About this User's Manual

This user's manual is designed to let you easily find the information you need to get the most from your notebook.

- Introduces you to the features of your notebook.
- Gives you the useful details on using your notebook.
- Tells you how to look after your notebook, whether at home or traveling.
- Introduces you to BIOS, the nervous system of your notebook, and how to change its fundamental settings.

There is no need to read the manual from the beginning to end. Simply find your way to the section that interests you using the table of contents, or browse through the manual.

You will come across the following icons in this manual:

Helpful pointers and tricks to get more from your notebook

To help you note and avoid possible damage to your notebook's hardware or software, or loss of your work

Points out possible damage to property, personal injury or death

Safety Instructions

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

General Warnings

- Do not operate your portable computer for an extended period of time with the base resting directly on your body. With extended operation, heat can potentially build up in the base. Allowing sustained contact with the skin could cause discomfort or, eventually, a burn.

- Excessive sound pressure from earphones or headphones can cause hearing damage or loss. Please adjustment of the volume control as well as the equalizer to settings other than the center position may increase the earphones or headphones output voltage, and therefore the sound pressure level. Do not attempt to service the computer yourself. Always follow installation instructions closely.

- Do not attempt to service the computer yourself. Always follow installation instructions closely. To avoid personal injury from electric shock or fire:

  - Completely power down the computer when replacing memory modules, cleaning the computer, its components, or chassis, or performing operations requiring similar steps. To do this, first turn the power off at the power switch, remove the battery, and then disconnect the AC adapter from the electrical outlet or from any other type of external power source, such as an external battery.

  - Do not operate the computer near water, for example, near a bathtub, kitchen sink or laundry tub, in a wet basement, by a swimming pool, or in the rain.

  - Do not connect or disconnect any cables or perform maintenance or reconfiguration of this product during an electrical storm.

  - Avoid using the wired LAN during an electrical storm, as a remote risk of electric shock from lightning exists.

  - Do not push objects into the air vents or openings of your notebook or accessories. Doing so can short out interior components and may cause fire or electric shock.

  - When installing memory modules, ground yourself by touching a grounded conductive surface, such as a device with a grounded plug. Avoid touching the pins and leads on the memory module or internal circuitry of the computer.

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

- If the battery pack leaks and the fluid get in your eyes, do not rub them. Instead, rinse your eyes with clean running water and immediately seek medical attention. Otherwise, eye injury may be resulted.

- If acid leaking from the battery pack contacts your skin or clothing, immediately wash it away with the running water. Otherwise, the skin inflammation may occur.

- Operate the computer at the recommended temperature range of +5°C to +35°C (+41°F to +95°F). Store it at a temperature of -20°C to +60°C (+4°F to +140°F).

- Fan may cause hazardous to your body when it is running, please keep your body parts out of the motion path.

Power Cord & Adapter Warnings

- See the installation instructions before connecting to the power supply.

- Use only the power cord indicated in this manual.

- Power cord sets for use in other countries must meet the requirements of that country. Use the appropriate AC adapter and power cord for your locale.

- If you use an extension cord with your AC adapter, ensure that the total ampere rating of the products plugged into the extension cord does not exceed the ampere rating of the extension cable.

- When using your power cord, make sure to position it around objects so it will not be cut or punctured.

- When you disconnect a cable, pull on its connector on its strain relief loop, not on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Also, before you connect a cable make sure both connectors are correctly oriented and aligned.

- Be sure that nothing rests on your AC adapter's power cable and that the cable is not located where it can be tripped over or stepped on.

- Use only the AC adapters that are approved for use with this computer. Use of another type of adapter may risk fire or explosion.

- Before you connect the computer to a power source, ensure that the voltage rating of the AC adapter matches that of the available power source

  - 115 V/60 Hz in most of North and South America and some Far Eastern countries such as South Korea and Taiwan.
  - 100 V/50 Hz in eastern Japan and 100 V/60Hz in western Japan.

- 230 V/50 Hz in most of Europe, the Middle East, and the Far East.
- If you use an extension cable with your AC adapter, ensure that the total ampere rating of the products plugged in to the extension cable does not exceed the ampere rating of the extension cable.

- Place the AC adapter in a ventilated area, such as a desktop or on the floor, when you use it to run the computer or to charge the battery. Do not cover the AC adapter with papers or other items that will be reduced to cool; also, do not use the AC adapter while it is inside a carrying case.

- Disconnect power cords and cables by grasping the connector, not by pulling on the cable itself. As you pull out the connector, keep it evenly aligned to avoid bending any connector pins. Before you connect a cable, please make sure both connectors are correctly aligned.

- To remove power from the computer, turn it off, remove the battery, and disconnect the AC adapter from the electrical outlet.

- The socket outlet must be near to the unit and easily accessible.

- Adapter information:
  Input voltage: 100-240Vac
  Input frequency: 50-60Hz
  Rating output current: 3.42A (65W)
  Rating output voltage: 19Vdc
  AC adapter plug is 3 pin

Battery Pack Warnings

Please keep the following items because it can be the cause of the burn, fire, and explosion:

- Inquire (advise) of the manufacturer or seller immediately when the battery is too swelled to be observed by the naked eye and because this kind of battery can be dangerous.
- Use the certified charger.
- Do not expose to inside of car in summer.
- Do not place on the quilt, electric-paper floor or carpet for long time.
- Do not keep into sealed place as powered on
- Make sure not the terminals of battery to contact with the metals such as necklace, coin, key or wrist watch.
- Use the lithium secondary battery warranted by the manufacturer of portable devices.
- Do not impact on the battery abnormally, for example, the act of dropping from on the high site.
- Do not expose into high temperature more than 60°C
- Do not carry a battery in your pocket, purse, or other container where metal objects (such as car keys) could short-circuit the battery terminals. The resulting excessive current flow can cause extremely high temperatures and may result in damage from burns.

- Danger of explosion may occur if battery is incorrectly replaced. Replace only with the same or equivalent type battery recommended by the manufacturer.
- Do not dispose of batteries in a fire. They may explode. Check with local authorities for disposal instructions.
- Do not use or leave the battery pack near a heat source. Heat can melt the insulation and damage other safety features, possibly leading it to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not immerse the battery pack in water or allow it to get wet. Its protective features can be damaged. Abnormal chemical reactions may occur, possibly leading it to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not crush, disassemble, puncture, or incinerate the short external contacts of a battery pack.
- Do not connect the positive (+) and negative (-) terminals with a metal object such as wire. Short-circuiting may occur leading the battery pack to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not use an apparently deformed or damaged battery pack, which may leak acid, overheat, emit smoke, burst and/or ignite.
If the battery pack leaks, gives off a bad odor, generates heat, becomes discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the computer or charger and stop using it.

Battery Pack Disposal

- Dispose of the lithium ion battery packs at approved disposal sites only. To locate an appropriate site, contact the solid waste disposal officials where you live or look for a rechargeable battery recycling website that lists disposal locations near you.
- Do not dispose of battery packs in a fire, throw them in a trash receptacle, put them in a recycling bin not intended for their disposal, or otherwise discard them in a manner that may result in their being hazardous to the environment.

