microphone for instant voice recording and simultaneous voice conversation.

- Easy Sensors

There are five easy sensors instant and easy of Internet, E-mail, R/F accessing, Volume Down and Volume Up adjustment. Description of the easy sensors bar appears in the latter part of this section.

- Keyboard

- ▶ Standard QWERTY-key layout and full-sized 87 keys keyboard with Windows system hot-keys, 9 hot keys, inverted "T" cursor arrow keys, and separate page screen control keys.
- ▶ Wide extra space below the keyboard panel for your wrist or palm to sit-on comfortably during typing.

- Touchpad Pointing Device

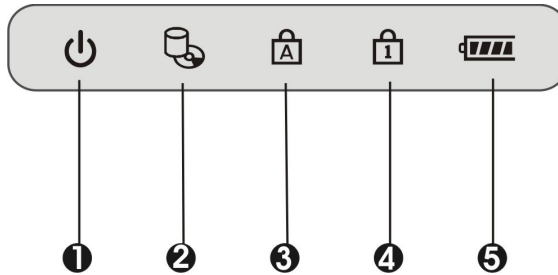
Microsoft mouse compatible with two Touchpad click buttons. The two select buttons located at each side support tapping selection and dragging functions. These buttons work like a standard computer mouse. Simply move your fingertip over the touchpad to control the position of the cursor. Use the selection buttons below the touchpad to select menu items.

- Finger Print Device (optional)

Lets you enter into the system or resume from the Suspend mode by putting your finger print on the device.

NOTEBOOK STATUS ICONS

The Status LED Panel keeps you informed of the notebook's current power and operating status. Each LED is marked with an icon to designate the system status.

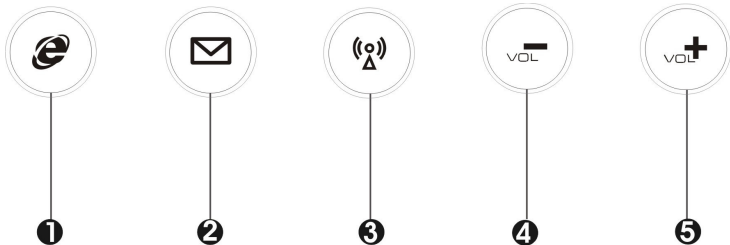


- | | |
|-------------------------|-----------------|
| 1. Power Indicator | 2. Drive Access |
| 3. Caps Lock | 4. Num Lock |
| 5. Battery Charging LED | |

- Power Indicator
Lets you know that system is turned on.
 - ➔ Lights on when the system is powered on.
 - ➔ Lights blinking when the system is in Standby mode.
- Drive Access
When LED lights on indicates that the system is accessing the Hard Disk or Optical Disk Drive.
- Caps Lock
When LED lights on indicates that the Caps Lock key on the keyboard is activated. When activated, all alphabet keys typed in will be in uppercase or capital letters.

- Num Lock
When LED lights on indicates that the Num Lock key on the keyboard is activated. When activated, the embedded numeric keypad will be enabled.
- Battery Charging LED
Lights to indicate battery charging status.
 - ▶ Lights on indicates that the battery is in charging.
 - ▶ Lights blinking when the battery is low.
 - ▶ Lights off indicates the battery is fully charged.

THE FUNCTION OF EASY SENSOR BAR



1. Internet Browser Access Sensor
2. Outlook Mail Access Sensor
3. RF on/off Sensor
4. Volume Down Sensor
5. Volume Up Sensor

- Internet Browser Access Sensor
Press this sensor to open the Internet Explorer directly. This technology is designed specifically for providing a very convenient way in connecting Internet only by pressing Internet Browser Access Sensor as shown in the illustration.

- Outlook Mail Access Sensor
This is the most convenient way to access the outlook utility just by pressing this sensor. You can simplify several procedures in entering into Outlook program.
- RF on/off Sensor
Press this sensor to activate/deactivate the WLAN/Bluetooth/3.5G function.
- Volume Down Sensor
Decreases the audio volume incrementally.
- Volume Up Sensor
Increases the audio volume incrementally.

1.4 The Rear Side of the Notebook

The system ports at the back of your notebook computer can connect various devices. Each port is described as followings.



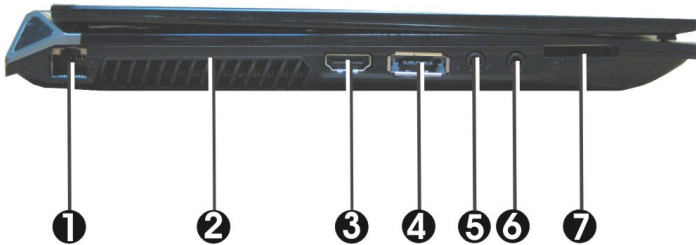
1. VGA Port

2. DC Power Port

- **VGA Port**
Lets you attach an external monitor or projector for bigger display. You can run the LCD display and the external monitor simultaneously or switch it to monitor only using the **<Fn>+<F3>** display hot-key.
- **DC Power Port**
Lets you connect the AC power adapter in supplying continuous power to your notebook and recharging the battery.

1.5 The Left Side of the Notebook

The left side of your notebook computer provides the features shown in the following figure.



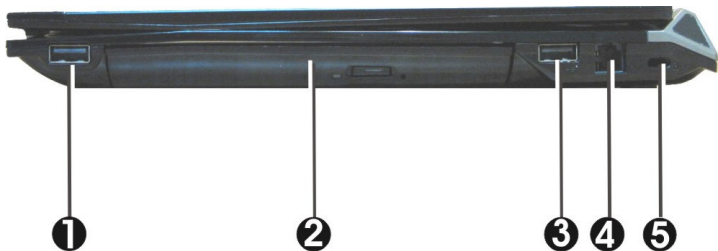
- | | |
|----------------------------|-----------------------------|
| 1. LAN Port | 2. Air-Outlet Vent |
| 3. HDMI Port | 4. ESATA/USB 2.0 combo Port |
| 5. Microphone Jack | 6. Headphone Jack |
| 7. 4 in 1 card reader slot | |

- **LAN Port**
An internal 10Base-T/100Base-TX and 1G Ethernet LAN module connects your computer to other computers/networks through a local area network (LAN).
- **Air-Outlet Vent**
Allow the heat out of your notebook and keeps it within operating temperature.
- **HDMI Port**
Lets you connect to the HDMI peripheral device for digital audio/video transmitting.

- **ESATA/USB 2.0 Port**
The ESATA/Universal Serial Bus (USB) port allows you to connect External SATA hard drive or USB 2.0-compliant devices (for example, printers, scanners and so on) to your notebook computer.
- **Microphone Jack**
Allows you to connect an external microphone for monophonic sound recording directly into your notebook computer.
- **Headphone Jack**
Lets you plug in a stereo headphone, powered speakers, or earphone set with 1/8 inch phono plug for personal listening.
- **4 in 1 card reader slot**
The card slot supports SD, MMC, MS (Memory Stick) and MS_Pro flash memory card format. You can use either of the 4 types flash memory cards for extra storage media. Please pay attention to correct direction when you insert the flash memory card. For more detail of flash card, you can refer to Chapter 3.8.

1.6 The Right Side of the Notebook


The right side of the notebook computer offers the features shown in the following figure.



1. USB 2.0 Port
2. Optical Disk Drive
3. USB 2.0 Port
4. Modem Port (optional)
5. Kensington Lock Hole

Right Side Features

- **USB 2.0 Ports**
The Universal Serial Bus (USB) port allows you to connect USB 2.0-compliant devices (for example, printers, scanners and so on) to your notebook computer.
- **Optical Disk Drive**
Allows you to load and start programs from a compact disc (CD) or a digital video disc (DVD) and play conventional audio CDs. It also can make CD/DVD by using CD-R/RW or DVD-R/RW. (Burning DVD is only possible with models equipped with a DVD burner)
- **Modem Port (optional)**
A 56K internal fax/data modem is installed. It keeps you connected to the outside world through phone line.

 ***For electrical safety concerns, only use telephone cables rated 26AWG or higher.***

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:

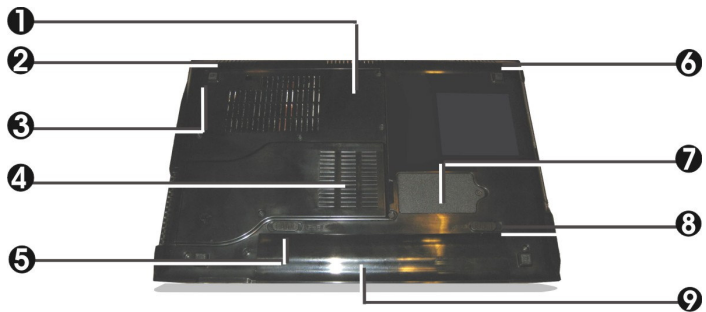
- 1. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.***
- 2. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.***
- 3. Do not use the telephone to report a gas leak in the vicinity of the leak.***

4. *Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.*

- Kensington Lock Hole
Lets you attach a Kensington security system or a compatible lock to physically secure your notebook computer.

1.7 The Underside of the Notebook

The bottom of the notebook computer offers the following features.



