

# GIGABYTE™

# Q2432

USER'S MANUAL

使 用 手 冊

• English

V1.0



\* Images Used for Reference Only

Copyright © 2011 GIGABYTE TECHNOLOGY CO., LTD.  
All Rights Reserved

GIGABYTE Q2432 Series Notebooks User's Manual  
Date Issued: 2011/04

This manual takes you, step by step, through setting up and using your new Notebook PC.  
Information in this manual has been carefully checked for accuracy and is subject to change without prior notice.

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

#### Trademarks

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

GIGABYTE™ is registered trademarks of GIGABYTE Technology.

Microsoft®, MS-DOS, Windows®, and Windows® Sound System are trademarks of the Microsoft Corporation.

Intel® & Core™ are registered trademarks of Intel Corporation.

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

## General Safety Precautions

In order to ensure your safety and the safety of you notebook, we ask that your carefully follow these safety precautions.



**CAUTION:** Using your notebook for long periods of time, with the base resting directly on exposed skin, can cause injury, burns or discomfort from the heat buildup that is generated from the base of your portable computer.

- After removing the notebook from the box, please ensure that all packaging materials are kept out of the reach of small children as they can cause a potential choking hazard. The packaging materials should be safely stored away in the event that it may be used again for safe transportation of the notebook.
- Ensure that the AC Adapter and power cable are placed in a safe area where it cannot be tripped over or stepped on. The AC Adapter should be situated in a well ventilated area and should have nothing resting on or covering it.
- Before turning on the notebook, ensure that it is placed on a level surface with at least 10 cm of clearance around the air vents, which will aid in proper cooling.
- Do not obstruct the air vents of the notebook and do not insert any foreign objects into this space. Doing this may cause a short circuit or may cause the CPU fan to malfunction, resulting in the risk of a fire or electric shock. This may eventually render permanent damage to the notebook.
- Do not press or touch the display panel.
- Only use the AC Adapter that is provided with the notebook or that which is recommended by the manufacturer. Using non-recommended or non-approved parts may cause damage or increase the risk of a fire or explosion. In the event that another AC Adapter is

required, advice should be sought from a GIGABYTE service agent, in order to make sure that the correct part is recommended.

- Please follow the battery installation guidelines. Incorrect installation of batteries may increase the risk of a fire or explosion.
- Only replace old batteries with the same or an alternative compatible battery that is recommended by GIGABYTE or an authorized GIGABYTE Service Centre.
- Before connecting the notebook to the power outlet, make sure that the voltage rating of the AC Adapter is compatible with the power specification in the country where you are located.
- When using an extension cord, please make sure that the total sum of ampere ratings for all connected devices does not exceed the total ampere capacity for the circuit.
- Before removing the battery from the notebook, make sure firstly that the notebook is switched off and secondly that the AC Adapter is disconnected from the electrical wall socket. Once this is done, it would be safe to remove the battery.



Do not carry the notebook battery, loose, in your handbag, backpack or pocket where loose metal objects (money, keys, chains, pens, etc) may be present. The metal objects can short circuit the terminals of the battery resulting in overheating that could cause a fire hazard. In the event that you need to transport the battery separately from the notebook, please place it inside an anti-static bag.

- Discard old worn out batteries according to the instructions on Page VII. Never throw batteries into a fire as this can cause an explosion.
- Never attempt to repair or service the notebook yourself. Please refer all repairs and servicing to qualified service personnel at a GIGABYTE Authorized Service Centre.

## Travel Tips

Although notebooks are designed to be as robust as possible to cater for a mobile lifestyle, extreme care and caution should be taken when travelling. When travelling by land, sea or air, every precaution should be taken to make sure that the notebook is well secured when it is not in use.

- The most essential accessory you should have when travelling is a good carry case for your notebook. The case should be well padded to protect your notebook from drops and bumps, etc and should be big enough to hold the size of notebook.
- Make sure there is enough room to carry your AC Adapter and spare battery etc. Only carry the necessary items in your carry case, as the weight can become tedious especially when walking long distances or waiting in long queue's.
- When travelling by air, never book your notebook in with checked baggage. Always declare it as hand baggage so that you can carry it into the airplane cabin with you. Most airlines allow two pieces of hand baggage with one of them being a bag or carry case with a portable notebook. Please consult your local airline for more details.
- When placing your notebook on an X-Ray, make sure that you keep a close eye on it when it is one the conveyor belt. Hold on to your notebook until the last minute before placing it on the conveyor. In some airports it could be stolen while you are stuck in a queue waiting to pass through the metal detector.
- Notebooks and hard drives can pass through X-Ray machines but never allow these to pass through a metal detector. This can cause data loss to the hard drive.
- Never place your notebook in the overhead storage compartment as

this can make it susceptible to damage caused by turbulence that may be experienced during the flight or in other case theft. You can store your notebook under your seat, where it is always in sight.

- You should take every precaution to protect your notebook from dust, dirt, liquid spillage, food droppings, extreme weather conditions and direct exposure to sunlight.
- When travelling between different climates, from one extreme to another, condensation may occur inside the notebook. If this does happen, please allow sufficient time for the moisture to evaporate completely, before attempting to switch on.
- When travelling from extremely colder to extremely warmer climates in a short space of time, and vice versa, please allow the notebook some time to adapt to the change in environment.

## Usage Tips

- When unplugging the power connector from the notebook, please hold and pull on the connector or the strain relief loop to disconnect. Do not pull the power cord itself as this can cause damage to the cable or the notebook.
- In the event of an electrical storm, please disconnect the notebook from the power source and unplug any network or telephone cables that may be connected to the notebook.
- Do not use the notebook near water sources, like bathtubs, washing basins, kitchen or laundry sinks or swimming pools. Liquid that can spill onto the notebook by accident can cause electric shock to you and damage to the notebook.

## Cleaning Tips

When cleaning the notebook, please make sure that the notebook is switched off and disconnected from the power source and that the battery is removed.

### Notebook Cover:

Use a microfiber or lint free soft cotton cloth and kitchen detergent (mix 5 parts water to 1 part detergent).

- Wet the cloth and wring out all excess liquid and wipe the surfaces clean.
- Take extra care to make sure that the cloth is damp and not very wet, especially when cleaning around the air vents and other openings as too much liquid in the cloth could drip onto the external components causing damage to the notebook.
- Do not clean the keyboard with this liquid.

### Keyboard:

- It is advisable to use a can of compressed air to clean debris that maybe caught underneath the keys.
- Isopropyl alcohol can be used to clean the keys by dipping a lint-free soft cloth into it, wringing out the excess liquid and wiping the keys.
- Allow to dry for at least 5 minutes.

### LCD:

- It is best to use a microfiber cloth to clean the surface of the LCD.
- If there are any marks or stains present, it would be wise to use commercially available LCD cleaning kit. When using a commercially available LCD cleaning kit, never spray the liquid directly onto the screen. You must spray it onto the cleaning cloth and then wipe the screen clean.
- If this is not available then you can mix 50% isopropyl alcohol and 50% distilled water to clean the surface of the LCD screen.
- Dip the lint free soft cotton cloth into the solution, wringing out excess liquid.
- The cloth must be damp but not dripping with liquid.
- Take care not to let any excess liquid drip into the notebook.
- Start from the top of the LCD surface and wipe from side to side.
- Continue with this until the entire LCD surface has been cleaned.
- Wipe the display with a clean, dry lint free soft cotton or microfiber cloth.
- Wait for the LCD surface to dry completely and then close the lid.



Be careful when using Isopropyl Alcohol as this is a flammable liquid. Please keep away from children, naked flames or a notebook that is switched on.

