Acer

Aspire 4715Z/4315
Service Guide

Service guide files and updates are available on the ACER/CSD web; for more information, please refer to http://csd.acer.com.tw

PRINTED IN TAIWAN

Revision History

Please refer to the table below for the updates made on Travelmate 4715Z/4315 service guide.

Date	Chapter	Updates

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Conventions

The following conventions are used in this manual:

SCREEN MESSAGES	Denotes actual messages that appear on screen.
NOTE	Gives bits and pieces of additional information related to the current topic.
WARNING	Alerts you to any damage that might result from doing or not doing specific actions.
CAUTION	Gives precautionary measures to avoid possible hardware or software problems.
IMPORTANT	Reminds you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

Table of Contents

System Specification

Features

Below is a brief summary of the computer's many feature:

Platform

- Intel® Pentium® processor T2310/T2330 (1 MB L2 cache, 1.46/1.60 GHz, 533 MHz FSB) or Celeron® processor 530/540/550 (1 MB L2 cache, 1.73/1.86/2 GHz, 533 MHz FSB) supporting Intel 64 architecture
- Mobile Intel GL960 Express chipset

Display and Graphics

- 14.1" WXGA high brightness (200-nits) Acer CrystalBrite™ TFT LCD, 1280 x 800 pixel resolution, 16 ms response time, supporting simultaneous multi-window viewing via Acer GridVista™
- Mobile Intel GL960 Express Chipset with integrated 3D graphics, featuring Intel Graphics Media Accelerator (GMA) X3100 with up to 358 MB of Intel Dynamic Video Memory Technology 4.0 (8 MB of dedicated system memory, up to 350 MB of shared system memory), supporting Microsoft DirectX® 9 and DirectX 10
- Dual independent display support
- 16.7 million colors
- MEPG-2/DVD hardware-assisted capability (acceleration)
- S-video/TV-out (NTSC/PAL) support
- Acer Arcade™ featuring Acer CinemaVision™ and Acer ClearVision™ technologies

Storage Subsystem

- 80/120/160 GB or larger hard disk drive
- DVD-Super Multi double-layer drive or DVD/CD-RW combo drive

Audio

- Two built-in Acer 3D Sonic stereo speakers
- Intel High Definition Audio support
- MS-Sound compatible
- Built-in microphone

Input Devices

- 88-/89-/93-key keyboard, with inverted "T" cursor layout; 2.5 mm (minimum) key travel
- Seamless touchpad
- 12 function keys, four cursor keys, two Windows® keys, hotkey controls, embedded numeric keypad, international language support, independent US and Euro dollar sign keys, media control keys
- Easy-launch buttons: Empowering key, WLAN

Communication

- Integrated Acer Crystal Eye webcam supporting Acer PrimaLite™ technology (for selected models)
- WLAN: Acer InviLink™ 802.11b/g Wi-Fi CERTIFIED® solution, supporting Acer SignalUp™ wireless technology
- LAN: Fast Ethernet; Wake-on-LAN ready
- Modem: 56K ITU V.92 with PTT approval; Wake-on-Ring ready

I/O Interface

- ExpressCard™/54 slot
- Three USB 2.0 ports
- External display (VGA) port
- S-video/TV-out (NTSC/PAL) port
- Headphones/speaker/line-out jack
- Microphone-in jack
- Ethernet (RJ-45) port
- Modem (RJ-11) port
- DC-in jack for AC adapter

Power Subsystem

- ACPI 3.0 CPU power management standard: supports Standby and Hibernation power-saving modes
- 44.4 W 4000 mAh Li-ion battery pack (6-cell)
- 3-pin 65 W AC adapter
  - 2.5-hour rapid charge system-off
  - 3.5-hour charge-in-use

Dimensions and weight

- Width: 344 mm (13.5 inches)
- Depth: 246 mm (9.7 inches)
- Height: 37/42 mm (1.45/1.65 inches)
- Weight (approximately, with 6-cell battery): 2.6 kg (5.73 lbs.)

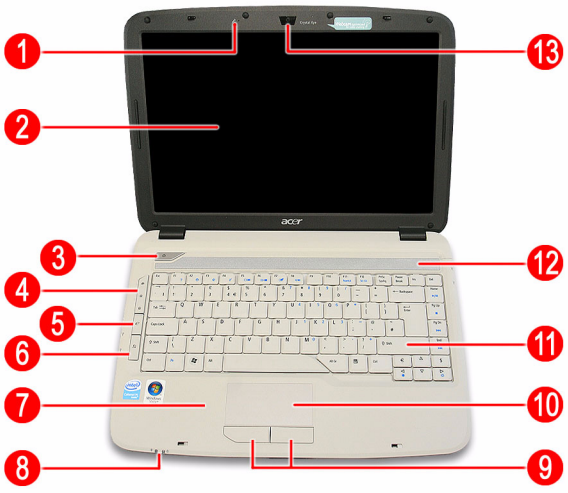
Environment

- Temperature:
  - Operating: 5 to 35° C
  - Non-operating: -20 to 65° C
- Humidity (non-condensing):
  - Operating: 20 to 80%
  - Non-operating: 20 to 80%

Your Acer Notebook Tour

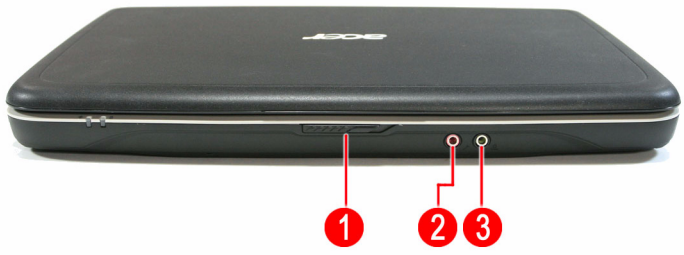
After knowing the computer features, let us show you around the new Aspire computer.

Front View



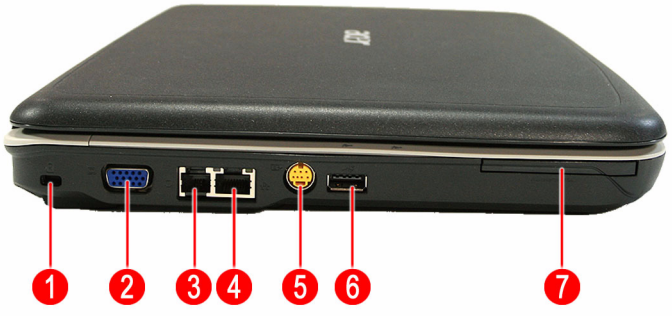
#	Item	Description
1	Microphone	Internal microphone for sound recording.
2	Display screen	Also called Liquid-Crystal Display (LCD), displays computer output.
3	Power button	Turns the computer on and off.
4	Status indicators	Light-Emitting Diodes (LEDs) that light up to show the status of the computer's functions and components.
5	Empowering key	Launch Acer Empowering Technology.
6	Easy-launch buttons	Buttons for launching frequently used programs.
7	Palmrest	Comfortable support area for your hands when you use the computer.
8	Status indicators	Light-Emitting Diodes (LEDs) that light up to show the status of the computer's functions and components.
9	Click buttons (left and right)	The left and right buttons function like the left and right mouse buttons.
10	Touchpad	Touch-sensitive pointing device which functions like a computer mouse.
11	Keyboard	For entering data into your computer.
12	Speakers	Left and right speakers deliver stereo audio output.
13	Acer Crystal Eye	Web camera for video communication (for selected models).

Closed Front View



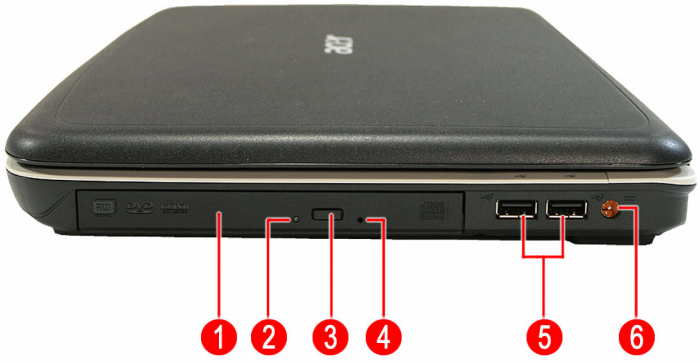
#	Icon	Item	Description
1		Latch	Locks and releases the lid.
2		Microphone jack	Accepts inputs from external microphones.
3	SPDIF	Headphones/speaker/ line-out jack	Connects to audio line-out devices (e.g., speakers, headphones)

Left View



#	Icon	Item	Description
1		Kensington lock slot	Connects to a Kensington-compatible computer security lock.
2		External display (VGA) port	Connects to a display device (e.g., external monitor, LCD projector).
3		Modem (RJ-11) port	Connects to a phone line.
4		Ethernet (RJ-45) port	Connects to an Ethernet 10/100/1000-based network.
5		S-video/TV-out (NTSC/PAL) port	Connects to a television or display device with S-video input.
6		USB 2.0 port	Connect to USB 2.0 devices (e.g., USB mouse, USB camera).
7	ExpressCard / 54	ExpressCard/54 slot	Accepts one ExpressCard/54 module.

Right View

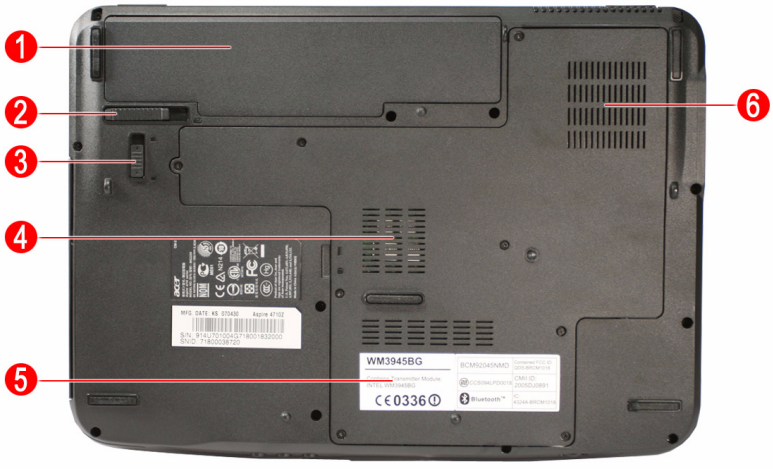


#	Icon	Item	Description
1		Optical drive	Internal optical drive; accepts CDs or DVDs.
2		Optical disk access indicator	Lights up when the optical drive is active.
3		Optical drive eject button	Ejects the optical disk from the drive.
4		Emergency eject hole	Ejects the optical drive tray when the computer is turned off.
5		USB 2.0 ports	Connect to USB 2.0 devices (e.g., USB mouse, USB camera).
6		DC-in jack	Connects to an AC adapter.

Rear Panel

#	Item	Description
1	Ventilation slots	Enable the computer to stay cool, even after prolonged use.

Bottom Panel



#	Icon	Item	Description
1		Battery bay	Houses the computer's battery pack.
2		Battery release latch	Releases the battery for removal.
3		Battery lock	Locks the battery in position.
4		Memory compartment	Houses the computer's main memory.
5		Hard disk bay	Houses the computer's hard disk (secured with screws)
6		Ventilation slots and cooling fan	Enable the computer to stay cool, even after prolonged use. **Note**: Do not cover or obstruct the opening of the fan.

Indicators

The computer has four easy-to-read status indicators:

The front panel indicators are visible even when the computer cover is closed up.

Icon	Function	Description
	HDD	Indicates when the hard disk drive is active.
	Num lock	Lights up when Num Lock is activated.
	Caps lock	Lights up when Caps Lock is activated.
	Power	Indicates the computer's power status.
	Battery	Indicates the computer's batttery status.

NOTE: Battery LED status during charging:

- **Amber:** Charging.
- **Green:** Charging complete.

Easy-launch Buttons

There are several conveniently located easy-launch buttons. They are: mail, Web browser, Empowering Key < e > and one user-programmable button.

Press < e > to run the Acer Empowering Technology. The mail and Web browser buttons are pre-set to email and Internet programs, but can be reset by users. To set the Web browser, mail and programmable buttons, run the Acer Launch Manager.

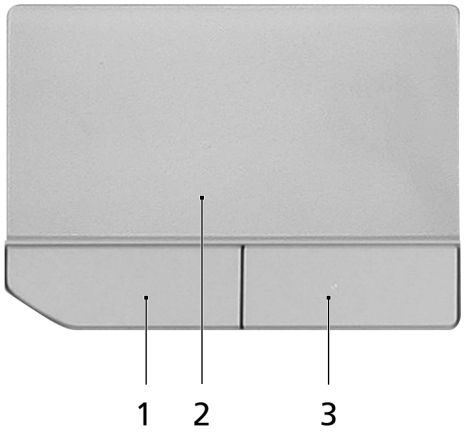
Icon	Function	Description
e	Empowering Technology	Launch Acer Empowering Technology. (user-programmable)
	Wireless communication button/indicator	Enables/disables the wireless function. Indicates the status of wireless LAN communication.

Touchpad

The built-in seamless touchpad is a pointing device that senses movement on its surface. This means the cursor responds as you move your finger across the surface of the touchpad. The central location on the palmrest provides optimum comfort and support.

Touchpad Basics

The following teaches you how to use the touchpad:



- Move your finger across the touchpad **(2)** to move the cursor.
- Press the left **(1)** and right **(3)** buttons located beneath the touchpad to perform selection and execution functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad is the same as clicking the left button.

Function	Left Button (1)	Right Button (4)	Main touchpad (2)
Execute	Click twice quickly.		Tap twice (at the same speed as double-clicking the mouse button).
Select	Click once.		Tap once.
Drag	Click and hold, then use finger to drag the cursor on the touchpad		Tap twice (at the same speed as double-clicking a mouse button) then hold finger to the touchpad on the second tap to drag the cursor.
Access context menu		Click once	
Scroll			

NOTE: When using the touchpad, keep it - and your fingers - dry and clean. The touchpad is sensitive to finger movement; hence, the lighter the touch, the better the response. Tapping too hard will not increase the touchpad's responsiveness.

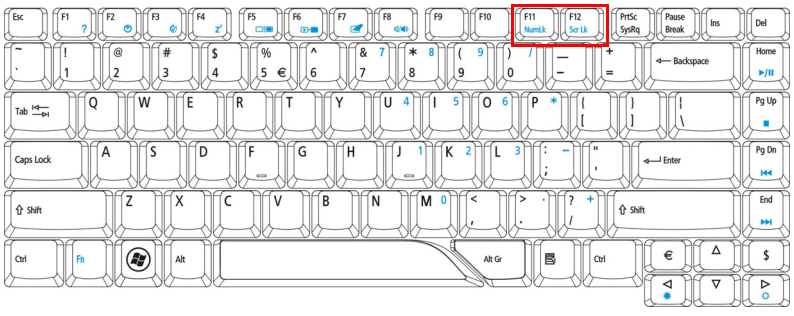
NOTE: By default, vertical and horizontal scrolling is enabled on your touchpad. It can be disabled under Mouse settings in Windows Control Panel.

Using the Keyboard

The keyboard has full-sized keys and an embedded keypad, separate cursor keys, two Windows keys and twelve function keys, and two special keys.

Lock Keys and Embedded Numeric Keypad

The keyboard has three lock keys which you can toggle on and off.



Lock Key	Description
Caps Lock	When Caps Lock is on, all alphabetic characters typed are in uppercase.
Num Lock **<Fn> + <F11>**	When Num Lock is on, the embedded keypad is in numeric mode. The keys function as a calculator (complete with the arithmetic operators +, -, *, and /). Use this mode when you need to do a lot of numeric data entry. A better solution would be to connect an external keypad.
Scroll Lock **<Fn> + <F12>**	When Scroll Lock is on, the screen moves one line up or down when you press the up or down arrow keys respectively. Scroll Lock does not work with some applications.

The embedded numeric keypad functions like a desktop numeric keypad. It is indicated by small characters located on the upper right corner of the keycaps. To simplify the keyboard legend, cursor-control key symbols are not printed on the keys.

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

Windows Keys

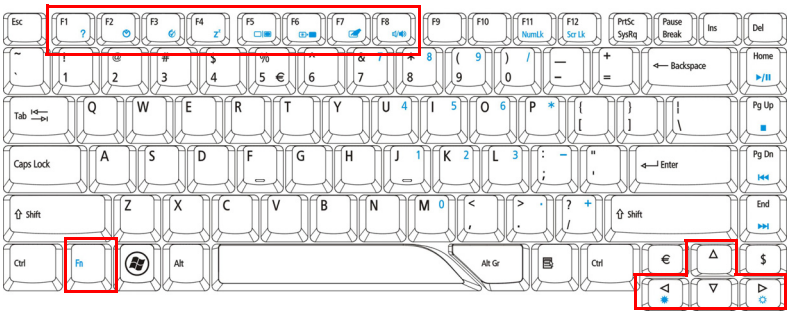
The keyboard has two keys that perform Windows-specific functions.

Key	Icon	Description
Windows key		Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provide a variety of functions: < > : Open or close the Start menu **< > + <D>:** Display the desktop **< > + <E>:** Open Windows Explore < > **+ <F>:** Search for a file or folder < > **+ <G>:** Cycle through Sidebar gadgets < > **+ <L>:** Lock your computer (if you are connected to a network domain), or switch users (if you're not connected to a network domain) < > **+ <M>:** Minimizes all windows **< > + <R>:** Open the Run dialog box < > **+ <T>:** Cycle through programs on the taskbar **< > + <U>:** Open Ease of Access Center < > **+ <X>:** Open Windows Mobility Center < > **+ <BREAK>:** Display the System Properties dialog box **< > + <SHIFT+M>:** Restore minimized windows to the desktop **< > + <TAB>:** Cycle through programs on the taskbar by using Windows Flip 3-D **< > + <SPACEBAR>:** Bring all gadgets to the front and select Windows Sidebar **<CTRL> + < > + <F>:** Search for computers (if you are on a network) **<CTRL> + < > + <TAB>:** Use the arrow keys to cycle through programs on the taskbar by using Windows Flip 3-D **Note:** Depending on your edition of Windows Vista, some shortcuts may not function as described.
Application key		This key has the same effect as clicking the right mouse button; it opens the application's context menu.

Hotkeys

The computer employs hotkeys or key combinations to access most of the computer's controls like screen brightness, volume output and the BIOS utility.

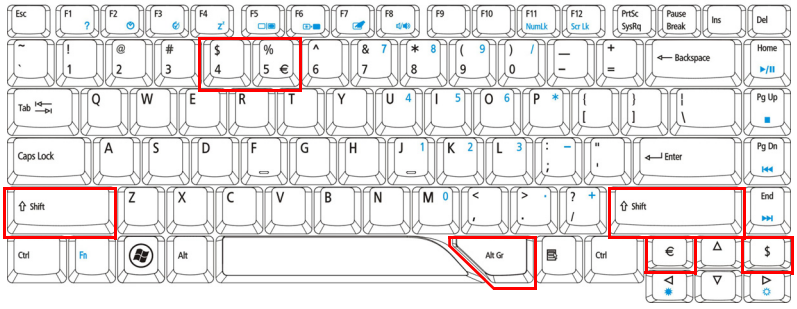
To activate hotkeys, press and hold the **<Fn>** key before pressing the other key in the hotkey combination.



Hot Key	Icon	Function	Description
<Fn> + <F1>	?	Hot key help	Displays help on hot keys.
<Fn> + <F2>		Acer eSettings	Launches the Acer eSettings in Acer eManager.
<Fn> + <F3>		Acer ePower Management	Launches the Acer ePowerManagement in Acer eManager.
<Fn> + <F4>	Z^{z}	Sleep	Puts the computer in Sleep mode.
<Fn> + <F5>		Display toggle	Switches display output between the display screen, external monitor (if connected) and both.
<Fn> + <F6>		Screen blank	Turns the display screen backlight off to save power. Press any key to return.
<Fn> + <F7>		Touchpad toggle	Turns the internal touchpad on and off.
<Fn> + <F8>		Speaker toggle	Turns the speakers on and off.
<Fn> + <▷>		Brightness up	Increases the screen brightness.
<Fn> + <◁>		Brightness down	Decreases the screen brightness
<Fn> + <△>		Volume up	Increases the sound volume.
<Fn> + <▽>		Volume down	Decreases the sound volume.

Special Keys

You can locate the Euro symbol and the US dollar sign at the upper-center and/or bottom-right of your keyboard.



The Euro symbol

1. Open a text editor or word processor.
2. Either press < € > at the bottom-right of the keyboard, or hold <**Alt Gr**> and then press the **<5>** key at the upper-center of the keyboard.

NOTE: Some fonts and software do not support the Euro symbol. Please refer to **www.microsoft.com/typography/faq/faq12.htm** for more information.

The US dollar sign

1. Open a text editor or word processor.
2. Either press < $ > at the bottom-right of the keyboard, or hold **<Shift>** and then press the **<4>** key at the upper-center of the keyboard.

NOTE: This function varies according to the language settings.

Using the System Utilities

Acer Empowering Technology

NOTE: Models shipped with Windows Vista Starter Edition only support Acer eRecovery Management.

The Empowering Technology toolbar makes it easy for you to access frequently used functions and manage your new Acer system. Displayed by default in the upper half of your screen, it provides access to the following utilities:

- **Acer eNet Management** hooks up to location-based networks intelligently.
- **Acer ePower Management** optimizes battery usage via customizable power plans.
- **Acer ePresentation Management** connects to a projector and adjusts display settings.
- **Acer eDataSecurity Management** protects data with passwords and encryption.
- **Acer eLock Management** limits access to external storage media.
- **Acer eRecovery Management** backs up and recovers data flexibly, reliably and completely.
- **Acer eSettings Management** accesses system information and adjusts settings easily.

For more information, right click on the Empowering Technology toolbar, then select the **"Help"** or **"Tutorial"** function.

Empowering Technology Password

Before using Acer eLock Management and Acer eRecovery Management, you must initialize the Empowering Technology password. Right-click on the Empowering Technology toolbar and select **"Password Setup"** to do so. If you have not initialized the Empowering Technology password and run Acer eLock Management or Acer eRecovery Management, you will be asked to create it.

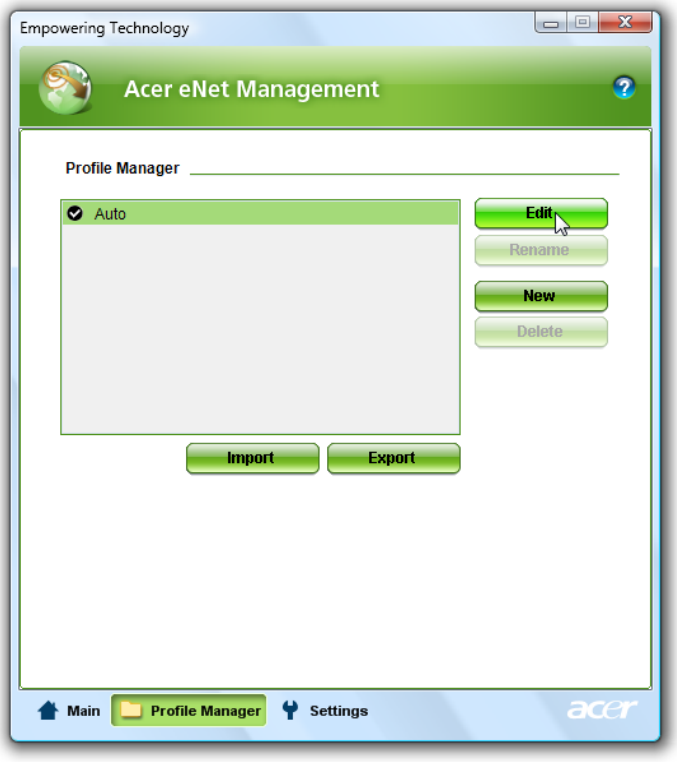
NOTE: If you lose the Empowering Technology password, there is no way to reset it except by reformatting your system. Make sure to remember or write down your password!

Acer eNet Management

Acer eNet Management helps you quickly connect to both wired and wireless networks in a variety of locations. To access this utility, select **"Acer eNet Management"** from the Empowering Technology toolbar or run the program from the Acer Empowering Technology program group in Start menu. You can also set Acer eNet Management to start automatically when you boot up your PC.

Acer eNet Management automatically detects the best settings for a new location, while offering you the option to manually adjust the settings to match your needs.

Acer eNet Management can save network settings for a location to a profile, and automatically switch to the appropriate profile when you move from one location to another. Settings stored include network connection settings (IP and DNS settings, wireless AP details, etc.), as well as default printer settings. Security and safety concerns mean that Acer eNet Management does not store username and password information.



Acer ePower Management

Acer ePower Management features a straightforward user interface for configuring your power management options. To access this utility, select **"Acer ePower Management"** from the Empowering Technology toolbar, run the program from the Acer Empowering Technology program group in Start menu, or right-click the Windows power icon in the system tray and select **"Acer ePower Management"**.

Using Power Plans

Acer ePower Management comes with three predefined power plans: Balanced, High performance and Power saver. You can also create customized power plans. You can create, switch between, edit, delete and restore power plans, as described below.

View and adjust settings for On Battery and Plugged In modes by clicking the appropriate tabs. You can open Windows power options by clicking **"More Power Options"**.

NOTE: You cannot delete the predefined power plans.

To create a new power plan:

Creating customized power plans allows you to save and quickly switch to a personalized set of power options.

1. Click the Create Power Plan icon. 
2. Enter a name for your new power plan.
3. Choose a predefined power plan to base your customized plan on.
4. If necessary, change the display and sleep settings you want your computer to use.
5. Click **"OK"** to save your new power plan.

To switch between power plans:

1. Select the power plan you wish to switch to from the drop-down list.
2. Click **"Apply"**.

To edit a power plan:

Editing a power plan allows you to adjust system settings like LCD brightness and CPU speed. You can also turn on/off system components to extend battery life.

1. Switch to the power plan you wish to edit
2. Adjust settings as required.
3. Click **"Apply"** to save your new settings.

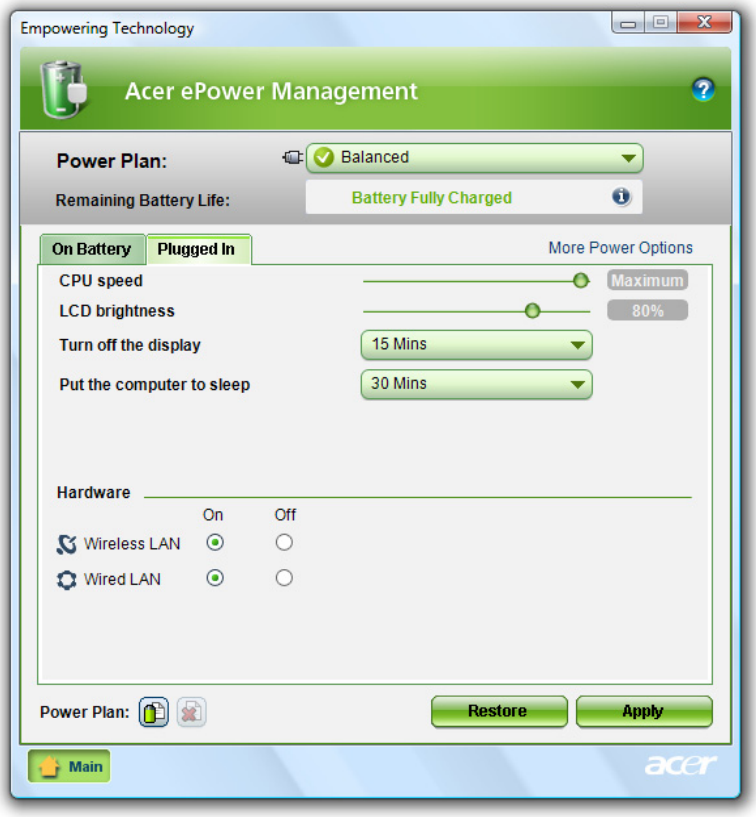
To delete a power plan:

You cannot delete the power plan you are currently using. If you want to delete the active power plan, switch to another one first.

1. Select the power plan you wish to delete from the drop-down list.
2. Click the Delete Power Plan icon. 

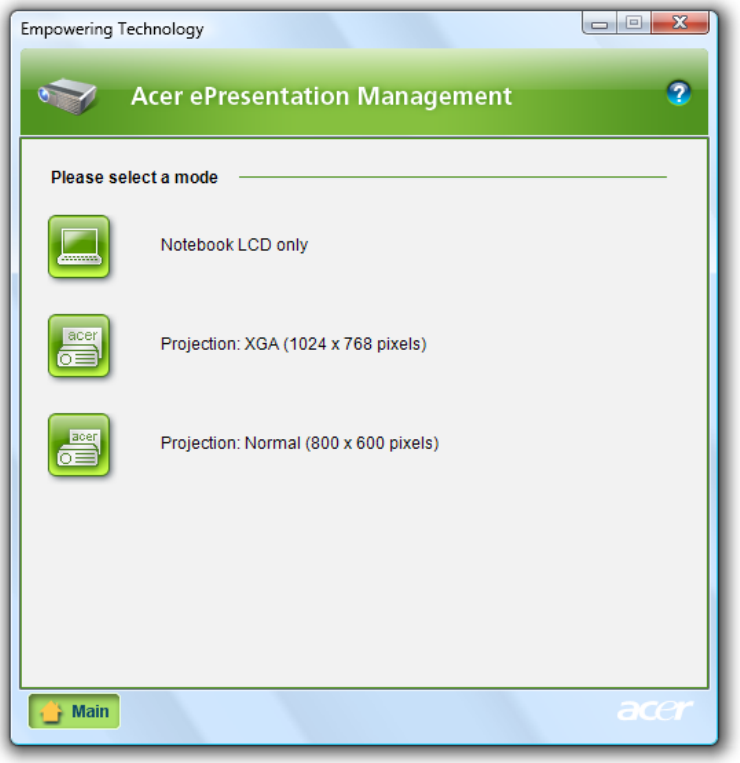
Battery status

For real-time battery life estimates based on current usage, refer to the panel in the upper half of the window. Click the to view estimated battery life in sleep and hibernate modes.



Acer ePresentation Management

Acer ePresentation Management lets you project your computer's display to an external display device or projector using the hotkey: **<Fn> + <F5>**. If auto-detection hardware is implemented in the system and the external display supports it, your system display will be automatically switched out when an external display is connected to the system. For projectors and external devices that are not auto-detected, launch Acer ePresentation Management to choose an appropriate display setting.

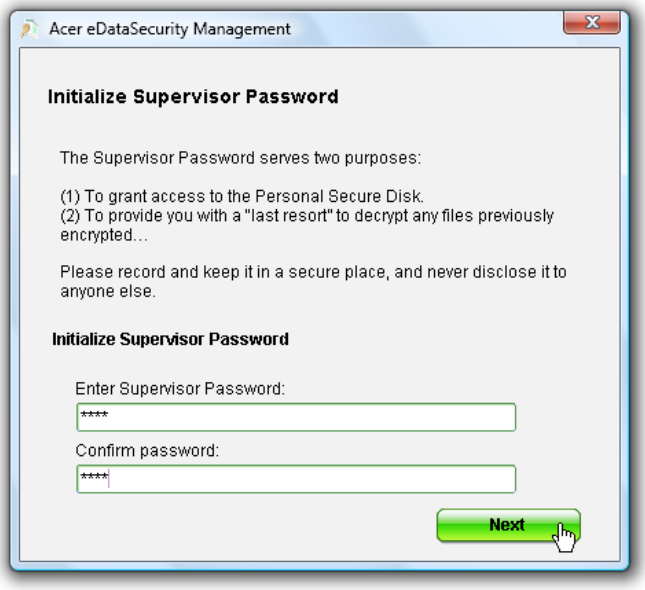


NOTE: If the restored resolution is not correct after disconnecting a projector, or you need to use an external resolution that is not supported by Acer ePresentation Management, adjust your display settings using Display Properties or the utility provided by the graphics vendor.

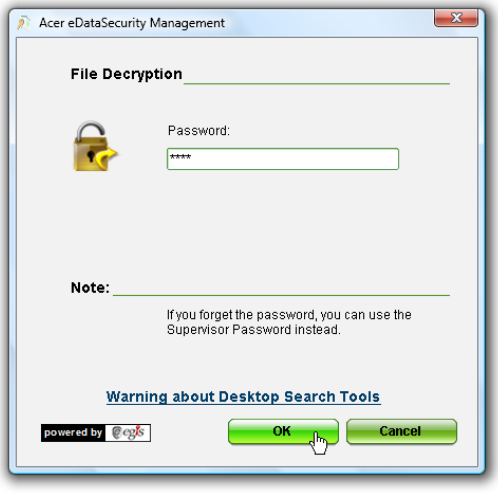
Acer eDataSecurity Management (for selected models)

Acer eDataSecurity Management is an encryption utility that protects your files from being accessed by unauthorized persons. It is conveniently integrated with Windows Explorer as a shell extension for quick data encryption/decryption and also supports on-the-fly file encryption for Lotus Notes and Microsoft Outlook.