- | | |
|--------------------------------------|----------------------------|
| 1. Memory Compartment | 2. Built-in Stereo Speaker |
| 3. Wireless LAN Compartment | 4. Hard Disk Compartment |
| 5. Battery Lock Latch | 6. Built-in Stereo Speaker |
| 7. 3.5G HSPDA Compartment (optional) | 8. Battery Release Latch |
| 9. Battery Pack | |

Bottom of the System

- Memory Compartment
There are two memory slots.

- **Built-in Stereo Speakers**
Integrated left and right mini stereo speakers for audio output for your multimedia presentations or listening pleasure.
- **Wireless LAN Compartment**
This compartment is for installing Wireless LAN module to enable the Wireless LAN function. We strongly suggest that Wireless LAN module should be installed only by certified dealer.
- **Hard Disk Compartment**
Open this cover of this compartment to replace with other Hard Disk Drive.
- **Battery Lock Latch**
Push the latch to the lock side to lock and secure the battery, or push the latch to the unlock side to unlock the battery pack.
- **3.5G HSPDA Compartment (optional)**
This compartment lets you install 3.5G HSDPA. For 3.5G HSDPA (High-Speed Downlink Packet Access), it is a 3.5G (third generation) mobile telephony communications protocol in the High-Speed Packet Access (HSPA) family, which allows networks based on Universal Mobile Telecommunications System (UMTS) to have higher data transfer speeds and capacity.
- **Battery Release Latch**
To remove the battery, first locate the Battery Lock Latch at the left side with unlock status, then push the Battery Release Latch to the right end to remove the battery pack.
- **Battery Pack**
Equipped with a choice of Lithium-Ion (Li-Ion) battery pack.

1.8 Notebook Accessories

AC Adapter

The AC Adapter supplies external power to your notebook computer and charges the internal battery pack simultaneously. The AC adapter has an auto-switching design that can connect to any 100VAC ~ 240VAC power outlets. You just change the power cord if you are going to use your notebook in other countries with different connector outlets.

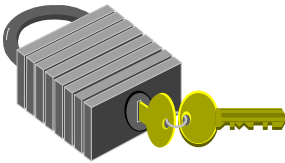
When you connect the AC adapter, it charges the battery whether or not the notebook computer is powered on.

Battery Pack

Aside from the AC adapter, your computer can also be powered through the internal battery pack. The battery pack uses rechargeable Lithium-Ion (Li-Ion) battery cells that provide long computing hours when fully charged and power management enabled. You should always leave the battery inside your computer even when using the AC adapter as it also acts as a back-up power supply in case power from the AC adapter is cut off. It is also very important to have the battery pack always charged to prevent battery cell degradation.

This page is intended to be blank.

2 Getting Started



Your Notebook is designed and pre-configured for easy setup and use. This chapter describes the installation steps you should follow to get the notebook up and running as quickly as possible.

2.1 Using the Battery Pack

The notebook is designed to operate with one of the following power sources:


- With AC power using the AC adapter connected to an electrical outlet.
- With a 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.

Before you use your notebook computer, install and recharge the battery pack first. The rechargeable Li-Ion battery pack allows you to operate the notebook without an external power source. When you connect the AC power adapter, the battery immediately starts to recharge. Normal battery charging time is 2 hours for Lithium-Ion (Li-Ion) battery pack when your computer is turned off.

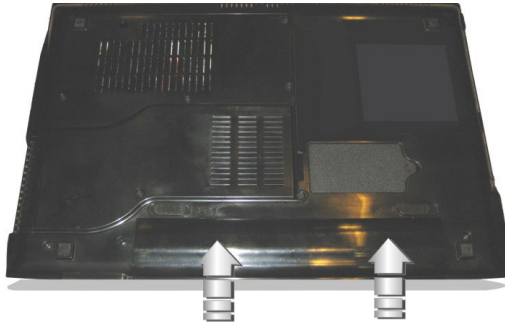
For maximum battery performance, fully discharge the battery first before recharging it when you start to use it first time. To do so, unplug the AC adapter, turn off power management features (through Setup and Windows), and turn on the system. Once the battery is fully discharged, plug in the AC adapter and recharge the battery.

If you do not discharge the battery completely, it fails to accept a full recharge.

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

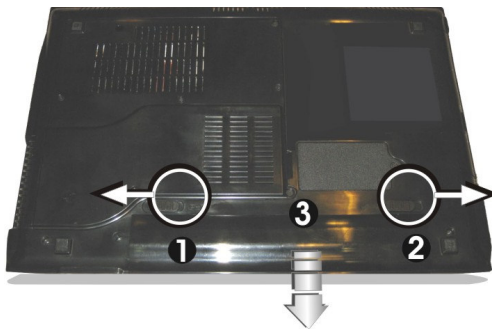
Installing the Battery Pack

This notebook provides the most convenient way to install the battery pack into your computer. With the extended nose directed toward the compartment, insert and push the battery pack.



Removing the Battery Pack

To remove the battery pack, slide the lock latch to the end of left side to unlock the battery lock latch (1), and slide the battery release latch to the end of right side to release the battery latch (2), then take out the battery pack (3).



Replacing the Battery Pack

When your notebook estimates that the battery only has enough charge to continue for a few minutes, it will pop-up a warning message to alert you for recharging the battery. If you are consuming a lot of power by using the audio system, the hard disk drive, and optical disk drive, your notebook 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, or suspending your notebook to disk. If you do not do so, the notebook 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 the notebook until you have 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".

IS *For Windows 7, the suspend mode (Hibernate or Standby) can be chosen by clicking right mouse-button at Windows Desktop; when pop-up box appears, choose "Personalize" option in this box and select "Screen Saver" to appear "Screen Saver Setting" box; then click "Change Power Setting" and select "Balanced" to setup this mode.*

IS *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.*

EXTENDING BATTERY LIFE

It is important to be aware of the simple things for extending the life of the system main battery while you are on the road. You should find a working place where the external lighting is not too bright and turn down the screen brightness. Also, you can choose the available mode on the Power Management item of the Control Panel in Windows.

2.2 Connecting the AC Power Source

The AC adapter provides external power source to your 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 100VAC ~ 240VAC power outlets.

To connect the power adapter:

1. Plug the AC power cord into the power socket of the AC power adapter.
2. Plug the other end of the AC power cord to a live AC wall outlet.



3. Plug the connector of the AC adapter to the DC-IN port found at the rear side of the computer.

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.*

- *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).*

2.3 Starting Your Computer

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



After a few seconds, the computer's display will turn on and your 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.

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 computer optimal operation. Refer to Chapter 5 on running the SETUP program later.

After the test has completed, your 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.

2.4 Adjusting the Display Controls

The LCD brightness adjustment is controlled by <Fn> +<F8> and <Fn> + <F9> keys respectively. You need to press these hot-key controls after powering on your notebook to suit your viewing pleasure.

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.

2.5 Installing the Notebook Device Drivers


If you 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 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:

INSTALLING WINDOWS 7 FROM OPTICAL DISK DRIVE

To install Windows 7 directly from your optical disk drive, please go to **Boot** menu of **BIOS** setup menu. Use arrow key to select "DVD/CD-ROM Drive", then use "+" or "-" to move it to the top. Go to **Exit** menu and select "**Exit Saving Changes**". Accordingly, insert the Windows 7 installation DVD into optical disk drive with following the instructions on the screen to finish the installation.

DRIVER INSTALLATION NOTE:

 *Please be notified that whenever you install the driver utility, it should be installed the **CHIPSET Driver** first.*

 *Please install **Hotkey driver** and **Utility** first then enable **Wi-Fi** devices before installing **Wi-Fi** devices.*

INSTALLING THE CHIPSET DRIVER

Your notebook computer uses the advanced chipset. Installing the driver to enhance the stability and performance.

Installing Chipset device driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as:
"E:\PCA46AV\Win7\x86\Chipset\Setup.exe".
3. When computer appears **User Account Control** window, click "**Yes**" for

accessing the computer.

4. Click **"Next"** to install this driver when screen displays this command.
5. Click **"Yes"** to accept the License Agreement.
6. Click **"Next"** to continue the following step.
7. Click **"Next"** to complete it.
8. Tick the option **"Yes, I want to restart this computer now."**, and press **"Finish"** to restart your system.

INSTALLING THE VGA DEVICE DRIVER

Following is the procedure for installing the Intel Video Accelerator 3D Adapter VGA driver to your computer:

Installing Intel VGA device driver for Windows 7 x86 (for PCA46 only)

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as:
"E:\PCA46AV\Win7\x86\VGA\Intel\Setup.exe".
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer
4. Click **"Next"** to install this driver when screen displays this command.
5. Click **"Yes"** to accept the License Agreement.
6. Click **"Next"** to continue the following step.
7. Click **"Next"** to complete it.
8. Tick the option **"Yes, I want to restart this computer now."**, and press **"Finish"** to restart your system.

