

# ***Aspire 1800***

## ***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>

**NOTE:** Service CD P/N:VD.A18V5.001

PRINTED IN TAIWAN

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## ***Revision History***

Please refer to the table below for the updates made on Aspire 1800 service guide.

| <b>Date</b> | <b>Chapter</b> | <b>Updates</b> |
|-------------|----------------|----------------|
|             |                |                |
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## ***Conventions***

The following conventions are used in this manual:

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

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## ***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.



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# System Specifications

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## Features

This computer was designed with the user in mind. Here are just a few of its many features:

### Performance

- Intel Grantsdale 915P + ICH6 with PCI-Express technology
- Support PC3200 (400MHz)
- Intel Prescott CPU 2.8G/3.0G/3.2G/3.4G/3.6G/3.8G
- CPU Package is LGA775 Package
- FSB 800MHz+
- Thermal requirement should upgrade to Prescott-T (3.8G,115W)
- Allow to have a new logic lower to support 125W CPU in the further (Z-height will be 47mm ~ 49mm)
- Wireless LAN is integrated 802.11b/g solution

### Memory

- DDR-I
- 256MB of DDR 333
- Upgradeable to 2GB Memory by Dual channels of SODIMM

### Display

- 17" widescreen WXGA color TFT LCD with 1400x900 pixel resolution, 16.7 million colours,
- 16:10 aspect ratio
- External resolution/refresh rate
  - 2040x1536: 75/77/66/60 Hz
  - 1920x1440: 85/75/60 Hz
  - 1920/1200: 100/85/80/75/72/60 Hz
  - 1600x1200: 120/100/92/85/76/75/72/70/66/65/60/58/52 Hz
  - 1280x1024: 160/120/100/90/85/75/74/72/70/60 Hz
  - 1280x768: 85/75/60/56 Hz
  - 1024x768: 200/160/150/140/120/100/90/85/75/72/70/60 Hz
  - 800x600: 200/160/140/120/100/90/85/75/72/70/60/56 Hz

Console display for Arcade media playback status

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## **Video**

- ATI MOBILITY RADEON X600 with 64MB of external DDR video RAM, supporting Microsoft DirectX 9.0
- Simultaneous LCD and CRT display at 2040x1536 pixel resolution, 75Hz
- DualView Support
- Aspire cinema vision video technology (Aspire Arcade)
- Aspire clear vision video optimisation technology (Aspire Arcade)
- S-video/TV-out support (NTSC/PAL)

## **Audio**

- Realtek ALC250
- Built-in two 1.5W speakers
- 2.1 channel speakers with 2W built-in subwoofer
- MS-Sound Compatible
- Built-in microphone
- Microphone-in / Line-in jack
- Headphone-out/Speaker-out/ Line-out/ SPDIF

## **Storage**

- 40/60/80 GB ATA/100 hard disc drive
- 5-in1 card reader, supporting MultiMedia Card (MMC), Secure Digital (SD), SmartMedia, xD and Memory Stick

## **PCMCIA**

- PC Card & Carbus card supported with one type II or one type-III

## **Communication**

- 56Kbps V.90/V.92 AC-Link modem card (MDC)
- 10/100M LAN or Giga LAN (option) on board
- WLAN 802.11b/g with Mini-PCI interface
- TV-tuner with USB interface (option)
  - Swappable with Battery pack (user option)
  - Audio-in L (RCA jack), Audio-in R (RCA jack), Video-in (RCA jack), TV-in
  - TV tuner operation under AC mode
- Bluetooth module (USB solution) (Option, Broadcom solution)

## **I/O Ports**

- Four USB 2.0
- DDC-2B compliant VGA port (15PINs)
- TV-Out
- Build-in microphone
- Microphone-in/Line-in
- Line-out/Headphone-out/Speaker-out/SPDIF
- IEEE1394 ports (4 PINs)
- Modem (RJ-11)

- 
- Ethernet (RJ-45)
  - DC-In in jack for AC adaptor
  - 5-in-1 card reader slot (xD/SD/MMC/MS-pro/SM)
  - CIR
  - Infrared (FIR) port
  - PC Card Slot (one type II)
  - MCE receiver with USB outside device (option)
  - Kensington Lock

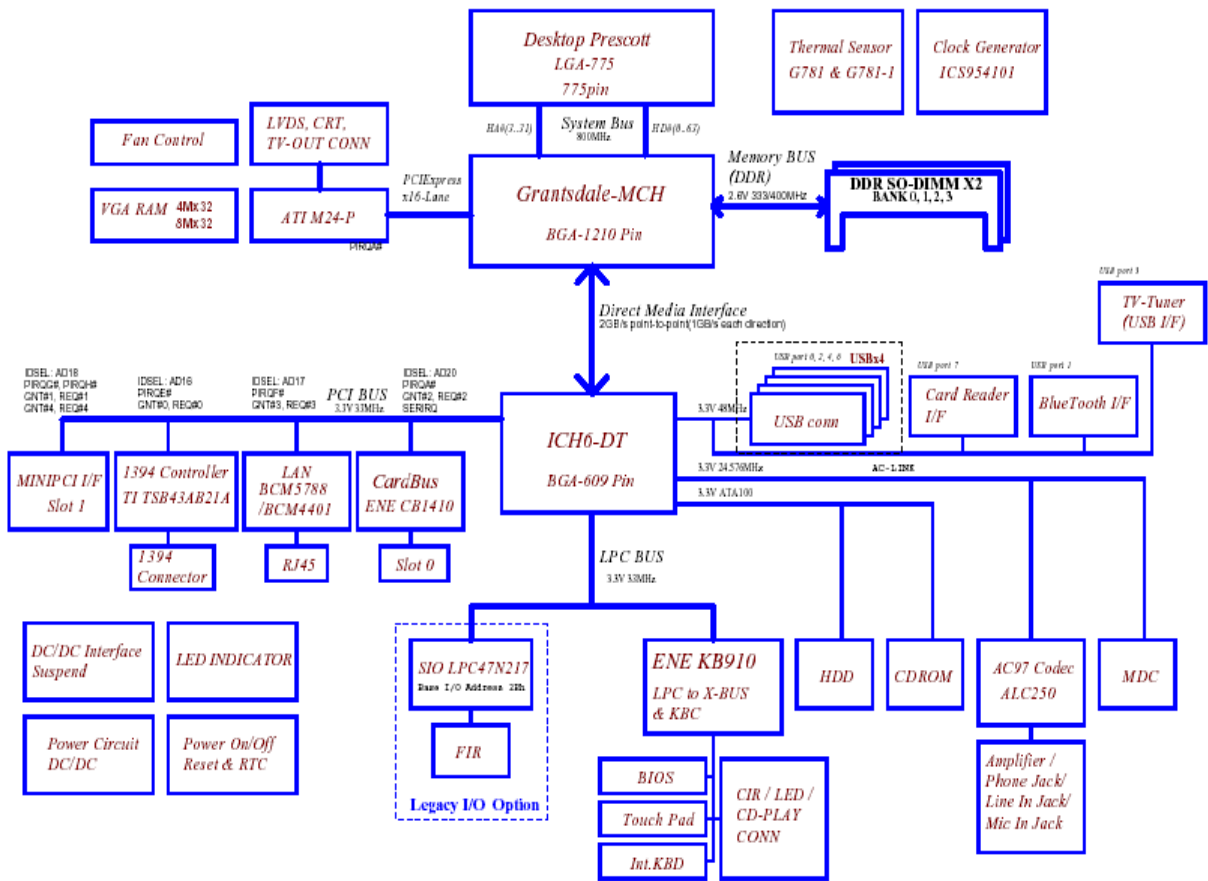
### ***Battery***

- 8 cells high-drained Li-Ion 18650 size main battery pack with 59Wh (2000 mAh per cell)
- Supports 45 min operation time

### ***IOMP***

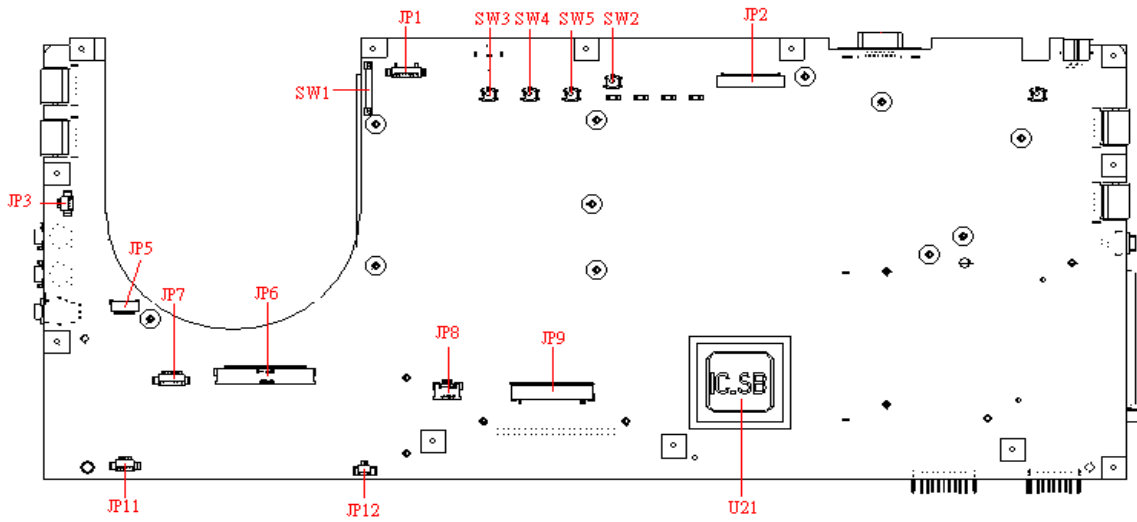
- Instant-on supported (CD-Player buttons in front of system, system can also be power on, CD-Player all function by the remote control)

# Block Diagram

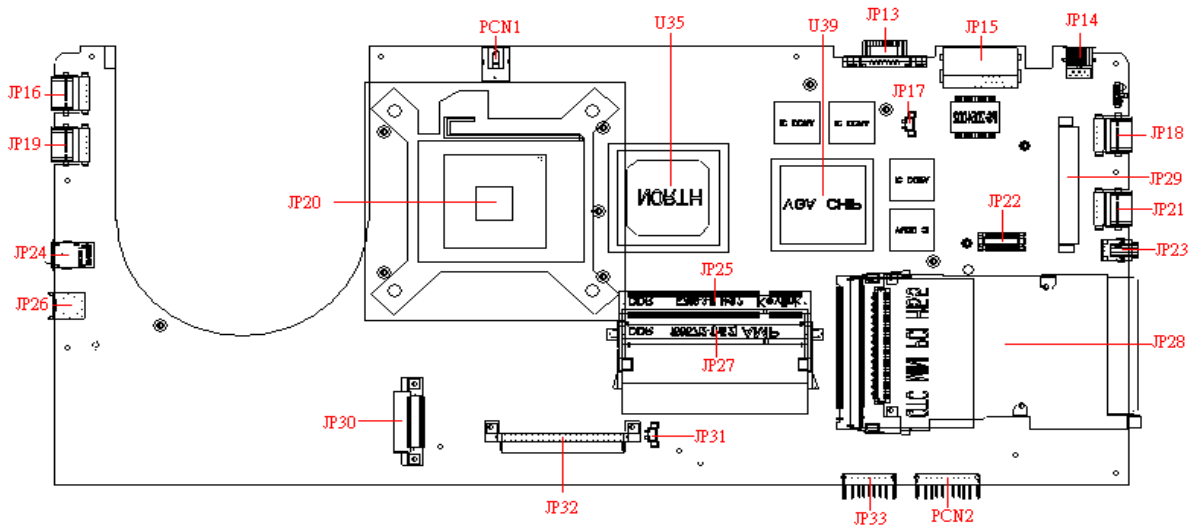


# Mainboard Placement

## Top View



## Rear View



| ITEM          | DESCRIPTION        | ITEM | DESCRIPTION        |
|---------------|--------------------|------|--------------------|
| JP1/JP2       | LVDS CONN.         | JP26 | LINE IN CONN.      |
| JP3/17/31     | FAN CONN.          | JP27 | DDR SO-DIMM0 CONN. |
| JP5           | BLUETOOTH CONN.    | JP28 | PCMCIA CONN.       |
| JP6           | LCM CONN.          | JP29 | MINI-PCI CONN.     |
| JP7           | CARD READER CONN.  | JP30 | ODD CONN.          |
| JP8           | TOUCH-PAD CONN.    | JP32 | HDD CONN.          |
| JP9           | KEYBOARD CONN.     | JP33 | TV-TUNER CONN.     |
| JP11          | SPEAKER CONN.      | PCN1 | AC-IN CONN         |
| JP12          | SUBWOOFER CONN.    | PCN2 | BATTERY CONN.      |
| JP13          | CRT CONN.          | SW1  | LID SWITCH         |
| JP14          | TV-OUT CONN.       | SW2  | E-MAIL BTN         |
| JP15          | RJ-11/RJ-45 CONN.  | SW3  | USER BTN1          |
| JP16/18/19/21 | USB CONN.          | SW4  | USER BTN2          |
| JP20          | CPU SOCKET         | SW5  | INTERNET BTN       |
| JP22          | MDC CONN.          | U35  | NORTH BRIDGE       |
| JP23          | 1394 CONN.         | U21  | SOUTH BRIDGE       |
| JP24          | LINE OUT CONN.     | U39  | VGA CHIP           |
| JP25          | DDR SO-DIMM1 CONN. |      |                    |

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## Outlook View

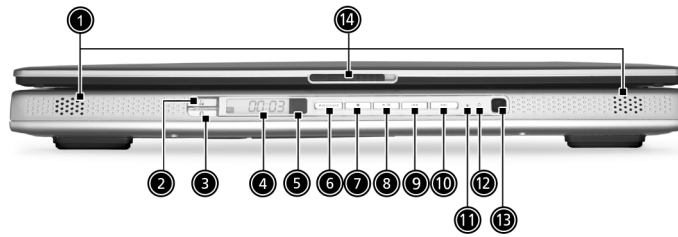
A general introduction of ports allow you to connect peripheral devices, as you would with a desktop PC.