Important Safety Instructions

Read these instructions carefully and save them for reference in future.
1. Follow all warnings and instructions reminded you about this product.
2. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
3. Do not use this product near water.
4. Do not place this product on an unstable cart, stand, or table. It may be broken to cause some serious damage of itself.
5. Slots and openings in the cabinet and the back or bottom are provided for ventilation. To ensure reliable operation of the product and to protect it from overheating, and also do not

block or cover these openings. Avoid placing the product on a bed, sofa, rug, or similar surface to prevent from blocking these openings. This product should never be placed near or over a radiator or a heat register, or in an enclosure unless proper ventilation is provided.

6. This product should be operated from the type of power indicated on the marking label. If you are not sure the type of power available, consult your dealer or local power company.

7. Do not allow anything to rest on the power cord. Do not locate this product where people will step on the cord.

8. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed the fuse rating.

9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill any kind of liquid on the product.

10. Do not attempt to service this product by yourself. As opening or removing covers, you will be exposed to the dangerous voltages or other risks. Refer all servicing to qualified service personnel.

11. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    a. When the power cord or plug is damaged or frayed.

    b. As liquid is spilled into the product.

    c. The product is exposed to rain or water.

    d. If the product does not operate normally when the operating instructions are followed, adjust only those controls that are covered by the operating instructions. 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.

    e. The product has been dropped or the cabinet has been damaged.

    f. The product exhibits a distinct change in performance, indicating a need for service.

EMC Regulatory Information

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

FCC Notice

"Declaration of Conformity Information"

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy .If the equipment is not installed or used in accordance with the instructions; it 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 of following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

    (1)   This device may not cause harmful interference.

    (2)   This device must accept any interference received, including interference that may cause undesired operation.

Canadian Notice (Canada Only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulation of the Canadian Department of Communications.
This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conformé à la norme NMB-003 du Canada.

Norwegian Notice (Norway Only)

For Class I equipment: In Norway, it intend to be connected to CABLE DISTRIBUTION SYSTEMS, the screen of a coax cable is required to be galvanic isolated from the protective earth. The Norwegian text is that "Må kun tilkoples kabel-TV nett via galvanisk isolator."

CE Notice (European Union)

EU Declaration of Conformity

The product conforms to the following standards:

Supplementary Information: "The product complies with the requirements of the Low Voltage Directive 2006/95/EC and the EMC Directive 2004/108/EC and/or the R&TTE Directive 1999/05/EEC."

This product is carrying the CE-Mark in accordance with the related European Directives.

BSMI Notice (Taiwan Only)

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

This (marked on the product) indicates the product complies with the BSMI standard.

BSMI 通告 (僅限於台灣地區)

如果您在電腦的底部、側面或背面板上找到一個 　　　 標誌，則適用於以下部份的相關規定：

此設備經測試證明符合BSMI(經濟部標準檢驗局)之乙類數位裝置的限定規定。這些限制的目的是為了在住宅區安裝時，能防止有害的干擾，提供合理的保護。此設備會產生、使用並散發射頻能量；如果未遵照製造廠商的指導手冊來安裝和使用，可能會干擾無線電通訊。但是，這並不保證在個別的安裝中不會產生干擾。您可以透過關閉和開啟此設備來判斷它是否會對廣播和電視收訊造成干擾；如果確實如此，我們建議您嘗試以下列一種或多種方法來排除干擾：

- 重新調整天線的接收方向或重新放置接收天線。

- 增加設備與接收器的距離。

- 將設備連接至不同的插座，使設備與接收器連接在不同的電路上。

- 請向經銷商或有經驗的無線電/電視技術人員查詢，以獲得幫助。

Specifications

CPU

- Intel Ivy Bridge Dual Core BGA , ULV (TDP17W)
- Sandy Bridge design ready（QAT10 only）

Chipset

- Intel Panther Point-M PCH, HM77

Memory

- DDR3 1600 Support So-DIMMS *2
- Min to 2G, Max up to 8G

Display

- 14.0" W HD (1366 x 768) LED BL 3.6mm Panel

Audio

- HD Audio, Stereo Speakers, Microphone-in and Headphone-out
- SRS Supported

Camera

- HD camera 1.0M

Keyboard

- 86/87 keys support with 101/102 key emulation without stick-point
- 1.6mm travel length, 3.8mm height
- Support multi-Language
- Support cursor keys

Hard Disk Drive (HDD)

- 2.5" 9.5mm height SATA HDD
- 250G/320G/500G/640G/750G (5400/7200rpm)

Solid State Disk(SSD)

- 32G m-SATA mini SSD for fast boot

Optical Disc Drive (ODD)

- Fixed 9.5mm height SATA tray ODD
- DVD Super-Multi (DVD-RAM/-R/-RW/+R/+RW), 8X write.

Communication

- LAN: Giga LAN on board
- W/L only(B/G/N mode) or W/L(B/G/N mode)+BT3.0 Combo

I/O Ports

- USB2.0 x 2
- USB3.0 x 1 (Support Power USB)
- RJ45 x 1
- VGA port x 1
- HDMI x 1

- 3-in-1 card reader x 1
- Microphone-in x 1
- Headphone-out × 1

System Status Indicators

- 1 Caps Lock (Blue)
- 1 Power Button LED (Blue)
- 1 LED for IDE HDD activity (Blue)
- 1 LED for System status (Power On / Suspend) (Blue)
- 1 LED for Battery status (Charging / Full / L1 / L2) (Blue/Amber)
- 1 LED for Blue tooth/Wireless Card (Amber)
- 1 LED for Power saving (Blue)

Control Button

- Hot Key
- Power button (support software off, 4 sec)x 1
- Magnetic lid switch control for system standby/ wakeup or suspend/ resume

AC Adapter

- 65W

Battery

- 4 cell 18650 battery (2800mAh)

Software

- Insyde BIOS
- Suspend to DRAM/HDD
- Security: Power-On Password, Supervisor Password
- USB memory Boot support
- Support SMBIOS 2.4, PCI2.2
- Support PXE
- Wake on LAN from S3
- Wake on LAN from S4 /S5 in AC mode

OS

- Windows 7 Ultimate 32bit / 64bit /Window 8* ready

Security

- 1. mSATA
- 2. WLAN(B/G/N mode) or WLAN(B/G/N mode)+BT3.0 Combo

Regulatory

- EMI: CE,FCC, VCCI,C-Tick, BSMI
- Safety: UL, CB, Gost-R, SABS, BSMI
- WHQL LOGO

Environment

- Temperature: Operating: 5 - 35°C / Storage: -20 - 65°C
- Humidity: 10 - 90% without condensation

Thermal

- Thermal capacity could support TAT TDP% or 3D mark2006 operation at 28C ambient.

Application

- cTDP Hotkey application just support on UMA platform, it's controlled by Hotkey Fn+F1.