## Warranty Guidelines

All warranty repairs and service must be carried out by a GIGABYTE Authorized Repair Centre.

### GIGABYTE Limited Warranty :

GIGABYTE warrants, that the GIGABYTE branded Notebook/Netbook is free of any defects in materials and workmanship under normal use during the warranty period.

- All GIGABYTE supplied AC adapters and batteries carry a 1 year limited warranty.
- The warranty is effective from date of purchase.
- If proof of purchase cannot be shown, then the warranty will be determined based on the date of manufacture.
- The limited warranty is only valid for GIGABYTE branded or supplied hardware.
- In the event that a defect arises in materials or workmanship and proof is shown of this defect, GIGABYTE will, through its authorized service provider or partner, repair the product at no extra charge, using new or refurbished replacement parts in order to fulfill the warranty obligations.
- If, during the warranty period, GIGABYTE or its service provider is unable to repair the product, the product will be replaced with a comparable product that is new or refurbished.

### Warranty Limitations :

The GIGABYTE Limited Warranty does not cover the following...

- Software, including the operating system and applications supplied with the product. This also includes third party software that may be installed after purchase.
- Third party hardware, products and accessories not supplied by GIGABYTE. This also includes third party hardware that may be bundled with the notebook or netbook.
- Products with missing or defaced labels and/or serial numbers
- Products damaged by environmental factors, which include oxidation
- Products damaged by natural disasters or acts of God.
- Physical Damages which include, but not limited to, the following:
  - ▶ Unauthorized modifications, repairs or servicing
  - ▶ Misuse, abuse, neglect or failure to follow instructions in the user manual.
  - ▶ Improper assembly
  - ▶ Damages caused by transport due to improper packaging or mishandling by the courier company unless transport is part of the warranty conditions in certain countries.
  - ▶ Electric damage resulting from faulty or failed electric power or power surges.
  - ▶ Damaged or cracked components
  - ▶ Liquid damage

## Regulatory Notices & Certifications

### Federal Communications Commission Notice

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

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy. 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.
- All external cables connecting to this basic unit must be shielded. For cables connecting to PCMCIA cards, see the option manual or installation instructions.

### RF Exposure :

This equipment must be installed and operated in accordance with provided instructions and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

### CE Notice (European Union) :

This symbol  indicates this Q2432 notebook complies with the EMC Directive and the European Union's Low Voltage Directive. This symbol also indicates that Q2432 meets the following technical standards:

- EN 55022 — "Limitations and Methods of Measurement for the Radio Interferences of Information Technology Equipment."
- EN 55024 — "Information technology equipment - Immunity characteristics - Limits and methods of measurement."
- EN 61000-3-2 — "Electromagnetic compatibility (EMC) - Chapter 3: Limits - Section 2: Limits on the harmonic current emissions (Equipment input current up to and including 16 A per phase)."
- EN 61000-3-3 — "Electromagnetic compatibility (EMC) - Chapter 3: Limits - Section 3: Limits on the voltage fluctuations and flicker in low-voltage power supply systems for equipment with rated current up to and including 16 A."



NOTE: EN 55022 emissions requirements provide for two classifications

- Class A governs commercial use
- Class B is governs residential use

**For CB :**

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

**BSMI Notice (Taiwan Only)**

The symbol above must be attached to the product indicating compliance with the BSMI standard.

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

**CCC (China only)**

- On Class A systems, the following warning will appear near the regulation label:
- Warning: This is a Class A product. In a domestic environment, this product may cause radio interference, in which case users may be required to take adequate measures.
- Caution: Suggest to operate under 35°C

**"B" KCC Notice :**

B class equipment (telecommunications equipment for household purpose) As this equipment has undergone EMC registration for house hold purpose ("B" Class), this product can be used in any area and designed to be used mainly in a household.



## **Battery Disposal & Caution**

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

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

### **Replaceable Batteries**

If any equipment is provided with a replaceable battery, and if replacement by an incorrect type could result in an explosion (for example, with some lithium batteries), the following applies:

- if the battery is placed in an operator access area, there shall be a marking close to the battery or a statement in both the operating and the servicing instructions;
- if the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or a statement in the servicing instructions.

This marking or statement shall include the following or similar text:

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



## Introduction

Congratulations and thank you for purchasing the GIGABYTE notebook computer. This portable notebook computer provides excellent multimedia functionality and is designed to provide you reliable, no fuss computing.

This manual will explain to you, step by step, how to setup and begin using your Q2432. It provides basic configuring, operation, care and troubleshooting guidelines.

# Content

|  |      |
|--|------|
| General Safety Precautions.....          | I    |
| Travel Tips.....                         | II   |
| Usage Tips.....                          | II   |
| Cleaning Tips.....                       | III  |
| Warranty Guidelines.....                 | IV   |
| Regulatory Notices & Certifications..... | V    |
| Battery Disposal & Caution.....          | VII  |
| Introduction.....                        | VIII |

## Chapter 1 Before You Start

|   |   |
|---|---|
| 1.1 Make Sure You Have Everything.....          | 2 |
| 1.2 Familiarize Yourself with the Computer..... | 2 |
| 1.3 Top View.....                               | 3 |
| 1.4 Left View.....                              | 4 |
| 1.5 Right View.....                             | 4 |
| 1.6 Base View & Front View.....                 | 5 |

## Chapter 2 Getting Started

|                                 |    |
|---------------------------------|----|
| 2.1 Power Sources.....          | 8  |
| 2.2 Recharging the Battery..... | 9  |
| 2.3 Starting Your Notebook..... | 10 |
| 2.4 LED Indicators.....         | 11 |
| 2.5 Using Function Keys.....    | 11 |

|                                  |    |
|----------------------------------|----|
| 2.6 Using the Touch Pad.....     | 12 |
| 2.7 Super POSH Introduction..... | 13 |

## Chapter 3 GIGABYTE Smart Recovery

|                                  |    |
|----------------------------------|----|
| 3.1 GIGABYTE Smart Recovery..... | 18 |
|----------------------------------|----|

## Chapter 4 Troubleshooting

|                                       |    |
|---------------------------------------|----|
| 4.1 Identifying the Problem.....      | 20 |
| 4.2 GIGABYTE Service Information..... | 20 |

## Appendix

|                                    |    |
|------------------------------------|----|
| Q2432 Specifications.....          | 22 |
| International Country Voltage..... | 23 |
| Plug Type.....                     | 27 |



## Chapter 1 Before You Start

This chapter provides basic information to help you get started and to use the Q2432 notebook.

Some of the features described herein may not function properly or at all unless used in conjunction with the pre-installed operating system. Any change to the operating system may cause improper function.

## 1.1 Make Sure You Have Everything

When you receive your notebook PC, unpack it carefully and check to make sure you have all the items listed below. For a pre-configured model you should have the following:

- GIGABYTE Notebook Computer
- Lithium-Ion Battery
- AC Adapter with Power Cord
- Driver Disc
- Manual

Once you have checked and confirmed that your notebook system is complete, read through the following pages to learn about all of your notebook components.

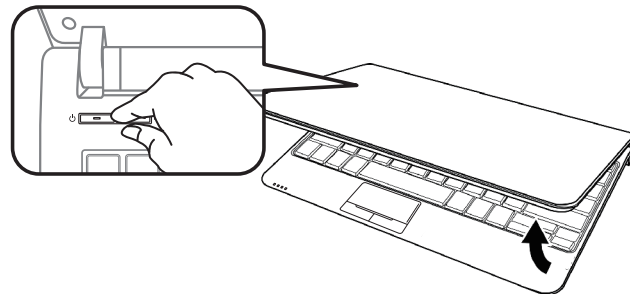


**NOTE:** Depending on the model you purchased, the actual appearance of your notebook may vary from that shown in this manual. These images are for illustration purposes.