## Open View



| # | Item                               | Description  |
|---|------------------------------------|--|
| 1 | Screen                             | Wide screen display provides visual output   |
| 2 | Status Indicators                  | LEDs that turn on and off to show system status.   |
| 3 | Launch keys                        | Buttons that can be programmed to start frequently used applications.  |
| 4 | Keyboard                           | Full-size keyboard for inputting typed data.   |
| 5 | Built-in Microphone                | For recording audio on the computer  |
| 6 | Touchpad                           | Touch sensitive pad that functions like a computer mouse.  |
| 7 | Click buttons and 4-way scroll key | Right and left buttons that provide the same functions as the buttons on a computer mouse. The scroll key scrolls the contents of a window up and down, as well as right and left. |
| 8 | Palm rest                          | Provides a comfortable platform for your hands when typing on the keyboard.  |
| 9 | Power Button                       | Turns the computer on or off.  |

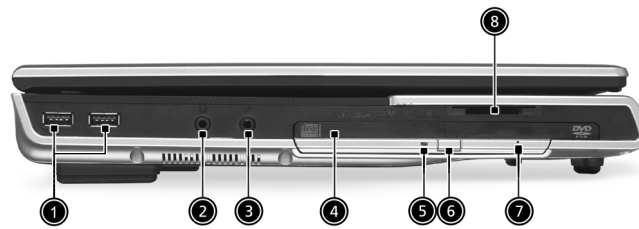
## Front Panel







| #  | Item                     | Description   |
|----|--------------------------|---|
| 1  | Stereo Speakers          | Produce stereo sound  |
| 2  | InviLink Button          | Enables Wireless LAN connectivity (manufacturing option)                                      |
| 3  | Bluetooth Button         | Enables BluetoothR functionality (manufacturing option)                                       |
| 4  | Console display          | Media status display  |
| 5  | Remote sensor            | Receive the signal from the remote control  |
| 6  | Arcade button            | Multimedia button   |
| 7  | Stop                     | Press to stop playing the audio track or video file   |
| 8  | Play/Pause               | Press to start playing the audio track or video file/Press again to pause                     |
| 9  | Backward                 | Press to skip backward to the previous track or video file and start playing                  |
| 10 | Forward                  | Press to skip forward to the next track or video file and start playing                       |
| 11 | Power indicator          | Lights when the computer is on  |
| 12 | Battery charge indicator | Lights orange when the battery is in charging. Lights green when the battery is fully charged |
| 13 | Media Controls           | Multimedia Button   |
| 14 | Latch                    | Locks and releases the lid  |

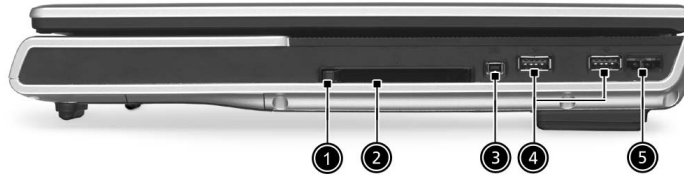






## Left View



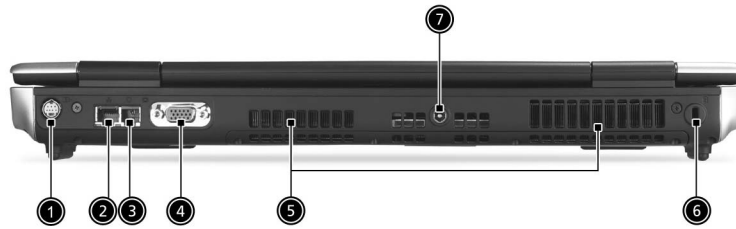
| # | Icon  | Item                               | Description   |
|---|---|------------------------------------|---|
| 1 |    | USB ports                          | USB 2.0 ports   |
| 2 |    | Headphone-in jack                  | Connects headphones for analog audio output and digital S/PDIF output   |
| 3 |   | Microphone-in jack                 | Connects an external microphone for audio input   |
| 4 | N/A   | Optical drive                      | Internal optical drive; accepts CDs or DVDs depending on the optical drive type   |
| 5 | N/A   | Optical disc read indicator        | Light emitting diode (LED) that indicates when an optical disc is being read  |
| 6 | N/A   | Optical drive eject button         | Press the eject button to remove a disc from the optical drive  |
| 7 | N/A   | Optical drive emergency eject hole | Used to eject an optical disc when the computer is turned off   |
| 8 |  | 5 in 1 Card Reader                 | Supports: <ul style="list-style-type: none"> <li><input type="checkbox"/> E Memory Stick (MS)</li> <li><input type="checkbox"/> MultiMediaCard (MMC)</li> <li><input type="checkbox"/> SecureDigital (SD)</li> <li><input type="checkbox"/> SmartMedia (SM)</li> <li><input type="checkbox"/> xD</li> </ul> |






## Right View



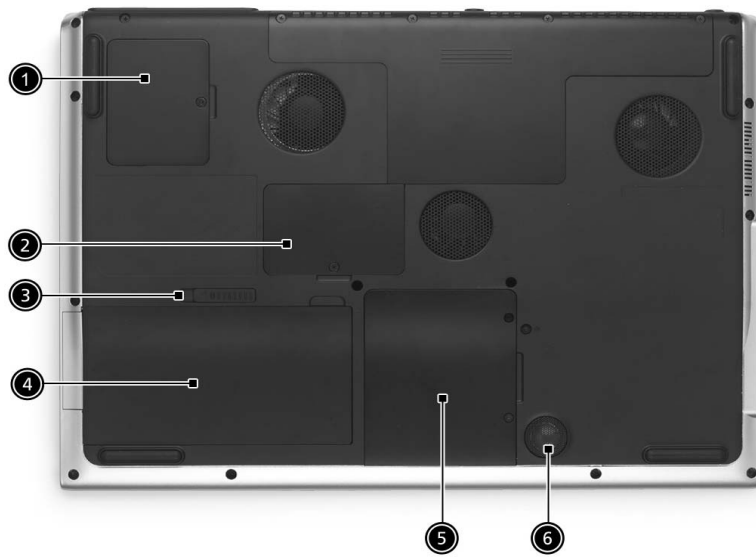
| # | Item   | Description   |
|---|--|---|
| 1 | PC card eject button   | Press the eject button to remove a PC card from the PC card slot.                   |
| 2 | PC card slot<br>    | Type II PC card supports PCMCIA or CardBus.   |
| 3 | IEEE 1394 Port<br>  | Connects IEEE 1394 devices.   |
| 4 | USB Ports<br>     | USB 2.0 ports   |
| 5 | Infrared port<br> | Interfaces with infrared devices (e.g. infrared printer, IR-aware computer, etc...) |

## Rear View



| # | Item   | Description  |
|---|--|--|
| 1 | S-video out port<br>        | Connects to a television or display device supporting S-video input. |
| 2 | Network jack<br>           | Connects the computer to the 10/100/1000 Ethernet network.           |
| 3 | Modem Jack<br>            | Connects the built-in fax/data modem to a phone line.                |
| 4 | External display port<br> | Connects an external (VGA) monitor.                                  |
| 5 | Ventilation slot   | Enables the computer to stay cool, even after prolonged use.         |
| 6 | Kensington lock slot   | For attaching a security device.                                     |
| 7 | DC-in jack<br>            | Connect the AC power adapter   |

## Bottom View



| # | Item                  | Description   |
|---|-----------------------|---|
| 1 | Mini-PCI Slot         | Slot for adding mini-PCI cards                                |
| 2 | Memory compartment    | Removable cover provides access to the                        |
| 3 | Battery release latch | Unlatches the battery to remove the battery pack.             |
| 4 | Battery pack          | The computer's removable battery.                             |
| 5 | Hard disk bay         | Removable cover provides access to the computer's hard drive. |
| 6 | Sub-Woofer            | Outputs low/mid range audio                                   |

---

# Indicators

Your computer provides an array of three indicators located above the keyboard, in addition to four indicators positioned at the front of the palm rest area. These indicators show the status of the computer and its components.





The three indicators located above the keyboard provide the following status information:

| Icon | Item               | Description   |
|------|--------------------|---|
|      | Caps Lock activity | Lights when Caps Lock is activated.                   |
|      | Num Lock activity  | Lights when Num Lock is activated.                    |
|      | Media activity     | Lights when the hard disk or optical drive is active. |

**NOTE:** The keypad lock must be turned on to use the embedded numeric keypad.

---

The four indicators located at the front of the unit provide the following status information:

| Icon  | Item         | Description   |
|---|--------------|---|
|  | Power mode   | Lights green when the computer is on and lights orange when the computer is in standby mode and lights flashing orange when the computer is in hibernation. |
|  | Battery mode | Lights green when the battery is fully charged and lights orange when the battery is in charged and lights flashing orange when the battery power is low.   |

# Keyboard


The keyboard features full-size keys with an embedded keypad, separated cursor keys, two Windows keys, and twelve function keys (hot keys).

## Special keys

### Lock keys



The computer features three lock keys, each with its own status indicator light.










| Lock Key    | Description  |
|-------------|--|
| Caps Lock   | When Caps Lock is on, all alphabetic characters are typed in uppercase. Toggle on and off by pressing the Caps Lock key on the left side of the keyboard.  |
| Num lock    | When Num Lock is on, the embedded numeric keyboard can be used. Toggle on and off by pressing the Fn+  keys simultaneously. |
| Scroll lock | When Scroll Lock is on, the screen toggles up or down one line at a time when the up and down cursor control keys are pressed.   |

**NOTE:** Scroll Lock doesn't work in all applications. Toggle on and off by pressing the Fn+F12 keys simultaneously.

## Windows Keys

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



| Key  | Description   |
|--|---|
| <p>Windows logo key</p>   | <p>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:</p> <ul style="list-style-type: none"> <li> + Tab (Activates the next Taskbar button)</li> <li> + E (Opens the My Computer window)</li> <li> + F1 (opens Help and Support)</li> <li> + F (opens the Find: All Files dialog box)</li> <li> + M (minimizes all windows)</li> <li> + Windows icon + M (undoes the minimize all windows action)</li> <li> + R (opens the Run dialog box)</li> </ul> |
| <p>Application key</p>  | <p>This key has the same effect as clicking the right mouse button; it opens the application's context menu.</p>  |



## Function Keys

Using the Fn key with another key creates a hot key, providing a quick and convenient method for controlling various functions.

To use a hot key, first hold down the Fn key. Next, press the second key in combination. Finally, release both keys.



Your computer provides the following hot keys:

| Hot Key           | Function                       | Description  |
|-------------------|--------------------------------|--|
| Fn+F1             | Hot key help                   | Displays help on hot keys  |
| Fn+F2             | Setup                          | Access the computer's configuration utility.   |
| Fn+F3             | Power management scheme toggle | Switches the power management scheme used by the computer (function available if supported by operating system).                       |
| Fn+F4             | Sleep                          | Puts the computer in Sleep mode.   |
| Fn+F5             | Display toggle                 | Switches display output between the display screen, external monitor ( if connected) and both the display screen and external monitor. |
| 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 speaker on and off.  |
| Fn+Sub-woofer key | Sub-woofer                     | Turns the sub woofer on and off  |
| Fn+↑              | Volume up                      | Increases the speaker volume.  |
| Fn+↓              | Volume down                    | Decreases the speaker volume.  |
| Fn+→              | Brightness up                  | Increases the screen brightness.   |
| Fn+←              | Brightness down                | Decreases the screen brightness.   |

**NOTE:** When activating hotkeys, press and hold the **Fn** key before pressing the other key in the hotkey combination.

## Euro key

Your computer supports the new Euro currency character. First, hold down the Alt Gr key, and then press the Euro key.



---

# Touchpad

The build-in touchpad is a PS/2 compatible pointing device that senses movement on its surface.

The cursor responds to your finger movements on the touchpad. In addition, the two click buttons provide the same functionality as a computer mouse, while the scroll key enables easy up and down scrolling in documents and web pages.

The touchpad is located in the middle of the palm rest area, providing maximum comfort and efficiency.



## Touchpad Basics

Use the touchpad as follows:



- ❑ Slide your finger over the surface of the touchpad to control the movement of the cursor. Tap the touchpad to perform selection and execution functions.
- ❑ Press the left (1) and right (3) buttons to perform selection and execution functions, just as you would use the buttons on a computer mouse.
- ❑ Use the scroll key (2) to scroll through long documents and web pages. Press the top of the key to scroll up, and the bottom to scroll down; left to scroll left, and right to scroll right.

| Function | Left Button         | Righ Button | 4-Way Scroll Way | Tap   |
|----------|---------------------|-------------|------------------|---|
| Execute  | Click twice quickly |             |                  | Tap twice (at the same speed as double-clicking the mouse button) |
| Select   | Click once          |             |                  | Tap once  |

| Function            | Left Button   | Righ Button | 4-Way Scroll Way                             | Tap  |
|---------------------|---|-------------|--|--|
| Drag                | Click and hold. Then slide your finger across the touchpad to drag the cursor over the selection. |             |  | Tap twice quickly. On the second tap, slide your finger across the touchpad to drag the cursor over the selection. |
| Access context menu |   |             | Click once                                   |  |
| Scroll              |   |             | Click and hold the up/down/left/right button |  |

**NOTE:** Keep your fingers, as well as the surface of the touchpad dry and clean. The touchpad is sensitive to your finger movements: the lighter the touch, the better the response. Tapping hard will not increase the touchpad's responsiveness.