Chapter 1

Introducing Your Notebook

Front and Rear Side

The following picture shows the front side of your notebook.
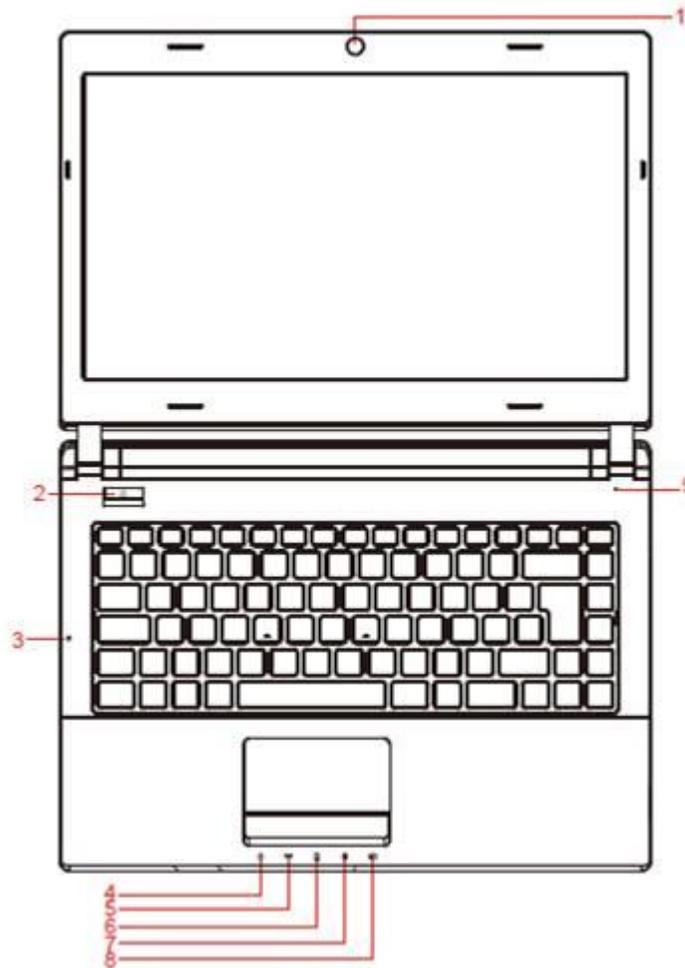
1	Web Camera	6	Battery Status(Blue)
2	Power Button(Blue)	7	HDD(Blue)
3	Caps Lock(Blue)	8	Power Status (Blue)
4	System Status(Blue)	9	Microphone
5	Bluetooth/Wireless(Amber)		

1.1.1 Power Key Buttons
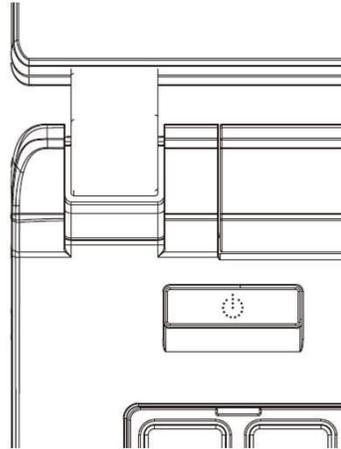
⏻   Press to turn your notebook on.

⚠️ Windows 7, which comes preinstalled, goes into the shutdown sequence automatically if you press the power button while on.
In Windows 7, you can configure this in Control Panel > System and Maintenance or Hardware and Sound > Power Options > Change plan settings > Change advanced power settings.

1.1.2 Wireless Switch

WLAN and BT switch controlled by Hot key Fn+F12.

1.1.3 Power LED (Blue) (⏻)

Power LED and Suspend LED indicate the systems power states by user combinations，The flashing Power On LED indicates your notebook is in standby mode.

1.1.4 Battery LED (Blue/Amber) (🔋)

Battery states LED is one dual-color LED indicator both of Blue and Amber color.

1.1.5 HDD accessing state Blue LED (🛢)

Reflect the activities of Blue Led.
Note: LED is controlled directly by hardware.

1.1.6 Caps Lock LED (White)

Caps lock LED (White): Caps Lock State of Keyboard
Note: In normal mode (Cursor and Num function are disable), when users press Hot Key, the Cursor LED will be on. When users press Hot Key, the Cursor LED will be off.

Left Side

The following picture shows the left side of your notebook.
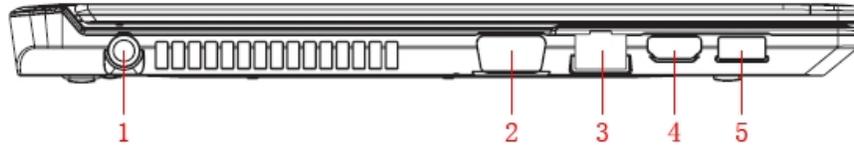
1	DC in
2	VGA
3	Rj45
4	HDMI
5	Power USB USB3.0(Blue)

1.1.7 AC Adapter Connector

Use this connector to attach the AC adapter to your notebook. You can connect an AC adapter when your notebook is switched on or off.

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

1.1.8 LAN (RJ-45)

The LAN allows you to connect your notebook to an internet line with a standard RJ-45 connector.

1.1.9 VGA Port

Use this port to connect an external monitor to your computer.

1.1.10 USB Ports

Use this port to connect a USB 3.0 device, such as a HDD, mouse, external keyboard, or printer to the computer.

USB 3.0

USB 3.0 is a peripheral expansion standard that supports data-transfer rates up to 5G bps. USB 3.0 peripherals have a single standard for cables and connectors. You can install and remove USB devices while the computer is on. This is called "hot swapping".

Right Side

The following picture shows the right side of your notebook.
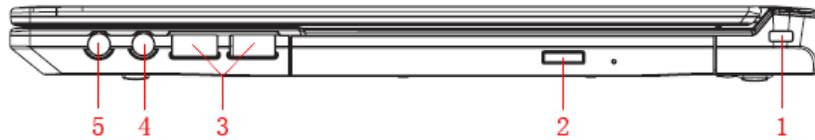
1	Kingston Lock
2	ODD Button
3	USB2.0 x2
4	Microphone(Black)
5	Earphone(Black)

1.1.11   USB 2.0 Ports

USB 2.0

Use this port to connect a USB device, such as a mouse, external keyboard, or printer to the computer.

USB 2.0 is a peripheral expansion standard that supports data-transfer rates up to 480 Mbps. USB peripherals have a single standard for cables and connectors. You can install and remove USB devices while the computer is on. This is called "hot swapping".

1.1.12   Kensington Lock ( )

A Kensington Security Slot is a small, metal-reinforced hole found on almost all small or portable computer and electronics equipment, particularly on expensive and/or relatively light ones, such as laptops, computer monitors, desktop computers, gaming consoles, and video projectors. It is used for attaching a lock-and-cable apparatus, in particular those from Kensington.

Back Side

The following picture shows the back side of your notebook.
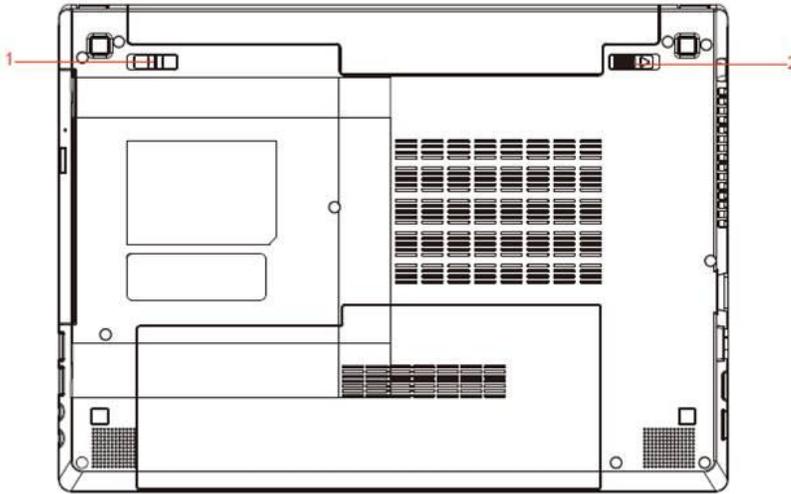
1	Battery Lock Knob
2	Battery latch Knob

1.1.13   Battery latch Knob

The Battery Latch Knob secures the battery pack. To release, slide the latch and then remove the battery pack from the bay.