The Acer eDataSecurity Management setup wizard will prompt you for a supervisor password and default encryption password. This password will be used to encrypt files by default, or you can choose to enter your own password when encrypting a file.



NOTE: The password used to encrypt a file is the unique key that the system needs to decrypt it. If you lose the password, the supervisor password is the only other key capable of decrypting the file. If you lose both passwords, there will be no way to decrypt your encrypted file! **Be sure to safeguard all related passwords!**



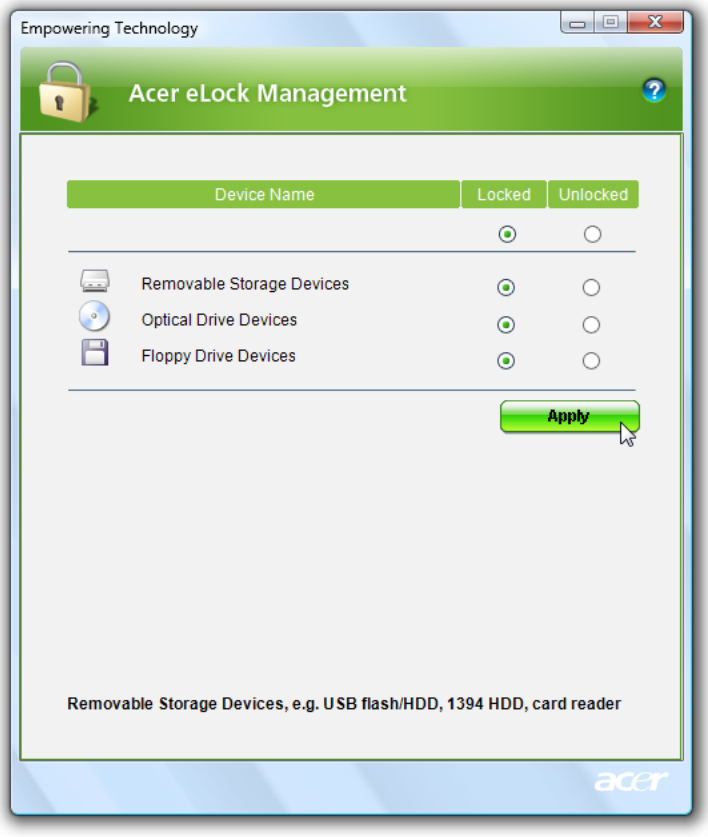
Acer eLock Management

Acer eLock Management is simple yet effective utility that allows you to lock removable storage, optical and floppy drive devices to ensure that data can't be stolen while your system is unattended.

- Removable Storage Devices — includes USB disk drives, USB pen drives, USB flash drives, USB MP3 drives, USB memory card readers, IEEE 1394 disk drives, and any other removable storage devices that can be mounted as a file system when plugged into the system.
- Optical Drive Devices — includes any kind of CD-ROM, DVD-ROM, HD-DVD or Blu-ray drive devices.
- Floppy Drive Devices — 3.5-inch floppy drives only.

To use Acer eLock Management, the Empowering Technology password must be set first. Once set, you can apply locks to any of the devices types. Lock(s) will immediately be set without any reboot necessary, and will remain after rebooting, until removed.

NOTE: If you lose the Empowering Technology password, there is no method to reset it except by reformatting your system. Make sure to remember or write down your password.

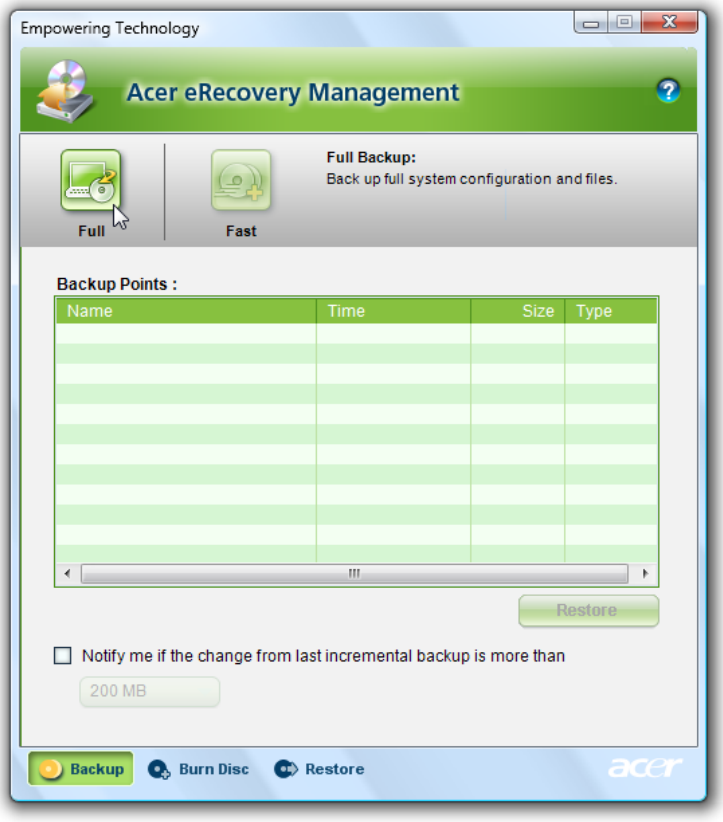


Acer eRecovery Management

Acer eRecovery Management is a versatile backup utility. It allows you to create full or incremental backups, burn the factory default image to optical disc, and restore from previously created backups or reinstall applications and drivers. By default, user-created backups are stored to the D:\ drive.

Acer eRecovery Management provides you with:

- Password protection (Empowering Technology password)
- Full and incremental backups to hard disk or optical disc
- Creation of backups:
  - Factory default image
  - User backup image
  - Current system configuration
  - Application backup
- Restore and recovery:
  - Factory default image
  - User backup image
  - From previously-created CD/DVD
  - Reinstall applications/drivers



NOTE: If your computer did not come with a Recovery CD or System CD, please use Acer eRecovery Management's "System backup to optical disc" feature to burn a backup image to CD or DVD. To ensure the best results when recovering your system using a CD or Acer eRecovery Management, detach all peripherals (except the external Acer ODD, if your computer has one), including your Acer ezDock.

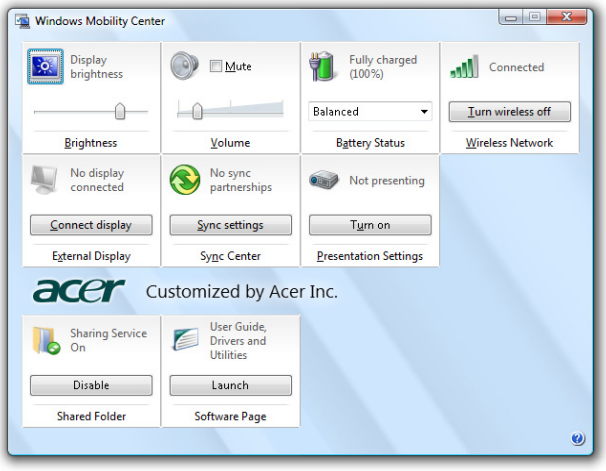
Acer eSettings Management

Acer eSettings Management allows you to inspect hardware specifications, set BIOS passwords and modify boot options.

Acer eSettings Management also:

- Provides a simple graphical user interface for navigation.
- Prints and saves hardware specifications.
- Lets you set an asset tag for your system.

Windows Mobility Center



The Windows Mobility Center collects key mobile-related system settings in one easy-to-find place, so you can quickly configure your Acer system to fit the situation as you change locations, networks or activities. Settings include display brightness, power plan, volume, wireless networking on/off, external display settings, display orientation and synchronization status.

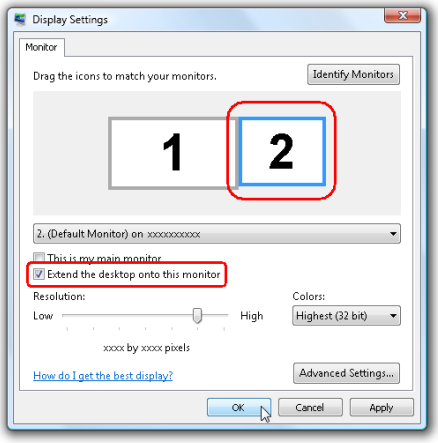
Windows Mobility Center also includes Acer-specific settings like Bluetooth Add Device (if applicable), sharing folders overview/sharing service on or off, and a shortcut to the Acer user guide, drivers and utilities.

To launch Windows Mobility Center:

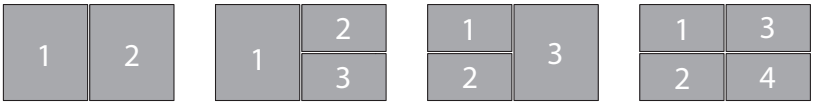
- ❑ Use the shortcut key < > + <X>
- ❑ Start Windows Mobility Center from the Control panel
- ❑ Start Windows Mobility Center from the Accessories program group in the Start menu

Acer GridVista (dual-display compatible)

To enable the dual display feature of your notebook, first ensure that a second display is connected, then, open the **Display Settings** properties box using the Control Panel or by right-clicking the Windows desktop and selecting **Personalize**. Select the secondary monitor **(2)** icon in the display box and then click the check box **Extend the desktop onto this monitor**. Finally, click **Apply** to confirm the new settings and click **OK** to complete the process.



Acer GridVista is a handy utility that offers four pre-defined display settings so you can view multiple windows on the same screen. To access this function, please go to **Start**, **All Programs** and click on **Acer GridVista**. You may choose any one of the four display settings indicated below:

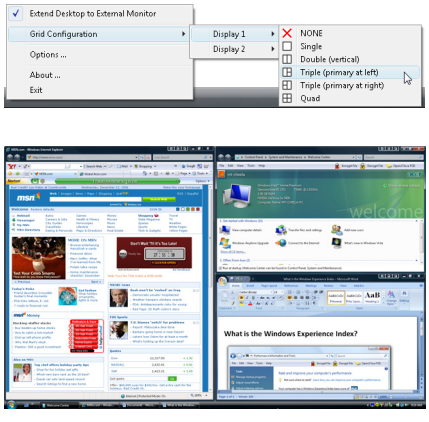


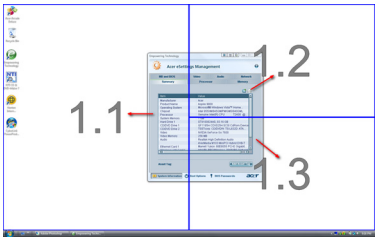
Double (vertical), Triple (primary at left), Triple (primary at right), or Quad

Acer Gridvista is dual-display compatible, allowing two displays to be partitioned independently.

Acer GridVista is simple to set up:

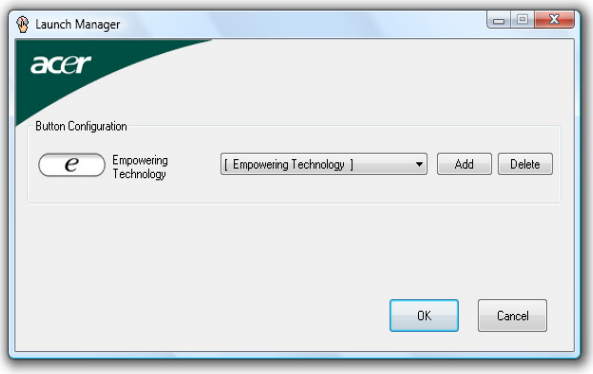
1. Run Acer GridVista and select your preferred screen configuration for each display from the taskbar.
2. Drag and drop each window into the appropriate grid.
3. Enjoy the convenience of a well-organized desktop.





NOTE: Please ensure that the resolution setting of your second monitor is set to the manufacturer's recommended value.

Launch Manager



Launch Manager allows you to set the four easy-launch buttons located above the keyboard.

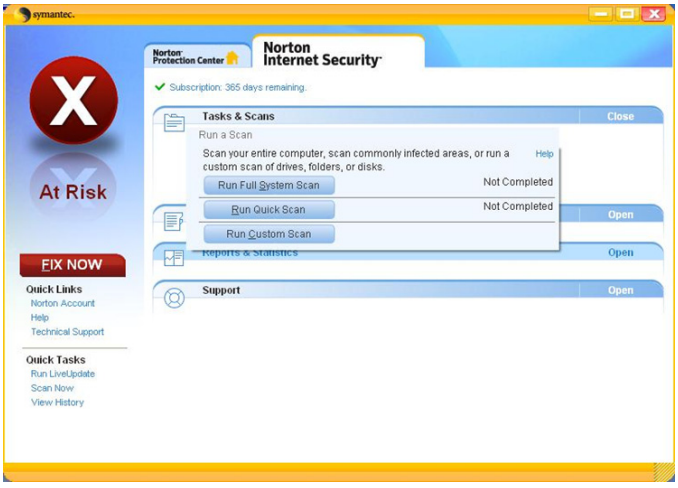
You can access the Launch Manager by clicking on **Start**, **All Programs**, and then **Launch Manager** to start the application.

Norton Internet Security

Norton Internet Security is an anti-virus utility that can protect against viruses, keeping your data safe and secure.

How do I check for viruses?

1. Double-click the **Norton Internet Security** icon on the Windows desktop.
2. Select **Tasks & Scans.**
3. Select **Run Scan** to scan your system.



4. When the scan is complete, review the results of the scan.

NOTE: For optimal security, run a Full System Scan when scanning your computer for the first time.

You can schedule customized virus scans that run unattended on specific dates and times or at periodic intervals. If you are using the computer when the scheduled scan begins, it runs in the background so that you do not have to stop working.

For more information refer to the Norton Internet Security help files.

Hardware Specifications and Configurations

Processor

Item	Specification				
CPU type	Intel Pentium Dual-Core T2310 Mobile Processor	Intel Pentium Dual Core T2330 Mobile Processor	Intel Celeron M 530 Mobile Processor	Intel Celeron M 540 Mobile Processor	Intel Celeron M 550 Mobile Processor
Clock Speeds	1.46 GHz	1.60 GHz	1.73 GHz	1.86 GHz	2.0 GHz
L2 Cache	1 MB				
Front Side Bus	533 MHz				

System Board Major Chips

Item	Specification
System core logic	Intel GL960 Express chipset + Intel ICH8-M chipset
HDD controller	Intel ICH8-M chipset
Memory controller	Intel GL960 Express chipset
Video controller	Intel GL960 Express chipset
Audio controller	Codec ALC268 chipset
PCMCIA controller	Intel ICH8-M chipset
LAN controller	Marvell Yukon 88E8039 PCI-E Fast Ethernet Controller
Modem controller	Intel ICH8-M chipset
Keyboard controller	Winbond WPC8763L chipset

Hard Disk Drive Interface

Item	Specification											
Product	Toshiba			Western Digital			Seagate			Hitachi Travelstar 5K160		
Model Name	MK8037 GSX	MK1237 GSX	MK1637 GSX	WD800B EVS	WD1200B EVS	WD1600B EVS	ST980811AS	ST912082 2AS	ST916082 1AS	HTS541680J9SA00 HTS542580K9SA00	HTS541612J9SA00	HTS541616J9SA00
Capacity (GB)	80	120	160	80	120	160	80	120	160	80	120	160
Form factor and Interface type	2.5 inch Serial ATA											
Bytes per sector	512			N/A			512			512		
Data heads	4			N/A			3			4		
Data disks	2			N/A			2			2		
Spindle speed (RPM)	5400			5400			5400			5400		

Hard Disk Drive Interface

Item	Specification			
Buffer size (MB)	8.192	8	8	8
Media transfer rate (Mbytes/s, max)	300	600	N/A	540
Interface transfer rate (Mbytes/s, max)	N/A	150 MB/s	150 MB/s	150 MB/s
Voltage tolerance	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%

BIOS

Item	Specification
BIOS vendor	Phoenix
BIOS Version	v0.09
Supported protocols	ACPI 1.0b/2.0/3.0 compliance, PCI 2.2, System/HDD Password Security Control, INT 13h Extenstions, PnP BIOS 1.0a, SMBIOS 2.4, BIOS Boot Specification, Simple Boot Flag 1.0, Boot Block, PCI Bus Power Management Interface Specification, USB Specification 1.1/2.0, IEEE 1394 1.0, USB/1394 CD-ROM Boot Up support, PC Card Standard 1995 (PCMCIA 3.0 Compliant Device), IrDA 1.0, HD audio, WfM 2.0, Preboot Execution Environment 2.1, Boot Integrity Service Application Program Interface (BIS) 1.0, PC2002/2005 compliant, Intel Enhanced SpeedStep Technology, Intel DPST support, ASF 2.0, TPM v1.2, AHCI support, iAMT 2.5

System Memory

Item	Specification			
Memory controller	Intel GL960 Express chipset			
DIMM socket number	2 sockets			
Supports maximum memory size	2 GB (1GB for each socket; GL960 chipset supporting to 1GB maximum)			
Vendor	Samsung	Hynix	Nanya	Infineon
Model name	M470T6554EZ3-CE6 M470T2953EZ3-CE6 M470T2864DZ3-CE6	HYMP125S64CP8-Y5 HYMP512S64CP8-Y5 HYMP112S64CP6-Y5 HYMP125S64CP8-Y5	NT512T64UH8B0FN-3C NT1GT64U8HB0BN-3C	HYS64T128021EDL-3S
DIMM type	DDR2 Synchronous DRAM			
DIMM speed (MHz)	667			
DIMM size	512 MB, 1GB	512 MB, 1GB,	512 MB, 1 GB	1 GB

Video

Item	Specification
VGA controller	Intel GL960 Express chipset with integrated 3D graphics
Features	Intel GMA X3100 with up to 358 MB of Intel Dynamic Video Memory Technology 4.0 (8 MB of dedicated system memory, up to 350 MB of shared system memory) supporting Microsoft DirectX 9 and PCI Express
VGA resolution	1280 x 800
VRAM size	128 MB

Audio

Item	Specification
Audio controller	Realtek ALC268 Codec chipset
Features	Two built-in Acer 3D Sonic stereo speakers, Supports high definition audio, Built-in microphone, MS-sound compatible

PCMCIA Port

Item	Specification
PCMCIA controller	Intel ICH8-M chipset
Card type support	Type-II
Number of slot	One

LAN

Item	Specification
LAN controller	Marvell Yukon 88E8039 PCI-E Fast Ethernet Controller
Supports LAN protocol	10/100Mbps
LAN connector type	RJ45
Features	Onboard Fast Ethernet, Wake on LAN ready

Wireless LAN module

Item	Specification		
Vendor	Atheros Communications		Foxconn
Model name	REV06	XB63	Broadcom 4311
Protocol	802.11b/g		
Interface	PCI bus (mini PCI socket for wireless module)		

Modem

Item	Specification	
Modem controller	Intel ICH8-M chipset	
Vendor	Agere	Foxconn
Model name	Delphi AM3 B85244300G	MDC 1.5 T60M955.00
Baud rate	56 K	
Modem connector type	RJ11	

Keyboard and Input Devices

Item	Specification
Keyboard controller	Winbond WPC8763L chipset
Vendor	Darfon
Model name	NSK-H3V1D, NSK-H3V0U
Features	5-degree curve, 88-/89-/93- key, inverted “T” cursor layout, 2.5 mm (minimum) key travel, seamless touchpad, 12 function keys, four cursor keys, two Windows keys, hotkey controls, embedded numeric keypad, international language support, independent US and Euro dollar sign keys, media control keys, and two easy-launch buttons

Combo Drive Interface

Item	Specification		
Vendor	Sony	Philips BenQ	Toshiba
Model name	CRX880A	DS-24CZP	TS-L462D
Drive type	Internal Slim CD-RW/DVD combo drive		
Data transfer rate	Write: • CD-R: 24X • CD-RW: 24X	Read: • DVD-ROM: 8X • CD-ROM: 24X	
Buffer Memory	2 MB	N/A	
Interface	IDE		
Applicable disc format	CD-R, CD-RW (Multi speed, High speed, Ultra-speed and Ultra-speed plus) CD-DA, CD-ROM (mode 1), CD-ROM XA (Mode 2, Form 1, Form 2), CD-I, CD-i Bridge, Video-CD, Karaoke CD, Photo CD, Enhanced CD, CD Plus, CD Extra, i-trax CD, CD-Text DVD-ROM, DVD-Video, DVD-Audio, SACD (Hybrid), UDF DVD, DVD-R/RW, DVD+R/RW, DVD+/-R DL, DVD-RAM V1.0/ V2.1		
Power supply	5 V DC		

DVD Drive Interface

Item	Specification			
Vendor	Sony	Pioneer	Philips BenQ	Panasonic
Model name	AD-7560A	DVR-K17RS	DS-8A1P	UJ-850UAA1-A
Drive type	Internal Slim DVD/CD writer			
Data transfer rate	Write: • CD-R: 24X CAV • CD-RW: 24X CAV • DVD+RW/-RW (single layer): 8X, 6X ZCLV • DVD-R/+R (single layer): 8X CAV • DVD-R/+R (double layer): 4X ZCLV • DVD-RAM: 5X ZCLV Read: • CD-R/RW/ROM: 24X Max • DVD-ROM (single layer): 8X CAV • DVD-ROM (double layer): 6X CAV • DVD-RAM: 5X ZCLV • DVD-R/+R/+RW/-RW (single layer): 8X CAV • DVD-R/+R (double layer): 6X CAV	Write: • CD-R: 24X • CD-RW: 24X • DVD-RW: 6X • DVD-R/+R/+RW: 8X Read: • DVD-RAM: 5X	N/A	Write: • CD-R: 24X • CD-RW: 16X • DVD-R: 8X • DVD-RW: 4X • DVD-RAM: 5X • DVD+R(DL): 2.4X • DVD+R: 8X • DVD+RW: 4X Read: • CD-R/RW/ROM: 24X • DVD-R/RW/ROM: 8X
Buffer Memory	2 MB			
Interface	Enhanced IDE(ATAPI) compatible			
Applicable disc format	DVD-RAM, DVD-R/RW, DVD+R (SL, DL)/RW, CD-R/RW, DVD-ROM, DVD-RAM, DVD-R, DVD-RW, DVD+R (SL, DL), DVD+RW; CD-R, CD-RW, CD-ROM, CD-ROM XA, CD-DA, CD-I, CD-Extra, CD-Text, Photo CD, Video CD			
Power supply	5V DC			

Battery

Item	Specification			
Vendor	Panasonic	Sanyo	Sony	Simplo
Battery Type	Li-ion	Li-ion	Li-ion	Li-ion
Pack capacity	6 cell, 2.0 mAh	6 cell, 2.0 mAh	6 cell, 2.0 mAh	6 cell, 2.0 mAh

LCD

Item	Specification			
Vendor	CMO	LG Philips	AUO	Samsung
Model name	N141I1-L03 (Non-glare)	LP141WX3-TLB1(Glare)	B141EW04-V4 (Glare)	LTN141W3-L01-J (Glare)
	N141I3-L02 (Glare)	LP141WX3-TLB1 (Glare) (OKI driver IC:01OKL-0123A)		
Screen diagonal (mm)	14.1” WXGA			
Display resolution (pixels)	1280 x 800	1280 x 800	1280 x 800	1280 x 800
Aspect ratio	N/A	16:10	16:10	N/A
Active area (mm)	N/A	303.7x189.8	303.36 x 189.6	303.4 x 189.6
Pixel pitch (mm)	N/A	0.2373 (107)	0.237	0.237
Mode	N/A	N/A	TN	N/A
Number of colors	262 K	262,144 (6 bit)	262 K	262 K
Color saturation (NTSC%)	N/A	45	45	N/A
Brightness (nits)	200	200	200	200
	220			
Contrast ratio	300:1	400:1	400:1	500:1
Response time (optical rise time + fall time) (msec)	16	16	16	16
Power consumption (watt)	5.3	N/A	5.1	N/A
Supply voltage (v)	N/A	N/A	3.3	N/A
Backlight	N/A	N/A	1 CCFL	N/A
Outline dimensions (mm)	319.5 x 205 .5 x 5.2	319.5x205.5	319.5 x 205.5 x 5.2	319.5 x205.5 x 5.5
Weight (g)	400	390	400	390

LCD Inverter Board

Item	Specification		
Vendor	YEC	Foxconn	RoHS
Model name	YNV-W06	T62I240.02	VK.21189.406

AC Adapter

Item	Specification			
Vendor	Delta	Lite-On	Lishin	Hipro
Model Name	SADP-65KB DFA	PA-1650-02 AC	SLS0335A19A54	HP-Ok065B13
Output rating	19 V/3.42 A, 65 W	19 V/3.42 A, 65 W	19 V/3.42 A, 65 W	19 V/3.42 A, 65 W
Input (Vac)	90 ~ 270	100 ~ 240	90 ~ 265	90 ~ 264

System Power Management

ACPI mode	Power Management
Off	• 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.
On	• Working (G0/S0): Individual devices such as the CPU and hard disc may be power managed in this state. • Suspend to RAM (S3): CPU set power down, VGA Suspend, PCMCIA Suspend, Audio Power Down, Hard Disk Power Down, CD-ROM Power Down, and Super I/O Low Power mode. • Save to Disk (S4): Also called Hibernation Mode. System saves all system states and data onto the disc prior to system shutdown.

System Utilities

BIOS Setup Utility

The BIOS Setup Utility is a hardware configuration program built into your system's BIOS (Basic Input/Output System). Since most systems are already properly configured and optimized, there is no need to run this utility. The BIOS setup utility stores basic settings for your system. You will need to run this utility if you encounter configuration problems. Refer to Chapter 4 Troubleshooting when problem arises.

Entering BIOS Setup

Power on the system to start the system POST process. During bootup, press **F2** to enter the BIOS setup screen.

NOTE: You must press **F2** while the system is booting. This key does not work during any other time.

BIOS Setup Primary Menus

There are several tabs on the setup screen corresponding to the six primiary BIOS menus.

- Information
- Main
- Security
- Boot
- Exit

In the descriptive table following each of the screen illustrations, settings in **boldface** are the default and suggested parameter settings.

BIOS Setup Navigation Keys

Note the following reminders when moving around the Setup utility.

- Use the **Left** and **Right** arrow keys to move to the next page or to return to the previous screen.
- Use the **Up** and **Down** arrow keys to select an item.
- Use the **+** and **-** keys to select an option.

NOTE: You can configure a parameter that is enclosed in square brackets. Grayed-out items have fixed settings and are not user-configurable.

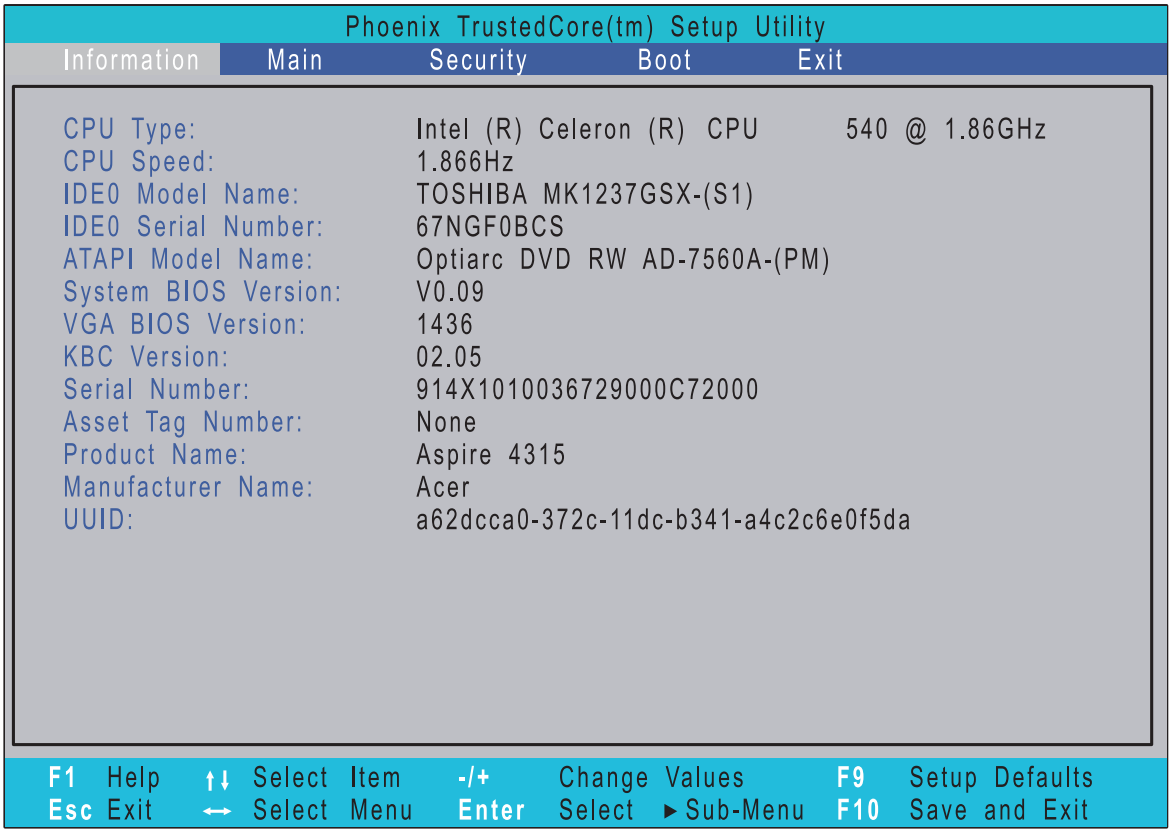
- Use the **Enter** key to display a submenu screen.

NOTE: When a parameter is preceeded by an **arrow** or (**>**), it means that a submenu screen is available.

- Press **F1** for General Help using the BIOS setup.
- Press **F9** to load the default configuration.
- Press **F10** to save changes and close the BIOS setup.
- Press **Esc** to close the BIOSe setup.

NOTE: The parameters on the screens shown in this Guide display default system values. These values may not be the same as those in the system. System information is subject to different models.