## 1.2 Familiarize Yourself with the Computer

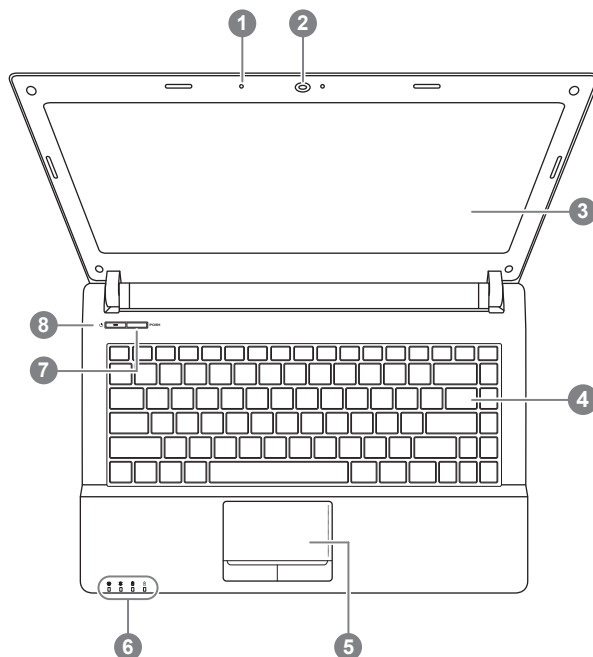
### Opening The Display Panel

To open the display panel, simply lift the lid up. Use your one hand to hold the machine and use the other to open the display panel. When closing the lid, be sure not to slam it closed.



### 1.3 Top View

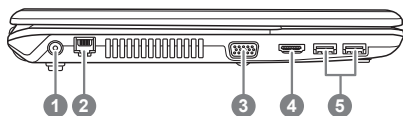
The following is an overview of the top of the notebook.



| NO. | Item                         | Function   |
|-----|------------------------------|--|
| 1   | <b>Microphone</b>            | The built-in microphone allows for the reception and transmission of voice and/or other audio data to any program capable of utilizing the microphone.   |
| 2   | <b>Webcam</b>                | The built-in webcam is housed here. The resolution depends on the configuration purchased. The cam is perfect for online chat and video streaming.   |
| 3   | <b>LCD Display</b>           | The display type and size depends on the model of notebook purchased. The supported resolution will also depend on the display type and size.  |
| 4   | <b>Keyboard</b>              | A full-size keyboard with dedicated Windows keys.  |
| 5   | <b>TouchPad</b>              | This is the pointer device controller for the system and mimics mouse movement on the screen. It has the standard Left/Right button arrangement.   |
| 6   | <b>LED Status Indicators</b> | The LED status indicator lights correspond to specific operating modes. Please refer to page 11 (2.4 LED Status Indicators)  |
| 7   | <b>Super POSH Button</b>     | In the Windows operating system, press "POSH" button to initiate power management, quickly setting OSD, displays the health status of HDD, And obtain the best effective and defragment.   |
| 8   | <b>Power Button</b>          | <ul style="list-style-type: none"> <li>● Press for 1~1.5 seconds to turn on the system.</li> <li>● Press and hold for at least 4 seconds to turn off the system.</li> <li>● Press the power / suspend button again to return from the suspend mode.</li> </ul> |

## 1.4 Left View

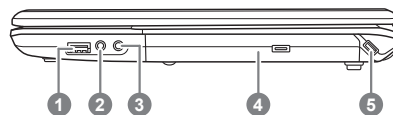
The following is a brief description of the left side of the notebook.



| NO. | Item                               | Function  |
|-----|------------------------------------|---|
| 1   | <b>DC-in Jack</b>                  | This port is used to connect the notebooks external AC Adaptor when charging or continuous power is needed.   |
| 2   | <b>LAN (RJ-45) Port</b>            | This port is used to connect a standard RJ-45 LAN Cable for networking.   |
| 3   | <b>External Monitor (VGA) Port</b> | This port is used to connect an external analog VGA display to the notebook for output to a larger screen or projector.   |
| 4   | <b>HDMI Port</b>                   | The HDMI port allows outputting a video signal in full High Definition to an HD compatible display as well as na HD sound signal.   |
| 5   | <b>USB3.0 Port</b>                 | These ports are used for connecting external USB Peripherals and Storage to the Notebook. Devices such as Printers, Keyboards, Mice and Drives are supported and the ports are Plug And Play. |

## 1.5 Right View

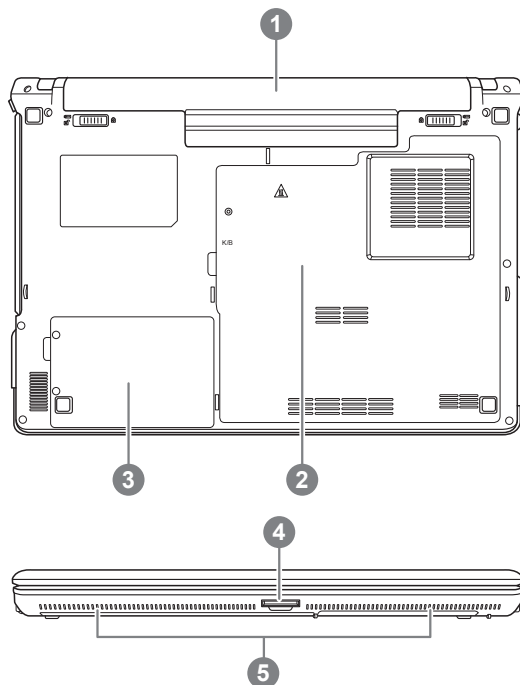
The following is a brief description of the right side of the notebook.



| NO. | Item                        | Function   |
|-----|-----------------------------|--|
| 1   | <b>USB2.0 Port</b>          | This port is used for connecting external USB Peripherals and Storage to the Notebook. Devices such as Printers, Keyboards, Mice and Drives are supported and the ports are Plug And Play.         |
| 2   | <b>Headphone Jack</b>       | This port is used to connect external audio output devices such as speakers and headphones to the notebook to enhance the sound capabilities.  |
| 3   | <b>Microphone Jack</b>      | This port is used to connect an external amplified microphone to the notebook to enhance the voice recording and recognition of the notebook. Typical scenarios include online chat such as Skype. |
| 4   | <b>Optical Disc Drive</b>   | The Optical Disc Drive is used to read and write to and from optical media. The drive, depending on configuration, could be either a DVD Combo.  |
| 5   | <b>Kensington Lock Slot</b> | The small port is used to secure the notebook to desks or workstations and prevent theft.  |

## 1.6 Base View & Front View

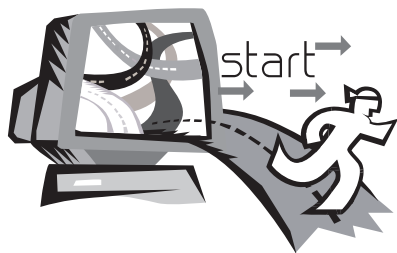
The following is an overview of the Front & bottom of the notebook.



| NO. | Item                           | Function  |
|-----|--------------------------------|---|
| 1   | <b>Battery Bay</b>             | The battery bay contains the internal Lithium-Ion battery.          |
| 2   | <b>Memory, CPU compartment</b> | Compartment contains the CPU, Memory modules.                       |
| 3   | <b>HDD Compartment</b>         | Compartment contains the Hard Disc Drive.                           |
| 4   | <b>Multi Card Reader</b>       | 6-in-1 Card Reader SD / SDXC / SDHC / MS / MMC / MS Pro Memory Card |
| 5   | <b>Speakers</b>                | The built-in dual speakers allow for stereo sound.                  |







## Chapter 2 Getting Started

This chapter will show you the various ports and components of the Q2432 and familiarizes you with the notebook. Certain parts of the notebook can be user upgraded while others are fixed and cannot be changed.