---

# Launch Keys

Located at the top of the keyboard are four buttons, in addition to the power button. These buttons are called launch keys. They are designed as key 1, key 2, key 3 and key 4, from right to left. By default, key 1 is used to launch the email application and key 2 is used to launch the Internet browser. Key 3 and key 4 start the Launch Manager application. The first four launch keys can be set by the user. To set the launch keys, run the Acer Launch Manager.



| #                       | Description  |
|-------------------------|--|
| e                       | Launches your email application.   |
| P                       | User-programmable  |
| Web browser             | Internet browser application   |
| Mail                    | Email application  |
| Wireless communication  | Lights to indicate the status of wireless LAN (optional) communications. |
| Bluetooth communication | Lights to indicate the status of Bluetooth (optional) communications.    |

---

# Hardware Specifications and Configurations

## Processor

| Item             | Specification                          |
|------------------|--|
| CPU type         | Intel Prescott at 2.8~3.8GHz or faster |
| CPU package      | LGA775                                 |
| CPU core voltage | Depend on DVI                          |
| CPU I/O voltage  | 1.2V                                   |

## BIOS

| Item                  | Specification       |
|-----------------------|---------------------|
| BIOS vendor           | Phoenix             |
| BIOS Version          | Phoenix First BIOS  |
| BIOS ROM type         | Flash ROM           |
| BIOS ROM size         | 512KB               |
| BIOS package          | 32 lead of TSSOP    |
| BIOS password control | Set by setup manual |

## Second Level Cache

| Item                    | Specification  |
|-------------------------|----------------|
| Cache controller        | Built-in CPU   |
| Cache size              | 1MB            |
| 1st level cache control | Always enabled |
| 2nd level cache control | Always enabled |
| Cache scheme control    | Always enabled |

## System Memory

| Item                          | Specification  |
|-------------------------------|--|
| Memory controller             | Intel Grantsdale 915P MCH  |
| Memory size                   | 128MB/256MB/512MB/1GB  |
| DIMM socket number            | 2 slots  |
| Supports memory size per slot | 1024MB   |
| Supports maximum memory size  | 2GB (by two 1024MB SO-DIMM module)   |
| Supports DIMM type            | DDR Synchronous DRAM   |
| Supports DIMM Speed           | 333MHz   |
| Supports DIMM voltage         | 2.6V   |
| Supports DIMM package         | 200-pin SO-DIMM  |
| Memory module combinations    | You can install memory modules in any combinations as long as they match the above specifications. |

### Memory Combinations

| Slot 1    | Slot 2 | Total Memory |
|-----------|--------|--------------|
| 256/512MB | 0 MB   | 256MB/512MB  |
| 256/512MB | 256MB  | 512MB/768MB  |
| 256/512MB | 512MB  | 768MB/1024MB |

**NOTE:** Above table lists some system memory configurations. You may combine DIMMs with various capacities to form other combinations.

### LAN Interface

| Item                   | Specification        |
|------------------------|----------------------|
| Supports LAN protocol  | 10/100 Mbps or 1Gbps |
| LAN connector type     | RJ45                 |
| LAN connector location | Rear side            |

### Modem / Bluetooth Interface

| Item                              | Specification                      |
|-----------------------------------|------------------------------------|
| Data modem data baud rate (bps)   | 56K                                |
| Supports modem/bluetooth protocol | V.90/V.92 AC-Link modem card (MDC) |
| Modem connector type              | RJ11                               |
| Modem connector location          | Rear side                          |

### Hard Disk Drive Interface

| Item   | Specification         |                       |                       |                   |                   |                  |
|--|-----------------------|-----------------------|-----------------------|-------------------|-------------------|------------------|
| Vendor & Model Name                              | Toshiba 40G MK4025GAS | Toshiba 60G MK6025GAS | Toshiba 80G MK8025GAS | Fujitsu MHT2060AT | Fujitsu MHT2080AT | Seagate ST94019A |
| Capacity (MB)                                    | 40000                 | 60000                 | 80000                 | 60000             | 80000             | 40000            |
| Bytes per sector                                 | 512                   | 512                   | 512                   | 512               | 512               | 512              |
| Data heads                                       | 2                     | 3                     | 4                     | 3                 | 4                 | 2                |
| Drive Format                                     |                       |                       |                       |                   |                   |                  |
| Disks  | 1                     | 2                     | 2                     | 2                 | 2                 | 1                |
| Spindle speed (RPM)                              | 4200 RPM              | 4200 RPM              | 4200 RPM              | 4200 RPM          | 4200 RPM          | 4200 RPM         |
| Performance Specifications                       |                       |                       |                       |                   |                   |                  |
| Buffer size                                      | 8192KB                | 8192KB                | 8192KB                | 2048KB            | 2048KB            | 2048KB           |
| Interface  | ATA-100               | ATA-100               | ATA-100               | ATA-100           | ATA-100           | ATA-100          |
| Max. media transfer rate (disk-buffer, Mbytes/s) | 42.75                 | 42.75                 | 42.75                 | 41.3              | 41.3              | 48.25            |

### Hard Disk Drive Interface

| Item  | Specification                |                              |                              |                              |                              |                              |
|---|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Data transfer rate (host~buffer , Mbytes/s) | 100 MB/Sec. Ultra DMA mode-5 | 100 MB/Sec. Ultra DMA mode-5 | 100 MB/Sec. Ultra DMA mode-5 | 100 MB/Sec. Ultra DMA mode-5 | 100 MB/Sec. Ultra DMA mode-5 | 100 MB/Sec. Ultra DMA mode-5 |
| DC Power Requirements                       |                              |                              |                              |                              |                              |                              |
| Voltage tolerance                           | 5V(DC) +/- 5%                | 5V(DC) +/- 5%                | 5V(DC) +/- 5%                | 5V(DC) +/- 5%                | 5V(DC) +/- 5%                | 5V(DC) +/- 5%                |

### Optical Drive Interface

| Item                      | Specification   |             |
|---------------------------|---|-------------|
| Vendor & model name       | HLDS GSA-4080N 8X SuperMulti  |             |
| Performance Specification | CD-R/RW   | DVD-ROM     |
| Transfer rate (KB/sec)    | 10.3X-24X CAV   | 3.3X-8X CAV |
| Data Buffer Capacity      | 2 MBytes  |             |
| Interface                 | IDE (ATAPI Compliant)   |             |
| Applicable disc format    | DVD: DVD-ROM (DVD-5, DVD-9, DVD-10),<br>DVD-R (3.95G/4.7G),<br>DVD-RAM (2.6G/4.7G),<br>DVD-RW<br>CD: CD-Audio,<br>CD-ROM(mode 1 and mode 2),<br>CD-ROM XA ( mode2, form 1 and form 2),<br>CD-RW<br>Photo CD<br>Video CD<br>Enhanced Music CD<br>CD-TEXT |             |
| Power Requirement         |   |             |
| Input Voltage             | +5 V +/- 5 %  |             |

### Audio Interface

| Item                        | Specification  |
|-----------------------------|--|
| Audio Controller            | Realtek ALC250, AC97 Codec   |
| Audio onboard or optional   | Built-in   |
| Mono or Stereo              | Stereo   |
| Resolution                  | 20 bit stereo Digital to analog converter<br>18 bit stereo Analog to Digital converter |
| Compatibility               | Microsoft PC99/2100, AC97 2.3 & WHQL/WLP2.0  |
| Mixed sound source          | CD   |
| Sampling rate               | 48 KHz   |
| Internal microphone         | No   |
| Internal speaker / Quantity | Yes / 2  |

### Video Interface

| Item         | Specification |
|--------------|---------------|
| Video vendor | ATI           |



### ***Video Interface***

| Item                            | Specification   |
|---------------------------------|-----------------|
| Video name                      | M24P            |
| Chip voltage                    | Core/1.2V, 1.5V |
| Supports ZV (Zoomed Video) port | No              |

### ***Video Resolution Mode (for both LCD and CRT)***

| Resolution        | 16 bits (High color) | 32 bits (True color) |
|-------------------|----------------------|----------------------|
| 1440*900 (WXGA)   | Yes                  | Yes                  |
| 1680*1050(WSXGA+) | Yes                  | Yes                  |

### ***USB Port***

| Item                 | Specification            |
|----------------------|--------------------------|
| USB compliancy level | 2.0                      |
| OHCI                 | USB 2.0                  |
| Number of USB port   | 4                        |
| Location             | Left side and right side |

### ***PCMCIA Port***

| Item                            | Specification      |
|---------------------------------|--------------------|
| PCMCIA controller               | ENE CB1410 CardBus |
| Supports card type              | Type II            |
| Number of slots                 | One type-II        |
| Access location                 | Right Side         |
| Supports ZV (Zoomed Video) port | No                 |
| Supports 32 bit CardBus         | Yes                |

### ***System Board Major Chips***

| Item                       | Controller                     |
|----------------------------|--------------------------------|
| System core logic          | Intel Grantsdale 915P and ICH6 |
| Super I/O controller       | SMSC 47N217, LPC interface     |
| Audio controller           | Realtek ALC250 Codec           |
| Video controller           | ATI M24P                       |
| Hard disk drive controller | ICH6                           |
| Keyboard controller        | ENE KB910                      |
| RTC                        | ICH6                           |

### ***Keyboard***

| Item                         | Specification                               |
|------------------------------|---|
| Keyboard controller          | ENE KB910                                   |
| Keyboard vendor & model name | Standard keyboard w/o launch button embeded |
| Total number of keypads      | 85 keys with 101/102 key emulation          |

## Keyboard

| Item   | Specification |
|--|---------------|
| Windows logo key                                 | Yes           |
| Internal & external keyboard work simultaneously | Yes           |

## Battery

| Item                         | Specification                              |
|------------------------------|--|
| Vendor & model name          | Panasonic/Sanyo                            |
| Battery Type                 | Li-ion                                     |
| Pack capacity                | 60Wh                                       |
| Cell voltage                 | 3.7V/cell/2000mAh High discharge rate      |
| Number of battery cell       | 8  |
| <b>Package configuration</b> |  |
| Pin 1<br>Pin 2               | BATT+: Battery+, Battery Positive Terminal |
| Pin 3                        | ID : Identify Pin (Note 1)                 |
| Pin 4                        | B/I : Battery-In Pin                       |
| Pin 5                        | TS : Connect to Thermister                 |
| Pin 6                        | SMD : SMBus data interface I/O pin         |
| Pin 7                        | SMC : SMBus clock interface I/O pin        |
| Pin 8<br>Pin 9               | GND : Battery Negative Terminal            |

**NOTE:** 1. Li-ion Battery: Connect 1K  $\pm$ 5 % ohm resistor to GND in Battery PCB.

**NOTE:** B/I pin: Battery can be Charged/Discharged only while this pin is connected to GND.

## LCD Inverter Specification

| No. | Panel   | Model              | Type     | Frequency (KHz) | Current (mA) | VS at 0° C | Work Voltage         | Brightness |
|-----|---------|--------------------|----------|-----------------|--------------|------------|----------------------|------------|
| 1   | LG      | LP171W0<br>1-A4-K2 | 17" WXGA | 45/60/70        | 3.5/6/6.5    | 1500Vrms   | 750 Vrms<br>at 6mA   | 130/160    |
| 2   | Samsung | LTN170W<br>X-L01   | 17" WXGA | 55/60/65        | 4/6/6.5      | 1800Vrms   | 730 Vrms<br>at 6mA   | 145/170    |
| 3   | AU      | B170PW0<br>1       | 17" WXGA | 50/60/70        | -/6/7        | 1500 Vrms  | 785 Vrms<br>at 6mA   | 160/190    |
| 4   | LG      | LP171W0<br>2-A3    | 17" WXGA | 40/60/80        | 3/6.5/7      | 1560 Vrms  | 720 Vrms<br>at 6.5mA | 145/170    |

There are two control signals that come from system to control lamp brightness. One signal is named DAC\_BRIG, which limits current to meet LCD lamp current specification. Another one is named PWM, which adjusts lamp brightness. This inverter brightness is adjusted by PWM burst mode. The PWM burst mode is to turn on and off the lamp at rate of 150Hz. The effective brightness is varied with the duty cycle.

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## ***Features***

1. Input voltage is wide range 10Vdc~20Vdc
2. Brightness adjustment by PWM burst mode
3. Automatic brightness compensation for input voltage variation
4. Output over voltage protection
5. Output shorted circuit protection
6. Abnormal input (22~29Vdc) without safety issues

### Electrical Characteristics

| No | Item                          | Symbol                           | Min. | Typ.       | Max.                | Unit       | Comment   |
|----|-------------------------------|----------------------------------|------|------------|---------------------|------------|---|
| 1  | Input voltage                 | INV_PWR                          | 10   | 16         | 20                  | V          | Note 1  |
| 2  | Input current                 | I <sub>in</sub>                  | --   | 0.33       | --                  | A          |   |
| 3  | Lamp current                  | I <sub>L</sub>                   | 3.3  | --         | 6.8                 | mA         | DAC=0V<br>*Note 2   |
| 4  | Lamp current                  | I <sub>L</sub>                   | 2.7  | --         | 6.3                 | mA         | DAC= 0.5V   |
| 4  | Frequency                     | F                                | 50   | 60         | 70                  | KHz        | * Note 3  |
| 5  | Output power                  | P <sub>out</sub>                 | --   | --         | 4.8                 | W          | When two lamps total<br>9.6W                              |
| 6  | Efficiency                    | η                                | 76%  | --         | --                  | --         |   |
| 7  | Starting voltage              | V <sub>s</sub>                   | 1600 | --         | ---                 | V          | At 0° 'C  |
| 8  | Starting time                 | T <sub>vs</sub>                  | 1    | --         | 1.5                 | Sec        |   |
| 9  | DispoFF#                      |                                  | 2.8  | 3.3        | 3.6                 | V          | Backlight on/off signal                                   |
|    |                               |                                  | 0    | 0.5        | 0.8                 | V          | Low level   |
| 10 | Limited lamp maximum current  | DAC-BRIG                         | 0    |            | 3.3                 | V          | *Note 2   |
| 11 | PWM signal<br>*Note 4         | INV_PWM                          | 142  | 150        | 158                 | Hz         | PWM signal frequency                                      |
|    |                               |                                  | 3.0  | 3.3        | 3.6                 | V          | PWM signal amplitude                                      |
|    |                               |                                  | 30   | --         | 100                 | %          | Duty = $\frac{T_{on}}{Period}$                            |
| 12 | Lamp current over-shoot       | I zero-PK                        | --   | --         | 20                  | %          | Line transient (10.8V to 21V/100us) and turn on transient |
| 13 | Current Waveform factor       | $\frac{I_p}{I_{rms}}$            | 1.27 | $\sqrt{2}$ | 1.56                | Multipl e  | $\frac{I_{-p}}{I_{rms}} * 10$                             |
| 14 | Unbalance Rate                | $\frac{I_p -  I_{-p} }{I_{rms}}$ | -15% | 0          | +15%                | Multitpl e |   |
| 15 | Turn off current (Hight side) | I <sub>HL</sub>                  | --   | --         | 0                   | A          | PWM=40%   |
| 16 | Turn off voltage              | V <sub>off</sub>                 | --   | --         | 150V <sub>p-p</sub> | V          | PWM=40%   |
| 17 | Voltage Rise time             | T <sub>rise</sub>                | --   | --         | 300us               | us         | PWM=40%   |
| 18 | Voltage fall time             | T <sub>fall</sub>                | --   | --         | 300us               | us         | PWM=40%   |
| 19 | Lamp current balance          | L bal                            |      | ±0.5mA     |                     |            | PWM=40~100%   |