Chapter 2

Caring for Your Notebook

2.1 Caring for Your Notebook

➢ Cleaning Your Notebook and Keyboard

➢ Cleaning the Display

➢ Cleaning the Touch Pad

➢ Precautions

⚠️ Never spray cleaning products directly onto your notebook's case or display. Only use products designed for cleaning computer displays.

2.1.1 Cleaning Your Notebook and Keyboard

Shut your notebook down, turn it off and disconnect it from the electrical outlet and any external devices, such as the printer.

Remove the battery pack.

Use the brush attachment of your vacuum cleaner to gently remove dust from your notebook's openings and keyboard.

Use a slightly moistened soft, lint-free cloth to wipe your notebook and keyboard. Use only the water or the recommended computer cleaner.

2.1.2 Cleaning the Display

Shut your notebook down, turn it off and disconnect it from the electrical outlet and any external devices, such as the printer.

Remove the battery pack.

Use a slightly moistened soft, lint-free cloth to wipe your notebook's display. Use only the water or the recommended computer cleaner.

2.1.3 Cleaning the Touch Pad

Shut your notebook down, turn it off and disconnect from the electrical outlet and any external devices, such as the printer.

Remove the battery pack.

Use a slightly moistened soft, lint-free cloth to carefully wipe the Touch Pad, being careful not to allow the moisture into the gaps of your notebook. Use only the water or the recommended computer cleaner.

2.1.4 Precautions

- Do not spill the liquid on the keyboard. If the liquid is spilt on the keyboard, turn your notebook off immediately. Leave off overnight to let it completely dry out before using it again.

- Do not turn off your notebook if the drive light indicates the drive is active. Turning off your notebook while it is reading from or writing to a disk may damage the disk, the drive, or both.

- Keep your notebook and disks away from the objects that generate the strong magnetic fields, such as the stereo speakers. Information on disks is stored magnetically. Placing the magnet too close to the disk can erase the important files.

- Scan all new files for viruses. This precaution is especially important for the files you receive via email, disk or download from the Internet. You will need the special program to scan for viruses. For further information, please contact with your notebook dealer.

- To ensure HDD function and the integrity of the saved data, please follow the instructions below:

▪ Protect your notebook from any impact during its operation.

▪ Do not use your notebook during the transportation such as in the car.

▪ Do not put your notebook in the car if it is directly exposed under the sun.

▪ Do not place any heavy objects on the LCD monitor.

▪ Use the AC adapter coming with the package instead of other adapters.

2.2 Traveling

- ➢ Identifying Your Notebook
- ➢ Packing Your Notebook
- ➢ Traveling Tips
- ➢ If Your Notebook is Lost or Stolen

2.2.1 Identifying Your Notebook

Attach a nametag or business card to your notebook, or use the permanent marker or stencil to write a unique identifying mark (such as your driver's license number) on the case.

Create a file on the Desktop called if found. Place information such as your name, address, and telephone number in this file.

Contact your credit card company to ask if it offers coded identification tags.

2.2.2 Packing Your Notebook

- Remove any external devices attached to your notebook and store them in a safe place.

- Fully charge the main battery and any spare batteries you plan to carry with you.

- Turn off your notebook or put the computer into hibernate mode.

- Disconnect the AC adapter.

- Remove any extraneous items, such as paper clips, pens, and papers, from the keyboard and then close the display.

- Pack your notebook and accessories in their carry case.

- Avoid packing the computer with items such as shaving cream, colognes, perfumes, or food.

- Protect your notebook, the batteries, and the hard drive from hazards such as extreme temperatures, dirt, dust, liquids, or overexposure to sunlight.

- Pack your notebook so that it does not slide around in the trunk of the car or in an overhead storage compartment.

⚠️ When traveling in the air, never check in your notebook as baggage.

2.2.3 Travel Tips

- If you are traveling abroad, you can carry the proof of ownership—or of your right for using your notebook if it is company-owned—to speed your passage through customs. Investigate the customs regulations of the countries you plan to visit and consider acquiring an international carnet (also known as a merchandise passport) from your government.

- Ensure that you know which electrical outlets are used in the countries you will visit, and prepare the appropriate power adapters.

- Check with your credit card company for information about any kinds of emergency travel assistance it offers to the users of the portable computers.

- When traveling in the air, please ensure that you have a charged battery available in case you are asked to turn on your notebook.

- Before using your notebook on the airplane, please verify that such usage is permitted. Some airlines forbid the use of electronic devices during the flight. All airlines forbid the use of electronic devices during taking-off and landing.

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

2.2.4 If Your Notebook is Lost or Stolen

Call a law enforcement agency to report your notebook lost or stolen. Ask that a case number be assigned and write down the number, along with the name, address, and telephone number of the law enforcement agency. If possible, please obtain the name of the investigating officer.

If your notebook belongs to the company, notify its security office.

Chapter 3
Peripherals

3.1 SD/MMC/MS Cards

➢ Installing a SD/MMC/MS Card

➢ Removing a SD/MMC/MS Card

⚠️ Before removing an SD/MMC/MS card, stop it running from the configuration utility on the taskbar. Failure to do so could result in the data loss

3.1.1 Installing a SD/MMC/MS Card

SD/MMC/MS card, with hot-plug feature, allow you to install and remove cards when your notebook is running. The card will be detected automatically after being installed.

Usually SD/MMC/MS Cards have a mark or symbol to show which end to insert into the slot. Insert the card according to the orientation symbol, and slide the card into the slot. Check the documents that came with your card if the orientation is unclear

Hold the SD/MMC/MS card with its orientation symbol pointing into the slot and the topside of the card facing up.

Slide the card into the slot until it clicks into the connector.

If you encounter too much resistance, do not force the card. Check the card orientation and try again.

3.1.2 Remove a SD/MMC/MS Card

To remove the SD/MMC/MS card, please just pull it smoothly.

Chapter 4
The BIOS Setup Program

4.1 Introduction

The BIOS (Basic Input and Output System) Setup program is a menu driven utility that enables you to make changes to the system configuration and tailor the operation of your notebook to your individual work needs. A ROM-based configuration utility displays the system's configuration status and provides you with a tool to set system parameters. These parameters are stored in nonvolatile battery backed-up CMOS RAM, which saves this information even when the power is turned off. When the computer is turned back on, the system is configured with the values found in CMOS. Via easy-to-use menus, you can configure such items as:

▪ Boot devices

The settings made in the Setup program intimately affect how your notebook performs. It is important, therefore, to first understand all the available options, and second, to make settings appropriate for the way you use your notebook. This chapter guides you through the Setup program by providing the clear explanations for all Setup options.

A standard configuration has already been set in the Setup program by the factory technicians. However, eventually you may want to customize your system to suit your own performance needs. It is recommended that you read this chapter and become familiar with the configurations that can be made in the BIOS.

The next section explains how to move around in the Setup program, as well as how to specify and save your new settings. A brief discussion of the optional settings among the different submenus follows.

4.2 Navigating through the BIOS Setup Program

➢ Accessing the BIOS Setup Program

➢ Launching Submenus

➢ Saving Changes and Exiting the Setup Program

The Setup program has been designed to make it as easy to use as possible. It is a menu driven program, which means you can scroll through the various directories and make your selections among the various predetermined choices. If you accidentally configure a setting, use the BIOS hot keys to return to the previous value. The hot keys are discussed in more detail later in this chapter.