## 2.1 Power Sources

Your computer has two types of power sources: a Lithium-Ion battery and an AC adapter.

### Connecting the Power Adapters

The AC adapter provides power for operating your notebook PC as well as charging the battery.

### Connecting the AC Adapter

1. Plug the DC output cable into the DC power jack of your.
2. Plug the AC adapter into an AC electrical outlet.

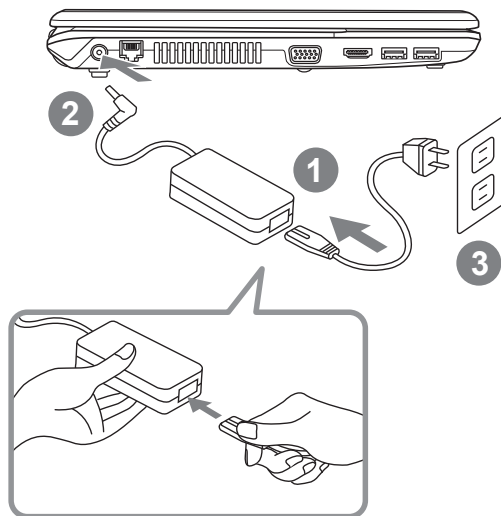
### Switching from AC Adapter Power to Battery Power

1. Be sure that you have at least one charged battery installed.
2. Remove the AC adapter. Your notebook will automatically switch from DC power to battery power.



**CAUTION:** The Lithium-Ion battery does not ship with a pre-charge initially. You will need to connect the AC adapter to use your notebook PC the first time.

It is recommended that only the AC adapter supplied with the Q2432 is used. Any other adapter could cause damage or malfunction and might result in injury.



1. Connect the power cord to the AC adapter.
2. Connect the AC adapter to the DC power port of your computer.
3. Connect the AC adapter power cord to an AC outlet.

## 2.2 Recharging the Battery

The Lithium-Ion battery is recharged internally using the AC adapter. To recharge the battery, make sure the battery is installed and the computer is connected to the AC adapter.

There is no "memory effect" in Lithium-Ion batteries; therefore you do not need to discharge the battery completely before recharging. The charge times will be significantly longer if your notebook PC is in use while the battery is charging. If you want to charge the battery more quickly, put your computer into Suspend mode or turn it off while the adapter is charging the battery.

### Low Battery State

When the battery charge is low, a notification message appears. If you do not respond to the low battery message, the battery continues to discharge until it is too low to operate. When this happens, your notebook PC goes into Suspend mode. There is no guarantee your data will be saved once the notebook reaches this point.



**CAUTION:** To protect your notebook from damage, use only the power adapter that came with it because each power adapter has its own power output rating.

Once your notebook PC goes into suspend mode as a result of a dead battery, you will be unable to resume operation until you provide a source of power either from an adapter or a charged battery. Once you have provided power, you can press the Suspend/Resume button to resume operation. In Suspend mode, your data is maintained for some time, but if a power source is not provided promptly, the power indicator stops flashing and then goes out, in which case you have lost the data that was not saved. Once you

provide power, you can continue to use your computer while an adapter charges the battery.

### Battery Replacement

There is danger of explosion if an incorrect battery type is used for replacement. For computers equipped with a replaceable Lithium-Ion battery pack, the following applies:

- If the battery is placed in an OPERATOR ACCESS AREA, there shall be a marking close to the battery, or a statement in both the operating and the servicing instructions;
- If the battery is placed elsewhere in the computer, there shall be a marking close to the battery or a statement in the servicing instructions.

The marking or statement shall include the following or similar text:



**CAUTION:** Risk of explosion if battery is replaced with an incorrect type. Dispose of used batteries according to the instructions.

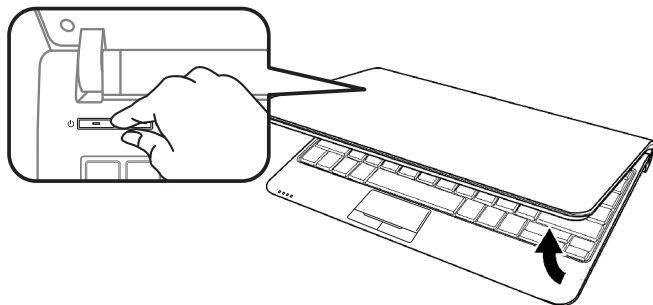
### CAUTION:

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

## 2.3 Starting Your Notebook

### Suspend / Power on Button

The suspend/power on switch is used to turn on your notebook from its off state. Once you have connected your AC adapter or charged the internal Lithium-Ion battery, you can power on your notebook by pressing the suspend/power on button located above the keyboard. If you need to take an extended break, press the button again to turn it off.



**CAUTION:** Do not carry your notebook around with the power on or subject it to shocks or vibration, as you risk damaging the hard disk.

When you power on your notebook, it will perform a Power On Self Test (POST) to check the internal parts and configuration for correct functionality. If a fault is found, your computer emits an audio warning and/or displays an error message.

Depending on the nature of the problem, you may be able to continue by starting the operating system or by entering the BIOS setup utility and revising the settings. After satisfactory completion of the Power On Self Test (POST), your notebook loads the installed operating system.



**CAUTION** Never turn off your notebook during the Power On Self Test (POST), or an unrecoverable error may occur.

## 2.4 LED Status Indicators

The LED indicators on the computer display helpful information about the current status of the computer. These modes are: Power Status LED, Wireless LAN Status LED, HDD Status LED and Battery Status LED.



| # | Icon | Item                    | Description  |
|---|------|-------------------------|--|
| 1 |      | Power Status LED        | Indicates the computer's power status.                 |
| 2 |      | Wireless LAN Status LED | Indicates when the WiFi LAN device is active.          |
| 3 |      | HDD Status LED          | Indicates when the hard disk drive is active.          |
| 4 |      | Battery Status LED      | Flash when charging, and off when the battery is full. |

## 2.5 Using Function Keys

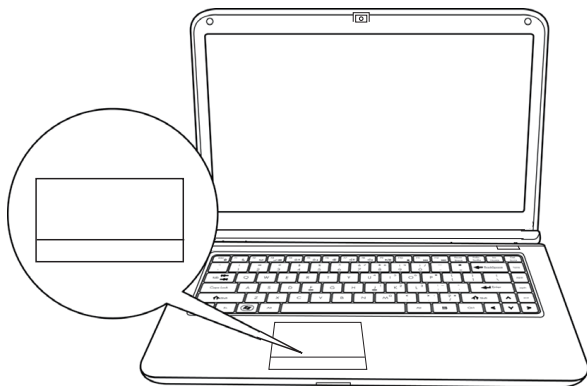
The keyboard has a numeric keypad for easy numeric data input. Pressing the Fn + NumLk keys turns on/off the numeric keypad. It also features function keys to allow you to change operational features instantly. The function keys (F1 - F11) will act as hot keys when pressed while the Fn key is held down.

|               |  |
|---------------|--|
| <b>Fn+F1</b>  | Enters Suspend Mode.   |
| <b>Fn+F2</b>  | Enable/Disable the Touchpad.   |
| <b>Fn+F3</b>  | Changes Display Mode: LCD-only CRT/HDMI -only and simultaneous LCD&CRT/HDMI. |
| <b>Fn+F4</b>  | Decrease the speaker volume.   |
| <b>Fn+F5</b>  | Increase the speaker volume.   |
| <b>Fn+F6</b>  | Mute On/Off.   |
| <b>Fn+F7</b>  | Decrease the brightness level.   |
| <b>Fn+F8</b>  | Increase the brightness level.   |
| <b>Fn+F9</b>  | Enable/Disable the WLAN.   |
| <b>Fn+F10</b> | Enable/Disable Bluetooth.  |
| <b>Fn+F11</b> | Enable/Disable the CCD camera.   |
| <b>Fn+H</b>   | Switch from discrete graphics to integrated graphics.                        |

## 2.6 Using the Touchpad

A touchpad pointing device comes built into your computer. It is used to control the movement of the pointer to select items on your desktop and use applications on the notebook.