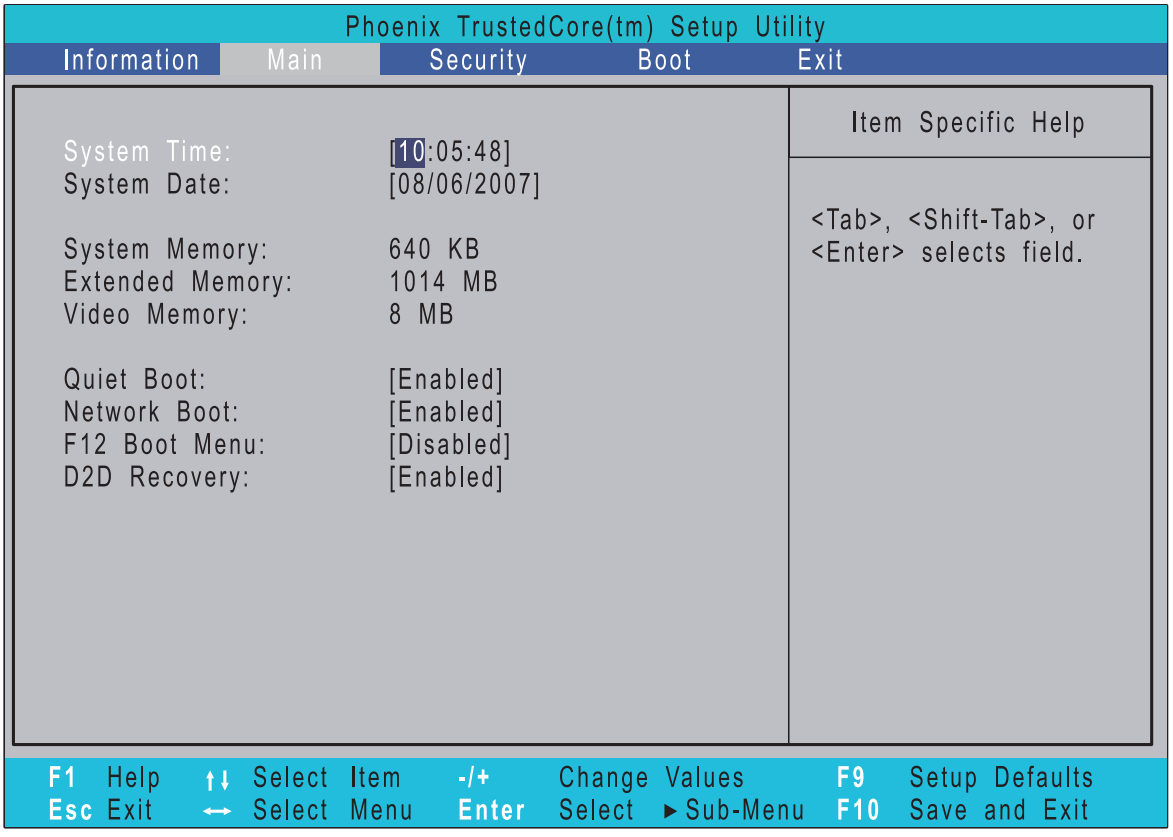
Information Menu



Parameter	Description
CPU Type	Type of processor currently installed in the system.
CPU Speed	Speed of the processor currently installed in the system.
IDE0 Model Name	Model name of HDD installed on the primary IDE channel.
IDE0 Serial Number	Serial number of HDD installed on the primary IDE channel.
ATAPI Model Name	Model name of the ATAPI CD/DVD-ROM drive installed in the system.
System BIOS Version	Version number of the BIOS setup utility.
VGA BIOS Version	Version number of the VGA firmware.
KBC Version	Version number of the keyboard controller.
Serial Number	Serial number of the system.
Asset Tag Number	Asset tag number of the system.
Product Name	Product name of the system.
Manufacturer Name	Name of the manufacturer of this system.
UUID	Visible only when an internal LAN device is present. UUID=32bytes

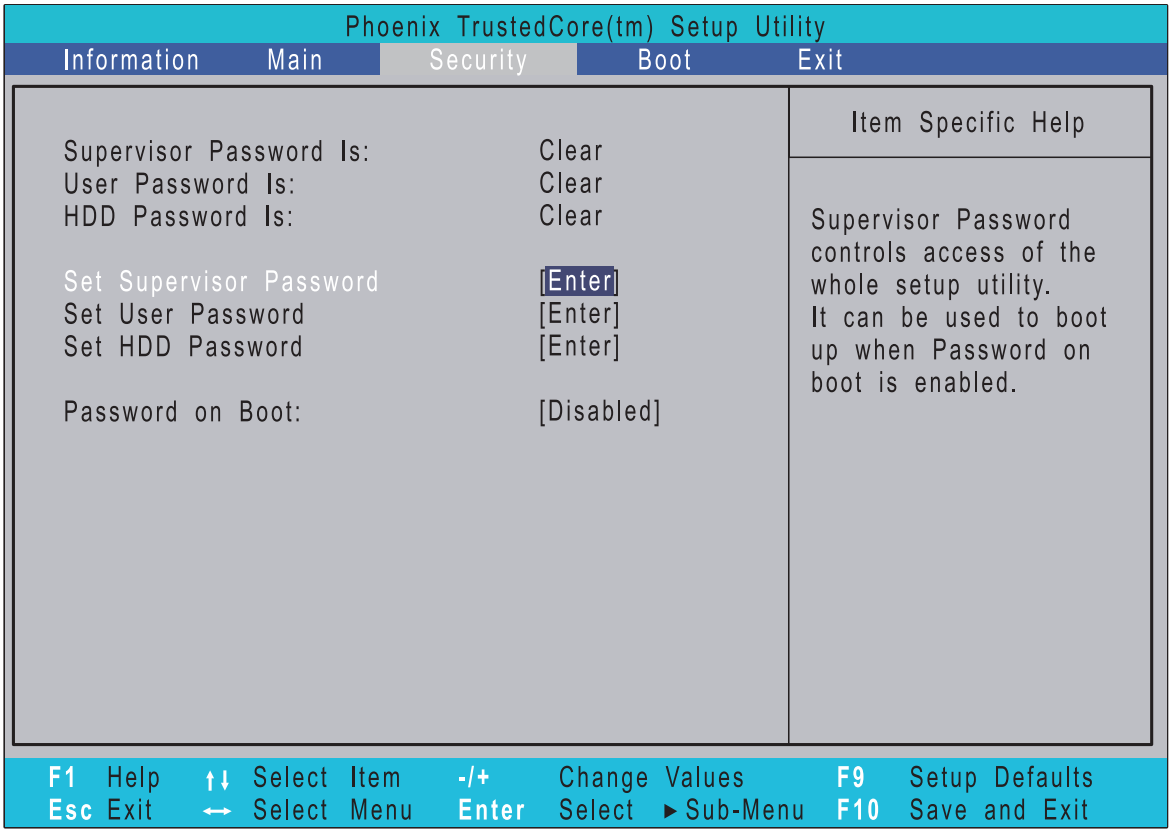
NOTE: The system configuration information varies in different models.

Main Menu



Parameter	Description	Format/Option
System Time	Set the system time following the hour-minute-second format.	Format: HH:MM:SS (hour:minute:second)
System Date	Set the date following the weekday-month-day-year format.	Format MM/DD/YYYY (month/day/year)
System Memory	Total size of system memory detected during POST.	
Extended Memory	Total size of extended memory during POST.	
Video Memory	Total size of VGA memory.	
Quiet Boot	When Enabled, the BIOS splash screen is displayed during startup.	**Enabled** Disabled
Network Boot	When Enabled, the system can be booted from another PC on your LAN, such as a remote server.	**Enabled** Disabled
F12 Boot Menu	When Enabled, pressing the F12 key during POST brings up a menu of devices that you can select to boot.	**Disabled** Enabled
D2D Recovery	Enables or disables disk-to-disk recovery. D2D recovery is a method of restoring the system to factory configurations without using recovery CDs.	**Enabled** Disabled

Security Menu



Parameter	Description	Option
Supervisor Password Is	Indicates whether a supervisor password has been assigned.	**Clear** or Set
User Password Is	Indicates whether a user password has been assigned.	**Clear** or Set
HDD Password Is	Indicates whether a hard disk drive password has been assigned.	**Clear** or HDD Password Set
Set Supervisor Password	Press **Enter** to configure the supervisor password.	
Set User Password	Press **Enter** to configure the user password.	
Set HDD Password	Press **Enter** to configure the hard disk drive password.	
Password on Boot	Enables or disables security check during POST.	**Disabled** or Enabled

NOTE: Refer to the “Removing a System Password” on page 39 for more information on how to remove a password.

Setting a System Password

1. Use the **up**/**down** keys to select a password parameter, then press **Enter**. A Password box appears.
2. Type a password then press **Enter**.

   The password may consist of up to six alphanumeric characters (A-Z, a-z, 0-9).
3. Retype the password to verify the first entry then press **Enter** again. You will be prompted to save the new password.
4. Press **Enter**.
5. Press **F10** to save the password and close the Setup Utility.

Changing a System Password

1. Use the **up**/**down** keys to select a password parameter , then press **Enter**.
2. Type the original password then press **Enter**.
3. Type a new password then press **Enter.**
4. Retype the password to verify the first entry then press **Enter**.
5. Press **Enter**.
6. Press **F10** to save the new password and close the Setup Utility.

Removing a System Password

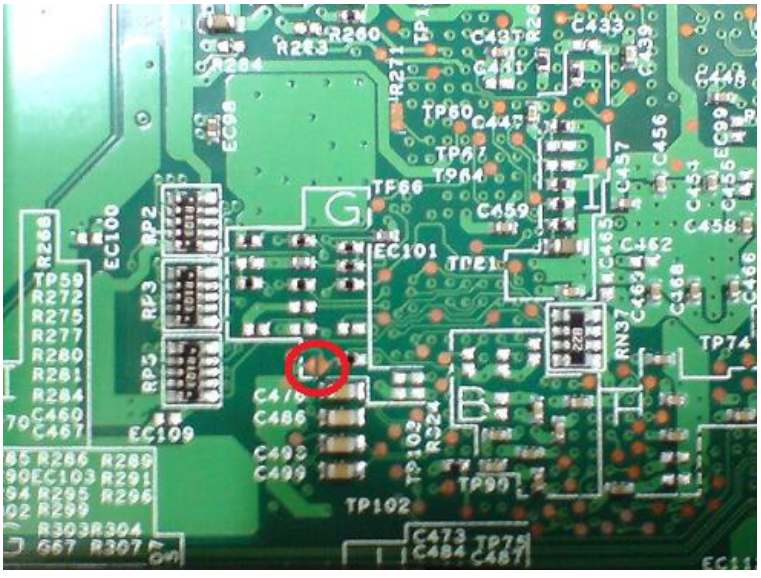
1. Use the **up**/**down** keys to select a password parameter, then press **Enter**.
2. Enter the original password then press **Enter**.
3. Press **Enter** twice without entering anything in the new and confirm password fields.
4. Press Enter. After doing this, the system automatically sets the related password parameter to **Clear**.
5. Press **F10** to save the new password and close the Setup Utility.

Clearing the Supervisor or User Password

If the Password on Boot field have been enabled and you forgot the BIOS password (supervisor/user password), you will not be able to boot up the system. You need to clear the lost password by shorting the hardware gap located near the DIMM slot.

1. Power off the system.
2. Unplug the adapter and power cable.
3. Remove the battery pack. See “Removing the Battery Pack” on page 49.
4. Remove the lower cover. See “Removing the Lower Cover” on page 50.
5. If necessary, remove the memory module. See “Removing the DIMM” on page 51.

6. Locate the hardware gap. The gap is highlighted in the illustration below.

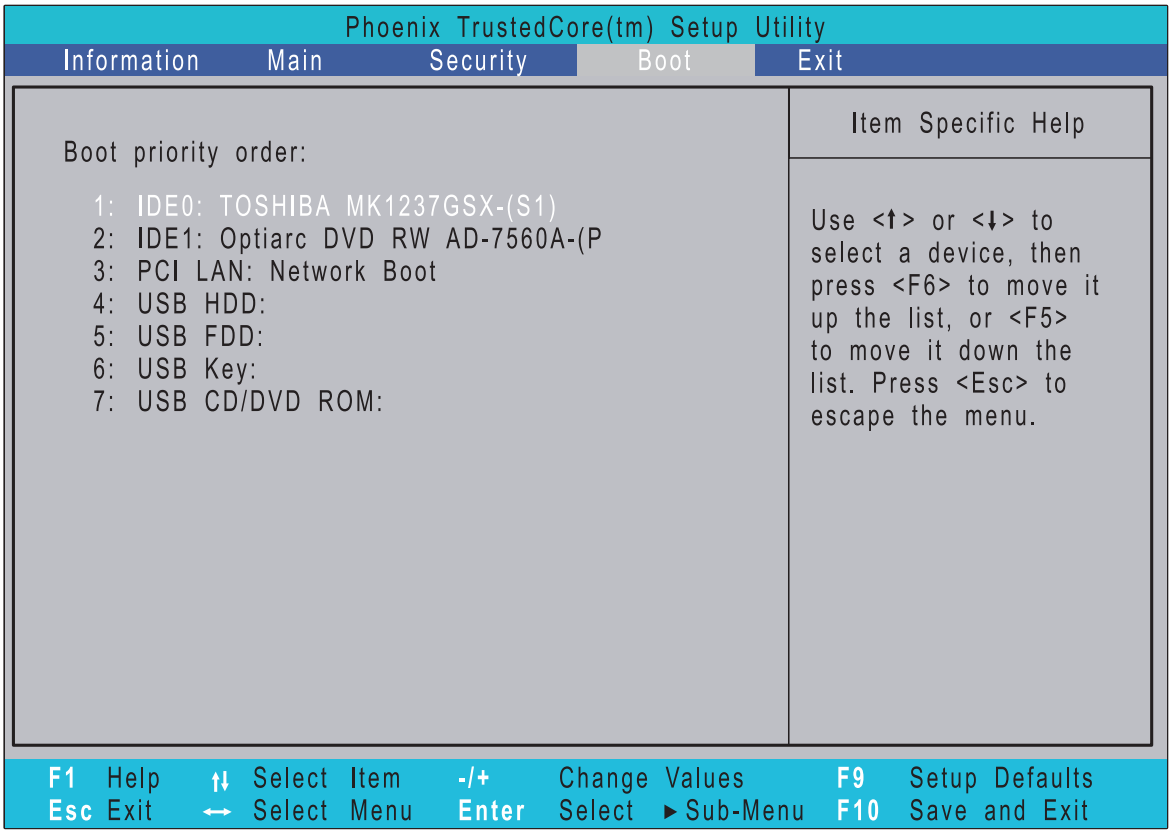


Hardware gap	Default setting	Operation Description
G67	Open (Normal)	Short to clear supervisor and user password.

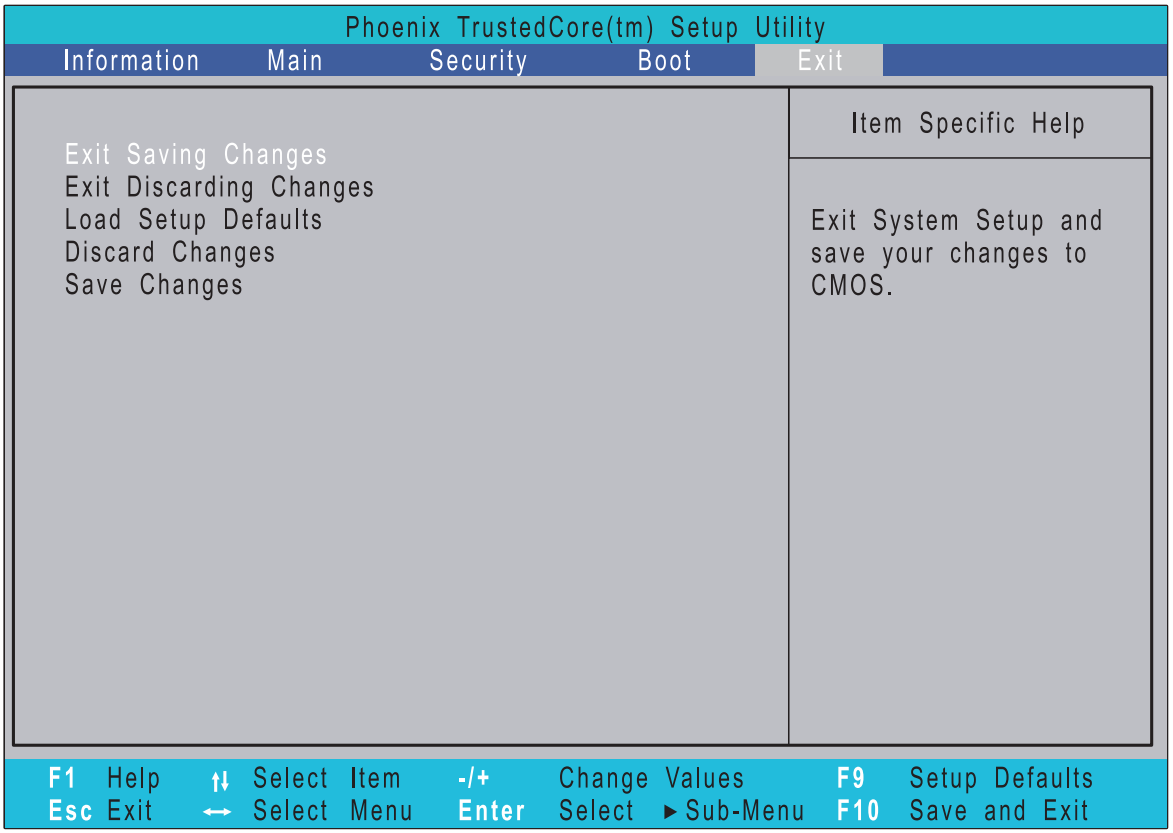
7. Using an electrical conductivity tool, short the two contacts on the hardware gap together.
8. While resting the tool on the two contacts, plug one end of the AC adapter into the DC-in jack and plug one end to an electrical outlet.
9. Press the **power** button to turn on the system.
10. After BIOS POST message, remove the tool from the hardware gap.
11. Reinstall the memory modules and lower cover.
12. Restart the system and press **<F2>** during the bootup to enter the BIOS setup screen.
13. Repeat above procedure if the BIOS password is not cleared.

Boot Menu

This menu allows you to set the drive priority during system boot-up. The system will attempt to boot from the first device on the list. If the first device is not available, it will continue down the list until it reaches an available device. BIOS setup will display an error message if the drive(s) specified is not bootable.



Exit Menu



Parameter	Description
Exit Saving Changes	Save changes made and close the BIOS setup.
Exit Discarding Changes	Discards changes made and close the BIOS setup.
Load Setup Defaults	Loads the default settings for all BIOS setup parameters. Setup Defaults are quite demanding in terms of resources consumption. If you are using low-speed memory chips or other kinds of low-performance components and you choose to load these settings, the system might not function properly.
Discard Changes	Discards all changes made in the BIOS setup.
Save Changes	Saves changes made in the BIOS setup.

BIOS Recovery

If BIOS flash procedure fails in your system, perform a BIOS recovery procedure by using the crisis recovery diskette. During this procedure, the system will force BIOS to load and execute a special BIOS block (also called boot block) to restore the BIOS code from the crisis recovery diskette.

Note the following when restoring the BIOS settings:

- Use the **<Fn>** + **<Esc>** hotkey to enable BIOS recovery during BIOS POST.
  Important: When using the **<Fn>** + **<Esc>** hotkey to enable BIOS recovery, we strongly recommend the following:
  - Make sure the battery pack is installed to the system.
  - Make sure the adapter is connected to the system and plugged into a wall outlet.
- A crisis recovery diskette should be prepared in Windows XP/Vista.

Perform the following procedure to restore BIOS:

1. Power off the system.
2. Connect a USB floppy drive to the system.
3. Insert the Crisis Disk to the floppy drive.
4. Press and hold **<Fn>** + **<Esc>** keys, then press the **power** button.

   The system initializes the BIOS recovery process. The boot block BIOS starts to restore the failed BIOS code from the crisis recovery diskette. Once the process is completed, the system will restart.

   After a successful BIOS recovery procedure. RD/CSD can update the BIOS by regular BIOS flashing procedure.

Machine Disassembly and Replacement

This chapter contains step-by-step procedures on how to disassemble the notebook computer for maintenance and troubleshooting.

Disassembly Requirements

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Flat-blade screwdriver
- Philips screwdriver
- Hex screwdriver
- Plastic flat-blade screwdriver
- Plastic tweezers

NOTE: The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components.

General Information

Pre-disassembly Instructions

Before proceeding with the disassembly procedure, make sure that you do the following:

1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.

3. Place the system on a flat, stable surface.
4. Remove the battery pack. See “Removing the Battery Pack” on page 49.

Disassembly Process

The disassembly process is divided into the following stages:

- ❑ External module disassembly
- ❑ Main unit disassembly
- ❑ LCD module disassembly

The flowcharts provided in the succeeding disassembly sections illustrate the entire disassembly sequence. Observe the order of the sequence to avoid damage to any of the hardware components. For example, if you want to remove the mainboard, you must first remove the keyboard, then disassemble the inside assembly frame in that order.

Main Screw List

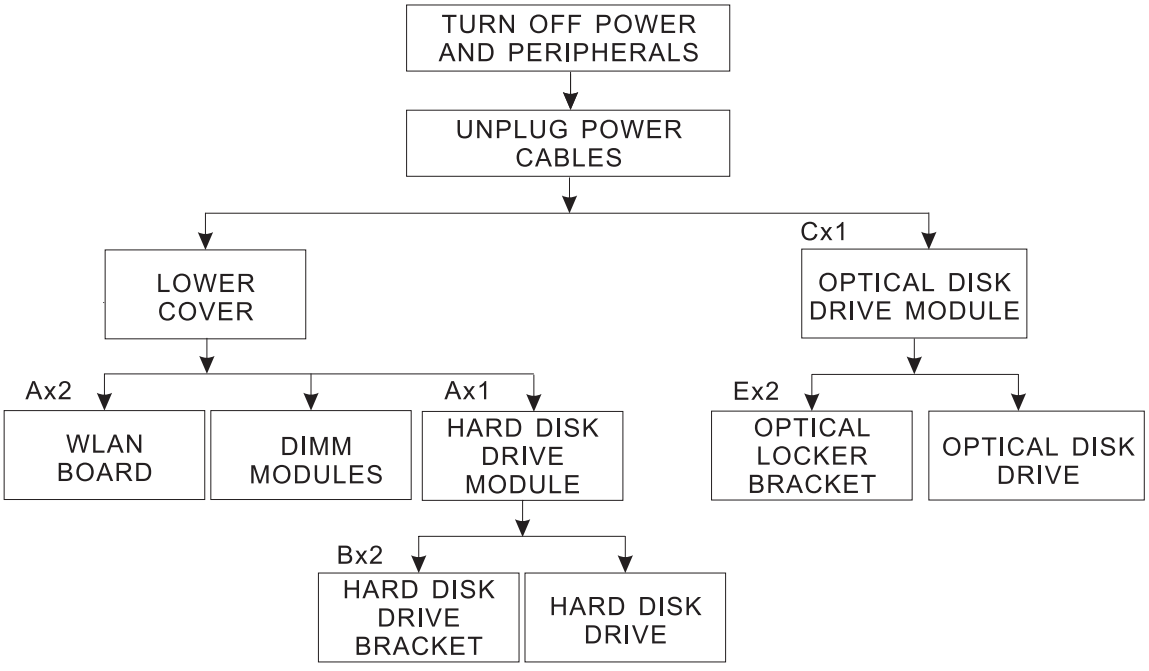
Item	Screw Size	Color	Part No.
A	M2 x L4	Black/Silver	86.00F24.724
B	M3 x L4	Silver	86.9A554.4R0
C	M2 x L6	Black	86.00F58.726
D	M2 x L8		86.00D75.220
E	M2 x L2.5	Silver	86.00F22.722
F	M2.5 x L8	Black	86.00E34.738
G	M2.5 x L6		86.00E33.736
H	M2 x L3	Silver	86.00C07.220
I	N/A	Black	86.00E92.724

External Module Disassembly Process

External Modules Disassembly Flowchart

The flowchart below gives you a graphic representation on the entire disassembly sequence and instructs you on the components that need to be removed during servicing. For example, if you want to remove the mainboard, you must first remove the keyboard, then disassemble the inside assembly frame in that order.

EXTERNAL MODULE DISASSEMBLY



Screw List

Item	Screw size	Part No.
A	M2 x L4	86.00F24.724
B	M3 x L4	86.9A554.4R0
C	M2 x L6	86.00F58.726
E	M2 x L2.5	86.00F22.722

Removing the Battery Pack

1. Turn base unit over.
2. Slide the battery lock/unlock latch to the unlock position.

3. Slide and hold the battery release latch to the release position, then remove the battery from the main unit.

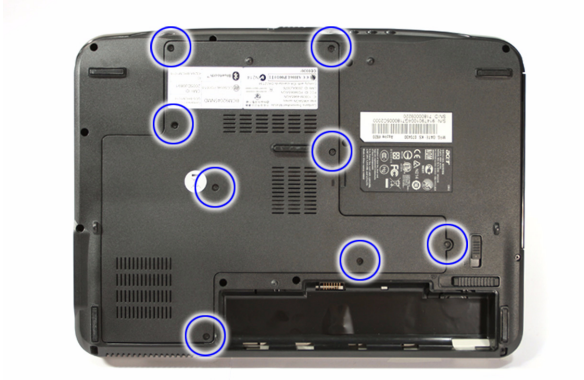
Removing the Express Dummy Card

1. See “Removing the Battery Pack” on page 49.
2. Push against the card,as if you were pushing it further into the slot, letting the card spring out.

3. Remove the card from the slot.

Removing the Lower Cover

1. See “Removing the Battery Pack” on page 49.
2. Turn the base unit over, then loosen the eight screws on the lower cover.

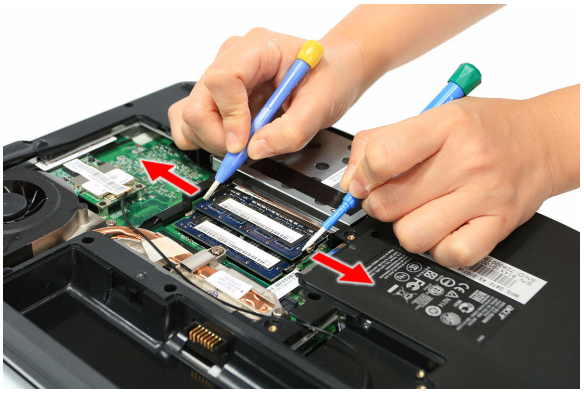


3. Use a plastic flat-blade screwdriver to pry open the lower cover.

4. Remove the lower cover from the lower case.

Removing the DIMM

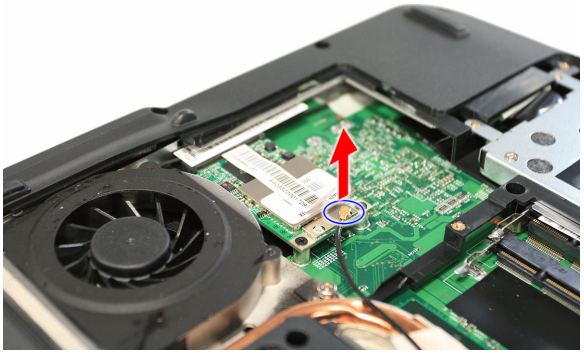
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. Push out the latches on both sides of the DIMM socket to release the DIMM.



4. Remove the DIMM module.

Removing the WLAN Board Module

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. Disconnect the antenna cable from the WLAN board, then move the antenna away from the board.



4. Remove the two screws (A) on the WLAN board to release the WLAN board.

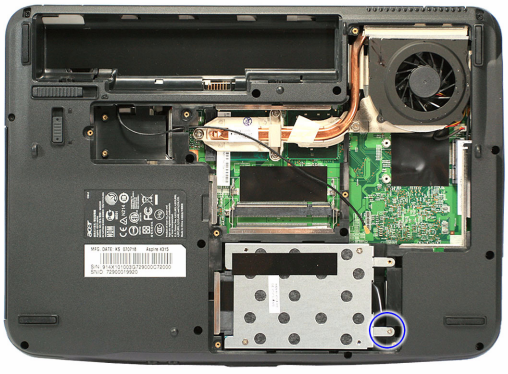
Step	Size (Quantity)	Color	Torque
1~2	M2 x L4 (2)	Black	1.6 kgf-cm

5. Detach the WLAN board from the WLAN socket.

NOTE: When attaching the antennas back to the WLAN board, make sure the cable is routed properly.

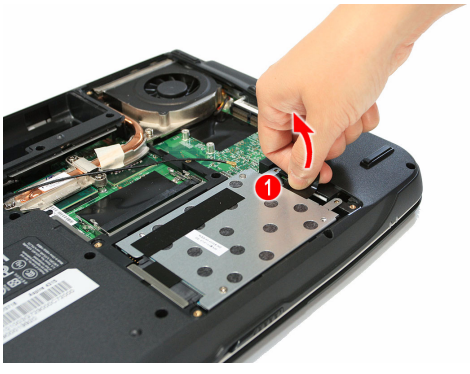
Removing the Hard Disk Drive Module

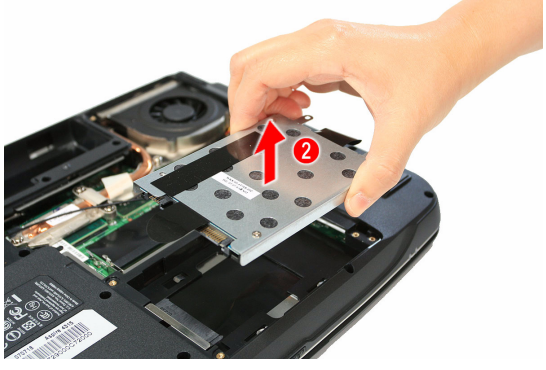
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. Remove the screw (A) securing the HDD assembly to the unit.



Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Silver	1.6 kgf-cm

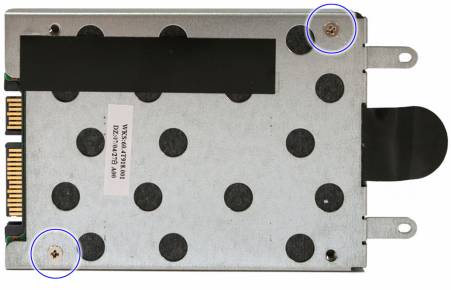
4. Pull the HDD module out by pulling on the mylar attached to it (1), gently slide-out the HDD module from its bay (2).





NOTE: To prevent damage to device, avoid pressing down on it or placing heavy objects on top of it.

5. Remove the two screws (B) on the HDD bracket.

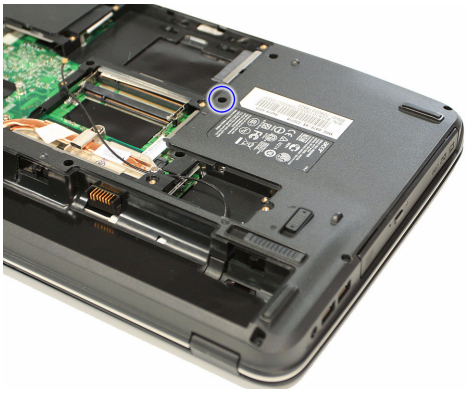


Step	Size (Quantity)	Color	Torque
1~2	M3 x L4 (2)	Silver	3.0 kgf-cm

6. Remove the hard disk drive.

Removing the Optical Drive Module

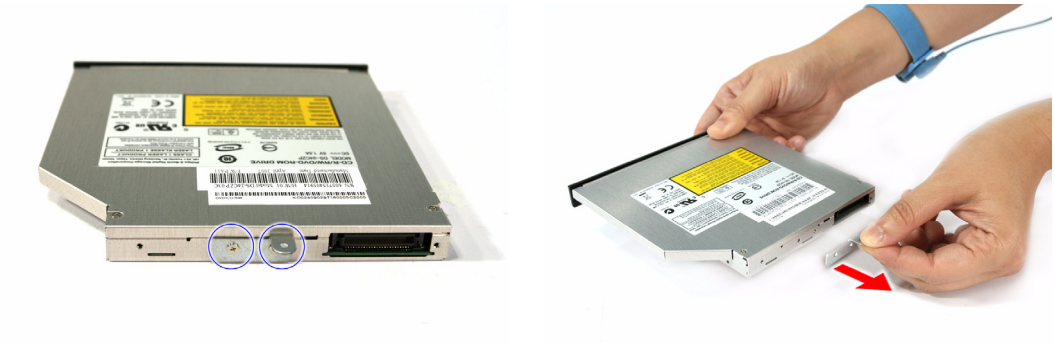
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. Remove the screw (C) on the bottom side of the unit, as shown.



Step	Size (Quantity)	Color	Torque
1	M2 x L6 (1)	Black	2.0 kgf-cm

4. Using the flat-blade screwdriver, press the end of the module forward, then slide out the optical drive module from the main unit.

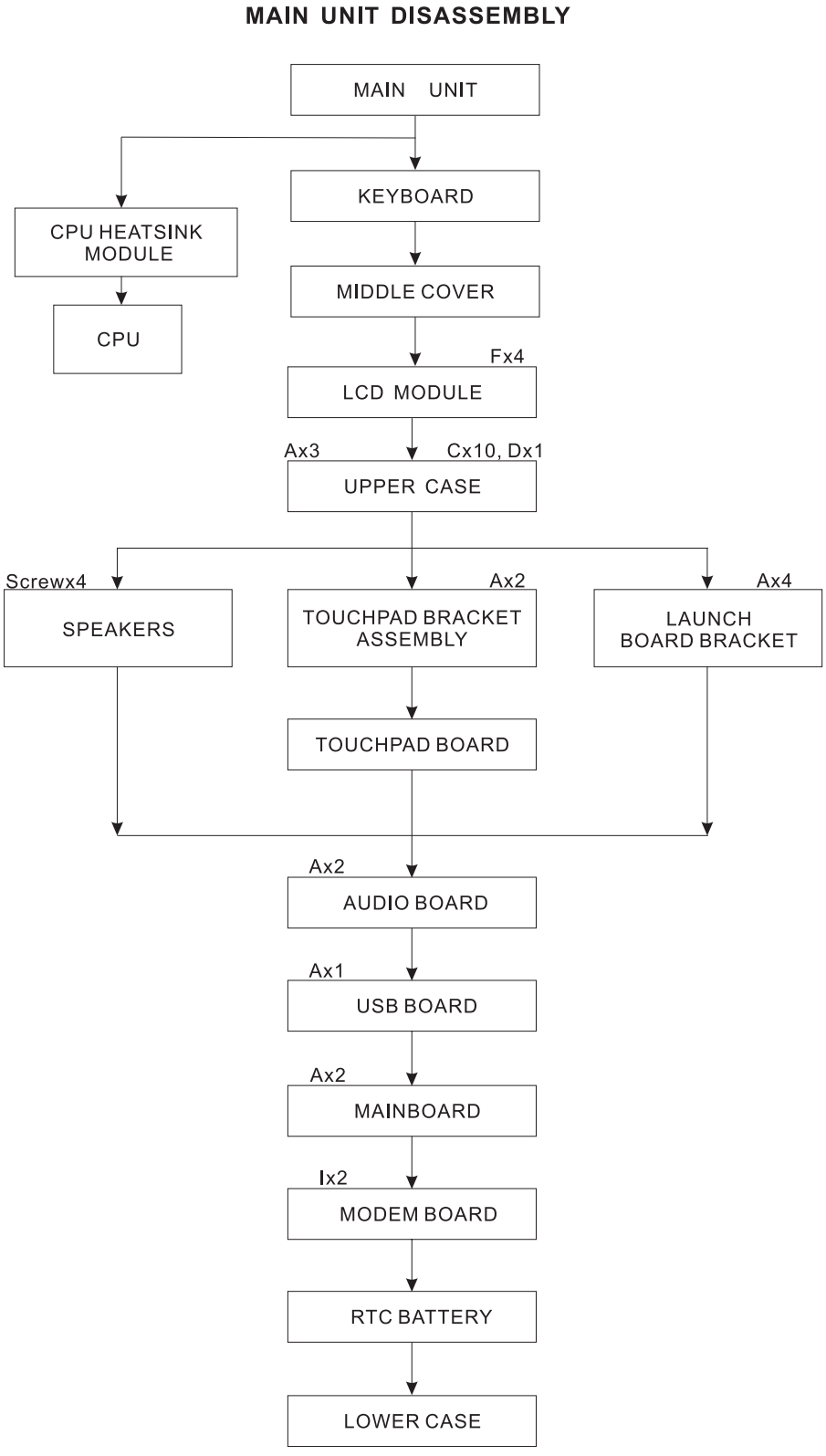
5. Remove the two screws (E) securing the optical bracket and remove the locker bracket from the optical disk drive module.