**NOTE:**

- \*1. The display can not happen flicker or shutdown.
- \*2. Limited lamp maximum current by DAC\_BRIG signal:  
DAC\_BRIG signal comes from system with internal resistance of 3K Ω .  
When add 1V DAC, the 100% Lamp current will decrease 0.5mA.

| Lamp limited current | DAC_BRIG | INV_PWM |
|----------------------|----------|---------|
| Max.                 | 0V       | 100%    |
| Min.                 | 3.3V     | 100%    |

- \*3. Inverter operating frequency should be within specification (50~70kHz) at max. and min. brightness load.
- \*4. INV\_PWM enable implies INV\_PWM signal is High level (On duty cycle is 100%). It is a square wave of 150Hz to adjust backlight brightness that is a function of PWM duty cycle. Backlight brightness is maximum value under INV\_PWM at 100% and brightness is minimum under INV\_PWM at 40%.
- \*5. The system interface signals belong to 3.3V.
- \*6. Please make sure open lamp output voltage should be within starting voltage specification.
- \*7. Inverter should pass human body safety test.
- \*8. Inverter should be no smoking by any component open/short test.
- \*9. Transformer voltage stress should not be over 85% under any condition.  
(turn on overshoot transient and line transient.)
- \*10. Inverter should without acoustic at 10cm distance..

**Electrical specification**

| No | Symbol  | Min. | Typ. | Max. | Unit  | Comment                  |
|----|---------|------|------|------|-------|--------------------------|
| 1  | V oper* | --   | 785  | --   | Vrms  | Lamp operating voltage   |
|    | IL      | 6.2  | 6.5  | 6.8  | mArms | DAC_BRIG: 0 V, PWM: 100% |
|    | IL      | 3.3  | 3.6  | 3.9  | mArms | DAC_BRIG: 0 V, PWM:40%   |
|    | IL      | 5.7  | 6.0  | 6.3  | mArms | DAC_BRIG: 0.5V, PWM:100% |
|    | IL      | 3    | 3.3  | 3.6  | mArms | DAC_BRIG: 0.5V, PWM:40%  |
|    | f       | 50   | 60   | 70   | kHz   |                          |
|    | η       | 76%  | --   | --   | --    |                          |

**Thermal**

All components on inverter board should follow below rules:

- 1. Component using conditions (component stress) must be within component specification including voltage rating, current rating, temperature etc.
- 2. Component temperature should follow below:
  - ΔT <=40° C, at 25° C and without airflow.
  - Component temperature can't the Bezel deformed of system.

## LCD

| Item                                    | Specification   |                 |                      |                  |                   |
|---|-----------------|-----------------|----------------------|------------------|-------------------|
| Vendor & model name                     | AU B170PW01     | AU B170PW02-V.0 | Samsung LTN170WX-LO1 | LG LP170WX2-A4   | LG LP170W02-A4    |
| <b>Mechanical Specifications</b>        |                 |                 |                      |                  |                   |
| LCD display area (diagonal, inch)       | 17"             | 17"             | 17"                  | 17"              | 17"               |
| Display technology                      | TFT             | TFT             | TFT                  | TFT              | TFT               |
| Resolution                              | WXGA (1440*900) | WXGA (1440*900) | WXGA (1440*900)      | WSXGA (1440*900) | WSXGA (1680*1050) |
| Supports colors                         | 262K            | 262K            | 262K                 | 262K             | 262K              |
| <b>Optical Specification</b>            |                 |                 |                      |                  |                   |
| Brightness control                      | keyboard hotkey | keyboard hotkey | keyboard hotkey      | keyboard hotkey  | keyboard hotkey   |
| Contrast control                        | No              | No              | No                   | No               | No                |
| Suspend/Standby control                 | Yes             | Yes             | Yes                  | Yes              | Yes               |
| <b>Electrical Specification</b>         |                 |                 |                      |                  |                   |
| Supply voltage for LCD display (V)      | 3.3             | 3.3             | 3.3                  | 3.3              | 3.3               |
| Supply voltage for LCD backlight (Vrms) | 785             | 785             | 730                  | 735              | 735               |

## AC Adapter

| Item  | Specification  |
|---|--|
| Vendor & model name                           | Delta ADP-150CB B PFC 3-pin<br>Lite-On NB Adapter PA-1151-08CA, 19V, 3 pins(150W)  |
| <b>Input Requirements</b>                     |  |
| Maximum input current (A, @100Vac, full load) | 1.8A max@3.5A/100Vac and 240 Vac   |
| Nominal frequency (Hz)                        | 47 - 63  |
| Frequency variation range (Hz)                | 47 - 63  |
| Nominal voltages (Vrms)                       | 90 - 264   |
| Inrush current                                | The maximum inrush current will be less than 50A and 100A when the adapter is connected to 100Vac(60Hz) and 240Vac(50Hz) respectively. |
| Efficiency                                    | High efficiency 85% minimum, at 100~240Vac AC input, full load, warm-up condition.   |
| <b>Output Ratings (CV mode)</b>               |  |
| DC output voltage                             | Offers constant voltage 19.0V output source with 150W max output power capacity.   |
| Noise + Ripple                                | 300mvp-pmax (20MHz bandwidth) for resistor load  |
| Output current                                | 0 A (min.) 3.5A (max.)   |
| <b>Output Ratings (CC mode)</b>               |  |

## AC Adapter

| Item                           | Specification   |
|--------------------------------|---|
| DC output voltage              | 18.0 ~ 20.0   |
| Constant output                | 7.9A  |
| Dynamic Output Characteristics |   |
| Start-up time                  | 3 sec. (@115 Vac and 230Vac full load)  |
| Hold up time                   | 5ms min. (@115 Vac input, full load)  |
| Over Voltage Protection (OVP)  | 25V   |
| Short circuit protection       | Output can be shorted without damage, and auto recovery   |
| Electrostatic discharge (ESD)  | 15kV (at air discharge)<br>8kV (at contact discharge)   |
| Dielectric Withstand Voltage   |   |
| Primary to secondary           | 4242 Vdc for 1 second-  |
| Leakage current                | 60uA at 240Vac/60Hz   |
| Regulatory Requirements        | 1. FCC class B requirements (USA)<br>2. VDE class B requirements (German)<br>3. VCCI classII requirements (Japan) |

## Power Management

| ACPI Mode           | Power Management  |
|---------------------|---|
| Mech. Off (G3)      | All devices in the system are turned off completely.  |
| Soft Off (G2/S5)    | OS initiated shutdown. All devices in the system are turned off completely.   |
| Working (G0/S0)     | Individual devices such as the CPU and hard disk may be power managed in this state.                                    |
| Sleeping State (S3) | CPU Power Down<br>VGA Power Down<br>PCMCIA Suspend<br>Audio Power Down<br>Hard Disk Power Down<br>Super I/O Power Down  |
| Sleeping State (S4) | Also called Hibernate state. System saves all system states and data onto the disk prior to power off the whole system. |

## Environmental Requirements

| Item          | Specification                     |
|---------------|-----------------------------------|
| Temperature   |                                   |
| Operating     | +5 ~ +35°C                        |
| Non-operating | -20 ~ +65°C (storage package)     |
| Humidity      |                                   |
| Operating     | 10% ~ 90% without condensation    |
| Altitude      |                                   |
|               | Operating sea level 0 to 10,000ft |
|               | Storage sea level 0 to 40,000ft   |

### **Mechanical Specification**

| Item       | Specification  |
|------------|--|
| Dimensions | 15.83" x 10.96" x 1.61~1.77"<br>402mm x 278.3mm x 41~45 mm   |
| Weight     | 4.5Kb/9.9.lbs with 17" Wide LCD+DVD-ROM  |
| I/O Ports  | 4 USB 2.0 ports, one VGA port, one TV-out , one build-in microphone , microphone-in / Line-in port, Line out/headphone-out/speaker-out/ SPDif port, one IEEE 1394 port, one RJ-11 Jack, one RJ-45 Jack, one DC-Jack, 5-in-1 card reader slot (xD/SD/MMC/MS-Pro/SM), CIR, MCE receiver with USB outside device, Kensington Lock |
| Drive Bays | One  |
| Material   | Recycle plastic PC+ABS 94V0  |
| Indicators | Power, Media activity, Battery charge, Wireless/Bluetooth communication, Caps lock, Pad lock, Num lock and Scroll lock indicators  |
| Switch     | Power switch<br>Lid switch<br>User define switch 1, 2<br>Wireless ON/OFF switch  |

### **Memory Address Map**

| Memory Address      | Size  | Function            |
|---------------------|-------|---------------------|
| 000E0000h-000FFFFFh | 128KB | System BIOS         |
| 000C0000h-000CFFFFh | 64KB  | VGA BIOS            |
| 000A0000h-000BFFFFh | 128KB | Video memory (VRAM) |
| 00000000h-0009FFFFh | 640KB | Conventional memory |

### **I/O Address Map**

| I/O Address | Function  |
|-------------|---|
| 0000-001F   | Direct memory access controller                         |
| 0000-0CF7   | PCI bus   |
| 0010-001F   | Motherboard resources                                   |
| 0020-0021   | Programmable interrupt controller                       |
| 0024-0025   | Motherboard resources                                   |
| 0028-0029   | Motherboard resources                                   |
| 002C-002D   | Motherboard resources                                   |
| 002E-002F   | Motherboard resources                                   |
| 0030-0031   | Motherboard resources                                   |
| 0034-0035   | Motherboard resources                                   |
| 0038-0039   | Motherboard resources                                   |
| 003C-003D   | Motherboard resources                                   |
| 0040-0043   | System timer  |
| 0050-0053   | Systeme timer   |
| 0060-0060   | Standard 101/102-Key or Microsoft Natural PS/2 Keyboard |
| 0061-0061   | System speaker  |



## I/O Address Map

| I/O Address | Function  |
|-------------|---|
| 0062-0062   | Microsoft ACPI-Compliant Embedded Controller              |
| 0064-0064   | Standard 101/102-Key or Microsoft Natural PS/2 Keyboard   |
| 0066-0066   | Microsoft ACPI-Compliant Embedded Controller              |
| 0070-0071   | System CMOS/real time clock                               |
| 0072-0077   | Motherboard resources                                     |
| 0080-0080   | Motherboard resources                                     |
| 0081-008F   | Direct memory access controller                           |
| 0090-009F   | Motherboard resources                                     |
| 00A0-00A1   | Programmable interrupt controller                         |
| 00A4-00A5   | Motherboard resources                                     |
| 00A8-00A9   | Motherboard resources                                     |
| 00AC-00AD   | Motherboard resources                                     |
| 00B0-00B5   | Motherboard resources                                     |
| 00B8-00B9   | Motherboard resources                                     |
| 00BC-00BD   | Motherboard resources                                     |
| 00C0-00DF   | Direct memory access controller                           |
| 00F0-00FE   | Numeric data processor                                    |
| 0170-0177   | Secondary IDE Channel                                     |
| 01F0-01F7   | Primary IDE Channel                                       |
| 0274-0277   | ISAPNP Read Data Port                                     |
| 0279-0279   | ISAPNP Read Data Port                                     |
| 2F8-2FF     | SMC IrCC-Fast Infrared Port                               |
| 03B0-03BB   | ATI mobility Radon X600                                   |
| 3B0-3BB     | Intel (R) 915G/P/GV PCI Express Root Port -2581           |
| 03C0-03DF   | ATI mobility Radon X600                                   |
| 3C0-3DF     | Intel(R) 915/P/GV PCI Express Root Port -2581             |
| 03F6-03F6   | Primary IDE Channel                                       |
| 04D0-04D1   | Motherboard resources                                     |
| 6F8-6FF     | SMC IrCC -- Fast Infrared Port                            |
| 0A79-0A79   | ISAPNP Read Data Port                                     |
| 0D00-FFFF   | PCI bus   |
| 1000-107F   | Motherboard resources                                     |
| 1180-11BF   | Motherboard Resources                                     |
| 1800-181F   | Intel (R) 82801FB/FBM USB Universal Host Controller -2658 |
| 3000-30FF   | Realtek AC'97 Aduio                                       |
| 3400-343F   | Realtek AC'97 Audio                                       |
| 3440-345F   | Intel(R) 82801FB/FBM USB Universal Host Controller - 2659 |
| 3460-347F   | Intel(R) 82801FB/FBM USB Universal Host Controller - 265A |
| 3480-349F   | Intel(R) 82801 FB/FBM USB Universal Host Controller-265B  |
| 34A0-34BF   | Intel(R) 82801FB/FBM USB SMBus Controller - 266A          |
| 34C0-34CF   | Intel(R) 82801/FB/FBM Ultra ATA Storage Controllers- 266F |
| 4000-40FF   | ATI Mobility Radom X600                                   |