The touchpad consists of a cursor control, a left and right button, and a scroll bar. The cursor control works the same way a mouse does, and moves the cursor around the display. It only requires light pressure from the tip of your finger. The left and right buttons function the same as mouse buttons. The actual functionality of the buttons may vary depending on the application that is being used. The scroll bar allow you to navigate quickly through pages, without having to use the on-screen cursor to manipulate the up and down scroll bars.



### Clicking :

Clicking means pushing and releasing a button. To left-click, move the cursor to the item you wish to select, press the left button once, and then immediately release it. To right click, move the mouse cursor to the item you wish to select, press the right button once, and then immediately release it. You also have the option to perform the clicking operation by tapping lightly on the touchpad once.

### Double-Clicking :

Double-clicking means pushing and releasing the left button twice in rapid succession. This procedure does not function with the right button. To double-click, move the cursor to the item you wish to select, press the left button twice, and then immediately release it. You also have the option to perform the double-click operation by tapping lightly on the touchpad twice.

### Dragging :

Dragging means pressing and holding the left button while moving the cursor. To drag, move the cursor to the item you wish to move. Press and hold the left button while moving the item to its new location and then release it. Dragging can also be done using the touchpad. First, tap the touchpad twice over the item you wish to move, making sure to leave your finger on the pad after the final tap. Next, move the object to its new location by moving your finger across the touchpad, and then release your finger. Using the Scroll bar allows you to navigate through a document quickly without using the window's scroll bars. This is particularly useful when you are navigating through on-line pages.

## 2.7 Super POSH Introduction

Super POSH is an integrated AP which has great benefit for system. It includes "Super Power" "Super OSD" "Super Speed" and "Super HDD."

### Super Power:

Super Power provides an integrated page for user to control power management. It could increase battery life and effective of you



A: Mode:

There would be 4 Mode for selection. Description as below:

| Mode             | Icon | Description  |
|------------------|------|--|
| Power saving     |      | Decrease system performance to provide more battery time.  |
| Normal           |      | Balance system performance.  |
| High performance |      | Provide system best performance.   |
| Dynamic switch   |      | Switch "Power saving" & "Normal mode" automatically when battery mode, and auto switch "High performance" mode when plug-in. |

\* Super Power always keeps status.

B: Information:

Super Power display some power information of system.

| Items              | Description  |       |        |     |      |        |       |      |        |
|--------------------|--|-------|--------|-----|------|--------|-------|------|--------|
| Battery LifeTime   | Show battery discharge time.   |       |        |     |      |        |       |      |        |
| CPU Loading        | Show CPU loading.  |       |        |     |      |        |       |      |        |
| Battery Percentage | Show the percentage of battery.<br>There will also be a status bar: <table border="1"> <thead> <tr> <th>Color</th><th>Status</th></tr> </thead> <tbody> <tr> <td>red</td><td>0~10</td></tr> <tr> <td>orange</td><td>11~30</td></tr> <tr> <td>Blue</td><td>31~100</td></tr> </tbody> </table> | Color | Status | red | 0~10 | orange | 11~30 | Blue | 31~100 |
| Color              | Status   |       |        |     |      |        |       |      |        |
| red                | 0~10   |       |        |     |      |        |       |      |        |
| orange             | 11~30  |       |        |     |      |        |       |      |        |
| Blue               | 31~100   |       |        |     |      |        |       |      |        |
| Power Status       | Show Current Power Status from AC or Battery icons. <div>  Battery mode </div> <div>     Plug-in and Charging </div> <div>  Plug-in and Full </div> <div>  AC only </div>  |       |        |     |      |        |       |      |        |



Warning:

If the percentage of battery was under 10%, there will pop a warning window on task icon.





## Super OSD (on screen display)

Super OSD provide several styles and locations selection of OSD  
And also could get the current status of OSD from status bar.



Super OSD function as follow: The function depends on the definition.

| Function            | Preview |  |  |
|---------------------|---------|--|--|
| Bluetooth           |         |  |  |
| Silent mode         |         |  |  |
| Mute (only speaker) |         |  |  |
| Volume              |         |  |  |
| Brightness          |         |  |  |
| Touchpad            |         |  |  |

|           |  |  |  |
|-----------|--|--|--|
| Wireless  |  |  |  |
| Webcam    |  |  |  |
| Caps Lock |  |  |  |
| Num Lock  |  |  |  |

## Super Speed

Super Speed optimizes and cleans system to obtain the best effective and defragment



A: Optimizing Windows Setting:

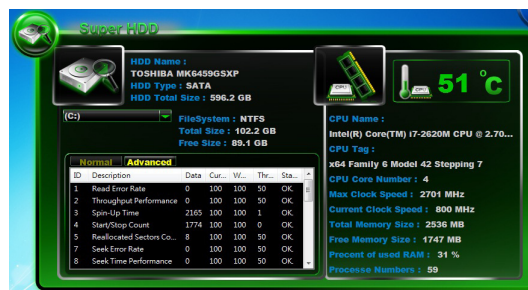
Click "Optimize" button after selecting the optimizing options to improve system performance. Click "Restore" button to restore system to original status. After "Optimize" or "Restore" your system, please reboot the computer for the changes to take effect.

The options description as below:

| Options       | Description  |
|---------------|--|
| Visual Effect | Modify visual effect setting to increase the performance of system.            |
| Service       | Terminate uncommon programs running in the background when Windows is running. |
| Boot          | Speed up the time of booting process.  |
| Shutdown      | Speed up the time of shutdown process.   |
| Network       | Modify network setting to improve the performance of network.                  |
| System        | Modify system setting to increase the performance of system.                   |

## Super HDD

Super HDD displays the health status of HDD and information of CPU & RAM.



**Information of main HDD: Name, Type, Partitions and Total Size.**

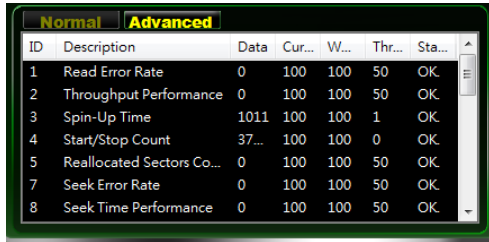
Use scroll bar to choose the partition, it will display File system, Total Size and Free Size of every partitions.