Step	Size (Quantity)	Color	Torque
1-2	M2 x L2.5 (2)	Silver	1.6 kgf-cm

Main Unit Disassembly Process

Main Unit Disassembly Flowchart

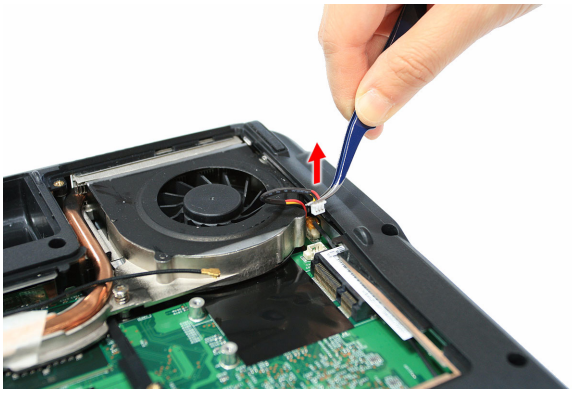


Screw List

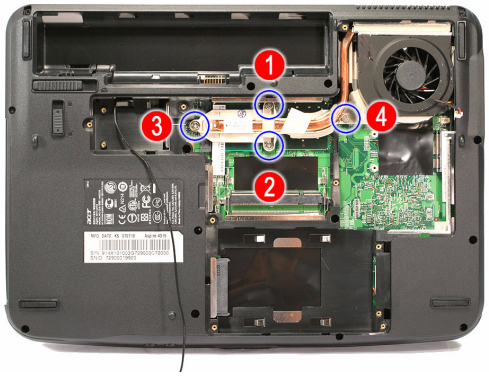
	Screw Size	Part No.
A	M2 x L4	86.00F24.724
C	M2 x L6	86.00F58.726
D	M2 x L8	86.00D75.220
F	M2.5 X L8	86.00E34.738
I	N/A	86.00E92.724

Removing the CPU Heatsink Module

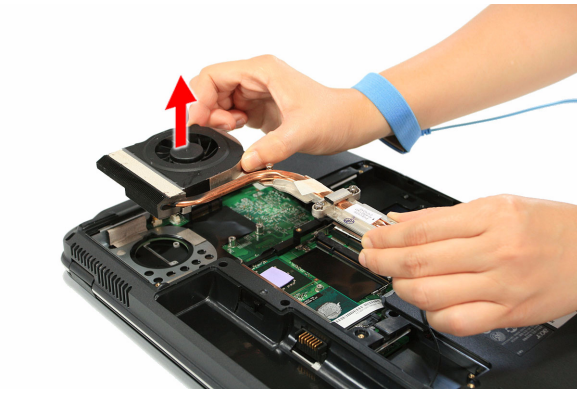
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. Detach the heatsink cable from the mainboard.



4. Loosen the four spring-loaded screws on the heatsink in the order shown.

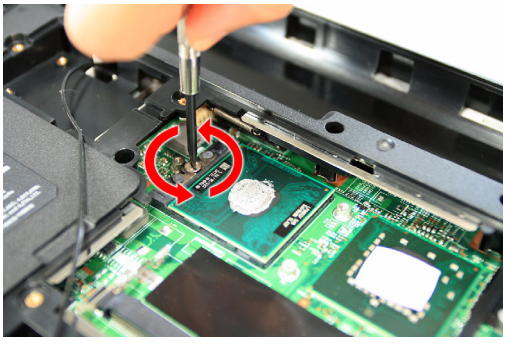


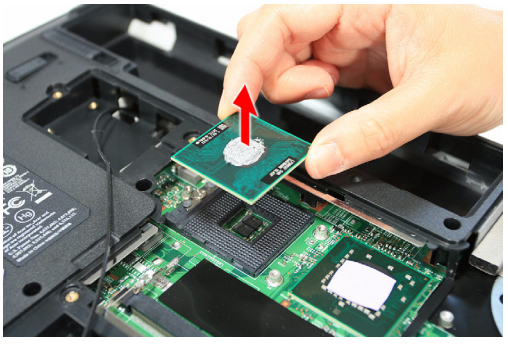
5. Remove the heatsink module.



Removing the CPU

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the CPU Heatsink Module” on page 57.
4. Using a flat-blade screwdriver, turn the CPU socket latch to the unlock position by aligning the latch to the unlock symbol, then remove the CPU.

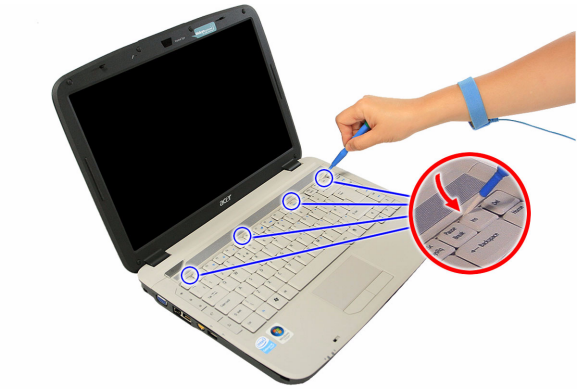




NOTE: When installing the CPU, make sure to install the CPU with PIN 1 at the corner as shown.

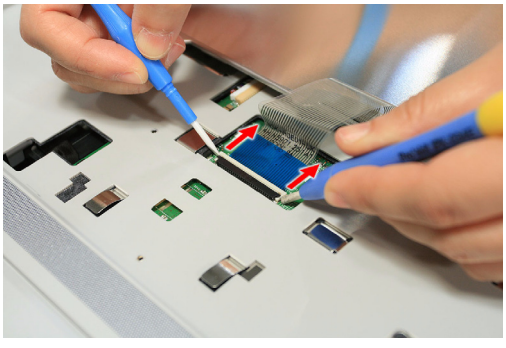
Removing the Keyboard

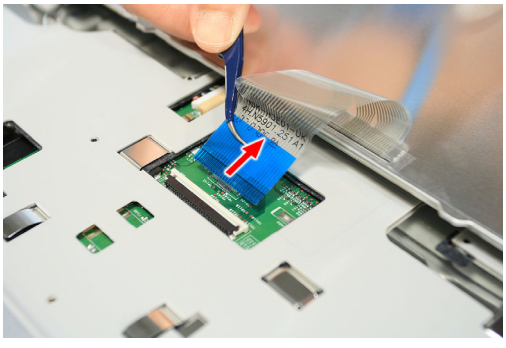
1. See “Removing the Battery Pack” on page 49.
2. Press the plastic flat-blade screwdriver to the notches, shown below, to disengage the keyboard from the main unit.



3. Carefully pry up and out the keyboard and turn it over.

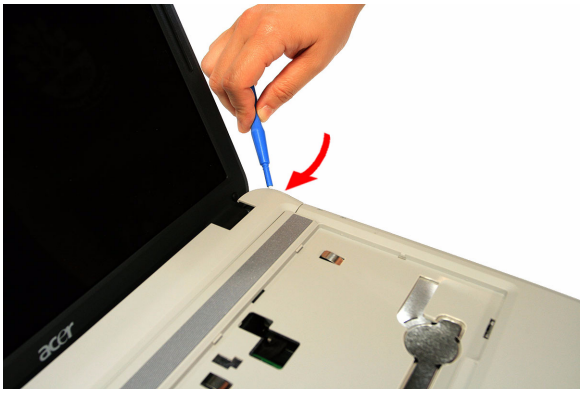
4. Disconnect the keyboard cable from the mainboard to remove the keyboard.



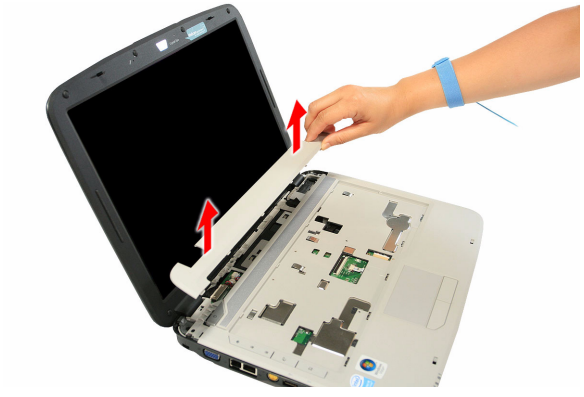


Removing the Middle Cover

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Keyboard” on page 59.
3. Open the LCD screen all the way to facilitate the easy removal of the middle cover.
4. Carefully insert the flat-blade screwdriver between the middle cover and lower case and gently pry up the middle cover.

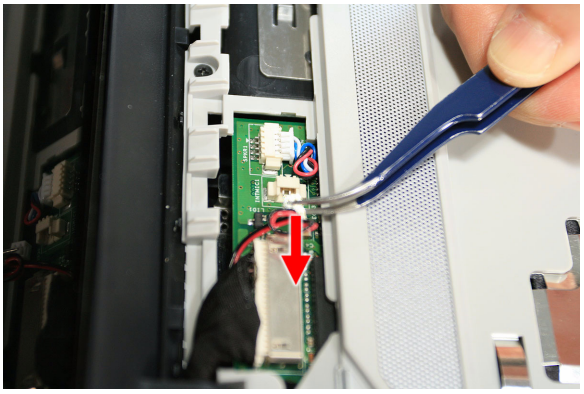


5. Continue prying the middle cover until the full length of the cover releases from the main unit, then remove the cover.

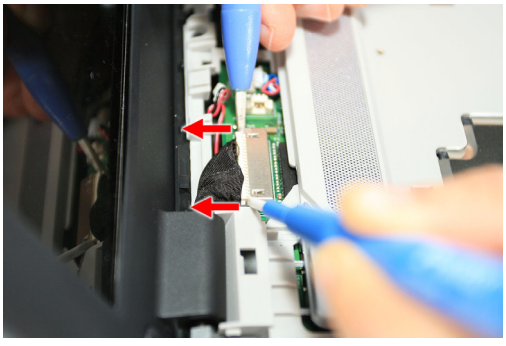


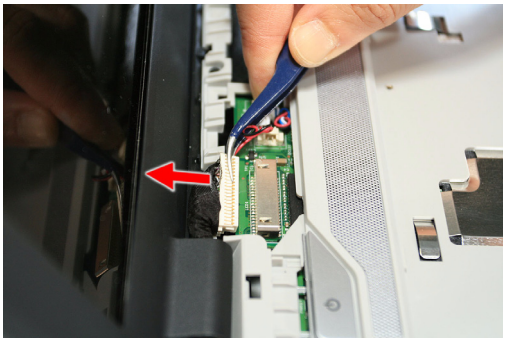
Removing the LCD Module

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the WLAN Board Module” on page 52.
4. See “Removing the Keyboard” on page 59.
5. See “Removing the Middle Cover” on page 60.
6. Disconnect the microphone cable from the mainboard.

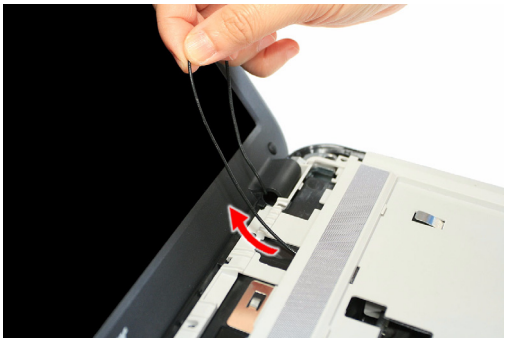


7. Disconnect the LCD coaxial cable from the mainboard.





8. Detach the mylar tape from the antenna cable and pull out the cable as shown.



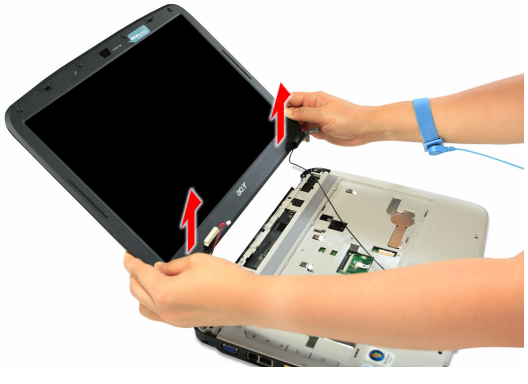
9. Turn the system over and remove the two screws (F) from the base of the unit.

Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L8 (2)	Black	4.0 kgf-cm

10. Remove the two screws (F) from the left and right hinge of the LCD module.

Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L8 (2)	Black	4.0 kgf-cm

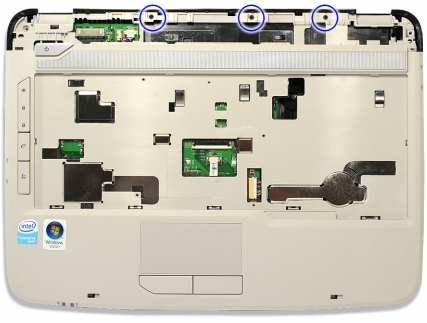
11. Carefully remove the LCD module from the base unit.



NOTE: Make sure the cables are routed well before connecting the cables back to the unit.

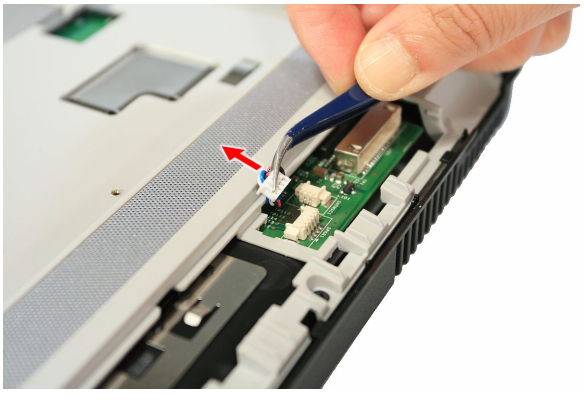
Separating the Upper Case from the Lower Case

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. Remove the three screws (A) on the upper case.

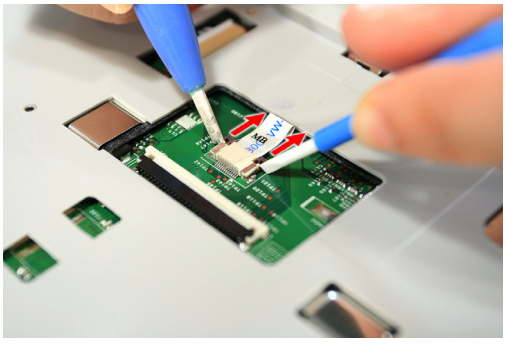


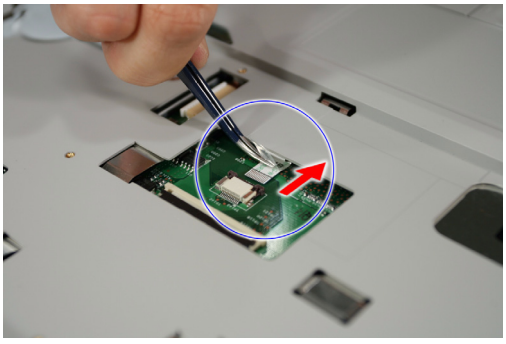
Step	Size (Quantity)	Color	Torque
1~3	M2 x L4 (3)	Black	1.6 kgf-cm

14. Disconnect the speaker cable from the mainboard.

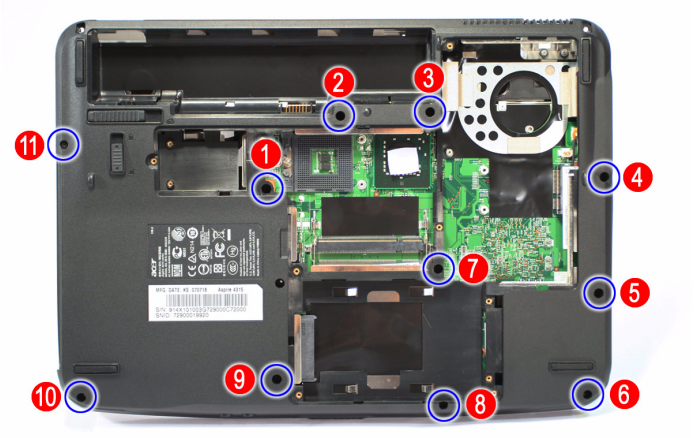


15. Detach the touchpad cable from the mainboard.





16. Turn the system over and remove the eleven screws (C, D) on the lower case.

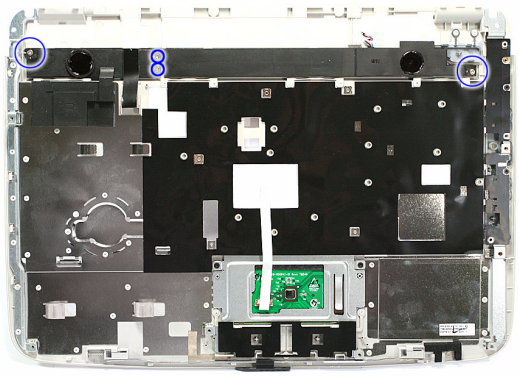


Step	Size (Quantity)	Color	Torque
1~10	M2 x L6 (10)	Black	3.0 kgf-cm
11	M2 x L8 (1)	Black	3.0 kgf-cm

17. Gently detach the upper case from the lower case.

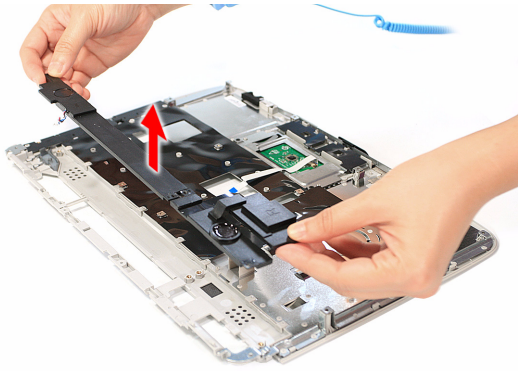
Removing the Speaker Modules

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. Remove the four screws on the speaker modules.



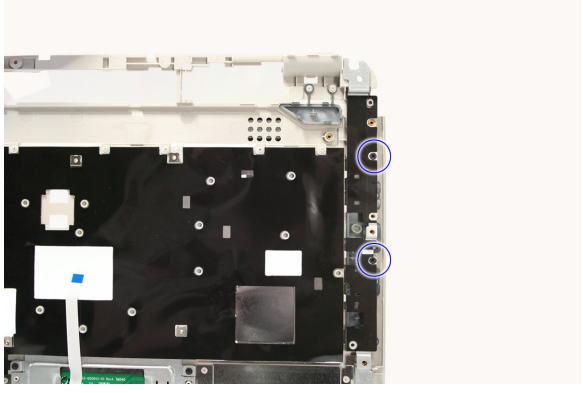
Step	Size (Quantity)	Color	Torque
1~4	N/A	Silver	1.6 kgf-cm

15. Remove the speakers.



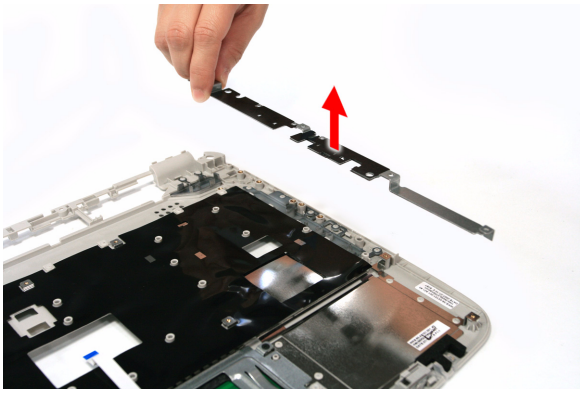
Removing the Launch Board Bracket

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. Remove the two screws (A) from the launch board bracket.



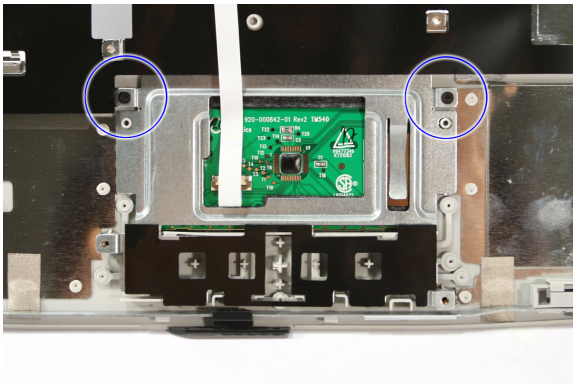
Step	Size (Quantity)	Color	Torque
1~2	M2 x L4 (2)	Black	1.6 kgf-cm

15. Remove the bracket.



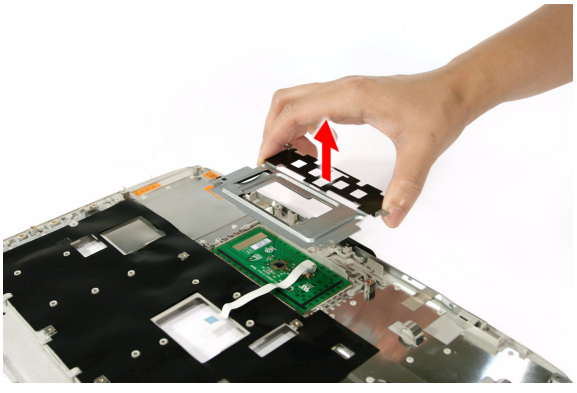
Removing the Touchpad Board Module

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. Remove the two screws (A) on the touchpad bracket.

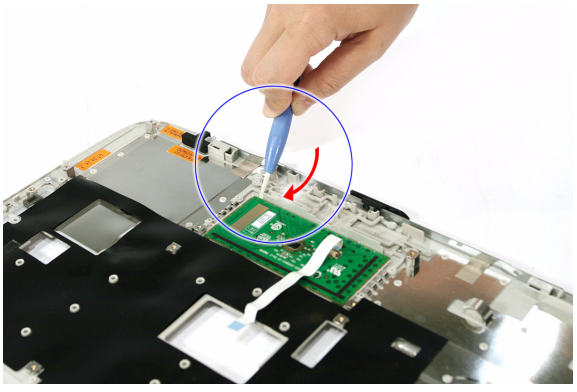


Step	Size (Quantity)	Color	Torque
1~2	M2 x L4 (2)	Black	1.6 kgf-cm

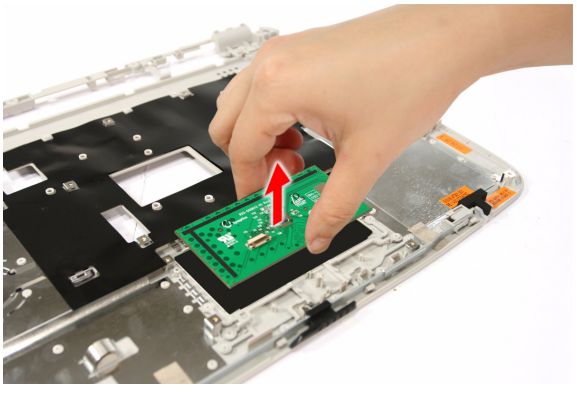
15. Remove the touchpad bracket from the upper case.



16. Carefully insert the flat-bladescrewdriver under the side of the touchpad board and gently pry up the board.



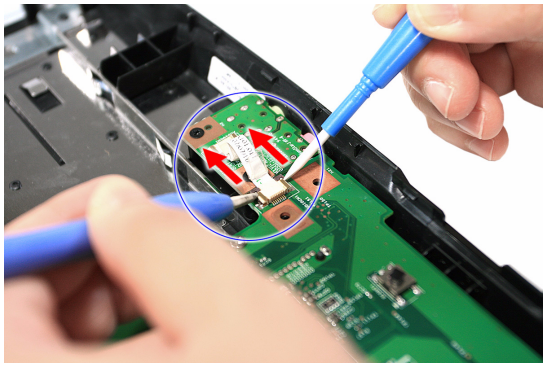
17. Continue prying the board until it releases from the upper case, then remove the board.

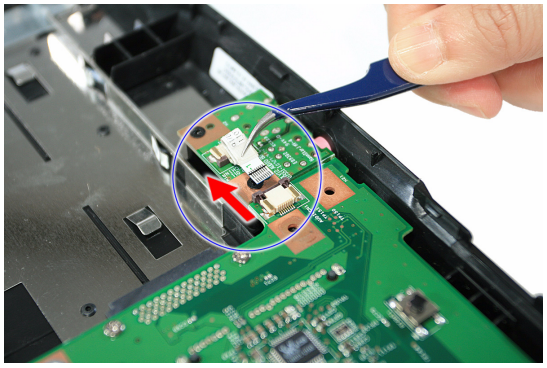


Removing the Audio Board

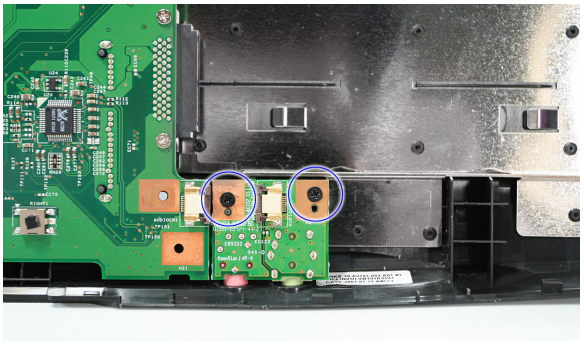
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.

14. Disconnect the audio board cable from the mainboard.



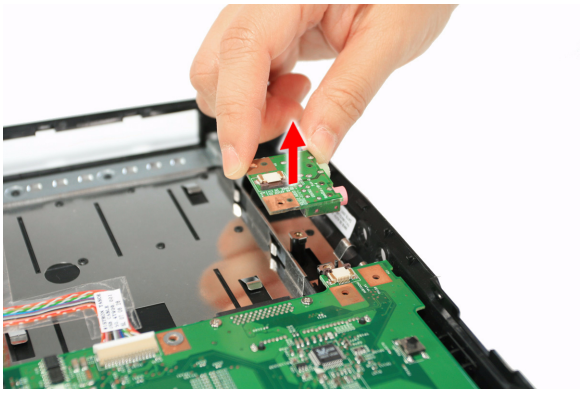


15. Remove the two screws (A) on the audio board.



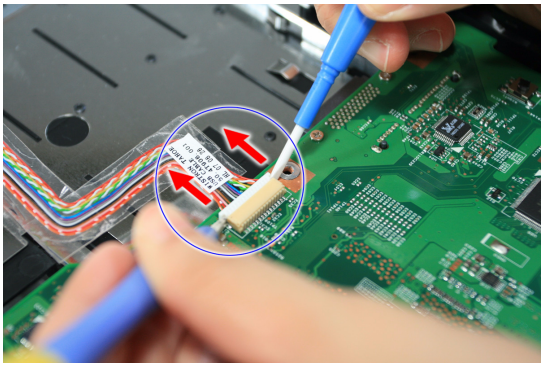
Step	Size (Quantity)	Color	Torque
1~2	M2 x L4 (2)	Black	1.6 kgf-cm

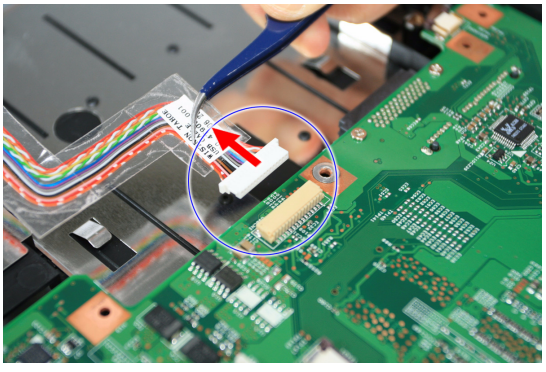
16. Remove the audio board.



Removing the USB Board

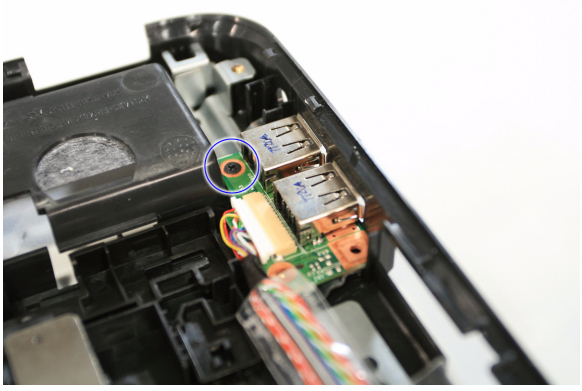
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. Disconnect the USB FFC (flat flexible cable) from the mainboard.





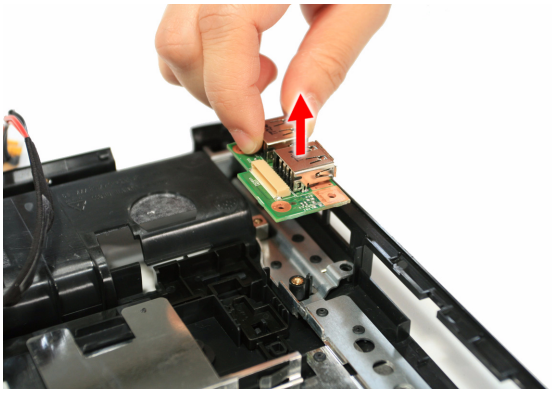
15. Pull out the AC input cable and move away from the USB board.

16. Remove the screw (A) on the USB board.



Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Black	1.6 kgf-cm

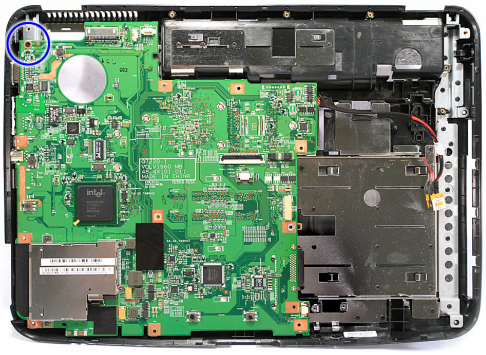
17. Remove the USB board.



Removing the Mainboard

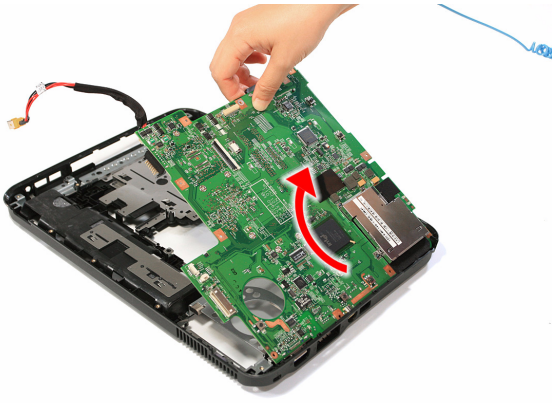
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. See “Removing the Audio Board” on page 68.
15. See “Removing the USB Board” on page 70.

16. Remove the screw (A) holding the mainboard to the lower case.



Step	Size (Quantity)	Color	Torque
1	M2 x L4 (1)	Black	1.6 kgf-cm

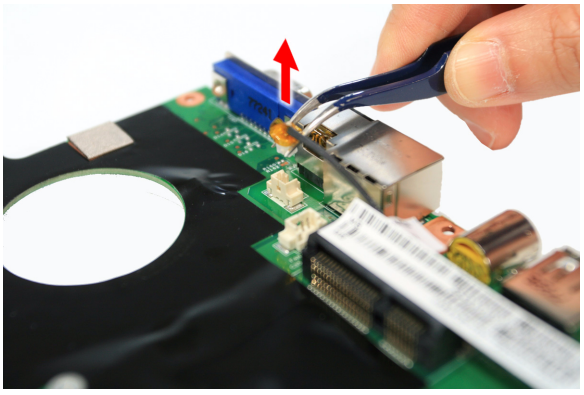
17. Carefully detach the mainboard from the lower case.