When turning on your notebook for the first time you may be prompted to run the BIOS Setup program. A warning message may appear on the screen if the hardware configuration is changed or the POST fails. This message will inform you of any errors or invalid settings and prompt you to run the Setup program to correct the problem.

Even if you are not prompted by a message instructing you to use the Setup program, at some time in the future you may want to change the configuration of your notebook. It will then be necessary to reconfigure your system using the Setup program so that your notebook can recognize these changes.

The list below gives a few examples of reasons why you may want or need to run the BIOS Setup program.

▪ You have set up your notebook for the first time and you got a message stating that you should run the BIOS Setup program.

▪ You want to redefine the communication ports to prevent any conflicts.

 The few examples listed above are by no means complete

4.3 System Controls

4.3.1Buttons

4.3.1.1 Power Button

The activity of the power button is as follows:

- If system is Off/Hibernate: System will be turned on while Power switch is depressed by more than 100 ms

- If system is in Standby state: System will resume while Power switch is depressed by more than 100 ms.

- If system on with legacy mode: depress this button will turn off power.

- If system is running in ACPI OS, the power button acts as the sleep button, and let OS controls the policy of power button which is defined in Power Option under the OS.

4.3.1.2 Power Button Over-ride

Holding down the Power Button for 4 seconds will cause an unconditional transfer to the off state without notifying the operating system.

4.3.1.3 Lid switch

If the system is running under legacy mode:

- Closing the lid will turn off LCD backlight.

If the system is running under ACPI mode:

- The operating system will determine what action to take when the lid is opened and closed.

The function of lid switch will follow the OS setting in power management (Nothing, Standby or Hibernate). If nothing, the backlight must turn off when the lid is closed.

4.3.2 System status indicators

Please refer to Keyboard BIOS specification.

4.4 Core BIOS Features

4.4.1 Multi Boot

The notebook can support Multi-Boot for selecting the boot sequence of Hard Drive, Removable Devices, CD-ROM/DVD Drive and Network in Setup.

4.4.2 Quiet Boot

Quiet Boot replaces the customary technical messages during POST with a more visually pleasing and comfortable display (OEM screen). During POST, right after the initialization of VGA, The notebook displays an illustration called the OEM screen during system boot instead of the traditional POST screen that displays the normal diagnostic messages.

The OEM screen stays up until just before the operating system loads unless:

- <Esc> have no function on POST.

- Pressing <F2> to enter Setup.

- Pressing <F12> to enter Boot Menu.

- Whenever POST detects a non-terminal error, it switches to the POST screen near the end of POST, just prior to prompting for a password.

- If the BIOS or an option ROM request keyboard input, the system switches over to the POST screen with prompts for entering the information. POST continues from there with the regular POST screen.

4.4.3 Boot Block

The Flash ROM used in many systems today offer the customer the advantage of electronically reprogramming the BIOS without physically replacing the BIOS ROM. This advantage, however, does create a possible hazard: power failures or fluctuations that occur during updating the Flash ROM can damage the BIOS code, making the system unbootable. To prevent this possible hazard, many Flash ROM include a special non-volatile region that can never be erased. This region, called the boot block, contains a fail-safe recovery routine. If the boot block finds corrupted BIOS, it prompts the end user to insert a diskette, from which it loads several files that replace the corrupted BIOS on the Flash ROM with an uncorrupted one.

4.5 Thermal management

Please refer to Keyboard BIOS specification.

4.6 Power Management for ACPI mode

4.6.1 Introduction

The notebook supports ACPI. The system will dynamically switch to ACPI mode for configuration and power management when an ACPI OS is loaded.

When ACPI is not loaded and enabled, the power management function will be disabled.

4.6.2 System Time-outs

If the system is running in ACPI mode, system Time-outs is handled by the operating system. BIOS time-outs are disabled. System time-outs are set using the control panel power applet.

4.6.3 System Power Management

The overall system can be in one of the system power states as described below:

ACPI mode	Power Management
Mech. Off (G3)	All devices in the system are turned off completely.
Soft Off (G2/S5)	OS initiated shutdown. All devices in the system are turned off completely.
Working (G0/S0)	Individual devices such as the CPU and hard disk may be power managed in this state.
S3 Sleeping State	CPU set power down VGA Suspend New Card Suspend Audio Suspend Hard Disk Power Down ODD Power Down Super I/O Power Down
S4 Sleeping State	System Saves all system states and data onto disk prior to power off the whole system.

4.6.4 Device Power Management

Under ACPI mode, the device specific power management supported by this notebook includes the CPU throttling, monitor power management and the hard disk.

4.6.4.1 CPU power management

- ACPI mode

The operating system detects when the system is idle and places the CPU in one of the 3 CPU low power states (C1, C2, C3 up to C6) depending on how much latency it believes the system can afford.

The C1 state is simply the CPU halt instruction.

The C2 state is the CPU stop grant state.

The C3 state is the CPU stops clock state.

The CPU stays in this state until an interrupt occurs.

4.6.4.2 Hard Disk

The operating system uses the spin down timer of the hard drive to set time-outs. The BIOS time-out of the hard disk must be disabled in ACPI mode. The user can sets the hard disk spin down time-out in the control panel power applet.

4.6.4.3 Display Device

The monitor can be turned off after a period of no activity based on the settings of the OS.

4.6.4.4 System Wake Up Sources

The table below lists the wake up events for all low power states:

Events	S3	S4	S5	Process required
Internal Keyboard	Yes	No	No	No
Internal pointing device	No	No	No	No
USB	No	No	No	No
Lid Switch	No	No	No	No
Power button	Yes	Yes	Yes	No
LAN (On board)	Yes	Yes(AC mode only)	Yes(AC mode only)	Yes
RTC	Yes	Yes(AC mode only)	Yes(AC mode only)	Yes
Critical low battery	Yes	No	No	Yes

Field 'Process required' identifies that further process for the occurred events must be processed during wake up or resumes procedure.

4.6.4.4.1 LAN

LAN (On board)

S3(Standby): LAN is supported wake-up from S3 w/ AC/DC mode

S4(Hibernation)/S5: LAN just only support wake-up from S4/S5 w/ AC only

BIOS will enable or disable WOL based on device manager setting.

4.6.4.4.2 Real Time Clock Alarm

The Real Time Clock alarm interrupt will wake the system from Standby (DC/AC), Hibernation (AC mode only) and S5 (AC mode only).

4.6.4.4.3 Critical Low Battery

Critical low battery event can wake the system from Standby (DC mode) in ACPI mode.

4.6.5 Hibernation

To support the hibernate state, the save to disk partition or file will be created by the operating system if the user select to enable the hibernation.

It is the responsibility of the operating system to save the system state to a disk file and restore the system state when it is turned back on.

4.7 ACPI (Advanced Configuration and Power Interface)

4.7.1 Introduction

The Advanced Configuration and Power Interface (ACPI) is a well-specified power management and configuration mechanism. It evolves the existing collection of power management codes, APM, PnP BIOS, and Etc.

4.7.2 ACPI Sleep Status

BIOS must support the following sleep states – S3, S4 and S5.

4.7.3 Fast Resume

BIOS must hands off the control to the operating system within the following time limits:

	Required
S3->S0	2seconds

*Measured using the Microsoft VTS (Velocity) tool.

In addition, total resume time from S3 must be completed within 5 seconds.