Installing ATI Switchable Graphics VGA and Intel IIPS_HDMI Audio drivers for Windows 7 x86 (for PCA47 only)

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
**"E:\PCA46AV\Win7\x86\VGA\ATI SG\ATI-Intel
VGA\Setup.exe"**.
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer.
4. Click **"Next"** to install this driver when screen displays this command.
5. Click **"Install"** to install ATI software components.
6. Select **"Express"** then click **"Next"** to continue install driver.
7. Click **"Accept"** to accept the License Agreement.
8. Click **"Yes"** to continue the following step.
9. Click **"Install this driver software anyway"** to install device software.
10. When computer appears **Windows Security** window, click **"Install"** to continue the following step.
11. Click **"Install this driver software anyway"** to install device software.
12. Click **"Finish"** to complete it.
13. Press **"Yes"** to restart your system.
14. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
15. Click the **Browse** button and specify the directory as.
**"E:\PCA46AV\Win7\x86\VGA\ATI SG\Intel IIPS_HDMI
Audio\Setup_IIPS-HDMI Audio.bat"**.

16. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer.
17. Click **"Yes"** to continue the following step.
18. Click **"Next"** to install this driver when screen displays this command.
19. Click **"Yes"** to accept the License Agreement.
20. Click **"Next"** to install device software.
21. Click **"Next"** to continue the following setup.
22. Click **"Finish"** to complete it.

INSTALLING THE AUDIO DEVICE DRIVER

Your notebook computer uses the Realtek Audio codec.

Installing Audio device driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\Audio\Setup.exe"
where the audio driver is located.
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer
4. Click **"Next"** to continue the following steps.
5. Tick the option **"Yes, I want to restart my computer now."**, and press **"Finish"** to restart your system.

INSTALLING THE IRST DRIVER

Please follow the procedures below for installing the Intel IRST driver:

Installing IRST driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click **Browse** button and specify the directory as
"E:\PCA46AV\Win7\x86\IRST\setup.exe"
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer
4. Click **"Next"** continuously to install this driver when screen displays this command.
5. Click **"Yes"** to accept the License Agreement.
6. Click **"Next"** to continue the following step.
7. Click **"Next"** again.
8. Tick the option **"Yes, I want to restart my computer now."**, and press **"Finish"** to restart your system.
9. Press **"Restart Now"** to restart your system again.

INSTALLING THE MODEM DEVICE DRIVER (OPTIONAL)

Please follow the procedures below for installing the Castlenet Azalia Modem driver:

Installing Modem driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click **Browse** button and navigate to the directory as

"E:\PCA46AV\Win7\x86\Modem\setup.exe"

3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer
4. Click "**OK**" to complete it.

INSTALLING TOUCH PAD DEVICE DRIVER

Installing ALPS - Touch Pad driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\TouchPad\Alps\Setup.exe".
3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer
4. Click "**Next**" to execute the setup program. The **Welcome** box appears
5. Select "**I accept this agreement**" and click "**Next**" to continue the installation.
6. Click "**Finish**" and then press "**Restart Now**" to restart your system.

Installing Synapitcs - Touch Pad driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\TouchPad\Synapitcs\Setup.exe".
3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer
4. Click "**Next**" to execute the setup program. The **Welcome** box appears
5. Select "**I accept this agreement**" and click "**Next**" to continue the

installation.

6. Click "**Finish**" and then press "**Restart Now**" to restart your system.

INSTALLING THE LAN DEVICE DRIVER

Please follow the procedures below for installing the Realtek LAN driver:

Installing LAN driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\LAN\setup.exe"
3. When screen appears **User Account Control** window, click "**Yes**" for processing the further step.
4. Click "**Next**" to continue the following steps.
5. Click "**Install**" to continue the following steps.
6. Click "**OK**" to continue the following steps.
7. Click "**Finish**" to complete the installation.

INSTALLING HOTKEY DRIVER AND UTILITY

Please follow the procedures below for installing the Hotkey driver and Utility:

Installing Hotkey driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\Hotkey\Driver\Setup.exe"
3. When computer appears **User Account Control** window, click "**Yes**" for

processing the further step.

4. Click **"Next"** to continue the following steps.
5. Click **"Finish"** to complete it.

Installing Hotkey utility for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\Hotkey\Utility\Setup.exe"
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer.
4. Click **"Next"** to continue the following steps.
5. Click **"Install"** to implement setup program to install the utility.
6. Tick the option **"Yes, restart the computer now."**, and press **"Finish"** to restart your system.

INSTALLING WIRELESS LAN DEVICE DRIVER

Please follow the procedures below for installing the AW-NE762H Wireless LAN Adapter driver:

Installing Wireless LAN device driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
 2. Click **Browse** button and specify the directory as
"E:\PCA46AV\Win7\x86\WLAN\AW-NE762H\Setup.exe"
 3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer.
 4. Click **"Install"** to implement the setup program to install this driver.
-

5. Click "**Finish**" to complete it.

INSTALLING THE WIRELESS LAN AND BLUETOOTH DRIVER AND UTILITY

Please follow the procedures below for installing the Azurewave Bluetooth and WLAN driver:

Installing Bluetooth and WLAN driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as "**E:\PCA46AV\Win7\x86\WLAN_BT\AW_NB037H\Setup.exe**".
3. When screen appears the **User Account Control** window, click "**Yes**" for processing the further step.
4. Choose setup language and click "**Next**" to continue the following steps.
5. Click "**Next**" to continue the following steps.
6. Choose "**I accept the terms of the license agreement**" to implement setup program to install this driver.
7. Click "**Next**" to continue the following steps.
8. Click "**Browse**" to set target folder than click "**Next**" to continue the following steps.
9. Click "**OK**" to implement install.
10. Tick the option "**Yes, restart the computer now.**", and press "**Finish**" to restart your system.

Please follow the procedures below for installing the CastleNet Bluetooth and WLAN driver:

Installing Bluetooth driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as **"E:\PCA46AV\Win7\x86\WLAN_BT\RT3090BC4\Bluetooth\BluetoothSetup.exe"**.
3. When screen appears the **User Account Control** window, click **"Yes"** for processing the further step.
4. Click **"Next"** to continue the following steps.
5. Choose **"I accept the terms in the license agreement"** and click **"Next"**.
6. Click **"Browse"** to set target folder than click **"Next"** to continue the following steps.
7. Click **"Next"** to continue the following steps.
8. Click **"Install"** to implement setup program to install this driver.
9. Click **"Finish"** to complete it.

Please follow the procedures below for installing the CastleNet Wireless LAN Adapter driver:

Installing WLAN driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as **"E:\PCA46AV\Win7\x86\WLAN_BT\RT3090BC4\WLAN\Setup.exe"**.
3. When screen appears the **User Account Control** window, click **"Yes"** for processing the further step.

4. Choose "**I accept the terms in the license agreement**" and click "**Next**".
5. Click "**Install**" to implement setup program to install this driver.
6. Click "**Finish**" to complete it.

INSTALLING THE CAMERA UTILITY

Please follow the procedures below for installing the Camera Utility.

Installing Bison Camera utility for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as "**E:\PCA46AV\Win7\x86\CameraUtility\Bison\setup.exe**".
3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer.
4. Choose Setup Language and then click "**Next**" to continue the following steps.
5. Click "**Next**" again to continue the following steps.
6. Click "**Finish**" to complete it.

Installing AzureWave Camera utility for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as "**E:\PCA46AV\Win7\x86\CameraUtility\AzureWave\setup.exe**".
3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer.

4. Click "**Next**" twice to continue the following steps.
5. Click "**Install**" to implement setup program to install this utility.
6. Click "**Finish**" to complete it.

INSTALLING THE FINGERPRINT DRIVER AND UTILITY (OPTIONAL)

Please follow the procedures below for installing the Fingerprint Driver and Utility.

Installing Fingerprint driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as
"E:\PCA46AV\Win7\x86\Fingerprint\Driver\ValiditySensorsSetup.exe"
3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer.
4. After the window is disappeared, the installation is finish.

Installing Fingerprint utility for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as
"E:\PCA46AV\Win7\x86\Fingerprint\Utility\Setup.exe"
3. When computer appears **User Account Control** window, click "**Yes**" for accessing the computer.
4. Click "**Next**" to continue the following steps.

5. Choose "**I accept the terms in the license agreement**" and click "**Next**".
6. Click "**Next**" to continue the following steps.
7. Click "**Install**" to implement setup program to install this utility.
8. Click "**Finish**" and then press "**Yes**" to restart your system.

INSTALLING THE 3G CARD DRIVER AND UTILITY (OPTIONAL)

Please follow the procedures below for installing the 3G Card driver and utility:

Installing EM770 driver and utility for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as "**E:\PCA46AV\Win7\x86\3G\Huawei\Setup.exe**".
3. When screen appears the **User Account Control** window, click "**Yes**" for processing the further step.
4. Choose Installer Language and then click "**OK**" to continue the following steps.
5. Click "**Next**" to continue the following steps.
6. Click "**I Agree**" to continue the following steps.
7. Click "**Next**" to continue the following steps.
8. Click "**Install**" to implement setup program to install this driver and utility.
9. Click "**Finish**" to complete it.

INSTALLING MEI DEVICE DRIVER

Please follow the procedures below for installing Intel MEI Driver

Installing MEI device driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\MEI\Setup.exe"
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer.
4. Click **"Next"** to continue the following steps.
5. Click **"Yes"** to accept the License Agreement.
6. Click **"Next"** to continue the following steps.
7. Click **"Next"** again.
8. Click **"Finish"** to complete the setup process.