## Hard Disk Menu

Normal: Show the HDD Health Index according to S.M.A.R.T result of the items in detail page.

| HDD Health Index | Condition   |
|------------------|---|
|                  | Healthy<br>HDD status will be healthy if all status of normal.      |
|                  | Warning<br>HDD status is warning if there was over one items.       |
|                  | Danger<br>HDD status is danger if there were over one danger items. |
|                  | Not Support<br>HDD was not support this function.                   |

Advanced :



| Normal |                           | Advanced |        |      |        |        |
|--------|---------------------------|----------|--------|------|--------|--------|
| ID     | Description               | Data     | Cur... | W... | Thr... | Sta... |
| 1      | Read Error Rate           | 0        | 100    | 100  | 50     | OK     |
| 2      | Throughput Performance    | 0        | 100    | 100  | 50     | OK     |
| 3      | Spin-Up Time              | 1011     | 100    | 100  | 1      | OK     |
| 4      | Start/Stop Count          | 37...    | 100    | 100  | 0      | OK     |
| 5      | Reallocated Sectors Co... | 0        | 100    | 100  | 50     | OK     |
| 7      | Seek Error Rate           | 0        | 100    | 100  | 50     | OK     |
| 8      | Seek Time Performance     | 0        | 100    | 100  | 50     | OK     |

There were 46 attributes from S.M.A.R.T to determine the HDD health Index.



## Chapter 3 GIGABYTE

### Smart Recovery

### 3.1 GIGABYTE Smart Recovery

System Recovery - Restore your Q2432 operating system. The hard drive of the Q2432 has a hidden partition that contains a full backup image of the operating system that can be used to recover the system in the event that something happens to the operating system.

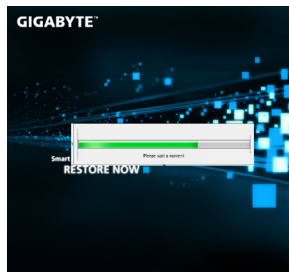
! If the hard drive is removed or the partition deleted, the recover options will no longer be available and a recovery service will be needed.

#### Launch System Recovery

The system recover feature is part of the netbook installation and it ships preset from the factory. The options menu allows you to launch the Windows recovery tool to reinstall the operating system to factory defaults.

Below will briefly describe how to launch the recovery tool and to get the recovery started.

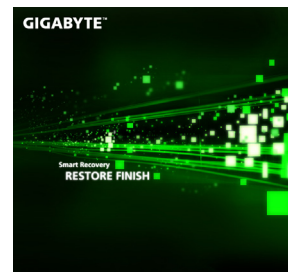
1. Turn off or restart the netbook.
2. Turn the netbook on and press and hold the F9 key to launch the tool.
3. The recovery window will open and give you the option to "Recovery" in the toolbar. You will be prompted if you want to recovery. Click on "Recovery" to begin the repair if you do.



4. The "Recovering" window will open and begin the recovery.



5. Once it is complete you will be prompted to reboot the netbook.





## Chapter 4 Troubleshooting

This section will briefly cover some frequently encountered problems and questions and provide a quick guide to assist with solve these problems. Most problems can be resolved quickly, simply and easily and are not always a system problem. Should you encounter a problem that is not yet or differently listed, please consult the GIGABYTE website or call your unit supplier for assistance.

For website assistance go to the Support section of [www.gigabyte.com](http://www.gigabyte.com) for telephonic assistance please call the supplier of your unit or take the unit to the supplier directly for assistance.

## Troubleshooting

Your notebook PC is sturdy and subject to few problems in the field. However, you may encounter simple setup or operating problems that you can solve on the spot, or problems with peripheral devices, that you can solve by replacing the device. The information in this section helps you isolate and resolve some of these straightforward problems and identify failures that require service.

### 4.1 Identifying The Problem

If you encounter a problem, go through the following procedure before pursuing complex troubleshooting:

1. Turn off your notebook.
2. Make sure the AC adapter is plugged into your notebook and to an active AC power source.
3. Make sure that any card installed in the PC card slot is seated properly. You can also remove the card from the slot, thus eliminating it as a possible cause of failure.
4. Make sure that any devices connected to the external connectors are plugged in properly. You can also disconnect such devices, thus eliminating them as possible causes of failure.
5. Turn on your notebook. Make sure it has been off at least 10 seconds before you turn it on.
6. Go through the boot sequence.
7. If the problem has not been resolved, contact your support representative.

Before you place the call, you should have the following information ready so that the customer support representative can provide you with the fastest possible solution:

- Product name
- Product configuration number
- Product serial number
- Purchase date
- Conditions under which the problem occurred
- Any error messages that have occurred
- Hardware configuration
- Type of device connected, if any

See the configuration label on the bottom of your notebook for configuration and serial numbers.

**Copyright-protected technology** This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

### 4.2 GIGABYTE Service Information

More service information please link to GIGABYTE official website:  
[www.gigabyte.com](http://www.gigabyte.com)



## Appendix



## Q2432 Series Specifications

| Specifications  |              |   |
|-----------------|--------------|---|
| Model Name      |              | Q2432M  |
| CPU             |              | Intel® Core™ i3 / i5 / i7 Processor (Sandy Bridge)  |
| OS              |              | Intel® Core™ i3 / i5 / i7 Processor(Sandy Bridge)   |
| OS              |              | Genuine Windows® 7 Home Premium<br>Genuine Windows® 7 Professional  |
| Display         |              | Genuine Windows® 7 Home Premium<br>Genuine Windows® 7 Professional  |
| Display         |              | 14" 1366x768 LED backlight  |
| System Memory   |              | 14" 1366x768 LED backlight  |
| System Memory   |              | 1GB/2GB DDRIII, 2 slots (Max 8GB)   |
| Chipset         |              | 1GB/2GB DDRIII, 2 slots (Max 8GB)   |
| Chipset         |              | Mobile Intel® HM65 Express Chipsets   |
| Video Graphics  |              | Mobile Intel® HM65 Express Chipsets   |
| Video Graphics  |              | Intel® GT2 graphics with dynamic frequency  |
| Hard Disk Drive |              | Intel® GT2 graphics with dynamic frequency<br>AMD Mobility Radeon™ HD6730M 1GB  |
| Hard Disk Drive |              | 320/500/640GB 2.5" 9.5mm SATA HDD<br>5400rpm/7200rpm  |
| ODD             |              | 320/500/640GB 2.5" 9.5mm SATA HDD<br>5400rpm/7200rpm  |
| ODD             |              | 12.7mm Super Multi DVD RW   |
| I/O Port        |              | 12.7mm Super Multi DVD RW   |
| I/O Port        |              | USB(2.0)*1, USB(3.0)*2, HDMI, D-Sub, RJ45,<br>Mic-in, Earphone-out, 6-in-1 card reader (SD/MMC/<br>MS/MS Pro/SDXC/SDHC), DC-in jack |
| Audio           |              | USB(2.0)*1, USB(3.0)*2, HDMI, D-Sub, RJ45,<br>Mic-in, Earphone-out, 6-in-1 card reader (SD/MMC/<br>MS/MS Pro/SDXC/SDHC), DC-in jack |
| Audio           |              | 2W Speaker*2, Internal Mic-in   |
| Communications  | LAN          | 2W Speaker*2, Internal Mic-in   |
|                 | Wireless LAN | 10/100/1000Mbps Ethernet Base-T   |
|                 | Bluetooth    | 10/100/1000Mbps Ethernet Base-T   |
|                 | WWAN (3.5G)  | 802.11b/g/n Wireless  |
| Webcam          |              | Bluetooth V3.0+HS   |
| Webcam          |              | N/A   |
| Security        |              | N/A   |
| Battery         |              | 1.3 Mega Pixel  |
| Dimensions      |              | 1.3 Mega Pixel  |
| Weight          |              | 1.3 Mega Pixel  |
| Weight          |              | Kensington Lock   |
| Battery         |              | Kensington Lock   |
| Dimensions      |              | Li-ion 6 cell   |
| Weight          |              | Li-ion 6 cell   |
| Weight          |              | 342.4(W) X 240(D) X 31.9 (H)mm  |
| Weight          |              | 342.4(W) X 240(D) X 31.9 (H)mm  |
| Weight          |              | ~2.2kg(w/ODD and 6-cell battery)  |
| Weight          |              | ~2.2kg(w/ODD and 6-cell battery)  |