### ***I/O Address Map***

| <b>I/O Address</b> | <b>Function</b>                               |
|--------------------|---|
| 4000-4FFF          | Intel(R) 915G/P/BN PCI Express Root Port-2581 |
| FC00-FCFF          | ENE CB-1410/851 Cardbus Controller            |
| FD00-FDFF          | ENE CD-1410/851 Cardbus Controller            |
| FE00-FE00          | Motherboard resources                         |

### ***IRQ Assignment Map***

| <b>Interrupt Channel</b> | <b>Function(Hardware)</b>                                 |
|--------------------------|---|
| IRQ00                    | SystemTimer   |
| IRQ01                    | Standard 101/102-Key or Microsoft Natural PS/2 Keyboard   |
| IRQ03                    | SMC IrCC - Fast Infrared Port                             |
| IRQ08                    | System CMOS/real time clock                               |
| IRQ09                    | Microsoft ACPI-Compliant System                           |
| IRQ12                    | Synaptics PS/2 Port Touchpad                              |
| IRQ13                    | Numeric data processor                                    |
| IRQ14                    | Primary IDE controller                                    |
| IRQ10                    | Intel(R) 82801FB/FBM SMBus Controlle-266A                 |
| IRQ16                    | ATI Mobility Radeon X600                                  |
|                          | ENE CB-1410/851 Cardbus Controller                        |
|                          | Intel (R) 82801FB/FBM USB Universal Host Controller-265B  |
|                          | Intel(R) 915G/P/GV PCI Express Root Port - 2581           |
| IRQ17                    | Realtek AC'97 Aduio                                       |
| IRQ18                    | Intel(R) 82801FB/FBM USB Universal Host Controller-265A   |
| IRQ19                    | Intel(R) 82801FB/FBM USB Universal Host Controller-2659   |
| IRQ20                    | Texas Instruments OHCI Compliant IEEE1394 Host Controller |
| IRQ21                    | Broadcom 440x 10/100 Integrated Controller                |
| IRQ23                    | Intel(R) 8201FB/FBM USB Universal Host Controller-2658    |
| IRQ23                    | Intel(R) 8201FB/FBM USB 2 Universal Host Controller-265C  |

### ***DMA Channel Assignment***

| <b>DMA Channel</b> | <b>Function(Hardware)</b>       |
|--------------------|---------------------------------|
| 1                  | ECP Printer Port (LPT1)         |
| 3                  | SMC IrCC - Fast Infrared Port   |
| 4                  | Direct memory access controller |

## System Utilities

### BIOS Setup Utility

The BIOS Setup Utility is a hardware configuration program built into your computer's BIOS (Basic Input/Output System).

Your computer is already properly configured and optimized, and you do not need to run this utility. However, if you encounter configuration problems, you may need to run Setup. Please also refer to Chapter 4 Troubleshooting when problem arises.

To activate the BIOS Utility, press **F2** during POST (when "Press <F2> to enter Setup" message is prompted on the bottom of screen).

The setup screen displays BIOS as follows: Navigating the BIOS Utility

| Function    | Item   |
|-------------|--|
| Information | Display system information                       |
| Main        | Set Date and Time                                |
|             | Memory Size                                      |
|             | Enable/Disable Quiet Boot Logo                   |
|             | Power on display                                 |
|             | Enable/Disable LCD Auto DIM                      |
|             | Enable/Disable Network Boot                      |
|             | Enable/Disable F12 Boot Menu                     |
| Advanced    | Allow users to set FIR ports                     |
| Security    | Set Supervisor passwords                         |
|             | Set User passwords                               |
|             | Enable/Disable HDD Drive Lock                    |
|             | Enable/Disable Password on Boot                  |
| Boot        | Allow users to change boot up devices priorities |
| Exit        | Exit and save settings                           |

There are five menu options: Main, Advanced, Security, Boot and Exit.

Follow these instructions:

- To choose a menu, use the cursor left/right keys (**←** **→**).
- To choose a parameter, use the cursor up/down keys (**↑** **↓**).
- To change the value of a parameter, press **F5** or **F6**.
- Press **ESC** while you are in any of the menu options to go to the Exit menu.
- In any menu, you can load default settings by pressing **F9**. You can also press **F10** to save any changes made and exit the BIOS Setup Utility.

**NOTE:** You can change the value of a parameter if it is enclosed in square brackets. Navigation keys for a particular menu are shown on the bottom of the screen. Help for parameters are found in the Item Specific Help part of the screen. Read this carefully when making changes to parameter values.

# Information

| Phoenix cME FirstBIOS Pro Setup Utility   |  |          |          |      |      |
|---|--|----------|----------|------|------|
| Information   | Main                                     | Advanced | Security | Boot | Exit |
| CPU Type  | Genuine Intel (R) CPU 2.80GHz            |          |          |      |      |
| CPU Speed   | 2.80 GHz                                 |          |          |      |      |
| HDD Model Name  | HTS548080M9AT00                          |          |          |      |      |
| HDD Serial Number   | MRL400L4G00TYA                           |          |          |      |      |
| ATAPI Model Name  | QSI CD-RW/DVD-ROM SBW242C                |          |          |      |      |
| System BIOS Version:  | ECQ60 V0.10G                             |          |          |      |      |
| VGA BIOS Version:   | xxxxxxxxxxxxxx                           |          |          |      |      |
| Serial Number:  | xxxxxxxxxxxxxxxxxxxxxxxx                 |          |          |      |      |
| Asset Tag Number:   | N/A                                      |          |          |      |      |
| Product Name:   | xx |          |          |      |      |
| Manufacturer Name:  | xxxxxxxxxxxxxx                           |          |          |      |      |
| UUID:   | xx |          |          |      |      |
| <b>F1 Help</b> <b>↑↓ Select Item</b> <b>F5/F6 Change Values</b> <b>F9 Setup defaults</b><br><b>Esc Exit</b> <b>←→ Select Menu</b> <b>Enter Select ▸ Sub-Menu</b> <b>F10 Save and Exit</b> |  |          |          |      |      |

| Parameter           | Description   |
|---------------------|---|
| CPU Type            | This field will show you the system's CPU type.   |
| CPU Speed           | This item will show the CPU speed.  |
| HDD Model Name      | This item will show the size of HDD installed on Primary IDE master. The hard disk size is automatically detected by the system. If there is no hard disk present or unknown type, "None" should be shown on this field.                      |
| HDD Serial Number   | This item allows the serial number of the Hard Disk. If there is no hard disk present or unknown type, "None" should be shown on this field.  |
| ATAPI Model Name    | This item will show the model name of DVD/CD-ROM drive installed on system. The DVD/CD-ROM model name is automatically detected by the system. If there is no DVD/CD-ROM model present or unknown type, "None" should be shown on this field. |
| System BIOS Version | This field reports the BIOS version of system.  |
| VGA BIOS Version    | This field reports the VGA version of the system.   |
| Serial Number       | This item will show the Serial number of system.  |
| Asset Tag Number    | This item will show the Asset Tag number of the system.   |
| Product Name        | This field will show product name.  |
| Manufacture Name    | This field will show manufacturer name.   |
| UUID                | This number only valid when there is an internal LAN device presents, otherwise, zero will be display in this field.  |

# Main

This menu provides you the information of the system.

| Phoenix cME FirstBIOS Pro Setup Utility   |              |          |          |   |      |
|---|--------------|----------|----------|---|------|
| Information   | Main         | Advanced | Security | Boot  | Exit |
|   |              |          |          | Item specific Help                            |      |
| System Time:  | [09:00:00]   |          |          | <Tab>, <Shift-Tab>, or <Enter> selects field. |      |
| System Date:  | [01/01/2003] |          |          |   |      |
| System Memory:  | 640 KB       |          |          |   |      |
| Extended Memory:  | 1022 MB      |          |          |   |      |
| VGA Memory:   | 064 MB       |          |          |   |      |
| Quiet Boot:   | [Enabled]    |          |          |   |      |
| Power on display:   | [Auto ]      |          |          |   |      |
| LCD Auto Dim:   | [Enabled]    |          |          |   |      |
| Network boot:   | [Enabled]    |          |          |   |      |
| F12 Boot Menu:  | [Disabled]   |          |          |   |      |
| <b>F1 Help</b> <b>↑↓ Select Item</b> <b>F5/F6 Change Values</b> <b>F9 Setup defaults</b><br><b>Esc Exit</b> <b>←→ Select Menu</b> <b>Enter Select ▶ Sub-Menu</b> <b>F10 Save and Exit</b> |              |          |          |   |      |

| Parameter        | Description   |
|------------------|---|
| System Time      | The hours are displayed with 24 hours format. The values set in these two fields take effect immediately  |
| System Date      | The hours are displayed with 24 hours format. The values set in these two fields take effect immediately  |
| System Memory    | This field reports the base memory size of system.  |
| Extended Memory  | This field reports the extended memory size of the system.  |
| VGA Memory       | This field reports the VGA memory size of the VGA chip.   |
| Quiet Boot       | Customer Logo display will be shown during POST when it is selected   |
| Power on Display | Auto select display device or internal/external display device shows at the same time.  |
| LCD Auto Dim     | When this is selected, brightness of the LCD will be reduced for power saving when adaptor has been removed from the system.<br>When this is not selected, brightness of the LCD will remain the same after adaptor has been removed from the system. |
| Network Boot     | When this is selected, Boot from LAN feature is enabled. When this is not selected, Boot from LAN feature is then disabled.   |
| F12 Boot Menu    | When this is selected, users can modify device boot priority by pressing F12 key during POST. When this is not selected, device boot priority will not be adjustable during POST.   |

## Advanced

The Advanced screen contains parameters involving your hardware devices. It also provides advanced settings of the system.

### FIR Ports

Configure the system's infrared port using options: Disabled and **Enabled**.

| Phoenix cME FirstBIOS Pro Setup Utility         |                |                 |             |                              |                   |
|---|----------------|-----------------|-------------|------------------------------|-------------------|
| Information                                     | Main           | <b>Advanced</b> | Security    | Boot                         | Exit              |
|   |                |                 |             | Item specific Help           |                   |
| Infrared Port (FIR) :                           |                | [Enabled]       |             | [Disabled]                   |                   |
| Base I/O address/IRQ:                           |                | [2F8/IRQ 3]     |             | Infrared port is not active. |                   |
| DMA channel:                                    |                | [DMA 3]         |             | [Enabled]                    |                   |
| Infrared port is active and is user configured. |                |                 |             |                              |                   |
| F1  | Help           | ↑↓              | Select Item | F5/F6                        | Change Values     |
| F9  | Setup defaults |                 |             | F10                          | Save and Exit     |
| Esc   | Exit           | ←→              | Select Menu | Enter                        | Select ▶ Sub-Menu |

The table below describes the parameters in the screen. Settings in **boldface** are the default and suggested parameter settings.

| Parameter               | Description  | Option  |
|-------------------------|--|---|
| FIR I/O Settings        | Sets the base I/O address and IRQ for Infrared port.   | 3F8/IRQ4<br><b>2F8/IRQ3</b><br>3E8/IRQ4<br>2E8/IRQ3 |
| DMA Setting for Fast IR | Sets a DMA channel for the printer to operate in ECP mode. This parameter is enabled only if Mode is set to ECP. | DMA1<br><b>DMA3</b>                                 |

# Security

The Security screen contains parameters that help safeguard and protect your computer from unauthorized use.

| Phoenix cME FirstBIOS Pro Setup Utility  |      |            |                 |   |                    |
|--|------|------------|-----------------|---|--------------------|
| Information  | Main | Advanced   | <b>Security</b> | Boot  | Exit               |
|  |      |            |                 |   | Item specific Help |
| Supervisor Password Is:  |      | Clear      |                 | Supervisor Password controls access to the setup utility. |                    |
| User Password Is:  |      | Clear      |                 |   |                    |
| Set Supervisor Password:   |      | [Enter]    |                 |   |                    |
| Set User Password:   |      | [Enter]    |                 |   |                    |
| Primary Harddisk Security:   |      | [Disabled] |                 |   |                    |
| Password on Boot:  |      | [Disabled] |                 |   |                    |
| <b>F1</b> Help <b>↑↓</b> Select Item <b>F5/F6</b> Change Values <b>F9</b> Setup defaults<br><b>Esc</b> Exit <b>←→</b> Select Menu <b>Enter</b> Select <b>▶</b> Sub-Menu <b>F10</b> Save and Exit |      |            |                 |   |                    |

The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

## Set Supervisor/User Password

If password on boot is required, the password must be set otherwise it cannot be enabled.