INSTALLING CARD READER DEVICE UTILITY

Please follow the procedures below for installing the Card Reader Utility

Installing Card Reader device driver for Windows 7 x86

1. Click the **Start** button, then point to **Run**. The **Run** dialog box appears.
2. Click the **Browse** button and specify the directory as.
"E:\PCA46AV\Win7\x86\CardReader\setup.exe"
3. When computer appears **User Account Control** window, click **"Yes"** for accessing the computer.
4. Click **"Finish"** to complete the setup process.

2.6 Turning off Your Computer

If you are not going to use the computer for a while, it is best to turn off the power of the computer for longer use. Before turning off the power, you need to close first all application programs and shutdown the operating system.

After turning off the 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 the computer to cool off. Closing the panel will force the heat up against the LCD screen, which may degrade the LCD. More importantly, never close the LCD panel for a long period of time when computer is on and power saving features are disabled.

3 Using Your Notebook



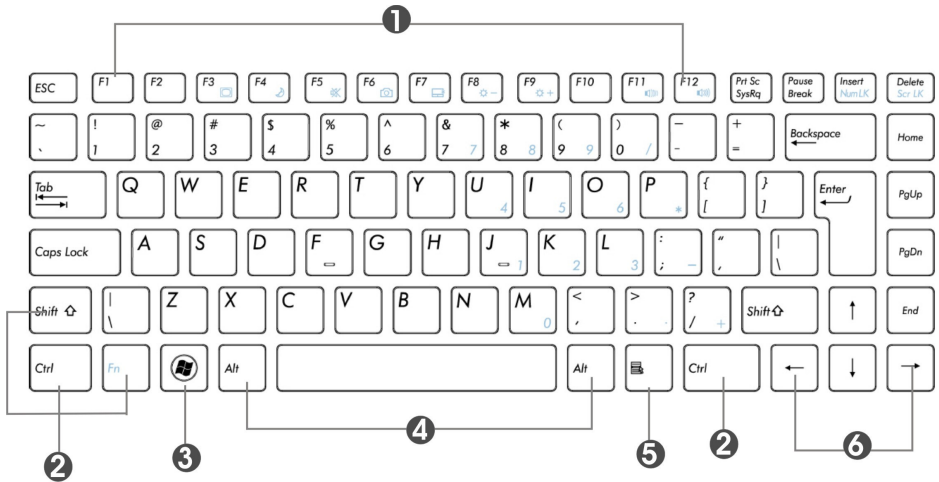
This chapter describes how to operate the standard built-in features of the notebook that you normally would use in your day-to-day computer work. If you are new to computers and to your operating system, you also need to read the manual for the operating system on how to work with your computer. It is very important to familiarize yourself well with the operating system. The succeeding chapters not only guide you to go beyond the basics, but also try other exciting features.

3.1 Starting Your Operating System

The operating system is the software foundation for your computer. It is the platform for all your software application programs to run on. The computer comes with an operating system pre-installed and needs only to be setup and configured during initial use.

3.2 Understanding the Keyboard Functions

Your notebook computer is equipped with an 87 keys keyboard that provides all the functionality of a full-sized 101 or 102-key keyboard. Aside from the standard typewriter-layout keyboard of your computer, there are a number of extra features and function controls on the built-in keyboard including Windows system hot keys.



- | | |
|----------------------------------|-------------------------------|
| 1. Function Keys | 2. Control Keys |
| 3. Windows Start Menu Key | 4. Alternate Keys |
| 5. Windows Shortcut Key | 6. Cursor Control Keys |

Keyboard

Key features and operations are described below:

- Function Keys**
 Function keys are application-driven, like **F1** through **F12** can be found on the keyboard. These keys work together with the Fn key to activate special functions. Some keys (printed in amber on keypad) are preprogrammed with dual functions.
- Control keys** — **Ctrl**, **Alt**, **Fn**, and **Shift** are controls used in conjunction with other keys to change their functions. To use control keys, press and hold the control key while pressing another key. For example, "Press **Ctrl-C**" means to hold down the **Ctrl** key and type the letter **C**. Key combinations work especially to the application you are running.

- **Windows keys**

Use the following two keys to facilitate your work:

- Start Menu key
Displays the Start menu.
- Shortcut/Application key
Provides quick access to shortcut menus. This key acts like a right mouse button.




- **Cursor Control keys**





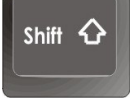





Cursor control keys let you position the cursor on the screen where you want. In the screen, the cursor is a blinking underline, block, or vertical bar depending on the application. The cursor indicates where the next text typed is inserted.



- **Typewriter keys**

Typewriter keys (also called alphanumeric keys) are used to enter text and characters.





BASIC KEYBOARD FUNCTIONS

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.
	< Ins > key. Known as the Insert key. Press this key to toggle the keyboard data entry from insert to type over mode.



Keypad	Function Description
	<p><PrtScr> key. Known as the Print Screen key. Press this key to map the whole screen to share memory for your specific usage.</p>
	<p><Del> 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.</p>
	<p><Pause> key. Press this key to temporarily halt execution of a command. Pressing any other key to resume execution of a command.</p>
	<p><Backspace> key. Press this key to delete the character to the left of the cursor.</p>
	<p><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.</p>
	<p><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.</p>
	<p><Ctrl> key. Known as the Control key. Used in most application program in combination with other keys to execute a certain command.</p>
	<p><Alt> key. Known as the Alternate key. Used in most application program in combination with other keys to execute a certain command.</p>
	<p><Fn> + <Num Lock> key. Activates the embedded 15-key numeric keypad.</p>
	<p><Caps Lock> key. Used in most application program to always activate uppercase alphabet characters.</p>



Keypad	Function Description
 + 	<Fn> + <Scroll Lock> key. Used in most application program to scroll the screen without having to move the cursor.

CURSOR CONTROL KEYS



Keypad	Function Description
	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.

SCREEN CONTROL KEYS

Keypad	Function Description
	<Home> key. Moves the cursor to the beginning of a screen or line.
	<PgUp> key. Moves the cursor up one screen at a time.


Keypad	Function Description
	<PgDn> key. Moves the cursor down one screen at a time.
	<End> key. Moves the cursor to the end of a screen or line.









WINDOWS HOT KEYS

Keypad	Function Description
	<Start> key. Pulls up the Windows Start menu.
	<Right Click> key. Performs a mouse right-click function for Windows system.

SPECIAL FUNCTION KEYS

The notebook has special system function keys that activate key serving dual functions. When pressed in conjunction with the <Fn> key, these keys set specific system parameters and are sometimes referred to as "hot keys".

Keypad	Function Description
	Switches display within LCD, CRT or HDMI; displays can be LCD, CRT or HDMI; or will be LCD and CRT, LCD and HDMI, or CRT and HDMI simultaneously.

Keypad	Function Description
	Switches the system into Suspend mode.
	To mute or resume the built-in system speaker volume.
	To enable or close the Web Camera function.
	To activate or close the touchpad function.
	Decreases the brightness of LCD display incrementally.
	Increases the brightness of LCD display incrementally.
	Decreases the audio volume of the notebook incrementally.
	Increases the audio volume of the notebook incrementally.

3.3 Using the Touchpad Pointing Devices

Your computer comes with a built-in Touchpad pointing device that is found on the center of the palm-rest surface.

USING THE FINGER PRINT DEVICE (OPTIONAL)

The Finger Print device allows you to enter into the system by putting your finger on the surface of the Finger Print device, to do so the system can recognize your finger print that was pre-installed on the memory when you installed the driver Utility.

You can also choose to enter into the system by keying your password. To execute the alternate way, please just press "**Cancel**" button when the system pop-up the "**finger print identification windows**", then the screen will appear the password dialog box for your password entering.

USING THE TOUCHPAD POINTING DEVICE

The touchpad offers a number of options that let you customize how it functions. To access these options, locate the **Control Panel** and double click on the **Mouse** icon. The options let you control the size and color of the cursor, cursor speed, the accepted double-click speed, and selection button orientation.

The touchpad works a mouse pointing device replacement that is used under Windows-based operating system. You can use the standard Microsoft driver that is compatible with the touchpad device and is normally used under Windows-based operating system. However, if you want to utilize the added features of the touchpad, you may want to try installing its own device driver that comes with added utilities for enhancing the function of the device.




- | | |
|---------------------------|----------------------------|
| 1. Left Selection Button | 2. Finger Print (optional) |
| 3. Right Selection Button | 4. Touchpad |

Touchpad Features

Here how to use the touchpad pointing device:

1. The rectangular surface acts like a miniature duplicate of your display screen. To move the mouse cursor, place the finger lightly on the sensor pad and move in the desired direction. If you reach the end of the pad, lift your finger and place it back down on the other side of the pad.
2. To select an item, click on the item by pressing the left button control or by simply tapping on the surface once. A light, quick tap always works best. To execute an item, click the left button twice or do a quick double tap on the surface.