4.7.4 Power State Transition Diagram

The state transition diagram in ACPI mode is as follows:

From (State)	Leave By Condition	Enter (State)
S3	Power Button	S0
	Internal Keyboard	
	RTC Alarm	
	On board LAN (WOL)(*1)	
S3	Battery Critical Hibernation trip point reached (*2)	S4
	The timer timeout after the inactivity of selected timer in power scheme, System Hibernate, reaches the setting (*2)	
S4	Power Button	S0
	On board LAN (Only in AC mode)	
	RTC Alarm(Only in AC mode)	
S5	Power Button	S0
	On board LAN (Only in AC mode)	
	RTC Alarm(Only in AC mode)	
S0	Press Lid switch / Sleep Button (Fn+F2) / Power Button (depends on ACPI OS setting)	S3
	User selects the Standby Option in the Windows Shut Down menu	
	ACPI OS timer expired	
	Critical /Low battery (depends on ACPI OS setting)	
S0	Press Lid switch/ Sleep Button (Fn+F2) / Power Button (depends on ACPI OS setting)	S4

S0	User selects the Hibernate Option in the Windows Shut Down menu	
	Critical /Low battery (depends on ACPI OS setting)	
S0	Press Lid switch / Power Button (depends on ACPI OS setting)	S5
	The Power Button is pressed for 4 seconds (Power Button Override)	
	User selects the Shut down Option in the Windows Shut Down menu	
	Critical /Low battery (depends on ACPI OS setting)	
	Thermal critical shutdown performed by EC firmware	

Note1: The backlight of LCD should be off when WOL from S3 as it is remote wake up.

Note2: the S3 -> S4 transition results in the system transitioning to the S0 state first so OS can save the context to the hard disk. The system BIOS/KBC will not be involved for S3 -> S4 transition. The system power scheme will wake the machine from S3 and then transition to S4 Hibernation. The backlight of LCD is off during this transition.

4.7.5 Storage Devices and Batteries

Possible storage devices are FDD, HDD, CD-ROM and DVD-ROM

- Floppy Disk and Hard Disk, CD-ROM and DVD-ROM

The BIOS must report the correct types of these devices if the drive is installed in the system during POST. Two devices, which belong to the same category, are not supported in this notebook.

- Batteries

The BIOS must follow ACPI specification and report the correct number of the installed battery and status.

4.7.6 Bootable Device

The system is capable of booting from onboard HDD, CD ROM, DVD-ROM, external USB Floppy and USB ATA Flash device.

4.7.7 Embedded controller

The keyboard controller will act as the ACPI embedded controller and support the ACPI EC protocol and interface.

4.8 PC2001

The notebook must meet Microsoft Logo requirements in accordance with the PC2001 Guide and the Microsoft Logo test programs.

4.9 Miscellaneous Features

4.9.1 BIOS ROM

It depends on the platform design architecture (sharer ROM or Non-Sharer ROM, Intel ME SKU and so on).

Non-Share ROM: SBIOS and EC BIOS have each SPI ROM chip separately, the EEPROM is inside EC BIOS area, BIOS will copy a full set of EEPROM data to SBIOS ROM at the first POST or EEPROM data is updated to speed up the EEPROM access.

Sharer ROM: The EC BIOS, EEP ROM and SBIOS are all inside one SPI ROM chip.

4.9.2 USB Support

This feature allows the use of a USB keyboard to access BIOS Setup and to be used in DOS without additional drivers. USB floppy boot and Crisis Recovery from USB floppy is also supported. The driver provides other USB devices support after loading the operating system.

4.9.3 Flash utility – one ROM file only

The flash utility can be used to program both system and keyboard BIOS at the same time. Before flash BIOS you must make sure that AC exist. Or you will be forbidden to flash BIOS.

4.9.4 Crisis Recovery

This feature provides an opportunity for system that cannot boot up. With a crisis floppy diskette, the system can perform crisis recovery by using internal PS2 keyboard.

To perform crisis recovery using keyboard, do the following:

Power off the system.

Plug-in the USB floppy drive with crisis floppy diskette inserted.

Hold down Fn + B keys.

Plug-in AC adapter and make sure it is powered.

Power on the system from off state (i.e. cold boot) while holding down <Fn+B> key.

After POST, release <Fn+B> key. The system should boot from floppy and perform crisis recovery action.

4.9.5 VGA Support

This section describes the expected behavior when a video monitor is connected to the VGA port on the notebook .The feature needs VGA driver support.

The BIOS will use both the RGB and pin 11 methods to determine the presence of an external VGA monitor.

Video modes supported on the secondary display path (need VGA driver support)

Supported video modes and timings please refer to the technical reference of VGA vendor. In particular, text mode and standard VGA modes are not supported.

4.9.5.1 Brightness table

This section describes the LCD Brightness control.

The keyboard Fn+F4 and Fn+F5 keys, the AC/DC state and the brightness slide bar in Windows Vista Mobility Center control the LCD brightness.

There shall be 11 levels of distinct brightness.

Level 11 = Maximum Brightness possible.

Level 1 = Minimum brightness without flickering (10 nits recommended, depending on inverter stability, type and display uniformity).

One setting level should be approximately 55 – 60 nits for Mobile Mark 2002 test.

4.9.5.2 Boot Display Algorithm

This section describes the POST boot up display device with multi display device attached.

Only support Local Flat Panel display during POST when LFP attached, the external display device (Include VGA, DVI, HDMI and DP) will not display until entering the OS.

4.9.6 Fast Boot

The BIOS POST time should be within 5 seconds or less. The BIOS POST time is measured by Microsoft Velocity Test Suite. The POST timing test needs to include the worst-case drive configuration (internal or external) and worst-case memory configuration available via the retail channels.

The POST time testing environment does not include attachable devices such as USB keyboards, external monitors, printers, PC Cards, Port Replicators and etc.

Note: if have TPM device, the BIOS Post Time should add extra 300 microseconds for initial.

4.9.7 Wireless Control

BIOS should report the wireless device (include WLAN and BT) exist and enable status to the EC namespace for the KillSwitch support.

4.10 Customer Specific Features

4.10.1 Display of System Type and BIOS Version Number on Boot

The development BIOS Version should start from 0.01 and the formal BIOS for MP should start from 1.00.

4.10.2 CMOS RAM management

For UEFI Code, CMOS just reserve for kernel code/Chipset code, the variable storage had been replaced by flash part.

4.10.2.1 CMOS Requirement for Debug Purpose

For debug purpose, BIOS could save data to CMOS NV0 (access by port 70h/71h) offset 48h-4Fh, 6Ch-6Fh and 70h-7Fh, NV1 (access by port 72h/73h) offset 40h-57h and 60h-7Fh which are reserved for OEM use.

4.10.3 System Management BIOS(SM BIOS) version 2.7 (DMI 2.0)

Limited DMI 2.0 BIOS information is provided:

BIOS version number is type 0 data item.

Type 1:

- System serial number – 64 alphanumeric characters with 12-character bundle number

- System manufacturer name – 16 alphanumeric characters

- System product name – 32 alphanumeric characters

- System version – 32 alphanumeric characters

- UUID – 32 Hexadecimal numbers

Type 2:

1   System manufacturer name – 16 alphanumeric characters

2   Motherboard Product name – 'XXX'

3   System serial number – 64 alphanumeric characters with 12-character bundle number

Type 3:

4   System manufacturer name – 16 alphanumeric character

5   System serial number – 64 alphanumeric characters with 12-character bundle number

6   Asset tag number – 128 alphanumeric characters

4.10.3.1 Default SMBIOS Value

Name	Default Value
System Serial Number	123456789
Manufacturer name	Compal
System version	X.XX
System product name	%project code%

4.10.4 EEPROM

There is one EEPROM that is used to store many important system and user data in the notebook (some data are reserved for future to use)). The size of the EEPROM is 2K bytes.