The formats of the password are as follows:

Length      No more than 8 characters

Characters   0-9,A-Z (not case sensitive)

| Parameter                 | Description  | Option   |
|---------------------------|--|--|
| Set User Password         | Press Enter to set the user password. When set, this password protects the BIOS Setup Utility from unauthorized access.          | Length -- No more than 8 characters<br>Characters -- 0-9, A-Z (not case sensitive) |
| Set Supervisor Password   | Press Enter to set the administrator password. When set, this password protects the BIOS Setup Utility from unauthorized access. |  |
| Primary Harddisk Security |  | <b>Disabled</b>  |

---

| Parameter        | Description  | Option                   |
|------------------|--|--------------------------|
| Password on Boot | <p>Defines whether a password is required or not while the events defined in this group happened. The following sub-options are all requires the Supervisor password for changes and should be grayed out if the user password was used to enter setup.</p> <p>Allows the user to specify whether or not a password is required to boot.</p> | <p>Check<br/>Uncheck</p> |



## Boot

This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices includes the distette drive in module bay, the onboard hard disk drive and the CD-ROM in module bay and onboard LAN device.


| Phoenix cME FirstBIOS Pro Setup Utility  |                |          |             |  |                   |
|--|----------------|----------|-------------|--|-------------------|
| Information  | Main           | Advanced | Security    | <b>Boot</b>  | Exit              |
|  |                |          |             | Item specific Help   |                   |
| Boot priority order:<br>1: IDE 0: TOSHIBA MK6025GAS-(PM)<br>2: IDE1: QSI DVDRW SDW-042-(PS)<br>3: PCI LAN:<br>4: USB FDC:<br>- |                |          |             | Keys used to view or<br>Configure devices:<br>Up and Down arrows<br>Select a device.<br>Press press <F6> to<br>move it up the List, or <F5> to<br>move it down the list.<br>Press <Esc> to escape<br>the menu. |                   |
| F1   | Help           | ↑↓       | Select Item | F5/F6  | Change Values     |
| F9   | Setup defaults |          |             |  |                   |
| Esc  | Exit           | ←→       | Select Menu | Enter  | Select ▶ Sub-Menu |
| F10  | Save and Exit  |          |             |  |                   |

# Exit

The Exit screen contains parameters that help safeguard and protect your computer from unauthorized use.

| Phoenix cME FirstBIOS Pro Setup Utility |                |          |             |   |                   |
|---|----------------|----------|-------------|---|-------------------|
| Information                             | Main           | Advanced | Security    | Boot  | Exit              |
|   |                |          |             | Item specific Help                                  |                   |
| Exit Saving Changes                     |                |          |             | Exit System Setup and save your changes to CMOS.    |                   |
| Exit Discarding Changes                 |                |          |             | Exit utility without saving Setup data to CMOS.     |                   |
| Load Setup Defaults                     |                |          |             | Load default values for all SETUP items.            |                   |
| Discard changes                         |                |          |             | Load previous values From CMOS for all SETUP Items, |                   |
| Save changes                            |                |          |             | Save Setup Data to CMOS.                            |                   |
| F1                                      | Help           | ↑↓       | Select Item | F5/F6   | Change Values     |
| F9                                      | Setup defaults |          |             |   |                   |
| Esc                                     | Exit           | ←→       | Select Menu | Enter   | Select ▶ Sub-Menu |
| F10                                     | Save and Exit  |          |             |   |                   |

The table below describes the parameters in this screen.

| Parameter               | Description   |
|-------------------------|---|
| Exit Saving Changes     | Allows the user to save changes to CMOS and reboot the system.  |
| Exit Discarding Changes | Allows the user Discards changes made and exits System Setup.   |
| Load Setup Default      | Loads default settings for all parameters (same as  ). |
| Discard Changes         | Allows the user to discard previous changes in CMOS Setup.  |
| Save Changes            | This item will allow you to save your settings.   |

## ***Machine Disassembly and Replacement***

---

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

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- small phillips screwdriver
- flat head screwdriver
- Phillips screwdriver
- nut screwdriver
- 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.

When you remove the stripe cover, please be careful not to scrape the cover.

---

## ***General Information***

### ***Before You Begin***

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. Remove the battery pack.

---

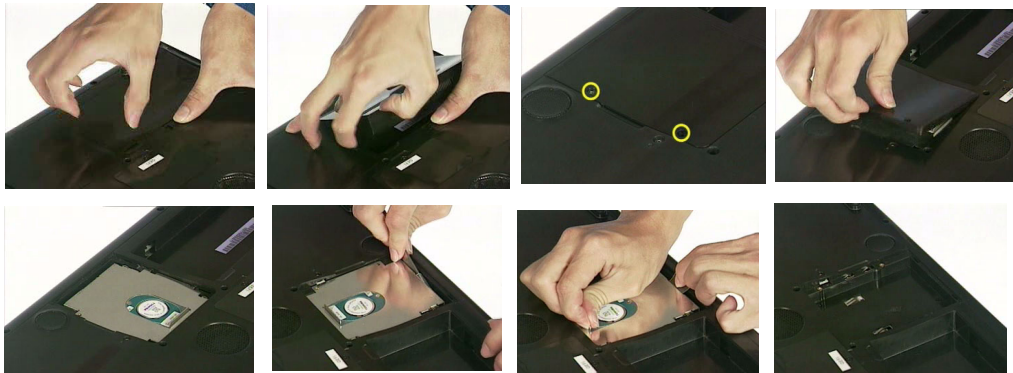
## ***Aspire 1800 Disassembly Procedure***

This section will guide you how to disassemble the system when you need to perform system service. Please also refer to the disassembly video, if available.

**CAUTION:** Before you proceed, be sure you have turned off the system and all peripherals connected.

### ***Disassemble the Battery and HDD***

1. Press the latch backward to take the battery away from the system.
2. Then remove the battery pack.
3. Remove the two screws to release the hard drive door. Then take it away.
4. With a flat screwdriver to push the HDD outward then pull it out from the system



5. Remove the two screws located on each side.
6. Take the Hard disk unit from the carrier.



### ***Disassemble the Wireless***

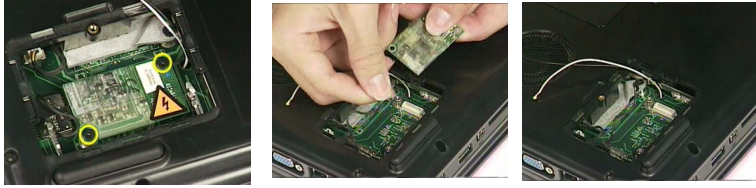
1. Remove the one screw to release the Wireless door.
2. Take the wireless door from the system.
3. Disconnect the Antenna cables from the wireless board.
4. Push outward the tabs on both side to release the wireless board then pull it out from the system.



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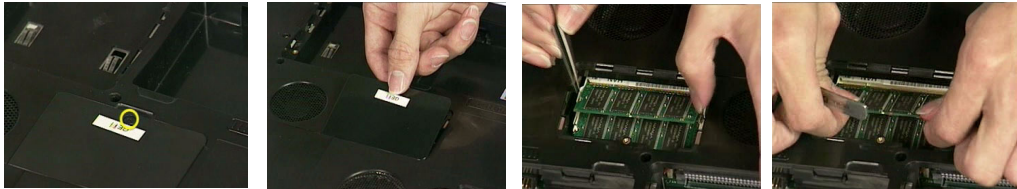
## ***Disassemble the Modem Card***

1. Remove the two screws to remove the Modem card.
2. Disconnect the modem cable from the modem board before you detach the modem board from the mainboard.



## ***Disassemble the RAM and ODD***

1. Remove the one screw to release the RAM door.
2. Detach the RAM door.
3. Press outward the both side tabs to release the Memory then pull it out.



4. Remove the one screw to release the ODD door.
5. Push the ODD bracket from the ODD rear to push it outward from the system.
6. Then pull the ODD out from the system.



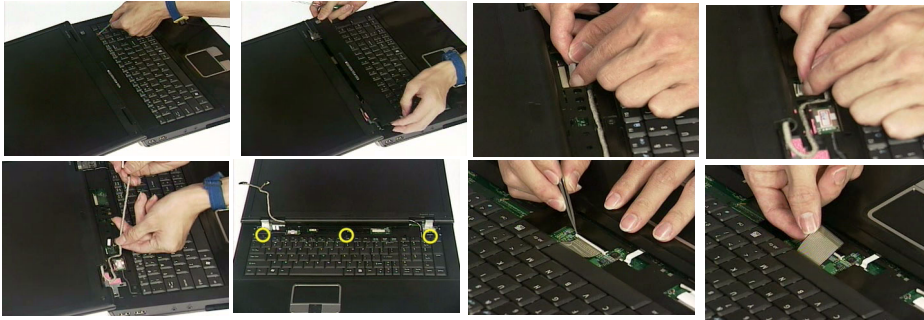
7. Remove the four screws to detach the ODD module.
8. Detach the ODD bracket from the position.
9. Eject the ODD tray.
10. Remove the one screw as highlight.
11. Detach the ODD panel out from the unit.



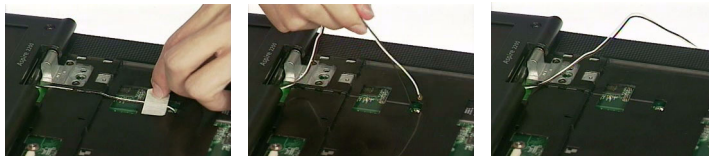
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## ***Disassemble the Keyboard***

1. With a flat screwdriver to push out the strip cover away from the system.
2. Disconnect the LCD wire set. The 2 connector cable from the panel to the mainboard as video shows here.
3. Remove the three screws to release the keyboard
4. Press the tabs on both side to disconnect the keyboard cable from mainboard. Then take it away



5. Tear the tape then pull the antenna cables through the hole to the up case.



## ***Disassemble the Panel Module***

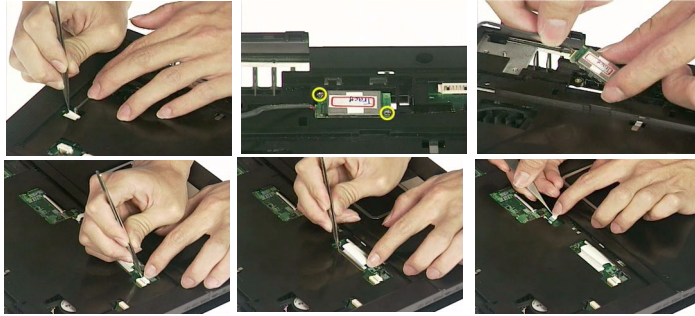
1. Remove the four screws located on the top case
2. Then remove the two screws on the rear of the system
3. Detach the panel module away from the system





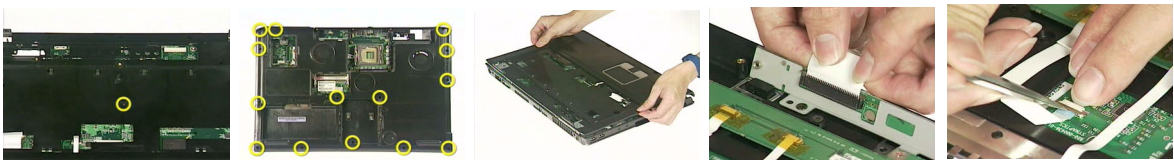
## ***Disassemble the Bluetooth and Cables***

1. Disconnect the bluetooth cable from the left side of mainboard.
2. Remove the two screws to release the bluetooth board.
3. Then take the bluetooth module away from the system.
4. Release the tabs on both side before you disconnect these cables. The first cable is card reader cable, secondly is cd-player flat flexible cable, the third is touch pad cable

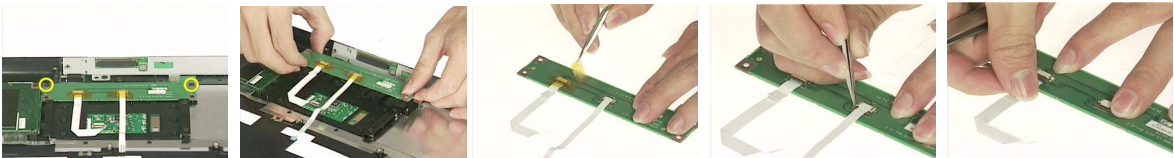


## ***Disassemble Case, Touchpad and CD-Player***

1. Remove the one screw located as highlight on the top case.
2. Remove the fourteen screws located on the base.
3. Detach the top case out from the system.
4. Pull up the tabs on both side to disconnect the CD-Player flat flexible cable from the CD-Player board.
5. Pull the tabs on both side forward to disconnect the touchpad cable from the mainboard.

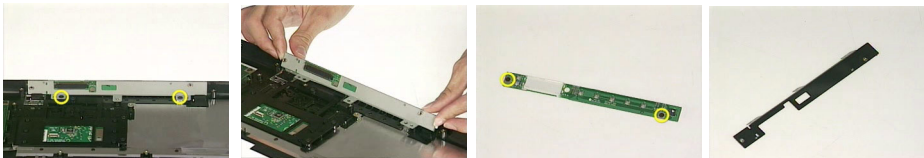


6. Remove the two screws to release the touchpad board.
7. Then detach the touchpad board from the support.
8. Tear tape on these positions to disconnect the cables.
9. Pull the tabs on both side forward to disconnect the cables from touchpad board.





10. Remove the two screws to remove the CD-Player module.
11. Then take the CD-Player module out from the system.
12. Remove the two screws located on the CD-Player board.
13. To separate the CD-Player board from the bracket.

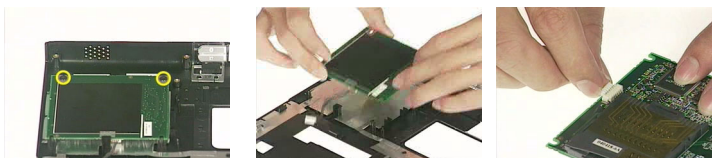


14. Remove the three screws to release the Touchpad support.
15. Detach the touchpad support from the touchpad then take the touchpad from the top case.



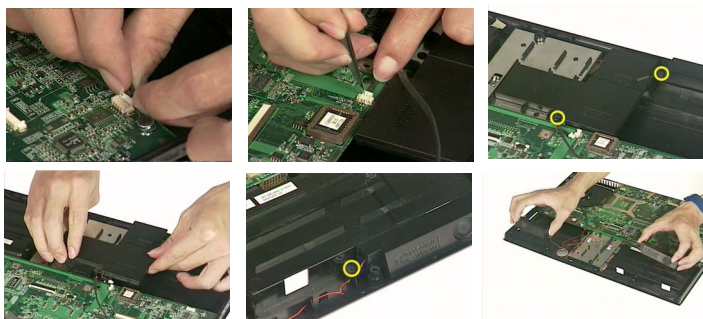
### ***Disassemble the Card Reader***

1. Remove the two screws to remove the card reader board.
2. Then detach the card reader board from the top case.
3. Disconnect the cable from the card reader board.