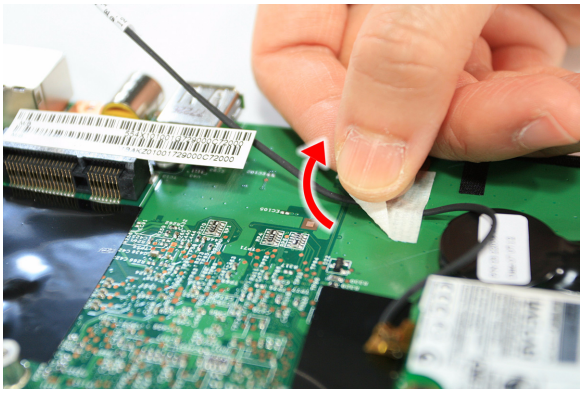
Removing the Modem Board

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. See “Removing the Audio Board” on page 68.
15. See “Removing the USB Board” on page 70.
16. See “Removing the Mainboard” on page 71.

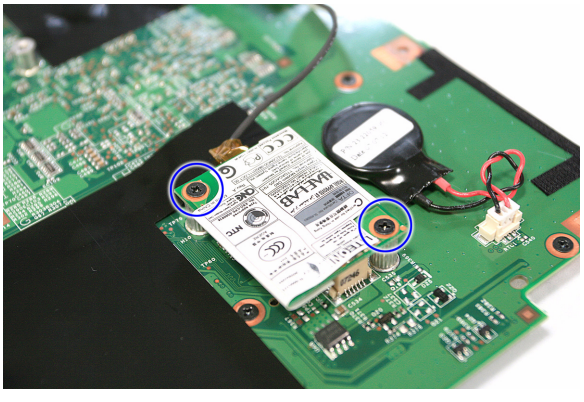
17. Disconnect the modem cable from the mainboard.



18. Detach the masking tape from the mainboard.

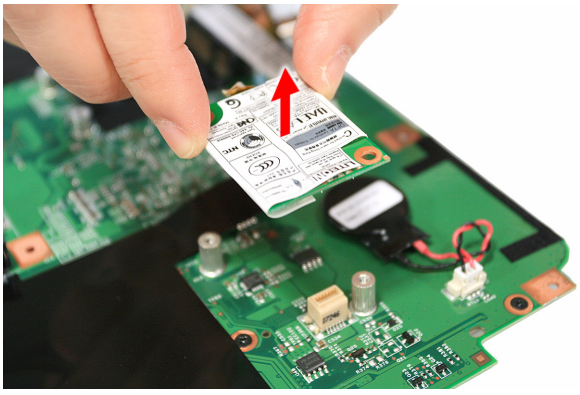


19. Remove the two screws (I) on the modem board.



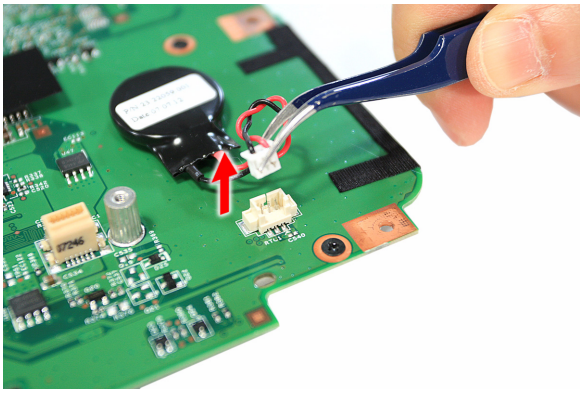
Step	Size (Quantity)	Color	Torque
1~2	N/A	Black	1.6 kgf-cm

20. Detach the modem board from the mainboard.

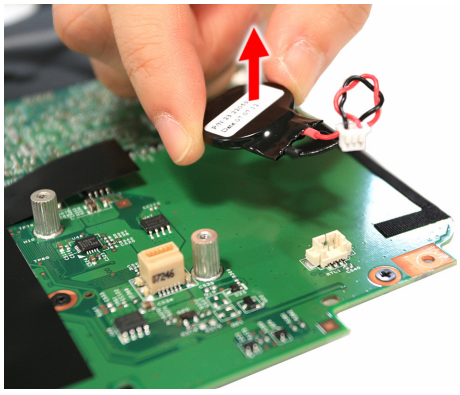


Removing the RTC Battery

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Express Dummy Card” on page 49.
3. See “Removing the Lower Cover” on page 50.
4. See “Removing the DIMM” on page 51.
5. See “Removing the WLAN Board Module” on page 52.
6. See “Removing the Hard Disk Drive Module” on page 53.
7. See “Removing the Optical Drive Module” on page 54.
8. See “Removing the CPU Heatsink Module” on page 57.
9. See “Removing the CPU” on page 58.
10. See “Removing the Keyboard” on page 59.
11. See “Removing the Middle Cover” on page 60.
12. See “Removing the LCD Module” on page 61.
13. See “Separating the Upper Case from the Lower Case” on page 63.
14. See “Removing the Audio Board” on page 68.
15. See “Removing the USB Board” on page 70.
16. See “Removing the Mainboard” on page 71.
17. Detach the battery cable from the mainboard.

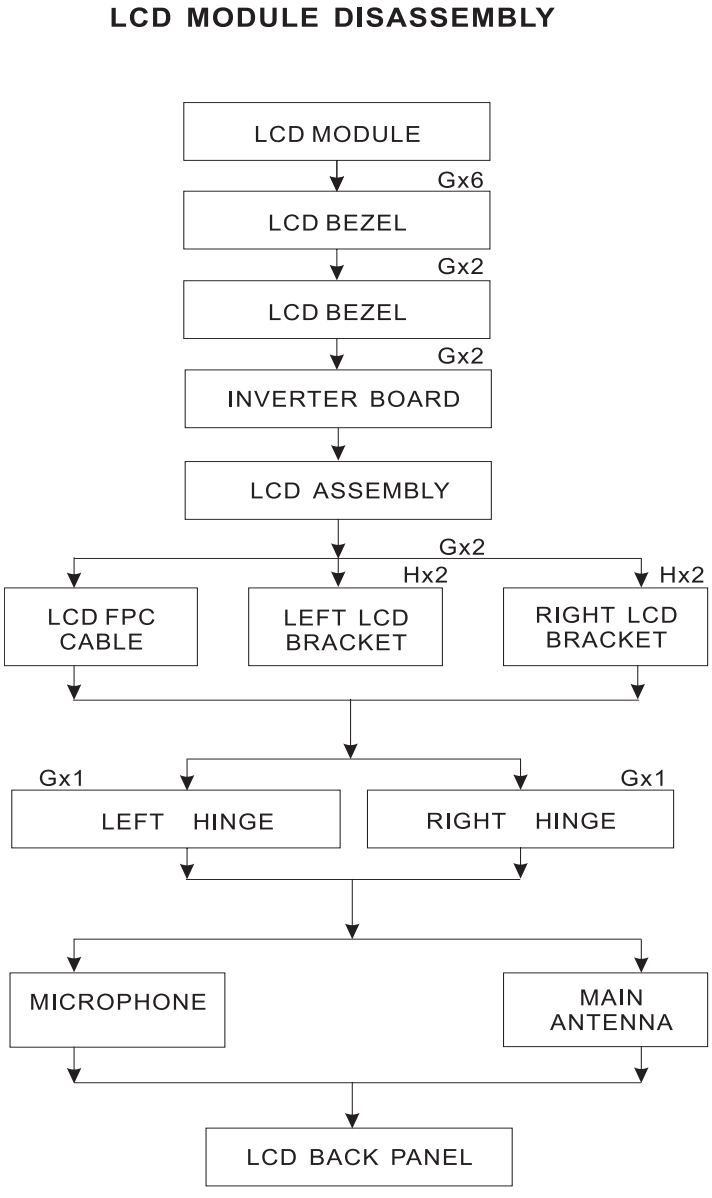


18. Carefully detach the RTC battery from the SD card slot.



LCD Module Disassembly Process

LCD Module Disassembly Flowchart



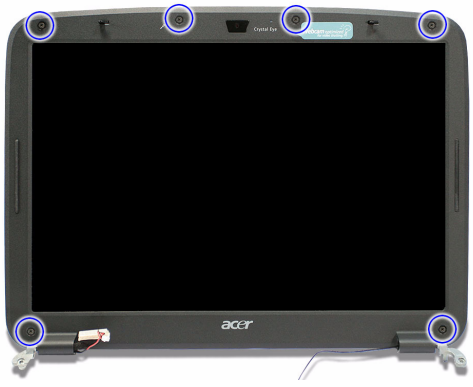
Main Screw List

Item	Screw Size	Part No.
G	M2.5 x L6	86.00E33.736
H	M2 x L3	86.00C07.220

Removing the LCD Bezel

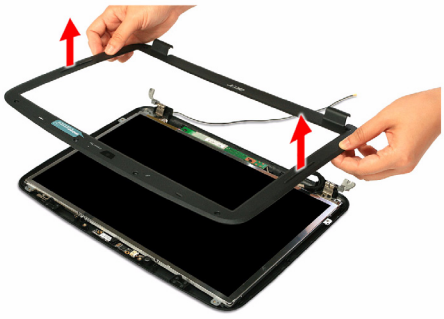
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. Remove the six rounded screw caps as shown.

13. Remove the six screws (G) on the LCD module.



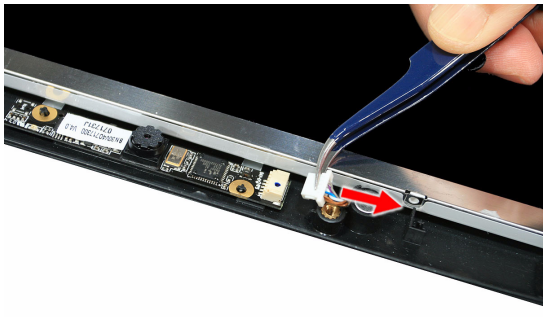
Step	Size (Quantity)	Color	Torque
1~4	M2.5 x L6 (6)	Black	3.0 kgf-cm

14. Carefully pry open the LCD bezel and remove the bezel from the LCD module.

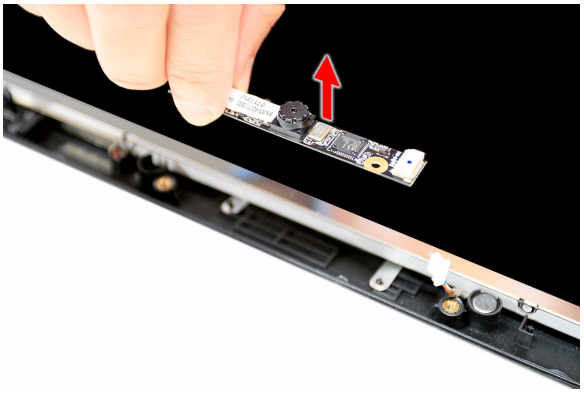


Removing the Camera Board

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.
13. Disconnect the camera cable from the camera board.



14. Remove the camera board.

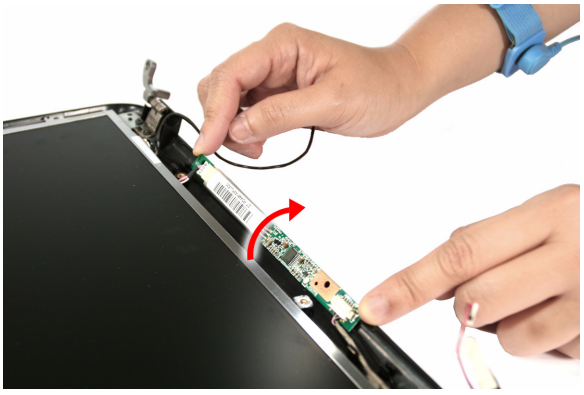


Removing the Inverter Board

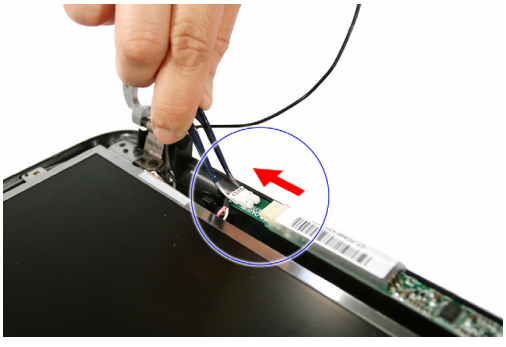
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.
13. See “Removing the Camera Board” on page 78.
14. Remove the screw (G) that holds the inverter board to the panel.

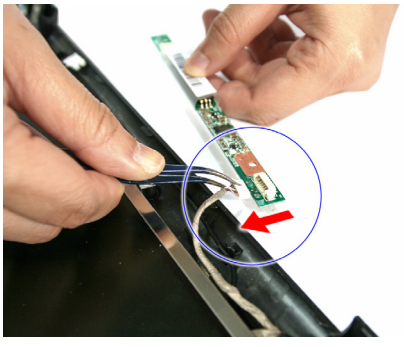
Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L6 (2)	Black	3 kgf-cm

15. Turn the inverter board over.



16. Disconnect the 2P cable from the inverter board, then disconnect the inverter board cable from its connector.



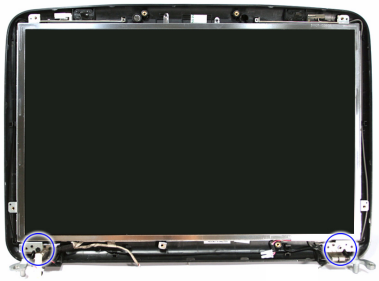


17. Remove the inverter board.

Removing the LCD with Brackets

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.
13. See “Removing the Camera Board” on page 78.
14. See “Removing the Inverter Board” on page 79.

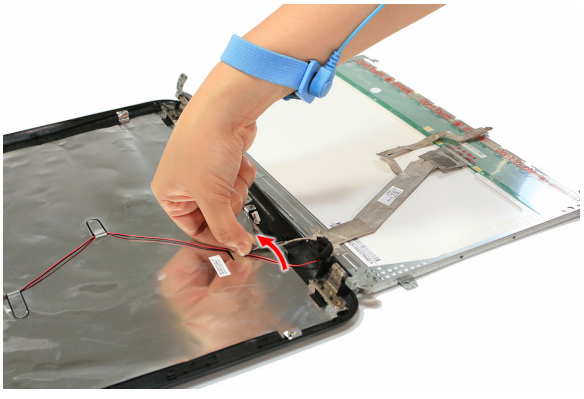
15. Remove the two screws (G) securing the left and right LCD brackets to the LCD back cover.



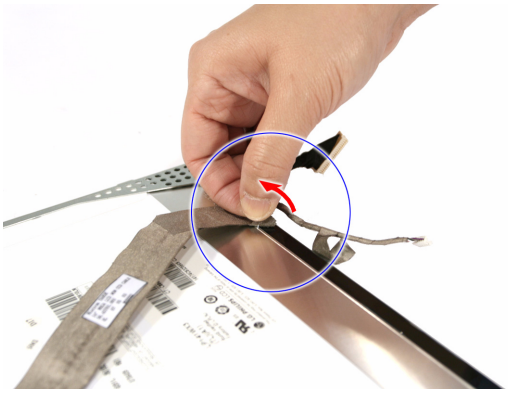
Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L6 (2)	Silver	2.5 kgf-cm

16. Detach the LCD with the brackets from the back cover, then turn it over.

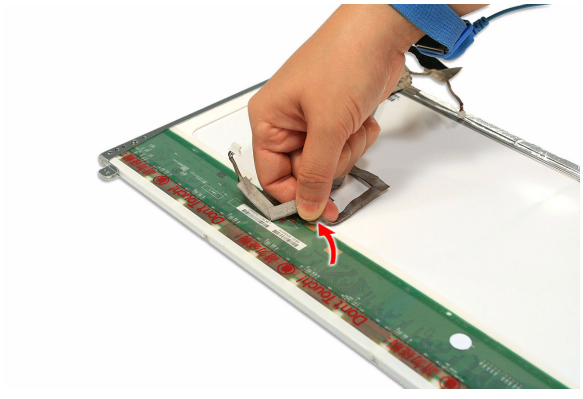
17. Detach the acetic tapes holding the FPC and camera cables to the back panel.



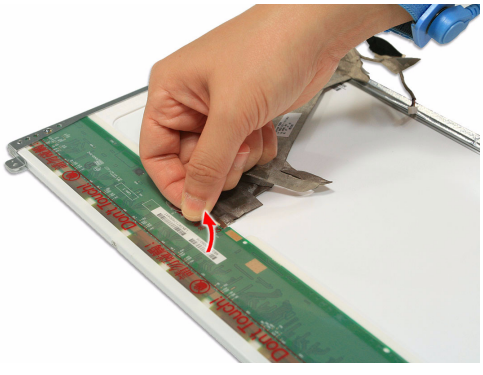
18. Detach the acetic tapes holding the FPC cable to the edge of the LCD panel.

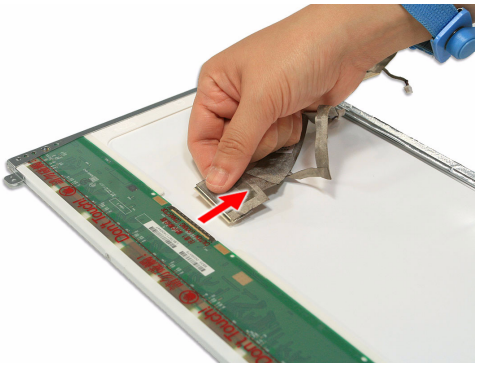


19. Detach the acetic tape holding the camera cable to the LCD panel.



20. Detach the acetic tape securing the FPC connector, then .disconnect the FPC cable from the LCD panel.





Removing the LCD Brackets

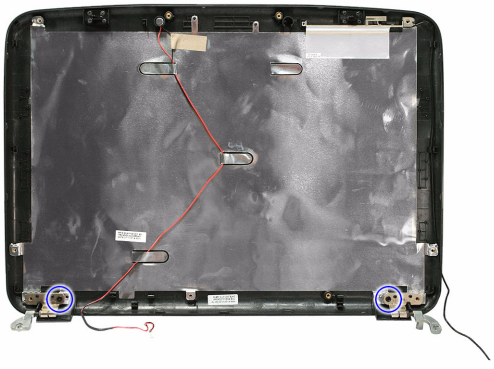
1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.
13. See “Removing the Camera Board” on page 78.
14. See “Removing the Inverter Board” on page 79.
15. See “Removing the LCD with Brackets” on page 80.
16. Remove the four screws (H) securing the left and right LCD brackets to remove the brackets.

Step	Size (Quantity)	Color	Torque
1~4	M2 x L3 (4)	Silver	1.6 kgf-cm

Removing the LCD Module Hinges

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.
13. See “Removing the Camera Board” on page 78.

14. See “Removing the Inverter Board” on page 79.
15. See “Removing the LCD with Brackets” on page 80.
16. See “Removing the LCD Brackets” on page 83.
17. Remove the two screws (G) securing the left and right LCD module hinges.



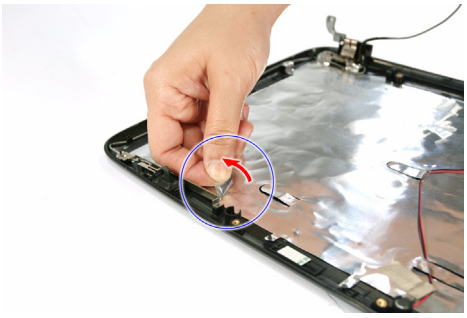
Step	Size (Quantity)	Color	Torque
1~2	M2.5 x L6 (2)	Black	3.0 kgf-cm

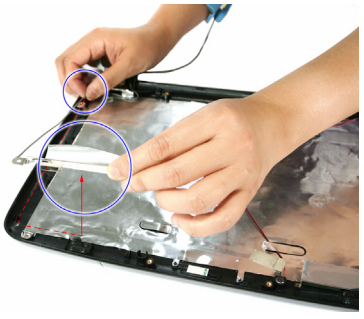
18. Remove the left and right hinges from the LCD back cover.

Removing the Antenna

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.
13. See “Removing the Camera Board” on page 78.
14. See “Removing the Inverter Board” on page 79.
15. See “Removing the LCD with Brackets” on page 80.

16. Detach the gasket tape holding the antenna in place, remove the antenna bracket, then carefully remove the antenna.

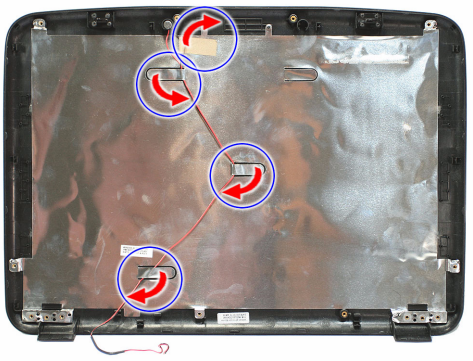




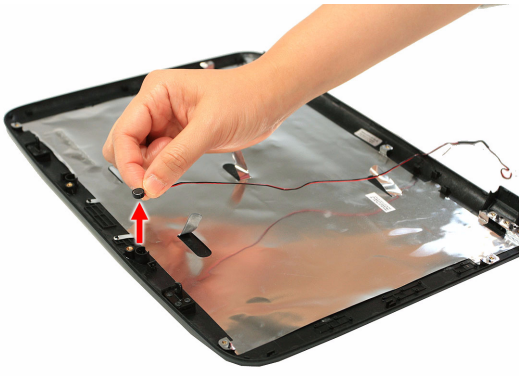
Removing the Microphone

1. See “Removing the Battery Pack” on page 49.
2. See “Removing the Lower Cover” on page 50.
3. See “Removing the DIMM” on page 51.
4. See “Removing the WLAN Board Module” on page 52.
5. See “Removing the Hard Disk Drive Module” on page 53.
6. See “Removing the Optical Drive Module” on page 54.
7. See “Removing the CPU Heatsink Module” on page 57.
8. See “Removing the CPU” on page 58.
9. See “Removing the Keyboard” on page 59.
10. See “Removing the Middle Cover” on page 60.
11. See “Removing the LCD Module” on page 61.
12. See “Removing the LCD Bezel” on page 77.

13. Carefully detach the masking tape and remove the microphone cable from underneath the adhesive aluminum foil.



14. Remove the microphone.



Troubleshooting

Use the following procedure as a guide for computer problems.

NOTE: The diagnostic tests are intended to test only Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.

1. Obtain the failing symptoms in as much detail as possible.
2. Verify the symptoms by attempting to recreate the failure by running the diagnostic tests or repeating the same operation.
3. Do not use any power sources when performing an assembly or disassembly procedures.
4. If any problems occur, you can perform the following visual inspection before you continue.
   - ❑ Power cords are properly connected and secured.
   - ❑ There are no obvious shorts or opens.
   - ❑ There are no burned or heated components.
   - ❑ All components appear normal.

System Check Procedures

External CD/DVD-ROM Drive Check

Perform the following procedures to isolate the possible problem a controller, drive, or CD-ROM.

NOTE: Make sure that the CD-ROM does not have any label attached to it. The label may damage the drive or cause drive failure.

1. Boot from the diagnostic disc and start the diagnostic programs.
2. See if CD-ROM Test is passed when the program runs the CD-ROM Test.
3. Follow onscreen instructions.

If an error occurs, reconnect the drive to the connector on the mainboard. If the error persists, do the following:

1. Reconnect the CD/DVD-ROM drive.
2. Replace the CD/DVD-ROM drive.
3. Replace the mainboard.

Keyboard or Auxiliary Input Device Check

Remove the external keyboard if the internal keyboard is to be tested.

If the internal keyboard does not work or an unexpected error occurs, make sure that the flexible cable extending from the internal keyboard is correctly connected to the mainboard. If the keyboard cable connection is correct, run the Keyboard Test.

If the tests detect a keyboard problem, do the following procedures in sequence to correct the problems. Do not replace a non-defective FRU:

1. Reconnect the keyboard cable.
2. Replace the keyboard.
3. Replace the mainboard.

The following auxiliary input devices are supported by this computer:

- ❑ Numeric keypad
- ❑ External keyboard

If any of these devices do not function, reconnect the cable and repeat above procedures.

Memory Check

NOTE: Make sure that the DIMM is properly installed into the connector. A loose connection can cause an error.

Do the following:

1. Boot from the diagnostic diskette and start the diagnostic program.
2. Go to the diagnostic memory in the test items.
3. Press **F2** in the test items.
4. Follow onscreen instructions.

Power System Check

Do the following:

1. Remove the battery pack.
2. Connect the power adapter and check the power supply.
3. Disconnect the power adapter and install the battery pack; then check that power supply.

If you suspect a power problem, see the appropriate power supply check in the following list:

- ❑ “Check the Power Adapter” on page 89
- ❑ “Check the Battery Pack” on page 89

Check the Power Adapter

Unplug the power adapter cable from the system and measure the output voltage at the plug of the power adapter cable.

1. If the voltage is not correct, replace the power adapter.
2. If the voltage is within range, do the following:
   a. Replace the System board.
   b. If the problem is not resolved, see “Undetermined Problems” on page 103.
   c. If the voltage is not correct, go to the next step.

NOTE: An audible noise from the power adapter does not always indicate a defect.

3. If the power-on indicator does not light up, check if the adapter’s power cord is properly connected to the system.
4. If the operational charge does not work, see “Check the Battery Pack” on page 89.

Check the Battery Pack

Do the following:

Using the software to identify whether a problem occurs while the battery pack during recharge or discharge:

1. Open Power Management in the Control Panel.
2. In Power Meter, confirm if the parameters for Current Power Source and Total Battery Power Remaining are correct.
3. Repeat the steps 1 and 2 for both battery and adapter.

Using the hardware to identify whether you should replace the battery pack or not:

1. Power off the system.
2. Remove the battery pack and measure the voltage between terminals one (+) and seven (-). There are seven terminals totally.
3. If the voltage is still less than 7.5 Vdc after recharging, replace the battery.

If the battery status indicator does not light up, remove the battery pack . If the charge indicator still does not light up, replace the AC/DC charger board.

Touchpad Check

If the touchpad doesn't work, do the following procedures in sequence to correct the problem. Do not replace a non-defective FRU:

1. After rebooting, run Tracking Pad PS2 Mode Driver. For example Syn touch driver.
2. Run utility with the PS/2 mouse function and check if the mouse is working.
3. If the PS/2 mouse does not work, then click if the main board to switch board FPC is connected properly.
4. If the main board to switch board FPC is connected correctly, then check if the FFC on the touch pad PCB is connected properly.
5. If the FFC on the touch pad PCB is connected correctly, check if LS851 JP1 Pin6 = 5V are pules. If yes, then replace switch board. If not, then go to the next step.
6. Replace the touch pad PCB.
7. If the touch pad still does not work, then replace the FPC on Track Pad PCB.

After you use the touchpad, the pointer drifts on the screen for a short time. This self-acting pointer movement will occur when a slight, steady pressure is applied to the touchpad pointer. This symptom is not a hardware problem. No actions are necessary to be taken if the pointer movement stops in a short period of time.

Power-On Self-Test (POST) Error Message

The POST error message index lists the error message and their possible causes.

NOTE: Perform the FRU replacement or actions in the sequence shown in FRU/Action column, if the FRU replacement does not solve the problem, put the original part back in the computer. Do not replace a non-defective FRU.

The error messages are listed in the coming pages to indicate the BIOS signals on the screen and the error symptoms classified by functions. If the symptom is not included on the list, please refer to “Undetermined Problems”.

NOTE: Most of the error messages occur during POST. Some of them display information about a hardware device, e.g., the amount of memory installed. Others may indicate a problem with a device, such as the way it has been configured.

NOTE: If the system fails after you make changes in the BIOS Setup Utility menus, reset the computer, enter Setup and install Setup defaults or correct the error.

Index of Error Messages

Error Message List

Error Messages	Check or do the following in sequence:
Stuck Key	See “Keyboard or Auxiliary Input Device Check” on page 88.
System CMOS checksum bad - Default configuration used	❑ RTC battery. ❑ Run the BIOS Setup Utility to reconfigure the system time, then reboot system.
Real time clock error	❑ RTC battery ❑ Run the BIOS Setup Utility to reconfigure system time, then reboot system. ❑ Mainboard
Previous boot incomplete - Default configuration used	❑ Run “Load Setup Defaults” in BIOS Setup Utility. ❑ RTC battery ❑ Mainboard
Invalid System Configuration Data	❑ Run “Load Setup Defaults” in BIOS Setup Utility. ❑ Mainboard
Operating system not found	❑ Run the BIOS Setup Utility to check if the fixed disk and drive A are properly identified. ❑ CD/DVD-ROM drive ❑ Hard disk drive ❑ Mainboard
Power-on indicator turns off and LCD is blank.	❑ Power source (battery pack and power adapter.) See “Power System Check” on page 89. ❑ Ensure every connector is connected tightly and correctly. ❑ Reconnect the DIMM ❑ Mainboard
Power-on indicator turns on and LCD is blank.	❑ Power source (battery pack and power adapter.) See “Power System Check” on page 89. ❑ Reconnect the LCD connector ❑ Hard disk drive ❑ LCD cable ❑ LCD inverter board ❑ LCD ❑ Mainboard
Power-on indicator turns on and LCD is blank. But you can see POST on an external CRT.	❑ Reconnect the LCD connectors. ❑ LCD cable ❑ LCD inverter board ❑ LCD ❑ Mainboard
Power-on indicator turns on and a blinking cursor shown on LCD during POST.	❑ Ensure every connector is connected tightly and correctly. ❑ Mainboard
Failure Fixed Disk	❑ Reconnect the hard disk drive connector. ❑ Run “Load Setup Defaults” in BIOS Setup Utility. ❑ Hard disk drive ❑ Mainboard

Error Message List

Error Messages	Check or do the following in sequence:
No beep, power-on indicator turns off and LCD is blank.	❑ Power source (battery pack and power adapter). See “Power System Check” on page 89. ❑ Ensure every connector is connected tightly and correctly. ❑ Reconnect the DIMM. ❑ LED board ❑ Mainboard
No beep, power-on indicator turns on and LCD is blank.	❑ Power source (battery pack and power adapter). See “Power System Check” on page 89. ❑ Reconnect the LCD connector ❑ Hard disk drive ❑ LCD inverter ID ❑ LCD cable ❑ LCD Inverter board ❑ LCD ❑ Mainboard
No beep, power-on indicator turns on and LCD is blank. But you can see POST on an external CRT.	❑ Reconnect the LCD connectors. ❑ LCD inverter ID ❑ LCD cable ❑ LCD inverter board ❑ LCD ❑ Mainboard
No beep, power-on indicator turns on and a blinking cursor shown on LCD during POST.	❑ Ensure every connector is connected tightly and correctly. ❑ Mainboard
No beep during POST but system runs correctly.	❑ Speaker ❑ Mainboard

Phoenix BIOS Beep Codes

Code	Beeps	POST Routine Description
02h		Verify Real Mode
03h		Disable Non-Maskable Interrupt (NMI)
04h		Get CPU type
06h		Initialize system hardware
08h		Initialize chipset with initial POST values
09h		Set IN POST flag
0Ah		Initialize CPU registers
0Bh		Enable CPU cache
0Ch		Initialize caches to initial POST values
0Eh		Initialize I/O component
0Fh		Initialize the local bus IDE
10h		Initialize Power Management
11h		Load alternate registers with initial POST values
12h		Restore CPU control word during warm boot
13h		Initialize PCI Bus Mastering devices
14h		Initialize keyboard controller
16h	1-2-2-3	BIOS ROM checksum
17h		Initialize cache before memory autosize
18h		8254 timer initialization
1Ah		8237 DMA controller initialization
1Ch		Reset Programmable Interrupt Controller
20h	1-3-1-1	Test DRAM refresh
22h	1-3-1-3	Test 8742 Keyboard Controller
24h		Set ES segment register to 4 GB
26h		Enable A20 line
28h		Autosize DRAM
29h		Initialize POST Memory Manager
2Ah		Clear 215 KB base RAM
2Ch	1-3-4-1	RAM failure on address line xxxx*
2Eh	1-3-4-3	RAM failure on data bits xxxx* of low byte of memory bus
2Fh		Enable cache before system BIOS shadow
30h	1-4-1-1	RAM failure on data bits xxxx* of high byte of memory bus
32h		Test CPU bus-clock frequency
33h		Initialize Phoenix Dispatch Manager
36h		Warm start shut down
38h		Shadow system BIOS ROM
3Ah		Autosize cache
3Ch		Advanced configuration of chipset registers
3Dh		Load alternate registers with CMOS values
42h		Initialize interrupt vectors
45h		POST device initialization

Code	Beeps	POST Routine Description
46h	2-1-2-3	Check ROM copyright notice
48h		Check video configuration against CMOS
49h		Initialize PCI bus and devices
4Ah		Initialize all video adapters in system
4Bh		QuietBoot start (optional)
4Ch		Shadow video BIOS ROM
4Eh		Display BIOS copyright notice
50h		Display CPU type and speed
51h		Initialize EISA board
52h		Test keyboard
54h		Set key click if enabled
58h	2-2-3-1	Test for unexpected interrupts
59h		Initialize POST display service
5Ah		Display prompt “Press F2 to enter SETUP”
5Bh		Disable CPU cache
5Ch		Test RAM between 512 and 640 KB
60h		Test extended memory
62h		Test extended memory address lines
64h		Jump to User Patch1
66h		Configure advanced cache registers
67h		Initialize Multi Processor APIC
68h		Enable external and CPU caches
69h		Setup System Management Mode (SMM) area
6Ah		Display external L2 cache size
6Bh		Load custom defaults (optional)
6Ch		Display shadow-area message
6Eh		Display possible high address for UMB recovery
70h		Display error messages
72h		Check for configuration errors
76h		Check for keyboard errors
7Ch		Set up hardware interrupt vectors
7Eh		Initialize coprocessor if present
80h		Disable onboard Super I/O ports and IRQs
81h		Late POST device initialization
82h		Detect and install external RS232 ports
83h		Configure non-MCD IDE controllers
84h		Detect and install external parallel ports
85h		Initialize PC-compatible PnP ISA devices
86h		Re-initialize onboard I/O ports
87h		Configure Motherboard Configurable Devices (optional)
88h		Initialize BIOS Data Area
89h		Enable Non-Maskable Interrupts (NMIs)

Code	Beeps	POST Routine Description
8Ah		Initialize Extended BIOS Data Area
8Bh		Test and initialize PS/2 mouse
8Ch		Initialize floppy controller
8Fh		Determine number of ATA drives (optional)
90h		Initialize hard-disk controllers
91h		Initialize local-bus hard-disk controllers
92h		Jump to UserPatch2
93h		Build MPTABLE for multi-processor boards
95h		Install CD-ROM for boot
96h		Clear huge ES segment register
97h		Fixup Multiprocessor table
98h	1-2	Search for option ROMs. One long, two short beeps on checksum failure.
99h		Check for SMART drive (optional)
9Ah		Shadow option ROMs
9Ch		Set up Power Management
9Dh		Initialize security engine (optional)
9Eh		Enable hardware interrupts
9Fh		Determine number of ATA and SCSI drives
A0h		Set time of day
A2h		Check key lock
A4h		Initialize Typematic rate
A8h		Erase F2 prompt
AAh		Scan for F2 key stroke
ACh		Enter SETUP
AEh		Clear Boot flag
B0h		Check for errors
B2h		POST done- prepare to boot operating system
B4h	1	One short beep before boot
B5h		Terminate QuietBoot (optional)
B6h		Check password (optional)
B9h		Prepare Boot
BAh		Initialize DMI parameters
BBh		Initialize PnP Option ROMs
BCh		Clear parity checkers
BDh		Display MultiBoot menu
BEh		Clear screen (optional)
BFh		Check virus and backup reminders
C0h		Try to boot with INT 19
C1h		Initialize POST Error Manager (PEM)
C2h		Initialize error logging
C3h		Initialize error display function

Code	Beeps	POST Routine Description
C4h		Initialize system error handler
C5h		PnPnd dual CMOS (optional)
C6h		Initialize notebook docking (optional)
C7h		Initialize notebook docking late
C8h		Force check (optional)
C9h		Extended checksum (optional)
D2h		Unknown interrupt

* If the BIOS detects error 2C, 2E, or 3O (base 512K RAM error), it displays an additional word-bitmap (xxxx) indicating the address line or bits that failed. For example, "2C 0002" means address line 1 (bit one set) has failed. "2E 1020" means data bits 12 and 5 (bits 12 and 5 set) have failed in the lower 16 bits. Note that error 30 cannot occur on 386SX systems because they have a 16 rather than 32-bit bus. The BIOS also sends the bitmap to the port-80 LED display. It first displays the check point code, followed by a delay, the high-order byte, another delay, and then the low-order byte of the error. It repeats this sequence continuously.