3. To simulate holding the mouse button down (dragging an icon or selection), use the tap-and-drag gesture. This feels much like a double-click, except that the finger remains on the pad after the second tap: Tap, lift, tap, hold and move. The simulated button remains held as long as the finger remains on the pad.
4. When you press both the Left and Right click button at the same time, the auto Scroll function will be activated.
5. In touchpad you can execute the Screen Rotate, Scroll and Zoom in/out function.

 ***Avoid spilling any liquid on the touchpad surface and always keep the touchpad surface and pointing finger dry from sweat built-up. Also do not expose touchpad to any magnetic source object.***


3.4 Configuring Your Screen Display

Please Refer to Section 5 "Installing the Notebook Device Drivers" of Chapter 2 in this manual for the procedures on how to install the VGA device driver under Windows. After installing the VGA driver, you would then configure the display resolution or screen size to match your LCD display panel. This notebook computer model provides Wide screen 14" 1366x768 (Wide XGA) resolution panels. You would also probably want to set the amount of color output to display sharper images and photos.

POSSIBLE DISPLAY CONFIGURATIONS


The table below shows you the possible display resolution you can set when using either the LCD display or the external monitor (CRT or HDMI):

Display	Possible Resolution	Maximum Colors
Widescreen	1366x768	16 million colors
14" 1366x768	1360x768	16 million colors
WXGA LCD	1280x768	16 million colors
	1280x720	16 million colors
	1280x600	16 million colors
	1024x768	16 million colors
	800x600	16 million colors
CRT or HDMI	Up to 1920x1200	16 million colors

 *You can use the <Fn> + <F3> hot-key to switch the display within LCD only, CRT only or HDMI only; or both LCD and CRT display, LCD and HDMI, or CRT and HDMI simultaneously.*

CHANGING THE DISPLAY PROPERTIES UNDER WINDOWS

To change the display properties of your screen under Windows system, just right-click on the desktop area and select Properties or go to the Control Panel and click on the Display icon. The Display Properties dialog box will appear on your screen. Click on the Settings tab to set your desired configuration. Make sure to follow the configuration table above.

 *If you cannot configure the display properties, change the display driver first as mentioned on Section 5 "Installing the Notebook Device Drivers" of Chapter 2 in this manual. Consult your dealer for the latest Windows VGA driver.*

3.5 Knowing the Power Saving Features

Aside from its superior performance, one of the great features in your notebook computer is the ability to conserve power. Your computer is designed to incorporate intelligent and advanced power management functions that turn off power of most components when system is idle or not in use. This feature not only gives you longer battery life but also cools the systems and components as well.

The definitions of Standby Mode, Hibernation Mode, and Shutdown are depicted as follows:

Standby Mode

Standby Mode is mainly for power saving. When the Standby Mode is activated, your display and hard drive are shut down and all open applications and documents are stored in RAM (Random Access Memory). This allows your notebook to wake up quickly, but a low level of power is required to maintain this suspended state. How quickly your system powers down into Standby mode is up to you by setting proper times in Power Options of Control Panel in Window. While the notebook is in Standby mode, the LED of power indicator flashes. To resume your working again, you can press the power button to return your work to the screen where you left off.

Hibernation Mode

In Hibernation mode, all system devices are powered down and the contents of RAM are stored on your hard drive. Hibernate mode uses less power than Standby mode, but takes a bit longer time to resume. When your notebook goes into hibernation, Windows saves your entire desktop state before


powering down your computer. You don't need to save and close each document before you put your notebook into hibernation. When you press power button again, system will bring your notebook out of hibernation. You'll find your applications and documents open on your desktop exactly as you left them.

Shutdown

All power has been turned off from the notebook. This means that no power including external AC power source and battery power source will be consumed by the notebook.

3.6 Working with the Built-in HDD

Your notebook computer is equipped with a built-in large capacity 2.5 inch hard disk drive where you store and run your computer's operating system and application software programs.

 *If you wish to replace your hard disk, contact your local dealer for more information about upgrading your computer.*

3.7 How to Access the Optical Drive

Your system ships with an optical disk drive installed on the right side of your computer. 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 the computer is turned on. Press the eject button on the door cover of the combo drive. The DVD/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 DVD/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.

⚠ *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 reader.*


4. To close the combo drive, simply push the CD tray inside. The combo drive LED will activate when the disc is detected. Wait until the LED has turned off and then start to read the disc.

How to care the Optical Disks (CDs, DVDs, etc.)

When you handle CDs and DVDs, pay attention to the following guidelines:

- Always pick up the disk by its edges.
- Avoid scratching or soiling either side of the disk.
- Do not write with the hard ball-point pen or apply labels on either side of the disk.
- Keep the disk away from direct sunlight or high temperatures.
- Clean fingerprints or dust from the disk by wiping it with a soft cloth.

The above points also apply to other optical storage media.

 *The optical drive is a Class 1 Laser Product.*

3.8 Using Flash Memory Cards

WHAT IS FLASH MEMORY CARD?

Flash Memory is a memory storage media. It is used by most digital camera, moreover, it can replace the traditional floppy disk. Flash memory card is built with different form factor and brand name. Their size is smaller than ExpressCard card. This computer supports most of the flash memory card, including SD, MMC, MS (Memory Stick), and MS_Pro card.

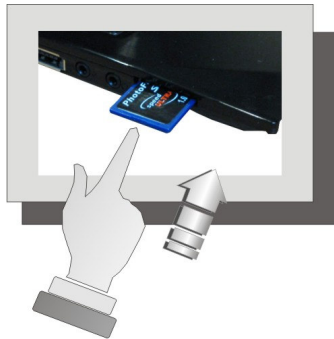
The 4 in 1 card slot is used by the following cards as SD, MS (Memory Stick), MMC, and MS_Pro.

⚠ *For a single moment, only one card can be inserted into the 4 in 1 card or CF slot.*

Inserting Flash Memory Card

To insert a flash memory card into the slot is similar to ExpressCard. You only need to pay more attention whenever insert the flash memory card into the slot with the correct side.

Only one correct side can be accepted for the 4 in 1 card slots. If you cannot insert the card into the 4 in 1 slot or you had inserted the card but it is not recognized by the computer, please remove the card and turn the card upside down and insert it again. To prevent the damage made both on card and the slot, never forced an entry into the slot with incorrect side.



Removing Flash Memory Card

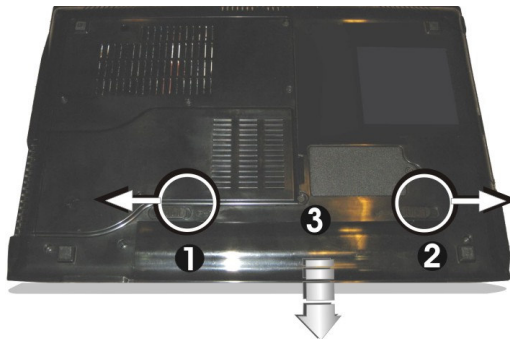
It is similar to ExpressCard for removing a flash memory card from the slot. You should first disable the card setting in the system as described in the former section.

To remove the flash memory card, you should only push out the card by finger, there is no release button for flash memory slot.

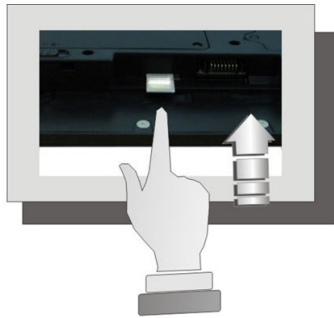


3.9 Using SIM card (optional)

1. For using SIM card, please remove the battery pack first as shown in following graphics. For how to remove the battery pack, please refer "Removing the Battery Pack" in the former section 2.1 "Using the Battery Pack".

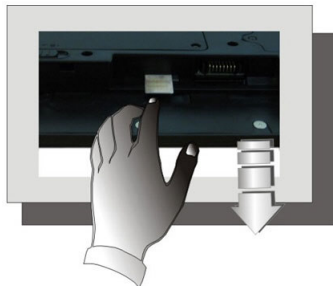


2. Insert the flash memory card into the slot with the correct side. Only one correct side can be accepted for the SIM card slot.



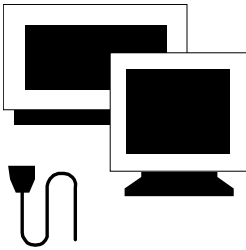
If you cannot insert the card into the SIM slot or you had inserted the card but it is not recognized by the computer, please remove the card and turn the card upside down and insert it again. To prevent the damage made both on card and the slot, never forced an entry into the slot with incorrect side.

3. To remove the SIM card, you should only pull out the card by finger, there is no release button for SIM slot.



This page is intended to be blank.

4 Connecting to Peripherals

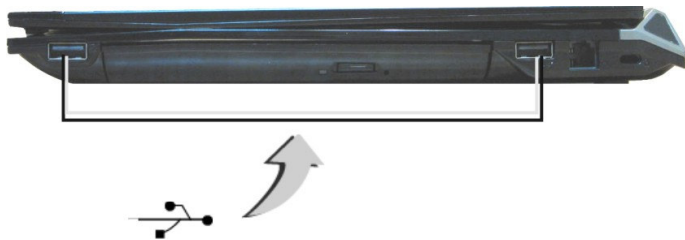


This chapter describes how you attach peripheral devices to your notebook. You can attach a printer or mouse; connect an external monitor and keyboard, or any other peripheral device. You will learn how to use these peripheral devices with the step-by-step instructions depicted in this chapter.