### ***Disassemble the Speaker***

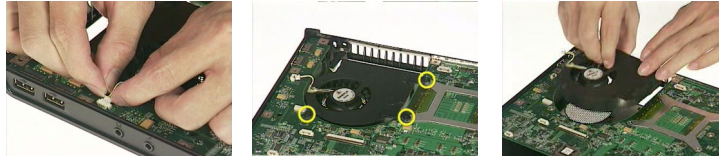
1. Disconnect the speaker cable from the mainboard.
2. Disconnect the sub-woofer cable from the mainboard.
3. Remove the two screws to detach the sub-woofer module.
4. Then detach the sub-woofer from the top case.
5. Remove the one screw to detach the speaker.
6. Take the speaker set out from the system.



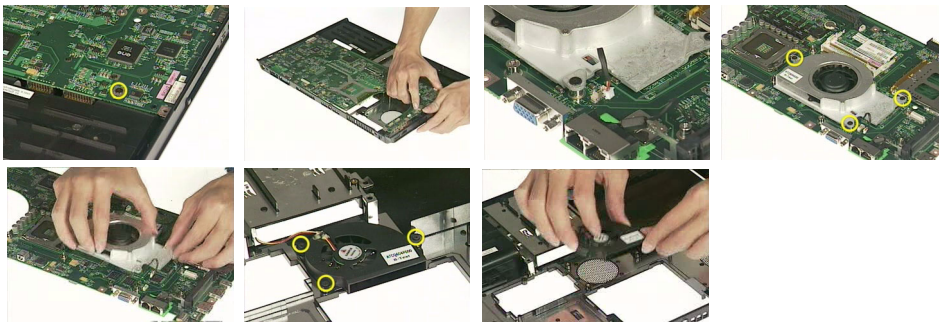
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## ***Disassemble the System FAN and Mainboard***

1. Disconnect the system fan from the system.
2. Remove the three screws to detach the system fan from the mainboard.
3. Then detach the system fan from the mainboard.



4. Remove the one screw to detach the mainboard.
5. Push the edge outward in order to release the mainboard from the case.
6. Disconnect the fan cable from the position.
7. Remove the three screws to release the fan.
8. Detach the fan from the mainboard.
9. Remove the three screws to release the base case fan.
10. Then detach the fan from the base.

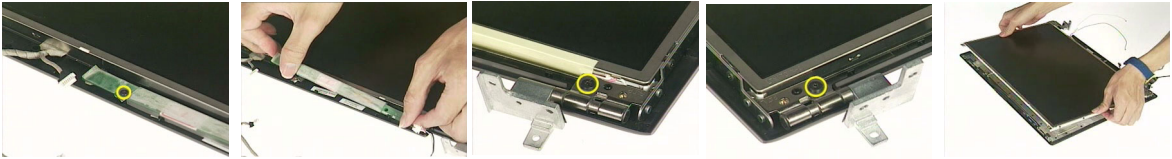


## ***Disassemble the LCD Module***

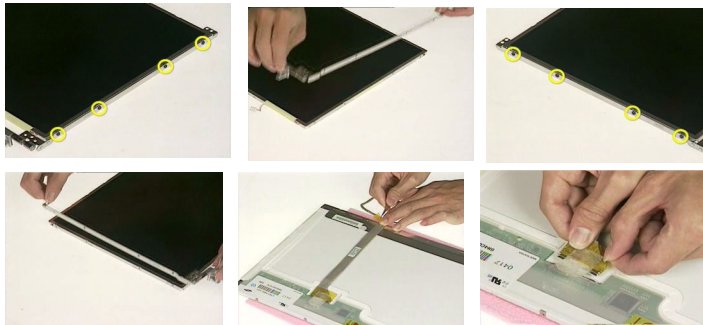
1. Remove the four screws on the other side to release the LCD front bezel.
2. Detach the front bezel from the LCD panel.
3. Disconnect the inverter cable from the inverter board.
4. Disconnect the LCD cable from the inverter board.



5. Remove the one screw.
6. Then detach the inverter board from the LCD panel module.
7. Remove the one screw on each bracket to release the bracket from the LCD module.
8. Take the entire LCD panel out from the top cover.



9. Remove the four screws to detach the bracket.
10. Then take the LCD bracket from the panel.
11. Remove another four screws to release the bracket.
12. Then detach the bracket out from the LCD Panel.
13. Tear the tapes as video guides you from the LCD wire set cable and disconnect it from the panel.



## Troubleshooting

---

Use the following procedure as a guide for computer problems.

1. Obtain the failed symptoms in as much detail as possible.
2. Verify the symptoms by attempting to re-create the failure by running the diagnostic test or by repeating the same operation.
3. If any problem occurs, you can perform visual inspection before you follow this chapter's instructions.

You can check the following:

- power cords are properly connected and secured;
- there are no obvious shorts or opens;
- there are no obviously burned or heated components;
- all components appear normal.

4. After you perform visual inspection you can also verify the following:
  - ask the user if a password is registered and, if it is, ask him or her to enter the password.
  - verify with the customer that Windows XP is installed on the hard disk. Operating systems that were not preinstalled by Acer can cause malfunction.
  - make sure all optional equipment is removed from the computer.
  - make sure the floppy disk is empty.
5. Use the following table with the verified symptom to determine which page to go to.

| Symptoms (Verified)   | Go To  |
|---|--|
| Power failure. (The power indicator does not go on or stay on.) | "Power System Check"   |
| POST does not complete. No beep or error codes are indicated.   | "Insyde MobilePro BIOS POST Beep Code and POST Messages"<br>"Undetermined Problems"  |
| POST detects an error and displayed messages on screen.         | "Insyde MobilePro BIOS POST Beep Code and POST Messages"   |
| Other symptoms (i.e. LCD display problems or others).           | "Insyde MobilePro BIOS POST Beep Code and POST Messages"   |
| Symptoms cannot be re-created (intermittent problems).          | Use the customer-reported symptoms and go to "Insyde MobilePro BIOS POST Beep Code and POST Messages" on page 67<br>"Intermittent Problems"<br>"Undetermined Problems" |

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# ***System Check Procedures***

## ***External Diskette Drive Check***

Do the following steps to isolate the problem to a controller, driver, or diskette. A write-enabled, diagnostic diskette is required.

**NOTE:** Make sure that the diskette does not have more than one label attached to it. Multiple labels can cause damage to the drive or cause the drive to fail.

Do the following to select the test device.

1. The FDD heads can become dirty over time, affecting their performance. Use an FDD cleaning kit to clean the heads. If the FDD still does not function properly after cleaning, go to next step.
2. Boot from diagnostic program.
3. If an error occurs with the internal diskette drive, reconnect the diskette connector on the main board.

If the error still remains:

1. Reconnect the external diskette drive module.
2. Replace the external diskette drive module.
3. Replace the main board.

## ***External CD-ROM/DVD-ROM Drive Check***

Do the following to isolate the problem to a controller, drive, or CD-ROM/DVD-ROM. Make sure that the CD-ROM does not have any label attached to it. The label can cause damage to the drive or can cause the drive to fail.

Do the following to select the test device:

1. Insert an audio CD into the CD/DVD drive. If the CD/DVD drive can read the data from the audio CD. The drive does not have problem, then go to next step. If the CD/DVD LED on the front panel does not emit light as it read the data from the audio CD, then go to next step. However, if the CD/DVD drive can not read data from the audio CD, you may need to clean the CD/DVD drive with a CD/DVD drive cleaning disk.
2. Make sure that the appropriate driver has been installed on the computer for the CD/DVD drive.
3. Boot from the diagnostics diskette and start the diagnostics program
4. See if CD-ROM Test is passed when the program runs to CD-ROM/DVD-ROM Test.
5. Follow the instructions in the message window.

If an error occurs, reconnect the connector on the main board. If the error still remains:

1. Reconnect the CD-ROM/DVD-ROM module.
2. Replace the CD-ROM/DVD-ROM module.
3. Replace the main board.

---

## ***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 character appears, make sure that the flexible cable extending from the keyboard is correctly seated in the connector on the main board.

If the keyboard cable connection is correct, run the Keyboard Test.

If the tests detect a keyboard problem, do the following one at a time to correct the problem. Do not replace a non-defective FRU:

1. Reconnect the keyboard cables.
2. Replace the keyboard.
3. Replace the main board.

The following auxiliary input devices are supported by this computer:

- Embedded Numeric Keypad
- External keyboard

If any of these devices do not work, reconnect the cable connector and repeat the failing operation.

## ***Memory Check***

Memory errors might stop system operations, show error messages on the screen, or hang the system. Currently, we do not provide memory test program. However, if you need to check memory but have no testing program or diagnostic utility at hand, please go to <http://www.passmark.com> to download the shareware "BurnIn Test V.3.0". You may test the memory with this program under Window XP environment.

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

## ***Power System Check***

To verify the symptom of the problem, power on the computer using each of the following power sources:

1. Remove the battery pack.
2. Connect the power adapter and check that power is supplied.
3. Disconnect the power adapter and install the charged battery pack; then check that power is supplied by the battery pack.

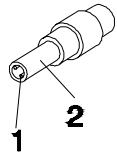
If you suspect a power problem, see the appropriate power supply check in the following list:

- "Check the Power Adapter"
- "Check the Battery Pack"

---

## Check the Power Adapter

Unplug the power adapter cable from the computer and measure the output voltage at the plug of the power adapter cable. See the following figure



Pin 1: 19V  
Pin 2: 0V, Ground

1. If the voltage is not correct, replace the power adapter.
2. If the voltage is within the range, do the following:
  - Replace the main board.
  - If the problem is not corrected, see “Undetermined Problems”.
  - 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 DC-IN indicator does not light up, check the power cord of the power adapter for correct continuity and installation.
4. If the operational charge does not work, see “Check the Power Adapter” .

---

## ***Check the Battery Pack***

To check the battery pack, do the following:

From Software:

1. Check out the Power Options in control Panel
2. In Power Meter, confirm that if the parameters shown in the screen for Current Power Source and Total Battery Power Remaining are correct.
3. Repeat the steps 1 and 2, for both battery and adapter.
4. This helps you identify first the problem is on recharging or discharging.

From Hardware:

1. Power off the computer.
2. Remove the battery pack and measure the voltage between battery terminals 1(+) and 6(ground).
3. If the voltage is still less than 7.5 Vdc after recharging, replace the battery.
4. If the voltage is within the normal range, run the diagnostic program.

To check the battery charge operation, use a discharged battery pack or a battery pack that has less than 50% of the total power remaining when installed in the computer.

If the battery status indicator does not light up, remove the battery pack and let it return to room temperature. Re-install the battery pack.

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


## ***Touchpad Check***

If the touchpad doesn't work, do the following actions one at a time to correct the problem. Do not replace a non-defective FRU:

1. After rebooting, run Touch pad/PS2 Mode 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 check if the main board to switch board FPC is connected well.
4. If the main board to switch board FPC is connected well, then check if the touch pad FPC connects to the main board properly.
5. If there is still an error after you have connected the touch pad FPC to the main board properly, then replace the touch pad or touch pad FPC. The touch pad or touch pad FPC may be damaged.
6. Replace switch board.
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 can occur when a slight, steady pressure is applied to the touchpad pointer. This symptom is not a hardware problem. No service actions are necessary if the pointer movement stops in a short period of time.

## ***Display Check***

1. Connect an external display to the computer's external monitor port, the boot the computer. The computer can automatically detect the external display. Press Fn+  to switch to the external display.
2. If the external display works fine, the internal LCD may be damaged. Then perform the following steps:

Make sure the DDRRAM module is seated properly. Then run the display test again. If the problem still exists, go to next step.

Replace the inverter board, then run the display test program again. If the problem still occurs, go on next step.

Replace the LCD module with a new one then run the display test again. If the problem still happens, continue next step.

Replace LCD/FL cable with a new one then execute the display diagnostic again. If the problem



---

still occurs, continue next step.

Replace the CPU with another of the same specifications. If the problems still occurs, go to next step.

The main board may be damaged. Replace main board.

3. If the external monitor has the same problem as the internal monitor, the main board may be damaged. Please insert the diagnostic disk and run the display test program and go through the sub-steps under step 2.

## ***Sound Check***

To determine if the computer's built-in speakers are functioning properly, perform the following steps. Before you start the steps below, adjust the speaker volume to an appropriate level.

1. Try different audio sources. For example, employ audio CD and digital music file to determine whether the fault is in the speaker system or not. If not all sources have sound problem, the problem is in the source devices. If all have the same problem, continue next step.
2. Connect a set of earphone or external speakers. If these devices work fine, go to next step. If not, then the main board may be defective or damaged. Replace the main board.
3. Follow the disassembling steps in Chapter 3. Ensure the speaker cable is firmly connected to the main board. If the speaker is still a malfunction, go on next step.
4. If the speakers do not sound properly, the speakers may be defective or damaged. Replace the speakers. If the problem still occurs, then replace the main board.

---

## ***PhoenixBIOS POST Tasks and Beep Codes***

When you turn on the PC, the BIOS first performs a number of tasks, called the Power-On-Self-Test (POST). These tasks test and initialize the hardware and then boot the Operating System from the hard disk.

At the beginning of each POST task, the BIOS outputs the test-point error code I/O port 80h. Programmers and technicians use this code during troubleshooting to establish at what point the system failed and what routine was being performed. Some mainboards are equipped with a seven-segment LED display that displays the current value of port 80h. For production boards which do not contain the LED display, you can purchase an installable "Port 80h" card that performs the same function. If the BIOS detects a terminal error condition, it issues a terminal-error beep code (See following), attempts to display the error code on upper left corner of the screen and on the port 80h LED display, and halts POST. It attempts repeatedly to write the error to the screen.

If the system hangs before the BIOS can process the error, the value displayed at the port 80h is the last test performed. In this case, the screen does not display the error code.

---

## ***Terminal POST Errors***

There are several POST routines that require success to finish POST. If they fail, they issue a POST Terminal Error and shut down the system. Before shutting down the system, the error handler issues a beep code signifying the test point error, writes the error to port 80h, attempts to initialize the video, and writes the error in the upper left corner of the screen (using both mono and color adapters).