BIOS Beep Codes for Boot Block in Flash ROM

Code	Beeps	For Boot Block in Flash ROM
E0h		Initialize the chipset
E1h		Initialize the bridge
E2h		Initialize the CPU
E3h		Initialize the system timer
E4h		Initialize system I/O
E5h		Check force recovery boot
E6h		Checksum BIOS ROM
E7h		Go to BIOS
E8h		Set Huge Segment
E9h		Initialize Multiprocessor
EAh		Initialize OEM special code
EBh		Initialize PIC and DMA
ECh		Initialize Memory type
EDh		Initialize Memory size
EEh		Shadow Boot Block
EFh		System memory test
F0h		Initialize interrupt vectors
F1h		Initialize Run Time Clock
F2h		Initialize video
F3h		Initialize System Management Mode
F4h	1	Output one beep before boot
F5h		Boot to Mini DOS
F6h		Clear Huge Segment
F7h		Boot to Full DOS

Index of Symptom-to-FRU Error Message

LCD-Related Symptoms

Symptom / Error	Check or do the following in sequence
LCD backlight doesn't work LCD is too dark LCD brightness cannot be adjusted LCD contrast cannot be adjusted	❑ Run “Load Setup Defaults” in BIOS Setup Utility, then reboot system. ❑ Reconnect the LCD connectors. ❑ Keyboard (if contrast and brightness function key doesn't work). ❑ LCD inverter ID ❑ LCD cable ❑ LCD inverter board ❑ LCD ❑ Mainboard
Unreadable LCD screen Missing pels in characters Abnormal screen Wrong color displayed	❑ Reconnect the LCD connector ❑ LCD inverter ID ❑ LCD cable ❑ LCD inverter board ❑ LCD ❑ Mainboard
LCD has extra horizontal or vertical lines displayed.	❑ LCD inverter ID ❑ LCD inverter board ❑ LCD cable ❑ LCD ❑ Mainboard

Indicator-Related Symptoms

Symptom / Error	Check or do the following in sequence
Indicator incorrectly remains off or on, but system runs correctly	❑ Reconnect the LCD inverter board. ❑ Mainboard

Power-Related Symptoms

Symptom / Error	Check or do the following in sequence
Power shuts down during operation	❑ Power source (battery pack and power adapter). See “Power System Check” on page 89. ❑ Battery pack ❑ Power adapter ❑ Hard disk drive & battery connection board ❑ Mainboard
The system doesn’t power-on.	❑ Power source (battery pack and power adapter). See “Power System Check” on page 89. ❑ Battery pack ❑ Power adapter ❑ Hard disk drive & battery connection board ❑ Mainboard

Power-Related Symptoms

Symptom / Error	Check or do the following in sequence
The system doesn't power-off.	❑ Power source (battery pack and power adapter). See "Power System Check" on page 89. ❑ Hold and press the power switch for more than 4 seconds. ❑ Mainboard
Battery can't be charged	❑ See "Check the Battery Pack" on page 89. ❑ Battery pack ❑ Mainboard

PCMCIA-Related Symptoms

Symptom / Error	Check or do the following in sequence
System cannot detect the PC Card (PCMCIA)	❑ PCMCIA slot assembly ❑ Mainboard
PCMCIA slot pin is damaged.	PCMCIA slot assembly

Memory-Related Symptoms

Symptom / Error	Check or do the following in sequence
Memory count (size) appears different from actual size.	❑ Run "Load Setup Defaults" in BIOS Setup Utility, then reboot system. ❑ DIMM ❑ Mainboard

Speaker-Related Symptoms

Symptom / Error	Check or do the following in sequence
In Windows, multimedia programs, no sound comes from the computer.	❑ Audio driver ❑ Speaker ❑ Mainboard
Internal speakers make noise or emit no sound.	❑ Speaker ❑ Mainboard

Power Management-Related Symptoms

Symptom / Error	Check or do the following in sequence
The system will not enter hibernation	❑ See "Save to Disk (S4) on page 34. ❑ Keyboard (if control is from the keyboard) ❑ Hard disk drive ❑ Mainboard
The system doesn't enter hibernation mode and four short beeps every minute.	❑ Press Fn+0 and see if the computer enters hibernation mode. ❑ Touchpad ❑ Keyboard ❑ Hard disk connection board ❑ Hard disk drive ❑ Mainboard
The system doesn't enter standby mode after closing the LCD	❑ See "Save to Disk (S4) on page 34. ❑ Mainboard

Power Management-Related Symptoms

Symptom / Error	Check or do the following in sequence
The system doesn't resume from hibernation mode.	❑ See “Save to Disk (S4) on page 34. ❑ Hard disk connection board ❑ Hard disk drive ❑ Mainboard
The system doesn't resume from standby mode after opening the LCD.	❑ See “Save to Disk (S4) on page 34. ❑ Mainboard
Battery fuel gauge in Windows doesn’t go higher than 90%.	❑ Remove battery pack and let it cool for 2 hours. ❑ Refresh battery (continue use battery until power off, then charge battery). ❑ Battery pack ❑ Mainboard
System hangs intermittently.	❑ Reconnect hard disk/CD-ROM drives. ❑ Hard disk connection board ❑ Mainboard

Peripheral-Related Symptoms

Symptom / Error	Check or do the following in sequence
System configuration does not match the installed devices.	❑ Run “Load Setup Defaults” in BIOS Setup Utility, then reboot system. ❑ Reconnect hard disk/CD-ROM/diskette drives.
External display does not work correctly.	❑ Press Fn+F5 to switch to LCD or CRT ❑ Mainboard
USB does not work correctly	❑ Mainboard
Print problems.	❑ Run printer self-test. ❑ Printer driver ❑ Printer cable ❑ Printer ❑ Mainboard

Keyboard/Touchpad-Related Symptoms

Symptom / Error	Check or do the following in sequence
Keyboard (one or more keys) does not work.	❑ Reconnect the keyboard cable. ❑ Keyboard ❑ Mainboard
Touchpad does not work.	❑ Reconnect touchpad cable. ❑ Touchpad board ❑ Mainboard

Modem-Related Symptoms

Symptom / Error	Check or do the following in sequence
Internal modem does not work correctly.	❑ Modem phone port ❑ Modem combo board ❑ Mainboard

NOTE: If you cannot find a symptom or an error in this list and the problem remains, see “Undetermined Problems” on page 103.

Intermittent Problems

Intermittent system hang problems can be caused by a variety of reasons that have nothing to do with a hardware defect, such as: cosmic radiation, electrostatic discharge, or software errors. FRU replacement should be considered only when a recurring problem exists.

When analyzing an intermittent problem, do the following:

1. Run the advanced diagnostic test for the mainboard in loop mode at least 10 times.
2. If no error is detected, do not replace any FRU.
3. If any error is detected, replace the FRU. Rerun the test to verify that there are no more errors.

Undetermined Problems

The diagnostic problems does not identify which adapter or device failed, which installed devices are incorrect, whether a short circuit is suspected, or whether the system is inoperative.

NOTE: Verify that all attached devices are supported by the computer.

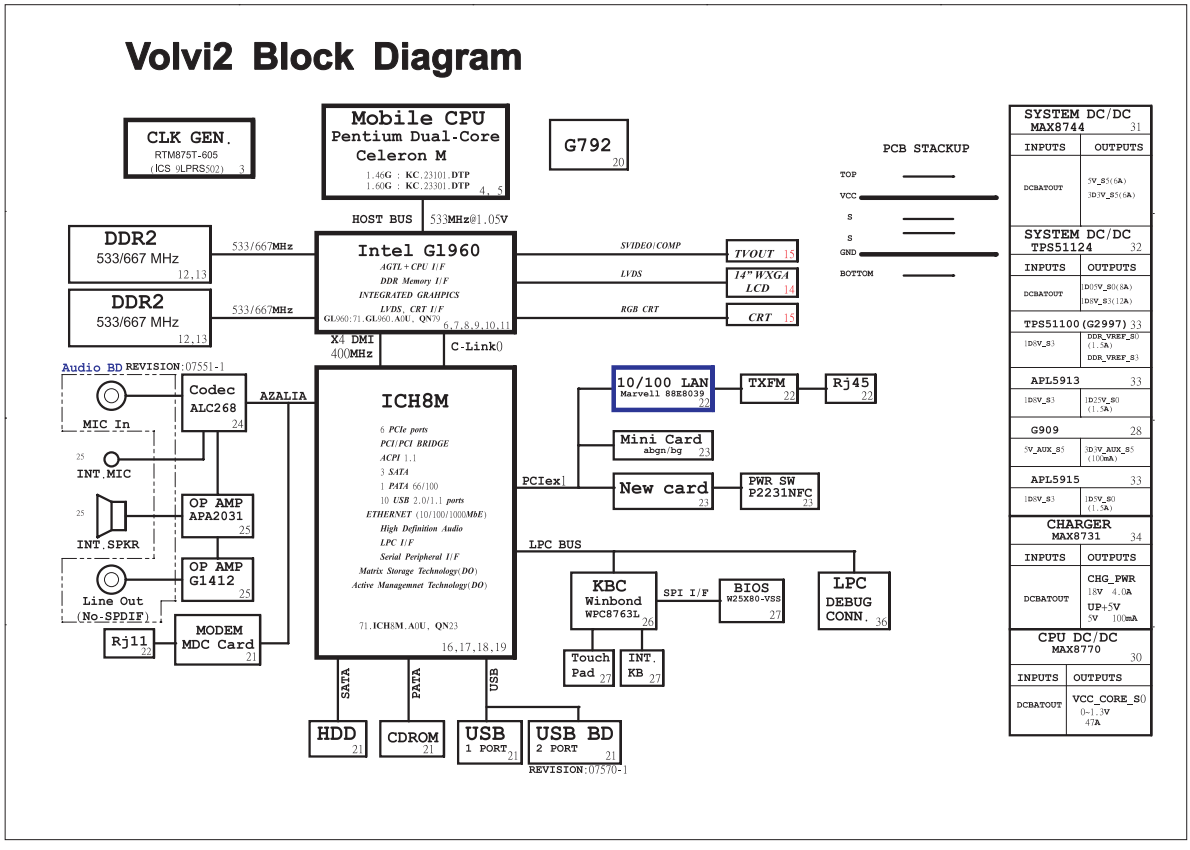
NOTE: Verify that the power supply being used at the time of the failure is operating correctly. (See “Power System Check” on page 89.)

Follow procedures below to isolate the failing FRU. Do not isolate non-defective FRU.

1. Power off the computer.
2. Visually check them for damage. If any problems are found, replace the FRU.
3. Remove or disconnect all of the following devices:
    - ❑ Non-Acer devices
    - ❑ Printer, mouse, and other external devices
    - ❑ Battery pack
    - ❑ Hard disk drive
    - ❑ DIMM
    - ❑ CD/DVD-ROM drive
    - ❑ PC cards
4. Power on the computer.
5. Determine if the problem has been resolved.
6. If the problem does not recur, reconnect the removed devices one at a time until you find the failed FRU.
7. If the problem persists, replace the following FRU one at a time. Do not replace a non-defective FRU.
    - ❑ System board
    - ❑ LCD assembly

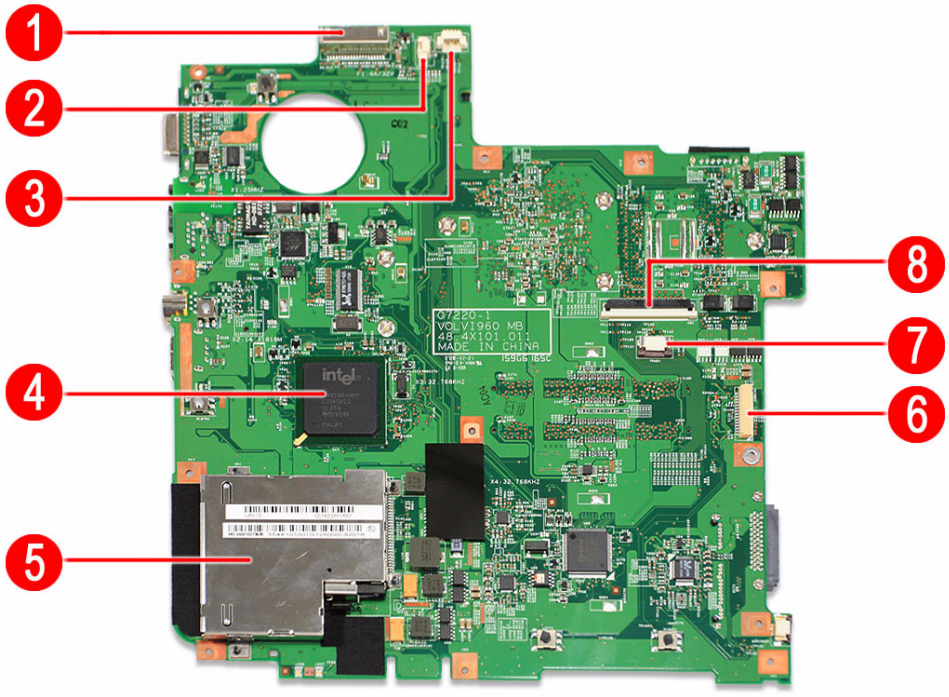
System Block Diagram and Connector Locations

System Block Diagram



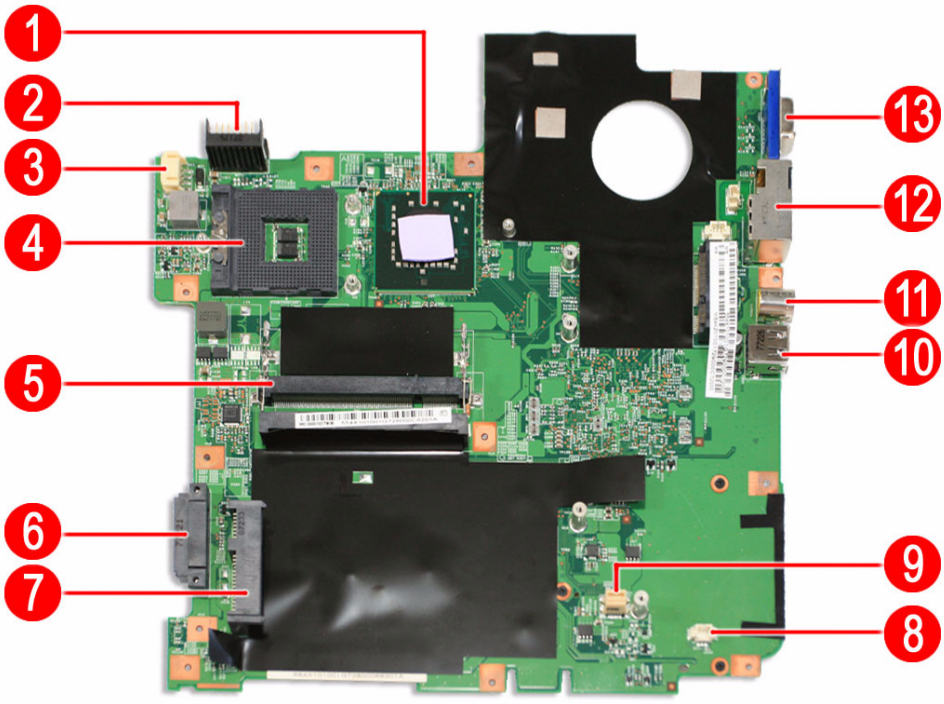
Board Layout

Top View



#	Item	#	Item
1	LCD connector	5	ExpressCard/54 slot
2	Internal microphone cable connector	6	USB board cable connector
3	Speaker cable connector	7	Touchpad cable connector
4	ICH8-M chipset (south bridge)	8	Keyboard cable connector

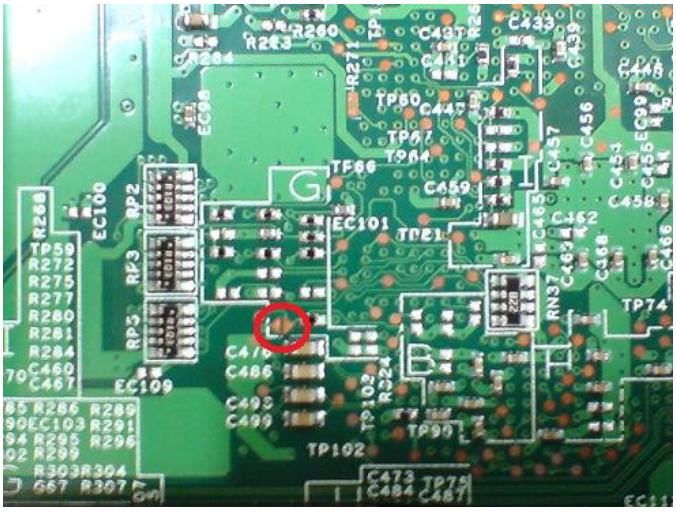
Bottom View



#	Item	#	Item
1	Intel GL960 Express chipset (north bridge)	8	RTC battery cable connector
2	Battery cable connector	9	Modem board connector
3	AC-in jack	10	USB port
4	CPU socket	11	S-video port
5	DIMM socket	12	RJ11+RJ45 port
6	ODD connector	13	CRT port
7	HDD connector		

Hardware Gap Setting

The system has a hardware gap for clearing system passwords. Refer to “Removing a System Password” on page 39 for instructions on how to clear passwords.



Short **G67** gap to clear password.

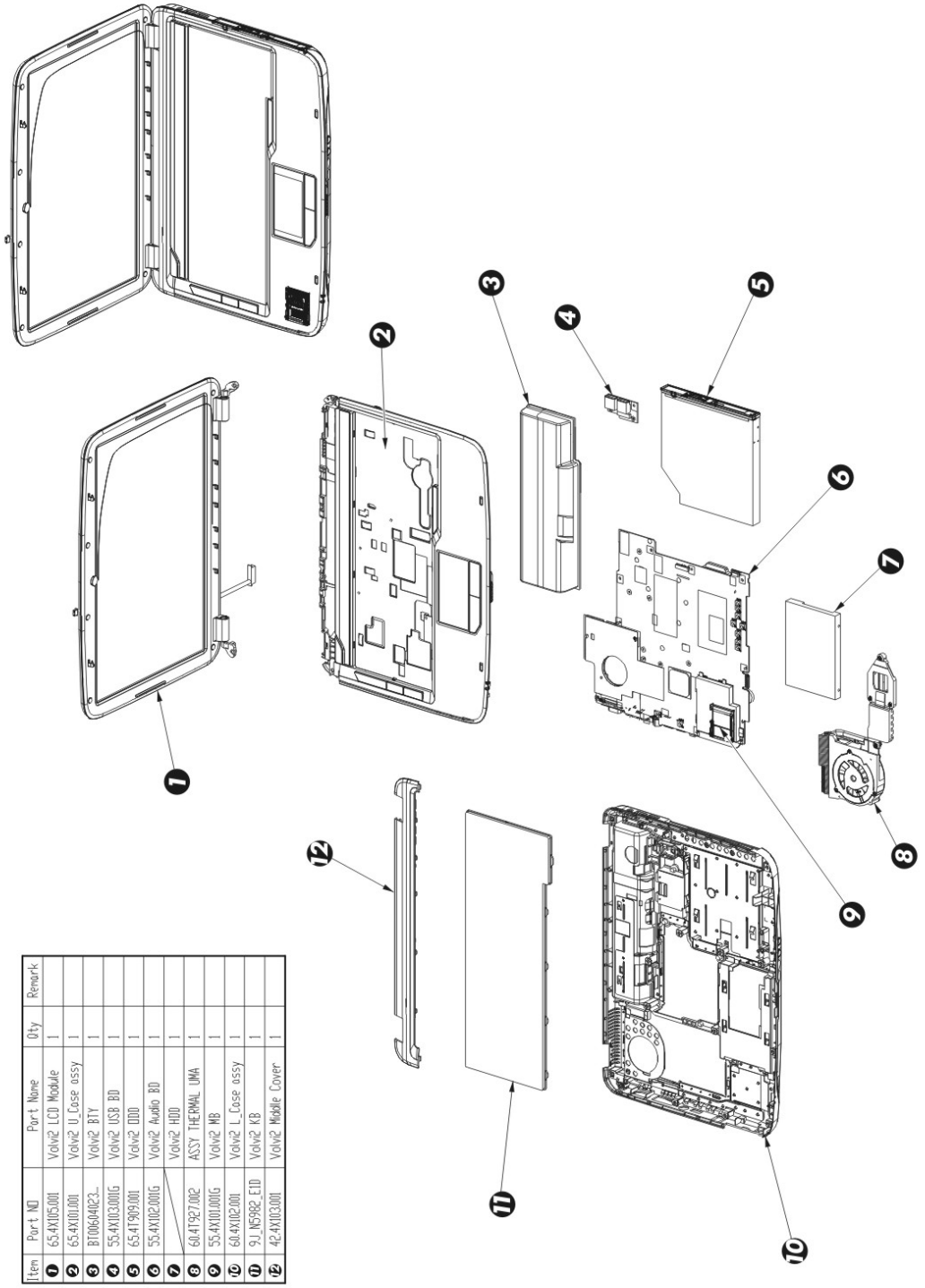
FRU (Field Replaceable Unit) List

This chapter offers the FRU (Field Replaceable Unit) list in global configuration of Aspire 4715Z/4315. Refer to this chapter whenever ordering the parts to repair or for RMA (Return Merchandise Authorization).

NOTE: When ordering FRU parts, check the most up-to-date information available on your regional web or channel. For whatever reasons a part number is changed, it will NOT be noted on the printed Service Guide. For Acer authorized service providers, your Acer office may have a different part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for service.

NOTE: To scrap or to return the defective parts, follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

Aspire 4715Z/4315 Exploded Diagram

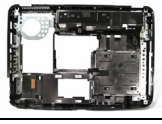


Item	Part NO	Part Name	Qty	Remark
1	65.4X105.001	Volvi2 LCD Module	1	
2	65.4X101.001	Volvi2 U_Case assy	1	
3	BT0060402...	Volvi2 BTY	1	
4	55.4X103.001G	Volvi2 USB BD	1	
5	65.41909.001	Volvi2 ODD	1	
6	55.4X102.001G	Volvi2 Audio BD	1	
7		Volvi2 HDD	1	
8	60.41927.002	ASSY THERMAL UMA	1	
9	55.4X101.001G	Volvi2 MB	1	
10	60.4X102.001	Volvi2 L_Case assy	1	
11	9J.N5982.E1D	Volvi2 KB	1	
12	42.4X103.001	Volvi2 Middle Cover	1	

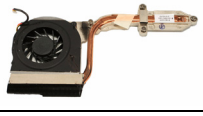
Aspire 4715Z FRU List (No: LX.AL40C.013)

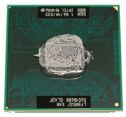
Category	Part Name	Description	Acer Part No.
Adapter			
	Adapter 65W Delta ADP-65KB DFA LF	ADT 65W SADP-65KB DFA LF Delta	AP.06501.013
	Adapter 65W Liteon PA-1650-02AC LF	ADT 65W PA-1650-02AC LF	AP.06503.016
	Adapter 65W LISHIN SLS0335A 19A54LF	ADT 65W LISHIN SLS0335A 19A54LF	AP.06506.003
	Adapter 65W 3P HP-OK065B13LF	ADP 65W 3P HP-OK065B13LF	AP.0650A.010
Battery			
	Battery Pack Li+6 cell 2.0mAh Sanyo	BTY Pack Li+6C 2.0Ah Sanyo	BT.00603.036
	Battery Pack Li-ion 6 cell 2.0mAh Sony	BTY Pack Li+6C 2.0Ah Sony	BT.00604.022
	Battery Pack Li-Mn 6 cell 2.0mAh Panasonic	BTY Pack Li+6C 2.0Ah PANA	BT.00605.018
	Battery Pack Li-Mn 6 cell 2.0 Simplo	BTY Pack Li+6C 2.0Ah SMP	BT.00607.013
Mainboard			
	Mainboard AS4315/ AS4715Z_UMA(C) w/ RTC battery, PCMCIA slot, modem and modem cable	Volvi2 MB 07220-1M MP Dual core	MB.AKZ01.001
Boards			
	Modem board Liteon Delphi-AM3 3.3V ONLY B85244300G Agere	Modem MDC003 A8B B85244300G	FX.22500.011
	Modem board Foxconn MC4Z MDC1.5_3 3.3V T60M955.00	Modem MDC1.5 T60M955.00 3.3V	FX.22500.009
Wireless LAN board			
	WLAN 802.11BG Atheros	WLAN 802.11BG Atheros Rev06	NI.23600.007
	Wireless LAN board 802.11BG	WLAN 802.11BG XB63 Minicard	NI.23600.028
	Wireless LAN board 802.11BG Foxconn BCM4311 Minicard	WLAN 802.11BG BCM4311 WW SKU	54.AEFV1.001
Audio board			
	Audio board	Volvi2 07551-1 Audio BD 6L (D)	55.AL401.001

Category	Part Name	Description	Acer Part No.
USB board			
	USB board	Volvi2 USB-BD 07570-1 (D)	55.AL401.002
Touchpad board			
	Touchpad board Synaptics TM00450-001	Touchpad Synaptics TM00450-001	56.AGV01.001
	Touchpad board Synaptics TM00450-000	Touchpad Synaptics TM00450-000	56.AHP01.001
Cables			
	Audio cable	Audio FFC Volvi960	50.AL401.001
	Audio cable	Audio FFC Volvi960#2	50.AL401.001
	DC-in cable	C.A. DC-in 65W HL Volvi960	50.AL401.002
	DC-in cable	C.A. DC-in 65W HL Volvi960 MEC	50.AL401.002
	Modem cable	C.A. MDC HL Tahoe	50.AHR01.002
	Modem cable	C.A. MDC MEC Tahoe	50.AHQ01.001
	Modem cable	C.A. MDC HL Tahoe HT	50.AHQ01.001
	Touchpad cable	C.A. T/P FFC TR Tahoe	50.AHP01.005
	Touchpad cable	C.A. T/P FFC Tahoe	50.AHP01.005
	Touchpad cable	J.H. T/P FFC Tahoe	50.AHP01.005
	USB cable HL	C.A. USB HL Tahoe	50.AHP01.001
	USB cable MEC	C.A. USB MEC Tahoe	50.AHP01.001
	USB cable	C.A. USB HL Tahoe HT	50.AHP01.001
	Power cord 3A 250V 3-pin UK	Code UK 3A 250V 3P BK	27.01518.541
	Power cord 5A 250V 3-pin UK BK	Code 5A 250V 3P UK BK	27.03118.001
	Power cord 10A 3-pin BK Denmark	Code Denmark 10A 3P BK	27.01518.561
	Power cord 10A 250V 3-pin Denmark BK	Code 10A 250V 3P Denmark BK	27.01518.671
	Power cord 10A 250V 3-pin South Africa	Code South Africa 10A 250V BK	27.01518.571
	Power cord 16A 250V South Africa BK	Code 16A 250V South Africa BK	27.01518.681
	Power cord 10A 250V Swiss	Code Swiss Power 10A 250V BK	27.01518.581
	Power cord 10A 250V 3-pin Swiss BK	Code 10A 250V 3P Swiss Bk	27.01518.691
	Power cable 16A 250V 3-pin EUR BK	Cord 16A 250V 3P EUR BK	27.01518.731
	Power cord 220V 3-pin EUR	Cord EUR 220V 3P BK	27.T30V1.004
	Power cord 10A 250V 3-pin Italy	Cord Italy 10A 250V 3P BK	27.01518.611
	Power cord 10A 250V 3-pin Italy BK	Cord 10A 250V 3P Italy BK	27.01518.711