The EEPROM map is listing as below:

Name	Offset	Comments
System Serial Number	00h – 1Fh	32 bytes of Serial number.
	20h – 3Fh	32 bytes of Bundle number.
Manufacturer name	40h – 4Fh	16 bytes for DMI type 1/2/3
System version	50h – 6Fh	32 bytes of System version for DMI type 1.
UUID	70h – 7Fh	16 bytes for UUID for DMI type 1.
System product name	80h – 9Fh	32 bytes of System product name.
DMI type 11	A0h – DDh	62 bytes for DMI type 11
OS_SKU	DEh	1 byte for OS type
Unused	DFh	Unused
GUID	E0h – E7h	8 bytes for GUID
Born On Date	E8h – EAh	3 bytes for born on date
EEPROM initialized flag	EBh	Set to AAh when the EEPROM get initialized.
Reserved	ECh - EFh	Reserved
Keyboard type	F0h	Define for US/UK/JP keyboard
Keyboard BIOS used	F1h	1 byte for Keyboard BIOS used
Branding	F2h	1 byte for Branding.
TFYJ	F3h	1 byte for TFYJ
KMS	F4h	KMS active flag
Reserved for keyboard	F5h – F6h	Reserved 2 bytes for keyboard used
Unused	F7h – FEh	Unused
Assettag number	200h – 23Fh	64 bytes for DMI Type 3
LAN MAC Address	240h – 245h	6 bytes for LAN without EEPROM
Unused	246h – 25Fh	Unused
ACPI OEM ID	260h – 265h	6 bytes for ACPI OEM ID
Unused	266h – 26Fh	Unused
ACPI OEM Table ID	270h – 277h	8 bytes for ACPI OEM Table ID
Reserved	278h – 7FFh	Reserved

4.10.5 OEM Active 1.0/2.0/2.1 and KMS activation Support

OEM Activation 1.0 (a.k.a. SLP 1.0) is used to activate Windows XP. To support it, BIOS needs to populate OEM string in the 0xF000 segment during POST.

OEM Activation 2.0 (a.k.a. SLP 2.0) is used to activate Windows Vista. To support it, BIOS needs to populate ACPI SLIC table during POST.

For projects supports Windows 7, SLP 2.1 is required to support.

MS claims the Windows marker is MS's IP and cannot appear on non-Windows OS SKUs. An EEPROM flag OS_SKU (refer Sec. 9.4) is defined to indicate the machine is shipped with Windows or non-Windows OS. The flag is programmed in the factory and BIOS needs to read this flag when populating OEM string/ACPI SLIC table. If the flag indicates the machine is shipped with non-Windows OS, BIOS will not load Windows marker structure in ACPI SLIC table.

KMS Activation support.

To support the KMS activation, the SLIC table should be removed from the ACPI table.

To support multi customer, BIOS should remove the SLIC table as default, and populate the SLIC table if customer enter the OEM ID, OEM table ID and OS_SKU in the EEPROM. The customer should create customized BIOS with SLP2.0/2.1 market and public key at the same time to active Vista/Window 7. Please refer to the "How to update OEM SLP" for the detail instruction of customized BIOS creation.

4.10.6 Multi Customer Logo Support

To support Multi customer Logo, BIOS will merge dummy OEM logo in BIOS as default, and customer should create customized BIOS with OEM Logo. Please refer to the "How to update OEM Logo" for the detail instruction of customized BIOS creation.

4.11 System Setup

4.11.1 Invoking setup

The setup function can be invoked by pressing F2 when "Press <F2> to enter Setup" message is prompted on the bottom of screen during POST.

During setup, all Fn function keys and power saving functions are disabled.

4.11.2 Main Menu

InsydeH20 Setup Utility			
Main Advanced Security Boot Exit			
System Time	[00:00:00]		
System Date	[01/01/2011]		
Processor Type	Type,XXXGHZ		
System Memory Speed	XXXX MHz		
Total Memory	XXX MB	Details see the following	
EC version			
System BIOS Version	X.XX.XX	Help Information	
Intel ME Version	X.XX.XX.XXXX		
HDD Disk0	XXXXXX		
CD/DVD Rom	XXXXXX		
Serial Number	XXXXXX		
UUID			
F1　Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select▶SubMenu	F10 Save and Exit

System Time and System Dat

The hour is displayed with 24-hour format. The values set in these two fields take effect immediately.

Processor Type

This field shows CPU type and speed.

System Memory Speed

This field reports the memory speed of the extended memory with an integer in the system

Total Memory

This field reports the memory size of the extended memory with an integer in the system.

HDD Disk

This field reports the HDD string.

CD/DVD Rom

This field reports the CD/DVD string.

Serial Number

This field displays the serial number, max size support to 32 bytes.

UUID

This field display the UUID, the length is 16 bytes.

Help information

System Time

[hh:mm:ss]This is the help for the hour field. Vaild range is from 0 to 23.

INCREASE/REDUCE:+/-.

[hh:mm:ss]This is the help for the minute field. Vaild range is from 0 to 59.

INCREASE/REDUCE:+/-.

[hh:mm:ss]This is the help for the second field. Vaild range is from 0 to 59.

INCREASE/REDUCE:+/-.

System Date

[mm:dd:yy]This is the help for the month field. Vaild range is from 1 to 12.(Error

checking will be done against month/day/year combinations that are not

supported.) INCREASE/REDUCE:+/-.

[mm:dd:yy]This is the help for the day field. Vaild range is from 1 to 31.(Error

checking will be done against month/day/year combinations that are not

supported.) INCREASE/REDUCE:+/-.

[mm:dd:yy]This is the help for the year field. Vaild range is from 2000 to 2009.(

Error checking will be done against month/day/year combinations that

are not supported.) INCREASE/REDUCE:+/-.

4.11.3 Advanced

InsydeH20 Setup Utility			
Main **Advanced** Security Boot Exit			
Num lock	<Off>		Details see the following Help Information
►Peripheral Configuration			
VT	<Enabled>		
Configuration SATA as	<AHCI>		
POST Hotkey Delay	<0>		
UMA Share Memory Size	<32MB>		
USB Legacy	<Enabled>		
Power USB	<Disabled>		
Battery Mode Support	<Capacity >= 20%>		
►INTEL Anti-Theft Technology Configuration			
►INTEL(R) Rapid Start Technology			
F1 Help	↑↓Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select►SubMenu	F10 Save and Exit

Numlock

Enter this menu, you can choose the ON or Off in this submenu.

Peripheral Configuration

Enter this menu, it can display the submenu:

> "Bluetooth   <Enable>"
>
> "Wlan   <Enable>"
>
> "Camera   <Enable>"
>
> "Card Read   <Enable>"
>
> "Azalia   <Auto>"

You can select Enabled or Disabled in the above submenu, and in the submenu "Azalia <Auto>" you also can select Auto, Enable or Disable.

Configure SATA as

Choose HDD mode through selecting the IDE mode or AHCI mode or RAID mode.