4.1 Using the USB Port

USB (Universal Serial Bus) is a hardware interface that enables you to connect multiple devices (such as printers, mice, keyboards, storage devices, joysticks, digital cameras, and video conference cameras, etc.) to your notebook computer, and up to 127 devices can be attached. Besides, USB's hot swap capability allows everything to be plugged in and unplugged without turning the system off.

Microsoft, HP, Compaq, Intel, Agere, NEC and Philip are seven core members of USB-IF to have worked on USB 2.0 standardization. USB 2.0 offers data transfer rate up to 480Mbps (megabits per second) compared to USB 1.1 devices, which transfer at speeds of 12Mbps. So, you could know that USB 2.0 can transfer data between the computer and its peripherals 40 times faster than USB 1.1. However, USB 2.0 is fully backward compatible, you will be able to use a USB 1.1 device in a USB 2.0 compliant system.



⚠ Depending on your operational requirements, you may need to disable other ports in order to release system resource for the USB port.

⚠ The USB bus distributes 0.5 amps (500 milliamps) of power through each port. For the purpose of power saving, please disconnect your USB device while not in use.

4.2 Using an External Monitor Port

Your computer has a 15-pin Monitor port for supporting any external CRT or LCD color monitor. You need a display signal cable (usually provided with the monitor). One end of the cable must have a 15-pin connector for the system.

To connect an external monitor:

1. Turn off your computer and make sure the monitor power switch is turned off.

NOTE *The notebook computer must be powered off or suspended while the monitor is being connected. Although you can connect the external Monitor without power off the computer and the external monitor, however, it is harmful to both devices and it shortens the life of these devices.*

2. Connect the connector cable of the monitor to the VGA port at the rear side of your computer.
3. Connect the monitor power cable and plug it into a properly grounded wall outlet.
4. Turn on the power of the monitor.
5. Turn on your computer. Both the LCD panel and the monitor screen will show the display. Your computer is set at default to run at simultaneous display mode.
6. If you only want to show the display on the external monitor or projector and shut off the LCD display, you can use the <Fn> + <F3> hot-key to switch display type between LCD and external monitor. Keep pressing the hot-key until you get the display to external monitor only.



Refer to Chapter 3 regarding the possible External CRT resolutions and how to change the display properties.

4.3 Using the HDMI Port

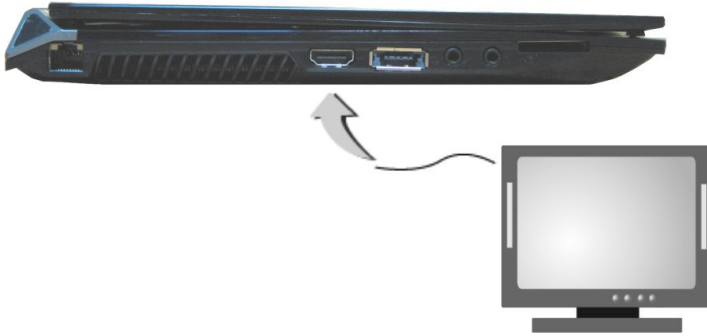
Also found at the left side of your computer is one HDMI port.

The High-Definition Multimedia Interface (HDMI) is an all-digital audio/video interface capable of transmitting uncompressed streams. HDMI provides an interface between any compatible digital audio/video source, such as a set-top box, a DVD player, a PC, a video game console, or an AV receiver and a compatible digital audio and/or video monitor, such as a digital television (DTV).

To display your computer screen or playback the audio sound on the digital television (DTV), please connect the HDMI port of this notebook to the Video/Audio Input of the TV set.

You can setup the detail by operating the computer as follows.

1. Turn off your computer and plug one end of the HDMI jack cable to the end to the input video/audio jack of your digital television set.
2. Turn on your computer and your digital television set.
3. Click the **Start** button, then point to **Settings**, and click **Control Panel**.



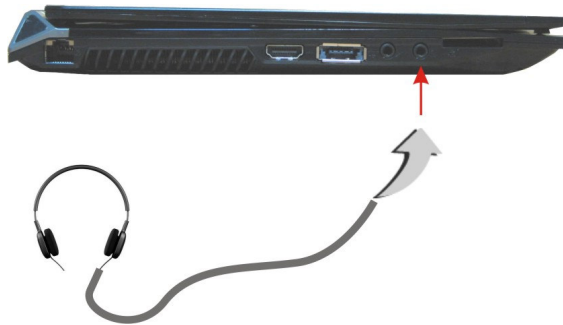
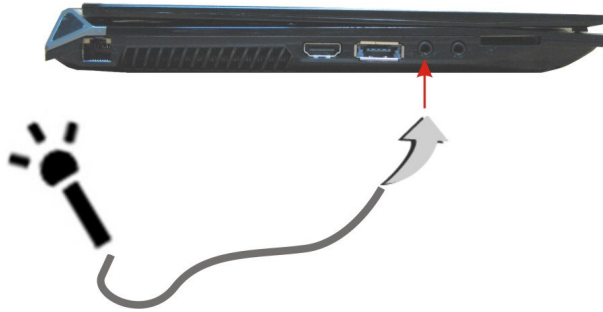
4. Double-click on the **Display** icon and point to **Setting** tab.
5. Click **Advanced** button and point to **Displays** tab. You can see the **TV** icon on the screen.
6. Please click the red button above the TV icon. Click **OK**, Windows now automatically detect the TV port and enable this function.

4.4 Using the External Audio System

At the left side of your computer, you will find the built-in audio ports. You can connect Microphone jacks, earphone or powered speaker.

To connect to an audio jack:

1. Locate the audio port (Microphone, Headphone) that you want to use to the target device.
2. Plug the jack into the port on the left side of the system.



🔊 *If you use external speakers and experience the sound distortion or feedback, please lower the volume. Some factors is caused by too close locating the microphone and speakers from each other, moving away the external audio option from the unit may also help.*

4.5 Using the LAN Port

This notebook comes with an internal 10/100/1000 Mbps LAN module that connects your computer to other computers/networks through a local area network (LAN) and supports data transfer rates at 10Mbps and can be up to 1000Mbps. The 10Base-T standard also called Twisted Pair Ethernet is connected with RJ-45 connectors. The 100Base-TX is based on the older Ethernet standard. Because it is 10 times faster than Ethernet, it is often referred to as Fast Ethernet.

The built-in LAN module provides a standard RJ-45 connector.

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.



4.6 Using the Modem Port (optional)

This notebook comes equipped with a 56K internal fax/data modem that allows you to communicate with others via fax, email, or to connect to an online service or bulletin board.

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

To connect the analog phone cable to your modem:

1. Locate the analog phone cable in the accessories box in notebook shipping carton. Each end of the cable has a RJ-11 connector.
2. Connect one end of the cable into a standard wall outlet.
3. Connect the other end of the cable into the computer modem port.



IS *The speed of data transmission is dependent on the quality of telephone lines. Digitally terminated lines improve the speed of data transmission. Contact your service provider for more information.*

IS *The analog phone cable is an industry standard cable. Longer cables are available at your local electronics store.*

4.7 Using the Wireless LAN

Wireless LAN is the major breakthrough in computer communication technology. It lets user connect to the LAN environment without using any wire to traditional RJ-45 jack. User can enjoy the wireless connection within the range of Access Point (AP) of LAN.

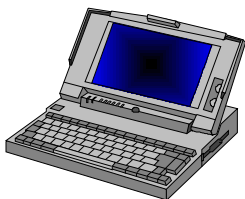
Access Point (AP) is the wireless transmission and receiving device, it generally connects to the server of a LAN environment or act as a LAN hub with wireless connection. Access point can be set in an office environment, airport, major railway station, etc. that depends on the construction of each country. In most case, you probably can use it at office, please consult with the network department of your company for more details.

This computer integrates built-in 802.11 b/g/n wireless LAN module. IEEE 802.11b standard supports 11 Mbps wireless connection speed. However, IEEE 802.11g/802.11n supports 54Mbps and 300Mbps wireless connection speed respectively, and is backward compatible with the slower 802.11b.

Wireless LAN module is similar to LAN module. You need to install software driver before using it. Please refer to chapter 2.5 on how to install the driver.

This page is intended to be blank.

5 Customizing Your Notebook



Your computer uses the Phoenix BIOS Setup program that allows you to set several system configuration in changing the way your computer performs. This includes your system time and date, disk drive configuration and password setup. This information is then 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 computer to run smoothly. If you are not sure of any settings, contact your dealer.

5.1 Running the BIOS Setup Program

Your computer is likely to have been properly setup and configured by your dealer prior to delivery. However, you may find it necessary to use the 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:

- **Item Specific Help**
The right side of the screen. This area describes each parameter and its available settings.
- **Menu Bar**
The top line of the screen. Each of the five selections displays its own screen.
- **Parameters**
The left side of the screen. This area lists the parameters and their current settings.
- **Key Status Bar**
The bottom part of the screen. These lines display the keys available to move the cursor, select a particular function and so forth.

To exit the BIOS Setup program, simply press the <Esc> key and select from the Exit menu whether you want to Save changes and exit; Discard Changes and exit.