Category	Part Name	Description	Acer Part No.
Cables (cont.)	Power cord 2.5A 250V South Africa BK (India)	Cord 2.5A 250V South Africa Bk	27.01518.631
	Power cord 10A 250V South Africa BK (India)	Cord 10A 250V South Africa BK	27.01518.721
	Power cord 10A 125V 3-pin US BK	Code 10A 125V 3P US BK	27.01518.641
	Power cord 10A 125V US	Code US 10A 125V BK	27.T30V1.001
	Power cord 10A 250V 3-pin China	Cord China 10A 250V 3P	27.01518.591
	Power cord 10A 250V 3-pin China BK	Cord 10A 250V 3P China BK	27.01518.701
	Power cord 250V 10A 3-pin Israel	Cord 250V 10~16A 3P Israel	27.01518.761
	Power cord 2.5A 125V USA	Code USA/W CNS 2.5A 125V 8121	27.01518.781
	Power cord ACA/ACNZ	Power cord ACA/ACNZ Annie	27.03218.021
System case/cover/bracket/assembly			
	Touchpad bracket	TP bracket ASSY Volvi960	33.AL401.001
	Support bracket left	Support L ASSY Volvi960	33.AL401.002
	Dummy card	Card dummy Volvi	42.AHV01.001
	Middle cover	Middle cover Volvi960	42.AL401.001
	Unitload cover	ASSY big door Tahoe	42.AHP01.002
	Lowercase	ASSY L-Case Volvi960	60.AL401.001
	Upper case w/ speaker	ASSY U-Case Volvi960	60.AL401.002
	PCMCIA slot	Conn Card Bus 4P 10057913-	22.AHP01.001
Memory			
	SODIMM 1GB DDRII667 Hynix HYMP512S64CP8-Y5 LF	SODIMM 1G HYMP512S64CP8-Y5 AB	KN.1GB0G.006
	SODIMM 1GB DDRII667 Nanya NT1GT64U8HB0BN-3C LF (0.09U)	SODIMM 1G NT1GT64U8HB0BN-3C	KN.1GB03.014
	SODIMM 1GB DDRII667 DDRII667 Samsung M470T2953EZ3-CE6 LF	SODIMM 1G M470T2953EZ3-CE6	KN.1GB0B.011
	SODIMM 1GB DDRII667 Samsung M470T2864DZ3-CE6	SODIMM 1G M470T2864DZ3-CE6	KN.1GB0B.014

Category	Part Name	Description	Acer Part No.
Memory (cont.)	SODIMM 1GB DDRII667 Hynix HYMP112S64CP6-Y5 LF	SODIMM 1G HYMP112S64CP6-Y5	KN.1GB0G.012
	SODIMM 1GB DDRII667 Infineon HYS64T128021EDL-3S LF	SODIMM1G HYS64T128021EDL-3S-B2	KN.1GB02.036
	SODIMM 2GB DDRII667 Hynix HYMP125S64CP8-Y5 LF	SODIMM 2G HYMP125S64CP8-Y5	KN.2GB0G.004
	SODIMM 512MB DDRII667 Nanya NT512T64UH8B0FN-3C LF	SODIMM 512M NT512T64UH8B0FN-3C	KN.51203.032
	SODIMM 512MB DDRII667 Hynix HYMP564S64CP6-Y5 LF	SODIMM512M HYMP564S64CP6-Y5 AB	KN.5120G.019
	SODIMM 512MB DDRII667 Samsung M470T6554EZ3-CE6 LF	SODIMM 512M M470T6554EZ3-CE6	KN.5120B.023
Combo module			
	Assembly Combo module 24X	ODD CB24X combo for Volvi960	6M.AL401.001
	Optical bracket	BRKT ODD Tahoe	33.AHP01.004
	Combo bezel	ASSY ODD bezel combo Tahoe	42.AGV01.004
	Combo module 24X Philips DS-24CZP w/o bezel	Combo 24X PDBS DS-24CZP	KO.02409.029
	Combo module 24X Sony CRX880A LF w/o bezel	Combo 24X Sony/CRX880A Myall2	KO.0240E.005
	Combo module 24X Toshiba TS-L462D LF w/o bezel	DVD Combo TSST/TS-L462D Biwa	KO.02401.004
DVD module			
	Assembly Super Multi module 8X	ODD SM8X Super-multi drive	6M.AL401.002
	Optical bracket	BRKT ODD Tahoe	33.AHP01.004
	Super Multi bezel	ASSY ODD bezel S-Multi Tahoe	42.AGV01.005
	DVD-RW drive 8X Super Mult Pioneer DVR-K17RS LF w/o bezel	S-Mult 8X PIO/DVR-K17RS Morar3	KU.00805.038
	DVD-RW drive 8X Super Mult Panasonic UJ-850UAA1-A w/o bezel	S-Mult PAN/UJ-850UAA1-A Dellen	KU.00807.055
	DVD-RW drive 8X Super Multi Philips DS-8A1P LF w/o bezel	8X S-Multi PDBS/DS-8A1P Myallm	KU.00809.010
	DVD-RW drive 8X Super Mult Sony AD-7560A LF w/o bezel	8X S-Mult Sony/AD-7560A Tahoe	KU.0080E.005

Category	Part Name	Description	Acer Part No.
HDD/Hard Disk Drive			
	HDD bracket	ASSY HDD bracket Tahoe	33.AHP01.005
	HDD module 80G 5400RPM SATA	HDD N80GB5.4KS for Volvi960	
	HDD 80GB SATA Hitachi HTS541680J9SA00	HDD 80GB SATA HTS541680J9SA00	KH.08007.021
	HDD 80GB 5400RPM SATA II HGST HTS542580K9SA00	HDD 80GB HGST HTS542580K9SA00	KH.08007.025
	HDD 80GB 5400RPM SATA Seagate ST980811AS Venus LF F/W:3.ALD	HDD 80GB SGT ST980811AS	KH.08001.030
	HDD 80GB 5400RPM SATA Toshiba MK8037GSX Gemini BS LF F/W:DL230	HDD 80GB Toshiba MK8037GSX	KH.08004.010
	HDD 80GB 5400RPM SATA WD WD800BEVS-22RST0 ML80 LF F/W:04.01G04	HDD 80GB WD WD800BEVS-22RST0	KH.08008.033
	HDD module 120G 5400RPM SATA	HDD 120GB5.4KS for Volvi960	G2.HDAHQ.002
	HDD 120GB 5400RPM SATA Hitachi HTS541612J9SA00 LF F/W:C70P	HDD 120GB SATA HTS541612J9SA00	KH.12007.010
	HDD 120GB 5400RPM SATA Seagate ST9120822AS LF F/W:3.ALD	HDD 120GB SGT ST9120822AS	KH.12001.031
	HDD 120GB 5400RPM SATA Toshiba MK1237GSX Gemini BS LF F/W:DL130J	HDD 120GB Toshiba MK1237GSX	KH.12004.006
	HDD 120GB 5400RPM SATA WD WD1200BEVS-22UST0 ML125 LF F/W:01.01A01	HDD WD 2.5" 5400RPM 120GB WD1200BEVS-22U	KH.12008.019
	HDD module 160G 5400RPM SATA	HDD N160GB5.4KS for Volvi960	
	HDD 160GB 5400RPM SATA Hitachi HTS541616J9SA00 LF F/W:C70P	HDD 160GB HGST HTS541616J9SA00	KH.16007.011
	HDD 160GB 5400RPM SATA Seagate ST9160821AS LF F/W:3.ALD	HDD 160GB SGT ST9160821AS	KH.16001.026
	HDD 160GB 5400RPM SATA Toshiba MK1637GSX Gemini BS LF F/W:DL030J	HDD 160GB Toshiba MK1637GSX	KH.16004.001
	HDD 160GB 5400RPM SATA WD WD1600BEVS-22RST0 LF F/W:04.01G04	HDD 160GB WD WD1600BEVS-22RST0	KH.16008.019
CPU Heatsink			
	CPU heatsink	ASSY Thermal UMA Foxconn	60.AHR01.001
	CPU heatsink	ASSY Thermal UMA Forcecon	60.AHR01.001

Category	Part Name	Description	Acer Part No.
CPU/Processor			
	CPU Merom T2310 1.46G Intel	IC CPU Merom T2310 1.46G PGA	KC.23101.DTP
	CPU Merom T2330 1.6GHz	IC CPU Merom T2330 1.6G PGA	KC.23301.DTP
Keyboard			
	Keyboard 14_15KB-FV2 88KS White US International	KB Darfon NSK-H3V1D UI US-IN88	KB.INT00.036
	Keyboard 14_15KB-FV2 88KS White Traditional Chinese	KB Darfon NSK-H3V02 TW Taiwa88	KB.INT00.065
	Keyboard 14_15KB-FV2 88KS White Thailand	KB Darfon NSK-H3V03 TI Thai88	KB.INT00.040
	Keyboard 14_15KB-FV2 88KS White Arabic/English	KB Darfon NSK-H3V0A AR Arabi88	KB.INT00.069
	Keyboard 14_15KB-FV2 88KS White US International Hebrew	KB Darfon NSK-H3V0H HB Hebre88	KB.INT00.037
	Keyboard 14_15KB-FV2 88KS White Korean	KB Darfon NSK-H3V0K KO Korea88	KB.INT00.052
	Keyboard 14_15KB-FV2 88KS White Greek	KB Darfon NSK-H3V0L GK Greek88	KB.INT00.058
	Keyboard 14_15KB-FV2 88KS White Russian	KB Darfon NSK-H3V0R RU Russi88	KB.INT00.047
	Keyboard 14_15KB-FV2 89KS White Portuguese	KB Darfon NSK-H3V06 PO Portu89	KB.INT00.048
	Keyboard 14_15KB-FV2 89KS White Czech	KB Darfon NSK-H3V0C CZ Czech89	KB.INT00.064
	Keyboard 14_15KB-FV2 89KS White Danish	KB Darfon NSK-H3V0D DM Danis89	KB.INT00.063
	Keyboard 14_15KB-FV2 89KS White Italian	KB Darfon NSK-H3V0E IT Itali89	KB.INT00.054
	Keyboard 14_15KB-FV2 89KS White French	KB Darfon NSK-H3V0F FR Rehcn89	KB.INT00.060
	Keyboard 14_15KB-FV2 89KS White German	KB Darfon NSK-H3V0G GR Germa89	KB.INT00.059
	Keyboard 14_15KB-FV2 89KS White Swiss/G	KB Darfon NSK-H3V00 SW Swiss89	KB.INT00.041
	Keyboard 14_15KB-FV2 89KS White Canadian French	KB Darfon NSK-H3V0M CF FR.CA89	KB.INT00.066
	Keyboard 14_15KB-FV2 89KS White Norwegian	KB Darfon NSK-H3V0N NW Norwe89	KB.INT00.050
	Keyboard 14_15KB-FV2 89KS White Hungarian	KB Darfon NSK-H3V0Q HG Huga89	KB.INT00.057
	Keyboard 14_15KB-FV2 89KS White Spanish	KB Darfon NSK-H3V0S SP Spani89	KB.INT00.043
	Keyboard 14_15KB-FV2 89KS White Turkish	KB Darfon NSK-H3V0T TR Turki89	KB.INT00.039
	Keyboard 14_15KB-FV2 89KS White UK	KB Darfon NSK-H3V0U UK UK89	KB.INT00.038

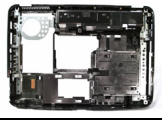
Category	Part Name	Description	Acer Part No.
Keyboard (cont.)	Keyboard 14_15KB-FV2 89KS White Swedish	KB Darfon NSK-H3V0W SD Swedi89	KB.INT00.042
	Keyboard 14_15KB-FV2 89KS White Belgium	KB Darfon NSK-H3V1A BE BELGI89	KB.INT00.068
	Keyboard 14_15KB-FV2 89KS White Brazilian Portuguese	KB Darfon NSK-H3V1B BP BR-PO89	KB.INT00.067
	Keyboard 14_15KB-FV2 89KS White Slovenian	KB Darfon NSK-H3V1F SK Slove89	KB.INT00.044
	Keyboard 14_15KB-FV2 93KS White Japanese	KB Darfon NSK-H3V0J JA Japan92	KB.INT00.053
LCD module			
	Assembly LCD module 14.1” WXGA glare w/ antenna and camera	LCD 14.1WXGAG w/ Camera/ WLAN	6M.AL401.003
	Inverter board 17" FOXCONN T62I240.02 V.00	Inverter 17” T62I240.02 V.00	19.TK501.001
	Inverter board 17” YEC YNV-W06	Inverter 17” YNV-W06S	19.TK501.002
	Inverter board 17” ROHS VK.21189.406	Inverter 17” ROHS VK.21189.406	19.TCBV1.001
	LCD/Camera cable	C.A. LCD WXGA HL Tahoe	50.AHP01.008
	Camera CMOS 0.3M Suyin CN0314-OV03 UVC	Camera CMOS 0.3M CN0314-OV03 U	57.TK901.001
	Camera CMOS 0.3M Bison BN30V4O717310	Camera CMOS 0.3M BN30V4O717310	57.TK501.001
	LCD bracket right	BRKT LCD R Tahoe	33.AHP01.006
	LCD bracket left	BRKT LCD L Tahoe	33.AHP01.007
	LCD bezel 14.1” for CCD	ASSY bezel Volvi2	60.AL401.003
	LCD cover 14.1” w/ hinge, mic and camera	ASSY LCD panel Volvi960	60.AL401.004
	Wireless antenna	Antenna WLAN Volvi960	25.AL401.001
	LCD 14.1” WXGA AU B141EW04-V4 LF glare 200 nits 16ms	LCD 14.1” WXGA AU B141EW04-V4 G	LK.14105.018
	LCD 14.1” WXGA LG LP141WX3-TLB1glare 200 nits 16ms	LCD 14.1” WXGA LG LP141EWX3-TLB1	LK.14108.010
	LCD 14.1” WXGA LG LP141WX3-TLB1 glare LF (OKI DRIVER IC: 01OKL-0123A)	LCD 14.1” WXGA LG LP141WX3-TLB1	LK.14108.012
	LCD 14.1" WXGA CMO N141I3-L02 LF glare 200 nits 16ms	LCD 14.1"WXGA CMO N141I3-L02 G	LK.1410D.016
	LCD 14.1" WCXGA CMO N141I1-L03 non-glare	LCD 14.1" CMO N141I1-L03 NG	LK.1410D.014
	LCD 14.1” WXGA glare Samsung LTN141W3-L01-J L6 LF 200 nits 16ms	LCD 14.1” WXGA Samsung LTN141W3-L01-J G	LK.14106.014
	Microphone	Microphone cable FORG Volvi960	23.AL401.002

Category	Part Name	Description	Acer Part No.
LCD module (cont.)	Microphone	Microphone cable SHAN Volvi960	23.AL401.002
Speaker			
	Speaker set	Speaker Volvi960	23.AL401.001
	Speaker set	Speaker Volvi960#2	23.AL401.001
RTC Battery			
	RTC battery LI 3V 200 mAh	Battery 3V CR2032 BBBCR2032BX	23.TCZV1.004
PCMCIA slot/PC card slot			
	PCMCIA slot	CONN Cardbus 4P 10057913-	21.H0153.001
Miscellaneous			
	LCD screw rubber	Rub circle LCD Volvi	47.AHQ01.001
	Name plate AS4715Z	Name plate 4715 U-CASE Volvi960	40.4X111.001
Screws			
	Screw	Screw M2xL3 (white)	86.00C07.220
	Screw	Screw M2.5xL6 nylok CR3+	86.00E33.736
	Screw	Screw M2.5xL8 nylok CR3+	86.00E34.738
	Screw	Screw M2.5xL8 non-nylok	86.00D75.220
	Screw	Screw M2x2.5 nylok	86.00F22.722
	Screw	Screw M2x4 nylok H0.3	86.00F24.724
	Screw	Screw 2x6 nylok	86.TK501.003
	Screw	Screw wafer nylok Ni M2xL3	86.9A552.3R0
	Screw	Screw Ni M2x6L	86.9A552.6R0
	Screw	Screw Mach Wafer M3xL4 Ni	86.9A554.4R0
	Screw M2.5*L5 black ZN+nylok	M2.5*L5 black ZN+nylok	86.TK501.001

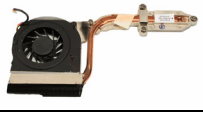
Aspire 4715Z FRU List (No: LX.AL10Y.001/003/015)

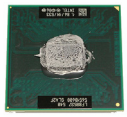
Category	Part Name	Description	Acer Part No.
Adapter			
	Adapter 65W Delta ADP-65KB DFA LF	ADT 65W SADP-65KB DFA LF Delta	AP.06501.013
	Adapter 65W Liteon PA-1650-02AC LF	ADT 65W PA-1650-02AC LF	AP.06503.016
	Adapter 65W LISHIN SLS0335A 19A54LF	ADT 65W LISHIN SLS0335A 19A54LF	AP.06506.003
	Adapter 65W 3P HP-OK065B13LF	ADP 65W 3P HP-OK065B13LF	AP.0650A.010
Battery			
	Battery Pack Li+6 cell 2.0mAh Sanyo	BTY Pack Li+6C 2.0Ah Sanyo	BT.00603.036
	Battery Pack Li-ion 6 cell 2.0mAh Sony	BTY Pack Li+6C 2.0Ah Sony	BT.00604.022
	Battery Pack Li-Mn 6 cell 2.0mAh Panasonic	BTY Pack Li+6C 2.0Ah PANA	BT.00605.018
	Battery Pack Li-Mn 6 cell 2.0 Simplo	BTY Pack Li+6C 2.0Ah SMP	BT.00607.013
Mainboard			
	Mainboard AS4315/ AS4715Z_UMA(C) w/ RTC battery, PCMCIA slot, modem and modem cable	Volvi2 MB 07220-1M MP Dual core	MB.AKZ01.001
Boards			
	Modem board Liteon Delphi-AM3 3.3V ONLY B85244300G Agere	Modem MDC003 A8B B85244300G	FX.22500.011
	Modem board Foxconn MC4Z MDC1.5_3 3.3V T60M955.00	Modem MDC1.5 T60M955.00 3.3V	FX.22500.009
Wireless LAN board			
	WLAN 802.11BG Atheros	WLAN 802.11BG Atheros Rev06	NI.23600.007
	Wireless LAN board 802.11BG	WLAN 802.11BG XB63 Minicard	NI.23600.028
	Wireless LAN board 802.11BG Foxconn BCM4311 Minicard	WLAN 802.11BG BCM4311 WW SKU	54.AEFV1.001
Audio board			
	Audio board	Volvi2 07551-1 Audio BD 6L (D)	55.AL401.001

Category	Part Name	Description	Acer Part No.
USB board			
	USB board	Volvi2 USB-BD 07570-1 (D)	55.AL401.002
Touchpad board			
	Touchpad board Synaptics TM00450-001	Touchpad Synaptics TM00450-001	56.AGV01.001
	Touchpad board Synaptics TM00450-000	Touchpad Synaptics TM00450-000	56.AHP01.001
Cables			
	Audio cable	Audio FFC Volvi960	50.AL401.001
	Audio cable	Audio FFC Volvi960#2	50.AL401.001
	DC-in cable	C.A. DC-in 65W HL Volvi960	50.AL401.002
	DC-in cable	C.A. DC-in 65W HL Volvi960 MEC	50.AL401.002
	Modem cable	C.A. MDC HL Tahoe	50.AHR01.002
	Modem cable	C.A. MDC MEC Tahoe	50.AHQ01.001
	Modem cable	C.A. MDC HL Tahoe HT	50.AHQ01.001
	Touchpad cable	C.A. T/P FFC TR Tahoe	50.AHP01.005
	Touchpad cable	C.A. T/P FFC Tahoe	50.AHP01.005
	Touchpad cable	J.H. T/P FFC Tahoe	50.AHP01.005
	USB cable HL	C.A. USB HL Tahoe	50.AHP01.001
	USB cable MEC	C.A. USB MEC Tahoe	50.AHP01.001
	USB cable	C.A. USB HL Tahoe HT	50.AHP01.001
	Power cord 3A 250V 3-pin UK	Code UK 3A 250V 3P BK	27.01518.541
	Power cord 5A 250V 3-pin UK BK	Code 5A 250V 3P UK BK	27.03118.001
	Power cord 10A 3-pin BK Denmark	Code Denmark 10A 3P BK	27.01518.561
	Power cord 10A 250V 3-pin Denmark BK	Code 10A 250V 3P Denmark BK	27.01518.671
	Power cord 10A 250V 3-pin South Africa	Code South Africa 10A 250V BK	27.01518.571
	Power cord 16A 250V South Africa BK	Code 16A 250V South Africa BK	27.01518.681
	Power cord 10A 250V Swiss	Code Swiss Power 10A 250V BK	27.01518.581
	Power cord 10A 250V 3-pin Swiss BK	Code 10A 250V 3P Swiss Bk	27.01518.691
	Power cable 16A 250V 3-pin EUR BK	Cord 16A 250V 3P EUR BK	27.01518.731
	Power cord 220V 3-pin EUR	Cord EUR 220V 3P BK	27.T30V1.004
	Power cord 10A 250V 3-pin Italy	Cord Italy 10A 250V 3P BK	27.01518.611
	Power cord 10A 250V 3-pin Italy BK	Cord 10A 250V 3P Italy BK	27.01518.711

Category	Part Name	Description	Acer Part No.
Cables (cont.)	Power cord 2.5A 250V South Africa BK (India)	Cord 2.5A 250V South Africa Bk	27.01518.631
	Power cord 10A 250V South Africa BK (India)	Cord 10A 250V South Africa BK	27.01518.721
	Power cord 10A 125V 3-pin US BK	Code 10A 125V 3P US BK	27.01518.641
	Power cord 10A 125V US	Code US 10A 125V BK	27.T30V1.001
	Power cord 10A 250V 3-pin China	Cord China 10A 250V 3P	27.01518.591
	Power cord 10A 250V 3-pin China BK	Cord 10A 250V 3P China BK	27.01518.701
	Power cord 250V 10A 3-pin Israel	Cord 250V 10~16A 3P Israel	27.01518.761
	Power cord 2.5A 125V USA	Code USA/W CNS 2.5A 125V 8121	27.01518.781
	Power cord ACA/ACNZ	Power cord ACA/ACNZ Annie	27.03218.021
System case/cover/bracket/assembly			
	Touchpad bracket	TP bracket ASSY Volvi960	33.AL401.001
	Support bracket left	Support L ASSY Volvi960	33.AL401.002
	Dummy card	Card dummy Volvi	42.AHV01.001
	Middle cover	Middle cover Volvi960	42.AL401.001
	Unitload cover	ASSY big door Tahoe	42.AHP01.002
	Lowercase	ASSY L-Case Volvi960	60.AL401.001
	Upper case w/ speaker	ASSY U-Case Volvi960	60.AL401.002
	PCMCIA slot	Conn Card Bus 4P 10057913-	22.AHP01.001
Memory			
	SODIMM 1GB DDRII667 Hynix HYMP512S64CP8-Y5 LF	SODIMM 1G HYMP512S64CP8-Y5 AB	KN.1GB0G.006
	SODIMM 1GB DDRII667 Nanya NT1GT64U8HB0BN-3C LF (0.09U)	SODIMM 1G NT1GT64U8HB0BN-3C	KN.1GB03.014
	SODIMM 1GB DDRII667 DDRII667 Samsung M470T2953EZ3-CE6 LF	SODIMM 1G M470T2953EZ3-CE6	KN.1GB0B.011
	SODIMM 1GB DDRII667 Samsung M470T2864DZ3-CE6	SODIMM 1G M470T2864DZ3-CE6	KN.1GB0B.014

Category	Part Name	Description	Acer Part No.
Memory (cont.)	SODIMM 1GB DDRII667 Hynix HYMP112S64CP6-Y5 LF	SODIMM 1G HYMP112S64CP6-Y5	KN.1GB0G.012
	SODIMM 1GB DDRII667 Infineon HYS64T128021EDL-3S LF	SODIMM1G HYS64T128021EDL-3S-B2	KN.1GB02.036
	SODIMM 2GB DDRII667 Hynix HYMP125S64CP8-Y5 LF	SODIMM 2G HYMP125S64CP8-Y5	KN.2GB0G.004
	SODIMM 512MB DDRII667 Nanya NT512T64UH8B0FN-3C LF	SODIMM 512M NT512T64UH8B0FN-3C	KN.51203.032
	SODIMM 512MB DDRII667 Hynix HYMP564S64CP6-Y5 LF	SODIMM512M HYMP564S64CP6-Y5 AB	KN.5120G.019
	SODIMM 512MB DDRII667 Samsung M470T6554EZ3-CE6 LF	SODIMM 512M M470T6554EZ3-CE6	KN.5120B.023
Combo module			
	Assembly Combo module 24X	ODD CB24X combo for Volvi960	6M.AL401.001
	Optical bracket	BRKT ODD Tahoe	33.AHP01.004
	Combo bezel	ASSY ODD bezel combo Tahoe	42.AGV01.004
	Combo module 24X Philips DS-24CZP w/o bezel	Combo 24X PDBS DS-24CZP	KO.02409.029
	Combo module 24X Sony CRX880A LF w/o bezel	Combo 24X Sony/CRX880A Myall2	KO.0240E.005
	Combo module 24X Toshiba TS-L462D LF w/o bezel	DVD Combo TSST/TS-L462D Biwa	KO.02401.004
DVD module			
	Assembly Super Multi module 8X	ODD SM8X Super-multi drive	6M.AL401.002
	Optical bracket	BRKT ODD Tahoe	33.AHP01.004
	Super Multi bezel	ASSY ODD bezel S-Multi Tahoe	42.AGV01.005
	DVD-RW drive 8X Super Mult Pioneer DVR-K17RS LF w/o bezel	S-Mult 8X PIO/DVR-K17RS Morar3	KU.00805.038
	DVD-RW drive 8X Super Mult Panasonic UJ-850UAA1-A w/o bezel	S-Mult PAN/UJ-850UAA1-A Dellen	KU.00807.055
	DVD-RW drive 8X Super Multi Philips DS-8A1P LF w/o bezel	8X S-Multi PDBS/DS-8A1P Myallm	KU.00809.010
	DVD-RW drive 8X Super Mult Sony AD-7560A LF w/o bezel	8X S-Mult Sony/AD-7560A Tahoe	KU.0080E.005

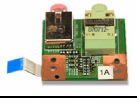
Category	Part Name	Description	Acer Part No.
HDD/Hard Disk Drive			
	HDD bracket	ASSY HDD bracket Tahoe	33.AHP01.005
	HDD module 80G 5400RPM SATA	HDD N80GB5.4KS for Volvi960	
	HDD 80GB SATA Hitachi HTS541680J9SA00	HDD 80GB SATA HTS541680J9SA00	KH.08007.021
	HDD 80GB 5400RPM SATA II HGST HTS542580K9SA00	HDD 80GB HGST HTS542580K9SA00	KH.08007.025
	HDD 80GB 5400RPM SATA Seagate ST980811AS Venus LF F/W:3.ALD	HDD 80GB SGT ST980811AS	KH.08001.030
	HDD 80GB 5400RPM SATA Toshiba MK8037GSX Gemini BS LF F/W:DL230	HDD 80GB Toshiba MK8037GSX	KH.08004.010
	HDD 80GB 5400RPM SATA WD WD800BEVS-22RST0 ML80 LF F/W:04.01G04	HDD 80GB WD WD800BEVS-22RST0	KH.08008.033
	HDD module 120G 5400RPM SATA	HDD 120GB5.4KS for Volvi960	G2.HDAHQ.002
	HDD 120GB 5400RPM SATA Hitachi HTS541612J9SA00 LF F/W:C70P	HDD 120GB SATA HTS541612J9SA00	KH.12007.010
	HDD 120GB 5400RPM SATA Seagate ST9120822AS LF F/W:3.ALD	HDD 120GB SGT ST9120822AS	KH.12001.031
	HDD 120GB 5400RPM SATA Toshiba MK1237GSX Gemini BS LF F/W:DL130J	HDD 120GB Toshiba MK1237GSX	KH.12004.006
	HDD 120GB 5400RPM SATA WD WD1200BEVS-22UST0 ML125 LF F/W:01.01A01	HDD WD 2.5" 5400RPM 120GB WD1200BEVS-22U	KH.12008.019
	HDD module 160G 5400RPM SATA	HDD N160GB5.4KS for Volvi960	
	HDD 160GB 5400RPM SATA Hitachi HTS541616J9SA00 LF F/W:C70P	HDD 160GB HGST HTS541616J9SA00	KH.16007.011
	HDD 160GB 5400RPM SATA Seagate ST9160821AS LF F/W:3.ALD	HDD 160GB SGT ST9160821AS	KH.16001.026
	HDD 160GB 5400RPM SATA Toshiba MK1637GSX Gemini BS LF F/W:DL030J	HDD 160GB Toshiba MK1637GSX	KH.16004.001
	HDD 160GB 5400RPM SATA WD WD1600BEVS-22RST0 LF F/W:04.01G04	HDD 160GB WD WD1600BEVS-22RST0	KH.16008.019
CPU Heatsink			
	CPU heatsink	ASSY Thermal UMA Foxconn	60.AHR01.001
	CPU heatsink	ASSY Thermal UMA Forcecon	60.AHR01.001

Category	Part Name	Description	Acer Part No.
CPU/Processor			
	CPU Merom T2310 1.46G Intel	IC CPU Merom T2310 1.46G PGA	KC.23101.DTP
	CPU Merom T2330 1.6GHz	IC CPU Merom T2330 1.6G PGA	KC.23301.DTP
Keyboard			
	Keyboard 14_15KB-FV2 88KS White US International	KB Darfon NSK-H3V1D UI US-IN88	KB.INT00.036
	Keyboard 14_15KB-FV2 88KS White Traditional Chinese	KB Darfon NSK-H3V02 TW Taiwa88	KB.INT00.065
	Keyboard 14_15KB-FV2 88KS White Thailand	KB Darfon NSK-H3V03 TI Thai88	KB.INT00.040
	Keyboard 14_15KB-FV2 88KS White Arabic/English	KB Darfon NSK-H3V0A AR Arabi88	KB.INT00.069
	Keyboard 14_15KB-FV2 88KS White US International Hebrew	KB Darfon NSK-H3V0H HB Hebre88	KB.INT00.037
	Keyboard 14_15KB-FV2 88KS White Korean	KB Darfon NSK-H3V0K KO Korea88	KB.INT00.052
	Keyboard 14_15KB-FV2 88KS White Greek	KB Darfon NSK-H3V0L GK Greek88	KB.INT00.058
	Keyboard 14_15KB-FV2 88KS White Russian	KB Darfon NSK-H3V0R RU Russi88	KB.INT00.047
	Keyboard 14_15KB-FV2 89KS White Portuguese	KB Darfon NSK-H3V06 PO Portu89	KB.INT00.048
	Keyboard 14_15KB-FV2 89KS White Czech	KB Darfon NSK-H3V0C CZ Czech89	KB.INT00.064
	Keyboard 14_15KB-FV2 89KS White Danish	KB Darfon NSK-H3V0D DM Danis89	KB.INT00.063
	Keyboard 14_15KB-FV2 89KS White Italian	KB Darfon NSK-H3V0E IT Itali89	KB.INT00.054
	Keyboard 14_15KB-FV2 89KS White French	KB Darfon NSK-H3V0F FR Rehcn89	KB.INT00.060
	Keyboard 14_15KB-FV2 89KS White German	KB Darfon NSK-H3V0G GR Germa89	KB.INT00.059
	Keyboard 14_15KB-FV2 89KS White Swiss/G	KB Darfon NSK-H3V00 SW Swiss89	KB.INT00.041
	Keyboard 14_15KB-FV2 89KS White Canadian French	KB Darfon NSK-H3V0M CF FR.CA89	KB.INT00.066
	Keyboard 14_15KB-FV2 89KS White Norwegian	KB Darfon NSK-H3V0N NW Norwe89	KB.INT00.050
	Keyboard 14_15KB-FV2 89KS White Hungarian	KB Darfon NSK-H3V0Q HG Huga89	KB.INT00.057
	Keyboard 14_15KB-FV2 89KS White Spanish	KB Darfon NSK-H3V0S SP Spani89	KB.INT00.043
	Keyboard 14_15KB-FV2 89KS White Turkish	KB Darfon NSK-H3V0T TR Turki89	KB.INT00.039
	Keyboard 14_15KB-FV2 89KS White UK	KB Darfon NSK-H3V0U UK UK89	KB.INT00.038