## International Country Voltage

| Region           | Voltage     | Frequency |
|------------------|-------------|-----------|
| Afghanistan      | 240V        | 50 Hz     |
| Albania          | 220V        | 50 Hz     |
| Algeria          | 230V        | 50 Hz     |
| American Samoa   | 120V        | 60 Hz     |
| Andorra          | 230V        | 50 Hz     |
| Angola           | 220V        | 50 Hz     |
| Anguilla         | 110V        | 60 Hz     |
| Antigua          | 230V        | 60 Hz     |
| Argentina        | 220V        | 50 Hz     |
| Armenia          | 230V        | 50 Hz     |
| Aruba            | 127V        | 60 Hz     |
| Australia        | 230V        | 50 Hz     |
| Austria          | 230V        | 50 Hz     |
| Azerbaijan       | 220V        | 50 Hz     |
| Azores           | 220V        | 50 Hz     |
| Bahamas          | 120V        | 60 Hz     |
| Bahrain          | 230V        | 50 Hz     |
| Balearic Islands | 220V        | 50 Hz     |
| Bangladesh       | 220V        | 50 Hz     |
| Barbados         | 115V        | 50 Hz     |
| Belarus          | 220V        | 50 Hz     |
| Belgium          | 230V        | 50 Hz     |
| Belize           | 110V / 220V | 60 Hz     |
| Benin            | 220V        | 50 Hz     |
| Bermuda          | 120V        | 60 Hz     |
| Bhutan           | 230V        | 50 Hz     |
| Bolivia          | 220V        | 50 Hz     |
| Bonaire          | 127V        | 50 Hz     |
| Bosnia           | 220V        | 50 Hz     |
| Botswana         | 231 V       | 50 Hz     |

| Region                   | Voltage      | Frequency |
|--------------------------|--------------|-----------|
| Brazil                   | 127V / 220 V | 60 Hz     |
| Brunei                   | 240V         | 50 Hz     |
| Bulgaria                 | 230V         | 50 Hz     |
| Burkina Faso             | 220V         | 50 Hz     |
| Burundi                  | 220V         | 50 Hz     |
| Cambodia                 | 230V         | 50 Hz     |
| Cameroon                 | 220V         | 50 Hz     |
| Canada                   | 120V         | 60 Hz     |
| Canary Islands           | 220V         | 50 Hz     |
| Cape Verde               | 220V         | 50 Hz     |
| Cayman Islands           | 120V         | 60 Hz     |
| Central African Republic | 220V         | 50 Hz     |
| Chad                     | 220V         | 50 Hz     |
| Channel Islands          | 230V         | 50 Hz     |
| Chile                    | 220V         | 50 Hz     |
| China (mainland only)    | 220V         | 50 Hz     |
| Colombia                 | 120V         | 60 Hz     |
| Comoros                  | 220V         | 50 Hz     |
| Congo-Brazzaville        | 230V         | 50 Hz     |
| Congo-Kinshasa           | 220V         | 50 Hz     |
| Cook Islands             | 240V         | 50 Hz     |
| Costa Rica               | 120V         | 60 Hz     |
| Côte d'Ivoire            | 230V         | 50 Hz     |
| Croatia                  | 230V         | 50 Hz     |
| Cuba                     | 110V         | 60 Hz     |
| Cyprus                   | 240V         | 50 Hz     |
| Czech Republic           | 230V         | 50 Hz     |
| Denmark                  | 230V         | 50 Hz     |
| Djibouti                 | 220V         | 50 Hz     |
| Dominica                 | 230V         | 50 Hz     |

| Region             | Voltage              | Frequency |
|--------------------|----------------------|-----------|
| Dominican Republic | 110V                 | 60 Hz     |
| East Timor         | 220V                 | 50 Hz     |
| Ecuador            | 120V                 | 60 Hz     |
| Egypt              | 220V                 | 50 Hz     |
| El Salvador        | 115V                 | 60 Hz     |
| Equatorial Guinea  | 220V                 | 50 Hz     |
| Eritrea            | 230V                 | 50 Hz     |
| Estonia            | 230V                 | 50 Hz     |
| Ethiopia           | 220V                 | 50 Hz     |
| Faroe Islands      | 220V                 | 50 Hz     |
| Falkland Islands   | 240V                 | 50 Hz     |
| Fiji               | 240V                 | 50 Hz     |
| Finland            | 230V                 | 50 Hz     |
| France             | 230V (formerly 220V) | 50 Hz     |
| French Guiana      | 220V                 | 50 Hz     |
| Gaza Strip         | 230V                 | 50 Hz     |
| Gabon              | 220V                 | 50 Hz     |
| Gambia             | 230V                 | 50 Hz     |
| Georgia            | 220V                 | 50 Hz     |
| Germany            | 230V (formerly 220V) | 50 Hz     |
| Ghana              | 230V                 | 50 Hz     |
| Gibraltar          | 240V                 | 50 Hz     |
| Greece             | 230V (formerly 220V) | 50 Hz     |
| Greenland          | 220V                 | 50 Hz     |
| Grenada            | 230V                 | 50 Hz     |
| Guadeloupe         | 230V                 | 50 Hz     |
| Guam               | 110V                 | 60 Hz     |
| Guatemala          | 120V                 | 60 Hz     |
| Guinea             | 220V                 | 50 Hz     |
| Guinea-Bissau      | 220V                 | 50 Hz     |

| Region        | Voltage              | Frequency    |
|---------------|----------------------|--------------|
| Guyana        | 240V                 | 60 Hz        |
| Haiti         | 110V                 | 60 Hz        |
| Honduras      | 110V                 | 60 Hz        |
| Hong Kong     | 220V                 | 50 Hz        |
| Hungary       | 230V (formerly 220V) | 50 Hz        |
| Iceland       | 230V                 | 50 Hz        |
| India         | 220V                 | 50 Hz        |
| Indonesia     | 127V / 230V          | 50 Hz        |
| Iran          | 220V                 | 50 Hz        |
| Iraq          | 230V                 | 50 Hz        |
| Ireland       | 230V (formerly 220V) | 50 Hz        |
| Isle of Man   | 240V                 | 50 Hz        |
| Israel        | 230V                 | 50 Hz        |
| Italy         | 230V (formerly 220V) | 50 Hz        |
| Jamaica       | 110V and 220V        | 50 Hz        |
| Japan         | 100 V                | 50 Hz / 60Hz |
| Jordan        | 230V                 | 50 Hz        |
| Kazakhstan    | 220V                 | 50 Hz        |
| Kenya         | 240V                 | 50 Hz        |
| Kiribati      | 240V                 | 50 Hz        |
| Kuwait        | 240V                 | 50 Hz        |
| Kyrgyzstan    | 220V                 | 50 Hz        |
| Laos          | 230V                 | 50 Hz        |
| Latvia        | 220V                 | 50 Hz        |
| Lebanon       | 240V                 | 50 Hz        |
| Lesotho       | 220V                 | 50 Hz        |
| Liberia       | 120V / 240V          | 50 Hz        |
| Libya         | 127V                 | 50 Hz        |
| Lithuania     | 230V (formerly 220V) | 50 Hz        |
| Liechtenstein | 230V                 | 50 Hz        |

