5.2 Using the Main Menu Setup

Phoenix SecureCore(tm) Setup Utility				
Main	Advanced	Security	Boot	Exit
System Time: [23:14:42] System Date: [07/08/2010]				Item Specific Help
▶ SATA Optical Drive [Slimtype DVD A DS8A4S-(S1)] ▶ SATA HDD [FUJITSU MHZ2250BH G2-(S5)] ▶ External SATA Port [None]				<Tab>, <Shift-Tab>, or <Enter> selects field.
System BIOS Version: IOHE4T_D				
EC Version: 0802				
VBIOS Version: Intel 2017				
CPU Type Intel (R) Core (TM) i3 CPU M350 @ 2.13GHz				
Amount Of Memory: 1024 MB				
F1 Help	↑ ↓ Select Item	-/+ Change Values	F9 Setup Defaults	
Esc Exit	←-→ Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit	

- **System Time**
Allows you to change the system time using the hour:minute:second format of the computer.
Enter the current time for each field and use the <Tab>, <Shift>+<Tab>, or <Enter> key to move from one field or back to another.
You can also change the system time from your operating system.
- **System Date**
Allows you to set the system date using the month/date/year format.
Enter the current time for each field and use the <Tab>, <Shift>+<Tab>, or <Enter> key to move from one field or back to another.
You can also change the system time from your operating system.
- **SATA Optical Drive**
This field is for information only as the BIOS automatically detects the type for SATA Optical Drive
- **SATA HDD**
This field is for information only as the BIOS automatically detects the type for SATA Hard Drive.
- **External SATA Port**
This field is for information only as the BIOS automatically detects the type for External SATA Port.
- **System BIOS Version**
This field is for information only as the BIOS displays the BIOS version during the Power-On Self-Test (POST).
- **EC Version**
This field is for information only as the BIOS displays the embedded controller firmware version during the Power-On Self-Test (POST).

- **VBIOS Version**
This field is for information only as the BIOS displays the Video firmware version during the Power-On Self-Test (POST).
- **CPU Type**
This field reports the CPU type information detected by the BIOS during Power-On Self-Test (POST).
- **Amount of Memory**
This field reports the amount of memory found by the BIOS during Power-On Self-Test (POST).

5.2.1 INTERNAL OPTICAL DRIVE SUB-MENU

Phoenix BIOS Setup Utility		
Main	Advanced	Security Boot Exit
SATA Optical Drive [Slimtype DVD A DS8A4S-(S1)]		Item Specific Help
Type:	[Auto]	User = you enter parameters of hard-disk drive installed at this connection.
Multi-Sector Transfers:	[Disabled]	Auto = autotypes
LBA Mode Control:	[Disabled]	hard-disk drive installed here.
32 Bit I/O:	[Disabled]	CD-ROM = a CD- ROM drive is installed here.
Transfer Mode:	[FPIO 4 / DMA 2]	ATAPI Removable = removable disk drive is installed here.
Ultra DMA Mode:	[Mode 5]	
SMART Monitoring:	Disabled	
F1 Help ↑ ↓ Select Item -/+ Change Values F9 Setup Defaults Esc Exit ←--> Select Menu Enter Select ▶ Sub-Menu F10 Save and Exit		

You cannot modify all items on this menu, this sub-menu is for information only as the BIOS automatically detects the type of Optical Drive.

5.2.2 INTERNAL HDD SUB-MENU

Phoenix SecureCore(tm) Setup Utility			
Main			
SATA HDD [FUJITSU MHZ2250BH G2-(S5)]		Item Specific Help	
Type:	[Auto]	User = you enter parameters of hard-disk drive installed at this connection. Auto = autotypes hard-disk drive installed here. CD-ROM = a CD- ROM drive is installed here. ATAPI Removable = removable disk drive is Installed here.	
	LBA Format		
Total Sectors:	488397168		
Maximum Capacity:	250GB SATA5		
Multi-Sector Transfers:	[16 Sectors]		
LBA Mode Control:	[Enabled]		
32 Bit I/O:	[Disabled]		
Transfer Mode:	[FPIO 4 / DMA 2]		
Ultra DMA Mode:	[Mode 5]		
SMART Monitoring:	Enabled		
F1 Help	↑↓ Select Item	-/+ Change Values	F9 Setup Defaults
Esc Exit	<--> Select Menu	Enter Select	▶ Sub-Menu F10 Save and Exit

You cannot modify all items on this menu, this sub-menu is for information only as the BIOS automatically detects the type of Hard Drive.

5.2.3 EXTERNAL SATA SUB-MENU

Phoenix SecureCore(tm) Setup Utility		
Main		
External SATA Port	[None]	Item Specific Help
Type:	[Auto]	User = you enter parameters of hard-disk drive installed at this connection.
Multi-Sector Transfers:	[Disabled]	Auto = autotypes hard-disk drive installed here.
LBA Mode Control:	[Disabled]	CD-ROM = a CD- ROM drive is installed here.
32 Bit I/O:	[Disabled]	ATAPI Removable = removable disk drive is Installed here.
Transfer Mode:	[Standard]	
Ultra DMA Mode:	[Disabled]	
SMART Monitoring:	Disabled	

F1 Help	↑ ↓ Select Item	-/+ Change Values	F9 Setup Defaults
Esc Exit	←--> Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit

You cannot modify all items on this menu, this sub-menu is for information only as the BIOS automatically detects the type of ESATA.

5.3 Using the Advanced CMOS Setup

Phoenix SecureCore(tm) Setup Utility				
Main	Advanced	Security	Boot	Exit
Legacy USB Support: Enabled			Item Specific Help	
Energy Star Control: [Disabled]			Enable support for Legacy	
Onboard Lan Boot ROM [Enabled]			Universal Serial Bus.	
F1 Help	↑ ↓ Select Item	-/+ Change Values	F9 Setup Defaults	
Esc Exit	←--> Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit	

- Legacy USB Support
Lets you enable or disable the legacy USB boot function.
- Energy Star control
Lets you enable or disable the Energy Star function.
- Onboard Lan Boot ROM
Enable or Disable the Wake on LAN function.

5.4 Security Menu Setup

Phoenix SecureCore(tm) Setup Utility				
Main	Advanced	Security	Boot	Exit
			Item Specific Help	
Supervisor Password Is:		Clear	Supervisor Password controls access to the setup utility.	
User Password Is:		Clear		
Set Supervisor Password		[Enter]		
Set User Password		[Enter]		
Password on boot		[Disabled]		
F1 Help	↑ ↓ Select Item	-/+ Change Values	F9 Setup Defaults	
Esc Exit	←--> Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit	

- Supervisor Password Is
Set/Clear selections show that the notebook is under controlled by Supervisor Password or not.
- User Password Is
Set/Clear selections show that the notebook is under controlled by User Password or not.

- **Set Supervisor Password**
Supervisor password gives you the authority in accessing the setup utility. You also need to enter this password in system booting and resuming from suspend mode. When you press <**Enter**> in this field, the Set Supervisor Password dialog box appears. Enter a new password with up to 8 alpha-numeric characters, and then re-enter it for confirmation.
- **Set User Password**
This field is only available when Supervisor Password has set. Enter the user password when boot the system or resume from suspend mode. But if the Write Protect is set in the Fixed disk boot sector field, you should enter a supervisor password to access the fixed disk when boot the system or resume from suspend mode.
- **Password on Boot**
If you set this field to Enabled, your computer will always ask for the password every time you boot your computer.

5.5 Using the Boot Setup

This item allows you to set the search drive sequence where the system will try to boot up first.

Phoenix SecureCore(tm) Setup Utility				
Main	Advanced	Security	Boot	Exit
Boot priority order			Item Specific Help	
1: USB KEY:			Keys used to view or configure devices:	
2: USB HDD:			Up and Down arrows select a device.	
3: USB FDC::			<+> and <-> moves the device up or down.	
4: SATA CD: Slimtype DVD A DS8A4S-(S1)				
5: USB CDROM:				
6: SATA HDD: FUJITSU MHZ2250BH G2-(S5)				
7: PCI BEV: Realtek PXE B08 D00				
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults	
Esc Exit	←-> Select Menu	Enter Execute Command	F10 Save and Exit	

This page allows you to set the search drive sequence where the system will try to boot up first.

To select the boot device, you can use the up or down arrow key, then press <+> to move up the device in the list or press <-> to move down the device in the list. To exit from this menu, press <Esc>.

5.6 How to Exit the Setup Program

There are two choices to escape from the Setup program.

Phoenix SecureCore(tm) Setup Utility				
Main	Advanced	Security	Boot	Exit
Exit Saving Changes Exit Discarding Changes Load Setup Defaults Discard Changes Save Changes			Item Specific Help Exit System Setup and save your changes to CMOS.	
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults	
Esc Exit	←--> Select Menu	Enter Execute Command	F10 Save and Exit	

- Exit Saving Changes
Saves all changes to CMOS while running the BIOS setup program and exit from the system setup program.
- Exit Discarding Changes
Allows you to discard all changes made while running the BIOS setup program and exit from the system setup program.
- Load Setup Defaults
Lets you load the default values for all setup items.
- Discard Changes
Reverts to previously selected settings.
- Save Changes
Saves Setup data to CMOS

This page is intended to be blank.