VT

You can select the Disabled or Enabled in this menu.

UMA Share Memory Size

You can select the share memory size for UMA use, 32MB/64MB/128MB could be selected.

USB Legacy

You can select the Disabled or Enabled in this menu according to the owner requests.

Power USB

You can select Enabled to charge USB device via USB ports. Power USB also can support battery mode if battery capacity >= N%.

Battery Mode Support

Select capacity >= N% or disable battery mode. You only can select capacity or disable Battery Mode Support after the Power USB is enabled.

INTEL Anti-Theft Technology Configuration

Enter this menu, it can display the submenu:

> "Intel(R) AT Support System   <Enabled>"
>
> "Intel(R) AT Recovery   [3]"

You can select the Disabled or Enabled in the above submenu. Set the number of times Intel(R) AT Recovery attempts will be allowed.

INTEL(R) Rapid Start Technology

Enter this menu, it can display the submenu:

> "iRST Support   <Disabled>"

You can select the Disabled or Enabled in the above submenu.

> "Entry after   10 minutes"

The timer setting to entry iRST, Immediately/1 minute/2 minutes/5 minutes/10 minutes/15 minutes/30 minutes/1 hour/2 hours/12 hours/24 hours could be selected after enable iRST.

Help information:

NumLock

Selects Power-on state for Numlock.

Peripheral Configuration

Configures the peripheral devices.

Bluetooth/Wlan/Camera/Card Read/Azalia

Enable or Disable this device, and in the submenu [Azalia <Auto>] you also can select Auto, Enable or Disable.

VT

Virtualization Technology Enable/Disable.

Configure SATA As

Set Harddisk Controller Configure Type.

POST HotKey Delay

Customizable amount of time for the user to press HotKey at POST.

UMA Share Memory Size

Select DVMT5.0 Pre-Allocated(Fixed) Graphics Memory size used by the Internal Graphics Device.

Usb Legacy

USB devices boot and access in DOS. If disable USB Legacy, USB devices can not boot.

FAST Boot

This BIOS POST time will be within 2 seconds or less when Fast boot enable.

Power USB

Power USB Function Enable/Disable.

INTEL Anti-Theft Technology Configuration

Disabling Intel(R) AT Allow user to login to platform, this does not disable Intel(R) AT services in ME.

Intel(R) AT Support System

Enable/Disable Intel(R) Anti-Theft Technology

Intel(R) AT Recovery

Set the number of times Intel(R) AT Recovery attempts will be allowed

INTEL(R) Rapid Start Technology

iRST Settings

4.11.4 Security Menu

This menu shows the security setting, such as TPM, User and Supervisor Password, HDD Password and Power on Password.

InsydeH20 Setup Utility		
Main Advanced **Security** Boot Exit		
TPM Status	XXXXX	
TPM Operation	<No Operation>	

TPM Force Clear	<Disabled>	
Supervisor Password	Clear	
Set Supervisor Password		Details see the
Power on Password	<Disabled>	following
		Help Information

F1　Help	↑↓Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select►SubMenu	F10 Save and Exit

TPM status

Show the TPM status: "Enable and Active" or "Disable or Deactive". This option only show on TPM unit.

TPM Operation

Enable/Disable TPM function. This option will automatically return to NO-Operation. This option only show on TPM unit.

TPM Force clear

This item will show when the TPM Operation be set "Enable and Active", use to enable/disable TPM Force Clear function.　This option only show on TPM unit.

Supervisor Password

Show the Password status: Clear or Set

Set Supervisor Password

Install or Change the password.

Power on Password

Enable or disable the Power on Password. You only can enable/disable Power on password after the Supervisor password is set.

Help information

TPM Operation

Enable/Disable TPM function. This option will automatically return to NO-Operation.

TPM Force clear

TPM Force Clear function.

Set Supeivisor Password

Install or change the password and the length of password must be greater than one character.

Power on password

Enable:System will ask input password on post time. Disable:System will ask input pass-

word when go to Setup Utility

Password behavior

Supervisor Password and Power on Password

After set the supervisor password , power on password can enable or disable.

If only set the supervisor password, system will request supervisor password before entering setup menu(F2). Users have 3 chances to input supervisor password, system will request shutdown if users input wrong password 3 times.

If set power on password, system will request the password after power on the machine . Users have 3 chances to input power on password, system will request shutdown if users input wrong password 3 times.

4.11.5 Boot Menu

This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices include the diskette drive in module bay, the onboard hard disk drive in module bay.

InsydeH20 Setup Utility			
Main Advanced Security **Boot** Exit			
Boot priority order:			
Floppy Drive : XXXXXXXXXX			
Hard Disk Drive0 : XXXXXXXXXX			
Hard Disk Drive1: XXXXXXXXXX			
CD/DVD-ROM Drive: XXXXXXXXXX			
USB HDD : XXXXXXXXXX			
USB CDROM : XXXXXXXXXX	Details see the following		
Network boot: XXXXXXXXXX			
	Help Information		
Boot Device Status :			
Floppy Drive <Enabled>			
CD/DVD-ROM Drive <Enabled>			
Network boot <Enabled>			
F1 Help	↑↓Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	Enter Select ▶SubMenu	F10 Save and Exit

Help information

Use <↑>or <↓> to select a device, then press <F5> to move it down the list, or <F6> to

Move it up the list. Press <Esc> to escape the menu.

4.11.6 Exit Menu

InsydeH20 Setup Utility		
Main Advanced Security Boot **Exit**		
Exit Saving Changes		
Exit Discarding Changes		
Load Optimal Defaults		Details see the following
		Help Information

F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	← → Select Menu	EnterSelect ▶SubMenu	F10 Save and Exit

Exit Saving Changes

Allows the user to save changes to NV Storage and reboot system. The following message is prompted when user press "Enter" on the item.

```
Exit Saving Changes?
[Yes]      [No]
```

Yes: Save Changes, Exit SETUP and reboot

No: Back to previous screen

Exit Discarding Changes

Allows the user to discard changes and continue the boot operation. The following message is prompted when user press "Enter" on the item.

```
Exit Discarding Changes?
[Yes]      [No]
```

Yes: Discard Changes and Continue the boot operation.

No: Back to previous screen

Load Optimal Defaults

Allows the user loads default value in CMOS Setup. The following message is prompted when user press "Enter" on this item:

```
Load Optimal Defaults?
[Yes]      [No]
```

It still stay in Setup when press a key.

Help information:

Exit Saving Changes

Exit system setup and save your changes.

Exit Discarding Changes

Exit system setup and without saving your changes.

Load Optimal Defaults

Load Optimal Defaults

4.12 OS Compatibility

Windows 7 SP1 Ultimate (32bit / 64bit)

4.13 ME Firmware Update

ME FW Update allows an end user, such as an IT administrator, to update the ME firmware without having to reprogram the entire flash device.

The image file that the tool uses for the update is not the image file used to create the complete SPI firmware image file. A sample firmware image file for updating,

Base_Corporate_ME_UPD.BIN, is located in the kit's NVM image folder. It only contain the ME code region and it can not be used to generate whole SPI image with FITC tool.

Please be aware that firmware update takes approximately 1-4 minutes to complete

depending on the flash device on the system.

After FW update a host reset is needed to complete FW update. You can use –FORCERESET option to do this automatically.

4.13.1 DOS update

FWUpdLcl.exe Base_Corporate_ME_UPD.BIN

4.13.2 Windows update

Still verifying will update the information.