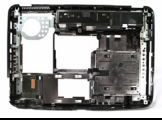
Category	Part Name	Description	Acer Part No.
Keyboard (cont.)	Keyboard 14_15KB-FV2 89KS White Swedish	KB Darfon NSK-H3V0W SD Swedi89	KB.INT00.042
	Keyboard 14_15KB-FV2 89KS White Belgium	KB Darfon NSK-H3V1A BE BELGI89	KB.INT00.068
	Keyboard 14_15KB-FV2 89KS White Brazilian Portuguese	KB Darfon NSK-H3V1B BP BR-PO89	KB.INT00.067
	Keyboard 14_15KB-FV2 89KS White Slovenian	KB Darfon NSK-H3V1F SK Slove89	KB.INT00.044
	Keyboard 14_15KB-FV2 93KS White Japanese	KB Darfon NSK-H3V0J JA Japan92	KB.INT00.053
LCD module			
	Assembly LCD module 14.1” WXGA glare w/o camera	LCD 14.1WXGAG no camera w/ WL	6M.AL401.001
	Inverter board 17" FOXCONN T62I240.02 V.00	Inverter 17” T62I240.02 V.00	19.TK501.001
	Inverter board 17” YEC YNV-W06	Inverter 17” YNV-W06S	19.TK501.002
	Inverter board 17” ROHS VK.21189.406	Inverter 17” ROHS VK.21189.406	19.TCBV1.001
	LCD cable 14.1” w/o camera	WXGA non CCD HL Volvi	50.AHW01.001
	LCD bracket right	BRKT LCD R Tahoe	33.AHP01.006
	LCD bracket left	BRKT LCD L Tahoe	33.AHP01.007
	LCD bezel 14.1” for non CCD	ASSY bezel non CCD Volvi960	60.AL101.001
	Wireless antenna	Antenna WLAN Volvi960	25.AL401.001
	LCD 14.1” WXGA AU B141EW04-V4 LF glare 200 nits 16ms	LCD 14.1” WXGA AU B141EW04-V4 G	LK.14105.018
	LCD 14.1” WXGA LG LP141WX3-TLB1glare 200 nits 16ms	LCD 14.1” WXGA LG LP141EWX3-TLB1	LK.14108.010
	LCD 14.1” WXGA LG LP141WX3-TLB1 glare LF (OKI DRIVER IC: 01OKL-0123A)	LCD 14.1” WXGA LG LP141WX3-TLB1	LK.14108.012
	LCD 14.1" WXGA CMO N141I3-L02 LF glare 200 nits 16ms	LCD 14.1"WXGA CMO N141I3-L02 G	LK.1410D.016
	LCD 14.1" WCXGA CMO N141I1-L03 non-glare	LCD 14.1" CMO N141I1-L03 NG	LK.1410D.014
	LCD 14.1” WXGA glare Samsung LTN141W3-L01-J L6 LF 200 nits 16ms	LCD 14.1” WXGA Samsung LTN141W3-L01-J G	LK.14106.014
	Microphone	Microphone cable FORG Volvi960	23.AL401.002
	Microphone	Microphone cable SHAN Volvi960	23.AL401.002
Speaker			
	Speaker set	Speaker Volvi960	23.AL401.001
	Speaker set	Speaker Volvi960#2	23.AL401.001

Category	Part Name	Description	Acer Part No.
RTC Battery			
	RTC battery LI 3V 200 mAh	Battery 3V CR2032 BBBCR2032BX	23.TCZV1.004
PCMCIA slot/PC card slot			
	PCMCIA slot	CONN Cardbus 4P 10057913-	21.H0153.001
Miscellaneous			
	LCD screw rubber	Rub circle LCD Volvi	47.AHQ01.001
	Name plate AS4715Z	Name plate 4715 U-CASE Volvi960	40.4X111.001
Screws			
	Screw	Screw M2xL3 (white)	86.00C07.220
	Screw	Screw M2.5xL6 nylok CR3+	86.00E33.736
	Screw	Screw M2.5xL8 nylok CR3+	86.00E34.738
	Screw	Screw M2.5xL8 non-nylok	86.00D75.220
	Screw	Screw M2x2.5 nylok	86.00F22.722
	Screw	Screw M2x4 nylok H0.3	86.00F24.724
	Screw	Screw 2x6 nylok	86.TK501.003
	Screw	Screw wafer nylok Ni M2xL3	86.9A552.3R0
	Screw	Screw Ni M2x6L	86.9A552.6R0
	Screw	Screw Mach Wafer M3xL4 Ni	86.9A554.4R0
	Screw M2.5*L5 black ZN+nylok	M2.5*L5 black ZN+nylok	86.TK501.001

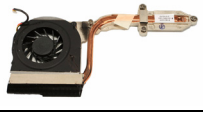
Aspire 4315 FRU List (No: LX.AKZ0C.007)

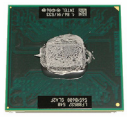
Category	Part Name	Description	Acer Part No.
Adapter			
	Adapter 65W Delta ADP-65KB DFA LF	ADT 65W SADP-65KB DFA LF Delta	AP.06501.013
	Adapter 65W Liteon PA-1650-02AC LF	ADT 65W PA-1650-02AC LF	AP.06503.016
	Adapter 65W LISHIN SLS0335A 19A54LF	ADT 65W LISHIN SLS0335A 19A54LF	AP.06506.003
	Adapter 65W 3P HP-OK065B13LF	ADP 65W 3P HP-OK065B13LF	AP.0650A.010
Battery			
	Battery Pack Li+6 cell 2.0mAh Sanyo	BTY Pack Li+6C 2.0Ah Sanyo	BT.00603.036
	Battery Pack Li-ion 6 cell 2.0mAh Sony	BTY Pack Li+6C 2.0Ah Sony	BT.00604.022
	Battery Pack Li-Mn 6 cell 2.0mAh Panasonic	BTY Pack Li+6C 2.0Ah PANA	BT.00605.018
	Battery Pack Li-Mn 6 cell 2.0 Simplo	BTY Pack Li+6C 2.0Ah SMP	BT.00607.013
Mainboard			
	Mainboard AS4315/ AS4715Z_UMA(C) w/ RTC battery, PCMCIA slot, modem and modem cable	Volvi2 MB 07220-1M MP Dual core	MB.AKZ01.001
Boards			
	Modem board Liteon Delphi-AM3 3.3V ONLY B85244300G Agere	Modem MDC003 A8B B85244300G	FX.22500.011
	Modem board Foxconn MC4Z MDC1.5_3 3.3V T60M955.00	Modem MDC1.5 T60M955.00 3.3V	FX.22500.009
Wireless LAN board			
	WLAN 802.11BG Atheros	WLAN 802.11BG Atheros Rev06	NI.23600.007
	Wireless LAN board 802.11BG	WLAN 802.11BG XB63 Minicard	NI.23600.028
	Wireless LAN board 802.11BG Foxconn BCM4311 Minicard	WLAN 802.11BG BCM4311 WW SKU	54.AEFV1.001
Audio board			
	Audio board	Volvi2 07551-1 Audio BD 6L (D)	55.AL401.001

Category	Part Name	Description	Acer Part No.
USB board			
	USB board	Volvi2 USB-BD 07570-1 (D)	55.AL401.002
Touchpad board			
	Touchpad board Synaptics TM00450-001	Touchpad Synaptics TM00450-001	56.AGV01.001
	Touchpad board Synaptics TM00450-000	Touchpad Synaptics TM00450-000	56.AHP01.001
Cables			
	Audio cable	Audio FFC Volvi960	50.AL401.001
	Audio cable	Audio FFC Volvi960#2	50.AL401.001
	DC-in cable	C.A. DC-in 65W HL Volvi960	50.AL401.002
	DC-in cable	C.A. DC-in 65W HL Volvi960 MEC	50.AL401.002
	Modem cable	C.A. MDC HL Tahoe	50.AHR01.002
	Modem cable	C.A. MDC MEC Tahoe	50.AHQ01.001
	Modem cable	C.A. MDC HL Tahoe HT	50.AHQ01.001
	Touchpad cable	C.A. T/P FFC TR Tahoe	50.AHP01.005
	Touchpad cable	C.A. T/P FFC Tahoe	50.AHP01.005
	Touchpad cable	J.H. T/P FFC Tahoe	50.AHP01.005
	USB cable HL	C.A. USB HL Tahoe	50.AHP01.001
	USB cable MEC	C.A. USB MEC Tahoe	50.AHP01.001
	USB cable	C.A. USB HL Tahoe HT	50.AHP01.001
	Power cord 3A 250V 3-pin UK	Code UK 3A 250V 3P BK	27.01518.541
	Power cord 5A 250V 3-pin UK BK	Code 5A 250V 3P UK BK	27.03118.001
	Power cord 10A 3-pin BK Denmark	Code Denmark 10A 3P BK	27.01518.561
	Power cord 10A 250V 3-pin Denmark BK	Code 10A 250V 3P Denmark BK	27.01518.671
	Power cord 10A 250V 3-pin South Africa	Code South Africa 10A 250V BK	27.01518.571
	Power cord 16A 250V South Africa BK	Code 16A 250V South Africa BK	27.01518.681
	Power cord 10A 250V Swiss	Code Swiss Power 10A 250V BK	27.01518.581
	Power cord 10A 250V 3-pin Swiss BK	Code 10A 250V 3P Swiss Bk	27.01518.691
	Power cable 16A 250V 3-pin EUR BK	Cord 16A 250V 3P EUR BK	27.01518.731
	Power cord 220V 3-pin EUR	Cord EUR 220V 3P BK	27.T30V1.004
	Power cord 10A 250V 3-pin Italy	Cord Italy 10A 250V 3P BK	27.01518.611
	Power cord 10A 250V 3-pin Italy BK	Cord 10A 250V 3P Italy BK	27.01518.711

Category	Part Name	Description	Acer Part No.
Cables (cont.)	Power cord 2.5A 250V South Africa BK (India)	Cord 2.5A 250V South Africa Bk	27.01518.631
	Power cord 10A 250V South Africa BK (India)	Cord 10A 250V South Africa BK	27.01518.721
	Power cord 10A 125V 3-pin US BK	Code 10A 125V 3P US BK	27.01518.641
	Power cord 10A 125V US	Code US 10A 125V BK	27.T30V1.001
	Power cord 10A 250V 3-pin China	Cord China 10A 250V 3P	27.01518.591
	Power cord 10A 250V 3-pin China BK	Cord 10A 250V 3P China BK	27.01518.701
	Power cord 250V 10A 3-pin Israel	Cord 250V 10~16A 3P Israel	27.01518.761
	Power cord 2.5A 125V USA	Code USA/W CNS 2.5A 125V 8121	27.01518.781
	Power cord ACA/ACNZ	Power cord ACA/ACNZ Annie	27.03218.021
System case/cover/bracket/assembly			
	Touchpad bracket	TP bracket ASSY Volvi960	33.AL401.001
	Support bracket left	Support L ASSY Volvi960	33.AL401.002
	Dummy card	Card dummy Volvi	42.AHV01.001
	Middle cover	Middle cover Volvi960	42.AL401.001
	Unitload cover	ASSY big door Tahoe	42.AHP01.002
	Lowercase	ASSY L-Case Volvi960	60.AL401.001
	Upper case w/ speaker	ASSY U-Case Volvi960	60.AL401.002
	PCMCIA slot	Conn Card Bus 4P 10057913-	22.AHP01.001
Memory			
	SODIMM 1GB DDRII667 Hynix HYMP512S64CP8-Y5 LF	SODIMM 1G HYMP512S64CP8-Y5 AB	KN.1GB0G.006
	SODIMM 1GB DDRII667 Nanya NT1GT64U8HB0BN-3C LF (0.09U)	SODIMM 1G NT1GT64U8HB0BN-3C	KN.1GB03.014
	SODIMM 1GB DDRII667 DDRII667 Samsung M470T2953EZ3-CE6 LF	SODIMM 1G M470T2953EZ3-CE6	KN.1GB0B.011
	SODIMM 1GB DDRII667 Samsung M470T2864DZ3-CE6	SODIMM 1G M470T2864DZ3-CE6	KN.1GB0B.014

Category	Part Name	Description	Acer Part No.
Memory (cont.)	SODIMM 1GB DDRII667 Hynix HYMP112S64CP6-Y5 LF	SODIMM 1G HYMP112S64CP6-Y5	KN.1GB0G.012
	SODIMM 1GB DDRII667 Infineon HYS64T128021EDL-3S LF	SODIMM1G HYS64T128021EDL-3S-B2	KN.1GB02.036
	SODIMM 2GB DDRII667 Hynix HYMP125S64CP8-Y5 LF	SODIMM 2G HYMP125S64CP8-Y5	KN.2GB0G.004
	SODIMM 512MB DDRII667 Nanya NT512T64UH8B0FN-3C LF	SODIMM 512M NT512T64UH8B0FN-3C	KN.51203.032
	SODIMM 512MB DDRII667 Hynix HYMP564S64CP6-Y5 LF	SODIMM512M HYMP564S64CP6-Y5 AB	KN.5120G.019
	SODIMM 512MB DDRII667 Samsung M470T6554EZ3-CE6 LF	SODIMM 512M M470T6554EZ3-CE6	KN.5120B.023
Combo module			
	Assembly Combo module 24X	ODD CB24X combo for Volvi960	6M.AL401.001
	Optical bracket	BRKT ODD Tahoe	33.AHP01.004
	Combo bezel	ASSY ODD bezel combo Tahoe	42.AGV01.004
	Combo module 24X Philips DS-24CZP w/o bezel	Combo 24X PDBS DS-24CZP	KO.02409.029
	Combo module 24X Sony CRX880A LF w/o bezel	Combo 24X Sony/CRX880A Myall2	KO.0240E.005
	Combo module 24X Toshiba TS-L462D LF w/o bezel	DVD Combo TSST/TS-L462D Biwa	KO.02401.004
DVD module			
	Assembly Super Multi module 8X	ODD SM8X Super-multi drive	6M.AL401.002
	Optical bracket	BRKT ODD Tahoe	33.AHP01.004
	Super Multi bezel	ASSY ODD bezel S-Multi Tahoe	42.AGV01.005
	DVD-RW drive 8X Super Mult Pioneer DVR-K17RS LF w/o bezel	S-Mult 8X PIO/DVR-K17RS Morar3	KU.00805.038
	DVD-RW drive 8X Super Mult Panasonic UJ-850UAA1-A w/o bezel	S-Mult PAN/UJ-850UAA1-A Dellen	KU.00807.055
	DVD-RW drive 8X Super Multi Philips DS-8A1P LF w/o bezel	8X S-Multi PDBS/DS-8A1P Myallm	KU.00809.010
	DVD-RW drive 8X Super Mult Sony AD-7560A LF w/o bezel	8X S-Mult Sony/AD-7560A Tahoe	KU.0080E.005

Category	Part Name	Description	Acer Part No.
HDD/Hard Disk Drive			
	HDD bracket	ASSY HDD bracket Tahoe	33.AHP01.005
	HDD module 80G 5400RPM SATA	HDD N80GB5.4KS for Volvi960	
	HDD 80GB SATA Hitachi HTS541680J9SA00	HDD 80GB SATA HTS541680J9SA00	KH.08007.021
	HDD 80GB 5400RPM SATA II HGST HTS542580K9SA00	HDD 80GB HGST HTS542580K9SA00	KH.08007.025
	HDD 80GB 5400RPM SATA Seagate ST980811AS Venus LF F/W:3.ALD	HDD 80GB SGT ST980811AS	KH.08001.030
	HDD 80GB 5400RPM SATA Toshiba MK8037GSX Gemini BS LF F/W:DL230	HDD 80GB Toshiba MK8037GSX	KH.08004.010
	HDD 80GB 5400RPM SATA WD WD800BEVS-22RST0 ML80 LF F/W:04.01G04	HDD 80GB WD WD800BEVS-22RST0	KH.08008.033
	HDD module 120G 5400RPM SATA	HDD 120GB5.4KS for Volvi960	G2.HDAHQ.002
	HDD 120GB 5400RPM SATA Hitachi HTS541612J9SA00 LF F/W:C70P	HDD 120GB SATA HTS541612J9SA00	KH.12007.010
	HDD 120GB 5400RPM SATA Seagate ST9120822AS LF F/W:3.ALD	HDD 120GB SGT ST9120822AS	KH.12001.031
	HDD 120GB 5400RPM SATA Toshiba MK1237GSX Gemini BS LF F/W:DL130J	HDD 120GB Toshiba MK1237GSX	KH.12004.006
	HDD 120GB 5400RPM SATA WD WD1200BEVS-22UST0 ML125 LF F/W:01.01A01	HDD WD 2.5" 5400RPM 120GB WD1200BEVS-22U	KH.12008.019
	HDD module 160G 5400RPM SATA	HDD N160GB5.4KS for Volvi960	
	HDD 160GB 5400RPM SATA Hitachi HTS541616J9SA00 LF F/W:C70P	HDD 160GB HGST HTS541616J9SA00	KH.16007.011
	HDD 160GB 5400RPM SATA Seagate ST9160821AS LF F/W:3.ALD	HDD 160GB SGT ST9160821AS	KH.16001.026
	HDD 160GB 5400RPM SATA Toshiba MK1637GSX Gemini BS LF F/W:DL030J	HDD 160GB Toshiba MK1637GSX	KH.16004.001
	HDD 160GB 5400RPM SATA WD WD1600BEVS-22RST0 LF F/W:04.01G04	HDD 160GB WD WD1600BEVS-22RST0	KH.16008.019
CPU Heatsink			
	CPU heatsink	ASSY Thermal UMA Foxconn	60.AHR01.001
	CPU heatsink	ASSY Thermal UMA Forcecon	60.AHR01.001

Category	Part Name	Description	Acer Part No.
CPU/Processor			
	CPU Merom Cel-M 530 1.73G 1M FSB533 A-1	IC CPU Merom Cel-M 530 1.73G	KC.NSR01.530
	CPU Merom Merom Cel-M 540 1.86G Intel	IC CPU Merom Cel-M 540 1.86G	KC.N0001.540
	CPU Merom Cel-M 550 2.0G	IC CPU Merom Cel-M 550 2.0G	KC.N0001.550
Keyboard			
	Keyboard 14_15KB-FV2 88KS White US International	KB Darfon NSK-H3V1D UI US-IN88	KB.INT00.036
	Keyboard 14_15KB-FV2 88KS White Traditional Chinese	KB Darfon NSK-H3V02 TW Taiwa88	KB.INT00.065
	Keyboard 14_15KB-FV2 88KS White Thailand	KB Darfon NSK-H3V03 TI Thai88	KB.INT00.040
	Keyboard 14_15KB-FV2 88KS White Arabic/English	KB Darfon NSK-H3V0A AR Arabi88	KB.INT00.069
	Keyboard 14_15KB-FV2 88KS White US International Hebrew	KB Darfon NSK-H3V0H HB Hebre88	KB.INT00.037
	Keyboard 14_15KB-FV2 88KS White Korean	KB Darfon NSK-H3V0K KO Korea88	KB.INT00.052
	Keyboard 14_15KB-FV2 88KS White Greek	KB Darfon NSK-H3V0L GK Greek88	KB.INT00.058
	Keyboard 14_15KB-FV2 88KS White Russian	KB Darfon NSK-H3V0R RU Russi88	KB.INT00.047
	Keyboard 14_15KB-FV2 89KS White Portuguese	KB Darfon NSK-H3V06 PO Portu89	KB.INT00.048
	Keyboard 14_15KB-FV2 89KS White Czech	KB Darfon NSK-H3V0C CZ Czech89	KB.INT00.064
	Keyboard 14_15KB-FV2 89KS White Danish	KB Darfon NSK-H3V0D DM Danis89	KB.INT00.063
	Keyboard 14_15KB-FV2 89KS White Italian	KB Darfon NSK-H3V0E IT Itali89	KB.INT00.054
	Keyboard 14_15KB-FV2 89KS White French	KB Darfon NSK-H3V0F FR Rehcn89	KB.INT00.060
	Keyboard 14_15KB-FV2 89KS White German	KB Darfon NSK-H3V0G GR Germa89	KB.INT00.059
	Keyboard 14_15KB-FV2 89KS White Swiss/G	KB Darfon NSK-H3V00 SW Swiss89	KB.INT00.041
	Keyboard 14_15KB-FV2 89KS White Canadian French	KB Darfon NSK-H3V0M CF FR.CA89	KB.INT00.066
	Keyboard 14_15KB-FV2 89KS White Norwegian	KB Darfon NSK-H3V0N NW Norwe89	KB.INT00.050
	Keyboard 14_15KB-FV2 89KS White Hungarian	KB Darfon NSK-H3V0Q HG Huga89	KB.INT00.057
	Keyboard 14_15KB-FV2 89KS White Spanish	KB Darfon NSK-H3V0S SP Spani89	KB.INT00.043
	Keyboard 14_15KB-FV2 89KS White Turkish	KB Darfon NSK-H3V0T TR Turki89	KB.INT00.039

Category	Part Name	Description	Acer Part No.
Keyboard (cont.)	Keyboard 14_15KB-FV2 89KS White UK	KB Darfon NSK-H3V0U UK UK89	KB.INT00.038
	Keyboard 14_15KB-FV2 89KS White Swedish	KB Darfon NSK-H3V0W SD Swedi89	KB.INT00.042
	Keyboard 14_15KB-FV2 89KS White Belgium	KB Darfon NSK-H3V1A BE BELGI89	KB.INT00.068
	Keyboard 14_15KB-FV2 89KS White Brazilian Portuguese	KB Darfon NSK-H3V1B BP BR-PO89	KB.INT00.067
	Keyboard 14_15KB-FV2 89KS White Slovenian	KB Darfon NSK-H3V1F SK Slove89	KB.INT00.044
	Keyboard 14_15KB-FV2 93KS White Japanese	KB Darfon NSK-H3V0J JA Japan92	KB.INT00.053
LCD module			
	Assembly LCD module 14.1” WXGA glare w/o camera	LCD 14.1WXGAG no camera w/WL	6M.AL101.001
	Inverter board 17" FOXCONN T62I240.02 V.00	Inverter 17” T62I240.02 V.00	19.TK501.001
	Inverter board 17” YEC YNV-W06	Inverter 17” YNV-W06S	19.TK501.002
	Inverter board 17” ROHS VK.21189.406	Inverter 17” ROHS VK.21189.406	19.TCBV1.001
	LCD cable 14.1” w/o camera	C.A. WXGA non CCD HL Volvi	50.AHW01.001
	Camera CMOS 0.3M Suyin CN0314-OV03 UVC	Camera CMOS 0.3M CN0314-OV03 U	57.TK901.001
	Camera CMOS 0.3M Bison BN30V4O717310	Camera CMOS 0.3M BN30V4O717310	57.TK501.001
	LCD bracket right	BRKT LCD R Tahoe	33.AHP01.006
	LCD bracket left	BRKT LCD L Tahoe	33.AHP01.007
	LCD bezel 14.1” for non CCD	ASSY bezel non CCD Volvi960	60.AL101.001
	LCD cover 14.1” w/ hinge, mic and camera	ASSY LCD panel Volvi960	60.AL401.004
	Wireless antenna	Antenna WLAN Volvi960	25.AL401.001
	LCD 14.1” WXGA AU B141EW04-V4 LF glare 200 nits 16ms	LCD 14.1” WXGA AU B141EW04-V4 G	LK.14105.018
	LCD 14.1” WXGA LG LP141WX3-TLB1glare 200 nits 16ms	LCD 14.1” WXGA LG LP141EWX3-TLB1	LK.14108.010
	LCD 14.1” WXGA LG LP141WX3-TLB1 glare LF (OKI DRIVER IC: 01OKL-0123A)	LCD 14.1” WXGA LG LP141WX3-TLB1	LK.14108.012
	LCD 14.1" WXGA CMO N141I3-L02 LF glare 200 nits 16ms	LCD 14.1"WXGA CMO N141I3-L02 G	LK.1410D.016
	LCD 14.1" WCXGA CMO N141I1-L03 non-glare	LCD 14.1" CMO N141I1-L03 NG	LK.1410D.014
	LCD 14.1” WXGA glare Samsung LTN141W3-L01-J L6 LF 200 nits 16ms	LCD 14.1” WXGA Samsung LTN141W3-L01-J G	LK.14106.014

Category	Part Name	Description	Acer Part No.
LCD module (cont.)	Microphone	Microphone cable FORG Volvi960	23.AL401.002
	Microphone	Microphone cable SHAN Volvi960	23.AL401.002
Speaker			
	Speaker set	Speaker Volvi960	23.AL401.001
	Speaker set	Speaker Volvi960#2	23.AL401.001
RTC Battery			
	RTC battery LI 3V 200 mAh	Battery 3V CR2032 BBBCR2032BX	23.TCZV1.004
PCMCIA slot/PC card slot			
	PCMCIA slot	CONN Cardbus 4P 10057913-	21.H0153.001
Miscellaneous			
	LCD screw rubber	Rub circle LCD Volvi	47.AHQ01.001
	Name plate AS4315	Name plate 4315 U-CASE Volvi960	40.AKZ01.001
Screws			
	Screw	Screw M2xL3 (white)	86.00C07.220
	Screw	Screw M2.5xL6 nylok CR3+	86.00E33.736
	Screw	Screw M2.5xL8 nylok CR3+	86.00E34.738
	Screw	Screw M2.5xL8 non-nylok	86.00D75.220
	Screw	Screw M2x2.5 nylok	86.00F22.722
	Screw	Screw M2x4 nylok H0.3	86.00F24.724
	Screw	Screw 2x6 nylok	86.TK501.003
	Screw	Screw wafer nylok Ni M2xL3	86.9A552.3R0
	Screw	Screw Ni M2x6L	86.9A552.6R0
	Screw	Screw Mach Wafer M3xL4 Ni	86.9A554.4R0
	Screw M2.5*L5 black ZN+nylok	M2.5*L5 black ZN+nylok	86.TK501.001

Model Definition and Configuration

Aspire 4715Z/4315

NOTE: This document will be updated as more information becomes available.

Test Compatible Components

This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows® Vista™ Business, Vista Home Premium, and Vista Home Basic environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the Aspire 4715Z/4315 Vista Compatibility Test Report released by the Acer Mobile System Testing Department.

Microsoft® Windows® Vista™ Compatibility Test

I/O Peripheral Compatibility Test

Vendor	Device Description	Result
External CRT		
Acer	211c21”	N/A
ViewSonic	G220F	P
	PF790 19”	P
Sony	TV Trinitron (S-video)	N/A
External LCD		
Acer	FP751 17” TFT LCD	P
	15” LCD Monitor (DVI) Model: AL1521[1]	N/A
	17” LCD Monitor (DVI) Model: AL1721[1]	P
ViewSonic	20” LCD VD201b(DVI-I), (DVI-D), (D-sub)[1]	P
Westinghouse	W37G (HDMI)	N/A
HP	LP2065 20” TFT Monitor (DVI)	N/A
	S9500 19” Monitor (DVI)	N/A
Projector		
DELL	3300MP projector	P
USB keyboard or mouse		
Microsoft	Natural keyboard Pro	P
Logicool	USB mouse (OWCM-USB)	P
Logitech	USB wheel mouse	P
	First wheel mouse	P
DELL	USB keyboard	P
	Dell by Logitech	P
	Internet navigator keyboard	P
	Smart card keyboard	P
HP	USB optical Austin mouse	P
	HP USB optical mouse (RB129AA)	P
Belkin	Miniglow optical USB mouse	P
USB printer/scanner		
Canon	Canon Scanner D1250 (USB 2.0) (JP OS only)	N/A
HP	450wbt deskjet printer (USB/Bluetooth)	P
	2400 Scanjet (USB 1.1)	N/A
USB speaker/joystick		
Aiwa	Multimedia digital speaker (SC-UC78)	P
Logitech	WingMan RumblePad (G-UA3)	N/A
Peripheral	Dolby Headphone 5.1 channel	N/A
Panasonic	USB speaker EAB-MPC57USB	P
JS	iFun USB speaker	N/A
USB camera		
Intel	Easy PC Camera (A20953-001)	P
Orange	Micro USB 2.0 Web Cam	P

I/O Peripheral Compatibility Test

Vendor	Device Description	Result
USB storage device		
Iomega	USB zip 250MB	P
Fujitsu	MO-1300 1.3G USB 2.0	N/A
Transcend	80GB HDD USB 2.0+IEEE 1394	P
PQI	6-in-1 Flash card reader/writer [2]	N/A
Plextor	DVD+R/RW USB 2.0	P
Galileo	Mass storage 2.5 travel kit with 1394	N/A
LG	DVD+R/RW 16X USB 2.0+IEEE 1394	P
Sony	DVD+R/RW 16X USB 2.0+IEEE 1394	P
USB flash drive		
Sony	Memory key 128MB	P
	Micro Bault Pro USD-5G 5GB USB flash	P
Apacer	Handy drive the USB flash drive	P
IBM	128MB USB 2.0 memory key	N/A
	512MB USB 2.0 memory key	P
USB hub and others		
A TEN	4 port hub USB 2.0 UH-204	P
IOGEAR	4 port hub USB 2.0	P
Corega	Wireless LAN USB stick 11 USB 1.1 CG-WLUSBST11	P
USB ODD		
Logitech	CD-RW + DVD-ROM combo USB interface	P
LG	DVD+R/RW 16X USB 2.0+IEEE 1394	P
Sony	DVD+R/RW 16X USB 2.0+IEEE 1394	P
USB HDD		
Transcend	2.5” portable 80GB hard disk	P
1394 storage drive		
LG	DVD+R/RW 16X USB 2.0+IEEE 1394	P
Sony	DVD+R/RW 16X USB 2.0+IEEE 1394	P
Transcend	2.5” portable 80GB hard disk	P
1394 camera		
Sony	DV	P
1394 hub		
Aten	FireWire expansion hub 6-port IEEE 1394 hub FH-600	P
Access point 802.11b		
Cisco	Aironet 1230[1]	N/A
NEC	AP500	P
Access point 802.11g		
D-Link	Building networks people WiFi certified a/b/g wireless 108AG	P
Express card		
Abcom	5-in-1 adapter express card reader	P
	GigaLAN express card	P
Sunix	ECF2400 2 ports 1394A express card	P
	Serial ATA External SATAII express card	P
IK Kouwell	IK Kouwell IEEE1394+USB2.0 express card	P

I/O Peripheral Compatibility Test

Vendor	Device Description	Result
SIIG	SIIG express card 11-in R/W easily add a memory card reader/writer to express card equipped systems	P

1 If system support s DVI, a D-sub interface supplemental test is required.
2 PQI 6-in-1 flash card reader/writer is not compatible with USB 2.0 systems.

Game Test

Vendor	Item Description	Result
Blizzard	WarCraft III CD-04-062	N/A
	WarCraft III- Frozen Throne (DX8.1) Patch 1.18 or later	P
Atari	Neverwinter Nights + Patch v1.62 CD-04-220/WKS	N/A
	Unreal Tournament 2004 CD-04-194	N/A
ID Software	Quake III Arena CD-04-057	N/A
	Quake III CD-04-197	N/A
Activision	Call of Duty 2 CD-04-203	N/A
	Doom3 (DX9.0)	P
	Star Wars Jedi Knight: Jedi Army CD-04-192	N/A
EA	Battlefield 1942 CD-04-107/WKS	N/A
	Battlefield 2 Patch 1.01 (DX9.0)	P
	Command & Conquer Generals CD-04-222/WKS	N/A
	Madden NFL 2006 CD-04-216	N/A
	Nascar Thunder 2004 CD-04-113	N/A
	Nascar SimRacing CD-04-228	N/A
	NBA Live 2006 CD-02-214	N/A
	Tiger Woods PGA Tour 2006 CD-04-199	N/A
	Medal of Honor Allied Assault Spearhead Expansion Pack CD-04-122-1	N/A
	FIFA World Cup	P
	Sports FIFA 2006 Soccer	P
Microsoft	Flight Simulator 2004 A Century of Flight CD-04-074	N/A
	HALO CD-04-078	N/A
	Rise of Nations 1.0 CD-04-079/WKS	N/A
Sierra	Half-Life 2 CD-04-237	P
Crytek	Far Cry CD-04-154	N/A
Interwise	Silent Hunter III CD-04-226	N/A
Ubisoft	Tom Clancy's Splinter Cell: Chaos Theory CD-04-230	N/A
EA games	Need for Speed - Under Ground II	N/A
Online game	Lineage II: Chronicle 3	N/A
	World of WarCraft	N/A
	RF Online	P

SW Utility and Application Test

Item Description	Result
PowerDVD	N/A
Windows DVD Maker	P
NTI-CD Maker	P

SW Utility and Application Test

Item Description	Result
NIS	P
Launch Manager	P
Wireless AP	P
Bluetooth AP	N/A
Acrobat Reader	P
Office	P

Online Support Information

This section describes online technical support services available to help you repair your Acer Systems.

If you are a distributor, dealer, ASP or TPM, please refer your technical queries to your local Acer branch office. Acer Branch Offices and Regional Business Units may access our website. However some information sources will require a user i.d. and password. These can be obtained directly from Acer CSD Taiwan.

Acer's Website offers you convenient and valuable support resources whenever you need them.

In the Technical Information section you can download information on all of Acer's Notebook, Desktop and Server models including:

- Service guides for all models
- User's manuals
- Training materials
- BIOS updates
- Software utilities
- Spare parts lists
- TABs (Technical Announcement Bulletin)

For these purposes, we have included an Acrobat File to facilitate the problem-free downloading of our technical material.

Also contained on this website are:

- Detailed information on Acer's International Traveler's Warranty (ITW)
- Returned material authorization procedures
- An overview of all the support services we offer, accompanied by a list of telephone, fax and email contacts for all your technical queries.

We are always looking for ways to optimize and improve our services, so if you have any suggestions or comments, please do not hesitate to communicate these to us.