6 Caring for Your Notebook



Your Notebook is equipped with the latest features in mobile computing and multimedia technology. If properly cared for and maintained, the performance and reliability of the computer can be greatly prolonged.

6.1 Important Safety Instructions

Portable computers take the most beating from end users. This section gives you detailed information about how to maintain a safe working environment while using the notebook computer. You can maintain its condition and performance by following these guidelines. Please read it carefully to ensure maximum safety.

- Before cleaning the notebook computer, make sure it is disconnected from any external power supplies (i.e. AC adapter, car adapter and so on).
- When cleaning, do not use liquid or sprayed detergent for cleaning. Instead, use moisture sheet or a cloth for cleaning.
- The socket-outlet shall be installed near the notebook computer and shall be easily accessible.
- Please keep the notebook computer from humidity.
- Lay the notebook computer on a reliable surface when installing. A drop or fall may cause injury.
- The openings on the enclosure are for air convection hence the notebook computer can be protected from overheating. **DO NOT COVER THE OPENINGS.**
- Be careful of using power supply. The notebook computer has specific power requirements.
- Use only a power adapter approved for use with this notebook computer.
- While unplugging the power cord, disconnect it by the plug head, not by its wire.

- Make sure the socket and any extension cords you may use can support the total current load of all the connected devices.
- Though your AC adapter is suitable for universal international voltage, it still requires a stable and continual power supply. Make sure the voltage of the power source when connect the notebook computer to the power outlet. If your are unsure of your local power specifications, consult your dealer or local power company.
- Place the power cord in such a way that people can not step on it. Do not place anything over the power cord.
- All cautions and warnings on the notebook computer should be noted.
- If the notebook computer is not in use for a long time, disconnect it from mains to avoid possible damage by transient over-voltage.
- Never pour any liquid into openings as this may cause fire or electrical shock.
- Never open the body of notebook computer. For safety reason, the notebook computer should only be opened by qualified service personnel.
- If one of the following situations arises, have the notebook computer checked by service personnel:
 - ➔ The power cord or plug is damaged.
 - ➔ Liquid has penetrated into the notebook computer.
 - ➔ The notebook computer has been exposed to moisture.
 - ➔ The notebook computer has not worked well or you can not get it work according to user's manual.
 - ➔ The notebook computer has dropped and damaged.
 - ➔ The notebook computer has obvious sign of breakage.

- Do not leave this notebook computer in an environment unconditioned. Storage temperature above 60°C (140°F) may damage the notebook computer.
- An approved power cord has to be used for the notebook computer's power supply. For a rated current up to 6A and an equipment weight more than 3 kg, a power cord not lighter than H05VV-F, 2G, 0.75mm², has to be used.
- To avoid any damage happened to the internal device, you should first disconnect the AC adapter and remove the battery pack from the notebook when replacing any internal device.

6.2 Cleaning Your Computer

When it is necessary to clean the plastic case and keyboard, use a soft, lint-free cloth, slightly dampened with a mild detergent solution or use the contents of any commercially available computer cleaning kit.

Never use alcohol, petroleum-based solvents, or harsh detergents to clean the notebook. Also never spray any liquids directly on the computer case, keyboard, or screen. If the liquid-crystal display (LCD) screen has become smeared or dusty, clean the screen by first applying a mild glass cleaner to a soft, clean, lint-free cloth, and gently wipe the glass. Never apply liquids directly on the screen surface. Moreover, do not use paper towels to clean the display screen. Paper can scratch the display screen matte.

6.3 Maintaining the LCD Quality

When it comes to screen problems, heat plays a big part. After a good working session, the typical routine is to shut the machine and close the cover. But the

display surface - no matter what type it is - and the components inside the computer radiates heat; when you close the cover, you trap the heat against the screen. Leave the computer's cover open for about ten minutes while the heat disperses. Make this a habit.

You should also enable the power management of your computer to turn off the LCD power and display when the system is in inactivity for some time. Adding screen savers is also acceptable.

Follow the safety guidelines mentioned earlier and how to clean your computer.

6.4 Maintaining Your Hard Disk

Losing your data has the same consequences as a system break down. Users must make it a habit of doing hard disk maintenance every week or so. Here is some maintenance you could do:

- Always back up your data files from your hard disk.
- Install the virus detecting program to monitor virus that could tamper your files.
- 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.

6.5 Battery Care Guidelines

The battery pack furnished with the computer requires reasonable care and handling to ensure efficient operation and maximum life. There is a risk of fire and chemical burn if the battery pack is handled improperly.

To ensure that the battery pack endures normal life cycle, always observe the following precautions when handling the battery pack:

- Handle batteries carefully. Do not try to disassemble, crush, puncture, open, drop, mutilate, short external contacts, disposed of in water or fire, or expose it to temperatures higher than 45° C.
- Recharge batteries only as described in this manual and only in ventilated areas. Never use an external charger other than the one supplied with your computer.
- Do not leave batteries in hot locations for more than a day or two.
- Do not leave your battery in your computer for longer than 1 month without plugging in the power adapter.
- Do not leave battery in storage for more than 2 months without recharging it to prevent over discharge. Over discharge will hurt the battery
- Dispose dead battery properly to protect the environment. The batteries contain hazardous chemicals and should not be thrown out with household or office trash.
- You should always discharge your battery before recharging it on either of these two conditions: first, this is the first time you start to use your battery; second, you had not charge the battery for more than 2 months. To discharge the battery, please execute the "Battery Refresh" function in the BIOS Setup Utility.

6.6 When You Travel

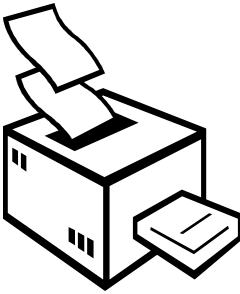
For safety and convenience when traveling, please follow these instructions:

- Back up 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 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.

This page is intended to be blank.

APPENDIX A

System Specification



This appendix provides technical specifications for the computer. Depending on the specific model, specifications may vary.

PROCESSOR UNIT

- Intel® Core™ i3, Core™ i5 and Core™ i7 series Arrandale processor, 35W.
- Up to 3 MB (for Intel® Arrandale) L3 cache.

SYSTEM MEMORY

- Two 204-pin memory slots.
- User-upgradeable to maximum 8GB (option) using 204-pin SODIMM 1024MB or 2048MB modules.
- DDRIII-1066Mhz SDRAM modules.

LCD DISPLAY

- 14" WXGA (16:9) Color TFT LCD, 1366x768
- Maximum 16M true colors on all LCD display

VGA SYSTEM

- Embedded with Intel® Arrandale CPU or with ATI Radeon HD5430 DDR3 1GB graphic engine.
- Simultaneous LCD and external monitor (CRT) display
- Maximum 16 million colors on LCD display at 1366x768 resolution for 14" LCD
- Maximum 16 million colors on external monitor or projector at 1920x1200 resolution (Non-Interlaced)

STORAGE

- 2.5" Format 9.5mm High SATA HDD Module; Bus Mastering, Ultra DMA ATA-150 Support for LBA Scheme.
- Support system boot from external USB device.
- DVD/CD-RW Combo, DVD Super-Multi or Blu-ray (option) optical disk drive support.
- 4-in-1 (SD, MS, MMC, and MS_Pro) card reader.

AUDIO SYSTEM

- Compliant with Intel HD Audio (Azalia 2 channels).
- Built-in dual speakers.
- Audio input jacks for microphone (MIC).
- Integrated microphones (Array Mic inside).
- Audio output jack for external speaker or headphone (Line-Out).
- Sound volume adjust by K/B Hot-Keys.

TOUCHPAD

- Integrated touchpad (Serial/USB mouse) pointing device with 2 click buttons.
- Support Multi function for zoom in/zoom out, rotation and scroll.

KEYBOARD

- Full-sized 87-keys keyboard with Windows systems hot-keys, inverted T-cursor keys, 9 hot keys, 12 function keys.
- Provides international language keyboard.

FLASH BIOS

32Mbit Flash ROM BIOS for easy BIOS upgrade

I/O PORTS

- 1 x 15-pin VGA port
- 2 x Universal Serial Bus (USB 2.0)
- 1 x HDMI port
- 1 x ESATA/USB port
- 1 x 10/100/1000Mbps LAN port
- 1 x 56Kbps v.92 Data/Fax MDC Modem port (optional)

WEBCAM

- Camera Module for CMOS 1.3M USB 2.0 Media Version

WIRELESS DEVICES

- IEEE 802.11b/g/n, Half Mini-PCIE card or USB Interface
- Bluetooth, USB Interface
- HSDPA 3.5G, Full Mini-PCIE card or USB Interface

AC/DC POWER SUPPLY ADAPTER

Universal auto-switching (100V~240V) 65W adapter, 19 Volt.

BATTERY

- Rechargeable 6 Cells (Li-ion)/4400mAh battery pack with Smart Battery function

- Approximately 3 Hours (for Battery Mark) Battery Life

WEIGHT AND DIMENSION

- 341 (W) x 235 (D) x 28 (H) mm
- Approximately 1.95 kg

This page is intended to be blank.