| Region                   | Voltage              | Frequency |
|--------------------------|----------------------|-----------|
| Luxembourg               | 230V (formerly 220V) | 50 Hz     |
| Macau S.A.R. of China    | 220V                 | 50 Hz     |
| Macedonia                | 220V                 | 50 Hz     |
| Madagascar               | 127V / 220 V         | 50 Hz     |
| Madeira                  | 220V                 | 50 Hz     |
| Malawi                   | 230V                 | 50 Hz     |
| Malaysia                 | 240V                 | 50 Hz     |
| Maldives                 | 230V                 | 50 Hz     |
| Mali                     | 220V                 | 50 Hz     |
| Malta                    | 230V                 | 50 Hz     |
| Martinique               | 220V                 | 50 Hz     |
| Mauritania               | 220V                 | 50 Hz     |
| Mauritius                | 230V                 | 50 Hz     |
| Mexico                   | 127V                 | 60 Hz     |
| Micronesia               | 120V                 | 60 Hz     |
| Moldova                  | 220-230V             | 50 Hz     |
| Monaco                   | 127V / 220 V         | 50 Hz     |
| Mongolia                 | 230 V                | 50 Hz     |
| Montenegro               | 220V                 | 50 Hz     |
| Montserrat (Leeward Is.) | 230V                 | 60 Hz     |
| Morocco                  | 127V / 220 V         | 50 Hz     |
| Mozambique               | 220V                 | 50 Hz     |
| Myanmar/Burma            | 230V                 | 50 Hz     |
| Namibia                  | 220V                 | 50 Hz     |
| Nauru                    | 240V                 | 50 Hz     |
| Nepal                    | 230V                 | 50 Hz     |
| Netherlands              | 230V (formerly 220V) | 50 Hz     |
| Netherlands Antilles     | 127V / 220V          | 50 Hz     |
| New Caledonia            | 220V                 | 50 Hz     |
| New Zealand              | 230V                 | 50 Hz     |











| Region                    | Voltage              | Frequency |
|---------------------------|----------------------|-----------|
| Nicaragua                 | 120V                 | 60 Hz     |
| Niger                     | 220V                 | 50 Hz     |
| Nigeria                   | 240V                 | 50 Hz     |
| North Korea               | 220V                 | 50 Hz     |
| Norway                    | 230V                 | 50 Hz     |
| Okinawa                   | 100 V                | 60 Hz     |
| Oman                      | 240V                 | 50 Hz     |
| Pakistan                  | 230V                 | 50 Hz     |
| Panama                    | 110V                 | 60 Hz     |
| Papua New Guinea          | 240V                 | 50 Hz     |
| Paraguay                  | 220V                 | 50 Hz     |
| Peru                      | 220V                 | 60 Hz     |
| Philippines               | 220V                 | 60 Hz     |
| Poland                    | 230V                 | 50 Hz     |
| Portugal                  | 220V                 | 50 Hz     |
| Puerto Rico               | 120V                 | 60 Hz     |
| Qatar                     | 240V                 | 50 Hz     |
| Réunion                   | 220V                 | 50 Hz     |
| Romania                   | 230V (formerly 220V) | 50 Hz     |
| Russian Federation        | 220V                 | 50 Hz     |
| Rwanda                    | 230V                 | 50 Hz     |
| St. Kitts and Nevis       | 110V / 230V          | 60 Hz     |
| St. Lucia (Winward Is.)   | 240V                 | 50 Hz     |
| St. Vincent (Winward Is.) | 230V                 | 50 Hz     |
| São Tomé and Príncipe     | 220V                 | 50 Hz     |
| Saudi Arabia              | 127V / 220V          | 60 Hz     |
| Senegal                   | 230V                 | 50 Hz     |
| Serbia                    | 220V                 | 50 Hz     |
| Seychelles                | 240V                 | 50 Hz     |
| Sierra Leone              | 230V                 | 50 Hz     |

| Region                   | Voltage              | Frequency     |
|--------------------------|----------------------|---------------|
| Singapore                | 230V                 | 50 Hz         |
| Slovakia                 | 230V                 | 50 Hz         |
| Slovenia                 | 230V                 | 50 Hz         |
| Somalia                  | 220V                 | 50 Hz         |
| South Africa             | 220V                 | 50 Hz         |
| South Korea              | 220V                 | 60 Hz         |
| Spain                    | 230V (formerly 220V) | 50 Hz         |
| Sri Lanka                | 230V                 | 50 Hz         |
| Sudan                    | 230V                 | 50 Hz         |
| Suriname                 | 127V                 | 60 Hz         |
| Swaziland                | 230V                 | 50 Hz         |
| Sweden                   | 230V                 | 50 Hz         |
| Switzerland              | 230V                 | 50 Hz         |
| Syria                    | 220V                 | 50 Hz         |
| Tahiti                   | 110V / 220V          | 60 Hz / 50 Hz |
| Taiwan                   | 110V                 | 60 Hz         |
| Tajikistan               | 220V                 | 50 Hz         |
| Tanzania                 | 230V                 | 50 Hz         |
| Thailand                 | 220V                 | 50 Hz         |
| Togo                     | 220V                 | 50 Hz         |
| Tonga                    | 240V                 | 50 Hz         |
| Trinidad & Tobago        | 115V                 | 60 Hz         |
| Tunisia                  | 230V                 | 50 Hz         |
| Turkey                   | 230V                 | 50 Hz         |
| Turkmenistan             | 220V                 | 50 Hz         |
| Uganda                   | 240V                 | 50 Hz         |
| Ukraine                  | 220V                 | 50 Hz         |
| United Arab Emirates     | 220V                 | 50 Hz         |
| United Kingdom           | 230V (formerly 240V) | 50 Hz         |
| United States of America | 120V                 | 60 Hz         |

| Region         | Voltage              | Frequency |
|----------------|----------------------|-----------|
| Uruguay        | 230V (formerly 220V) | 50 Hz     |
| Uzbekistan     | 220V                 | 50 Hz     |
| Vanuatu        | 230V                 | 50 Hz     |
| Venezuela      | 120V                 | 60 Hz     |
| Vietnam        | 220V                 | 50 Hz     |
| Virgin Islands | 110V                 | 60 Hz     |
| Western Samoa  | 230V                 | 50 Hz     |
| Yemen          | 230V                 | 50 Hz     |
| Zambia         | 230V                 | 50 Hz     |
| Zimbabwe       | 220V                 | 50 Hz     |

## Plug Type

| Country      | Plug Type | Plug Picture   | Connector Type | Connector Picture  |
|--------------|-----------|--|----------------|--|
| USA          | LP-30B    |   | LS15           |   |
| Canada       |           |  |                |  |
| Japan        | LP-54     |   | LS15           |   |
| Taiwan       | LP-53     |   | LS15           |   |
| China        | PC-323    |   | LS15           |   |
| Korea        | LP-E04    |   | LS15           |   |
| England      | LP-60L    |   | LS15           |   |
| Singapore    |           |  |                |  |
| South Africa | PE-364    |   | LS15           |   |
|              | PE-361    |  | LS15           |  |

|             |        |   |      |   |
|-------------|--------|---|------|---|
| Australia   | LP-23A |  | LS15 |  |
| Germany     | LP-33  |  | LS15 |  |
| France      |        |   |      |   |
| Sweden      |        |   |      |   |
| Finland     |        |   |      |   |
| Norway      |        |   |      |   |
| Belgium     |        |   |      |   |
| Netherlands |        |   |      |   |
| Austria     |        |   |      |   |
| Switzerland | LP-37  |  | LS15 |  |
| Denmark     | LP-38  |  | LS15 |  |
| Italy       | PE-336 |  | LS15 |  |

[www.gigabyte.com](http://www.gigabyte.com)