The routine derives the beep code from the test point error as follows:

1. The 8-bit error code is broken down to four 2-bit groups.
2. Each group is made one -based ( 1 through 4) by adding 1.
3. Short beeps are generated for the number in each group.

**Example:**

**Testpoint 16h=00 01 01 10=1-2-2-3 beeps**

## POST Task Routines

The following is a list of the Test Point codes written to port 80h at the start of each routine, the beep codes issued for terminal errors, and a description of the POST routine. Unless otherwise noted, these codes are valid for PhoenixBIOS.

**NOTE:** The following routines are sorted by their test point numbers assigned in the BIOS code. Their actual order as executed during POST can be quite different.

| 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 512 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  |

| Code | Beeps   | POST Routine Description                             |
|------|---------|--|
| 3Ch  |         | Advanced configuration of chipset registers          |
| 3Dh  |         | Load alternate registers with CMOS values            |
| 42h  |         | Initialize interrupt vectors                         |
| 45h  |         | POST device initialization                           |
| 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 UserPatch1                                   |
| 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 Motheboard Configurable Devices (optional) |
| 88h  |         | Initialize BIOS Data Area                            |

| Code | Beeps | POST Routine Description  |
|------|-------|---|
| 89h  |       | Enable Non-Maskable Interrupts (NMIs)                                 |
| 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 Multi Processor 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   |
| A Eh |       | 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                                     |
| C4h  |       | Initialize system error handler                                       |
| C5h  |       | PnPnd dual CMOS (optional)  |
| C6h  |       | Initialize notebook docking (optional)                                |

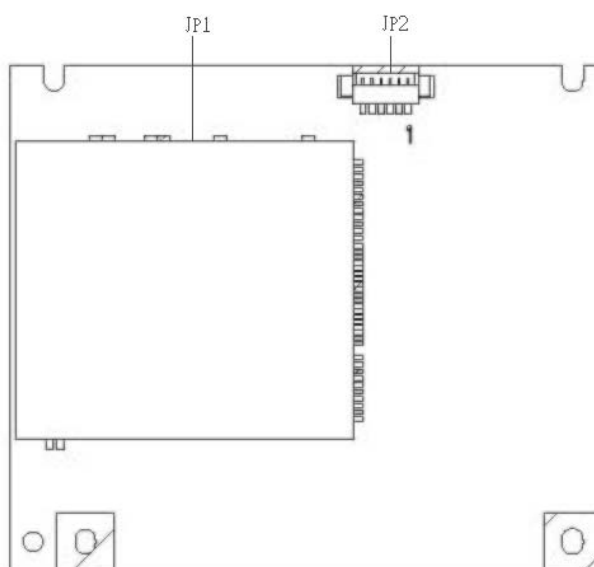
| Code | Beeps | POST Routine Description         |
|------|-------|----------------------------------|
| C7h  |       | Initialize notebook docking late |
| C8h  |       | Force check (optional)           |
| C9h  |       | Extended checksum (optional)     |
| D2h  |       | Unknown interrupt                |

| Code | Beeps | For Boot Block in ROM             |
|------|-------|-----------------------------------|
| E0h  |       | Initialize the chipset            |
| E1h  |       | Initialize the bridge             |
| E2h  |       | Initialize the CPU                |
| E3h  |       | Initialize 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 Multi Processor        |
| 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                  |

## Jumper and Connector Locations

### Card Reader Board

#### Top View

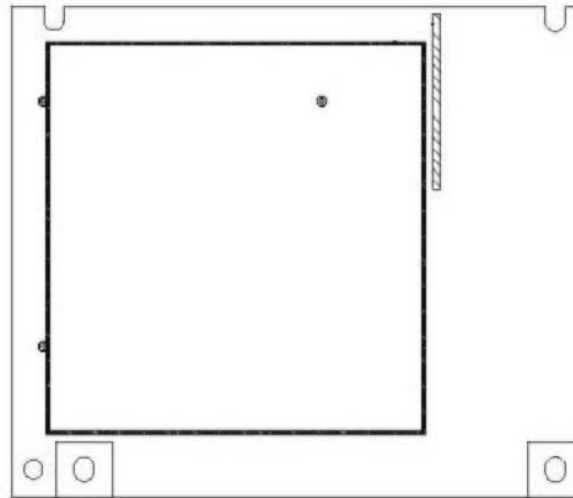


| Item | Description        |
|------|--------------------|
| JP1  | Taisol 5 PIN Conn. |
| JP2  | 5 IN1/B M/B Conn.  |



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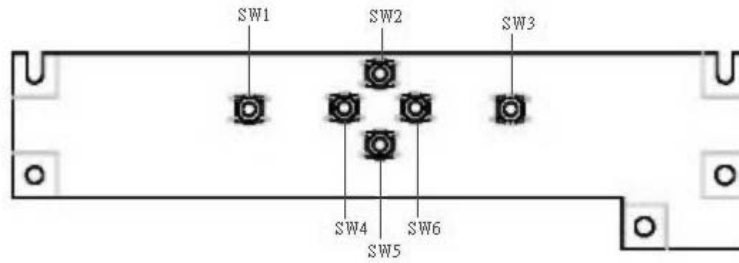
## Rear View



| Item | Description        |
|------|--------------------|
| JP27 | Mini-PCI Connector |
| JP29 | DDR SODIMM Socket  |
| U40  | BIOS ROM           |
| U45  | Cardbus Controller |

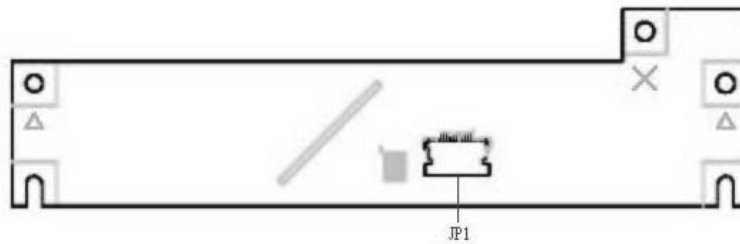
# Touch Pad Board

## Top View



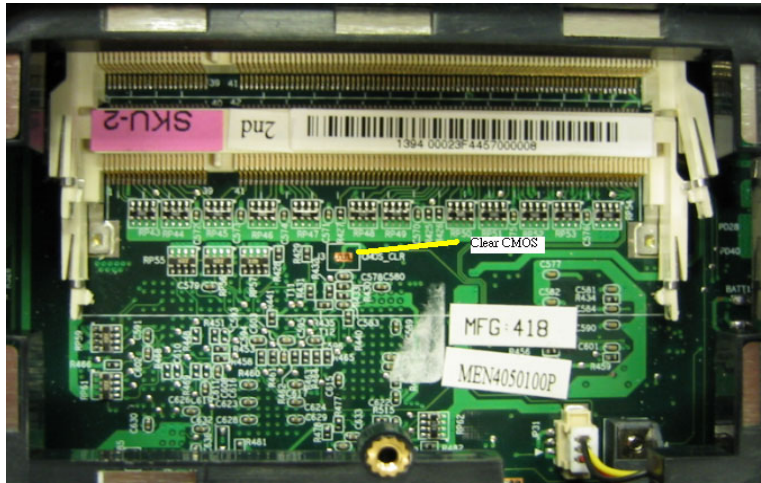
| Item | Description  |
|------|--------------|
| SW1  | Switch Left  |
| SW2  | Scroll Up    |
| SW3  | Switch Right |
| SW4  | Scroll Left  |
| SW5  | Scroll Down  |
| SW6  | Scroll Right |

## Rear View



| Item | Description           |
|------|-----------------------|
| JP1  | TP/B To Click/B Conn. |

## Clear CMOS



## ***FRU (Field Replaceable Unit) List***

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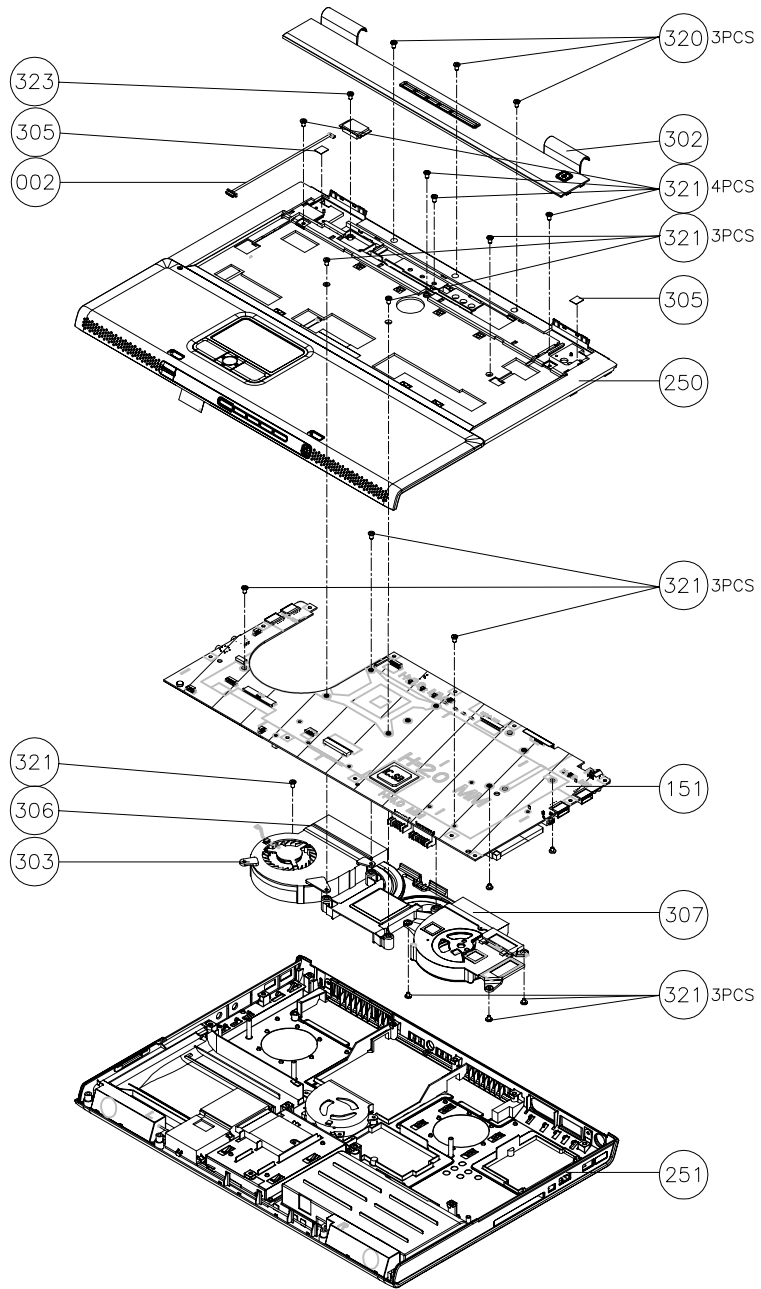
Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have 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 repair and service of customer machines.

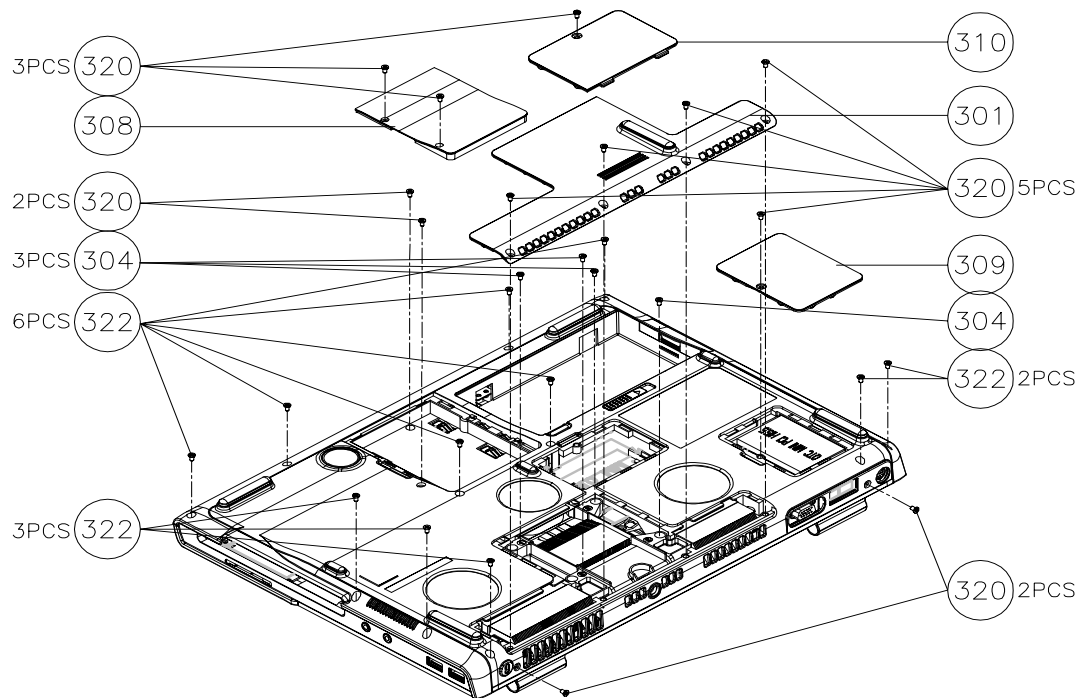
**NOTE:** To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

Please access to this website to obtain the latest and detail parts information

<http://aicsl.acer.com.tw/spl/>

# Exploded Diagram







## Aspire 1800 Parts

| Illustration  | PARTNAME  | DESCRIPTION  | Acer P/N     |
|---|---|--|--------------|
| <b>ADAPTER</b>  |   |  |              |
|   | ADAPTER 150W<br>3PIN DELTA ADP-<br>150CB B PFC                  | ADAPTER 150W 3PIN DELTA<br>ADP-150CB B PFC                   | PY.15009.001 |
|   | ADAPTER 150W<br>3PIN LITEON PA-<br>1151-08CA 19V                | ADAPTER 150W 3PIN LITEON<br>PA-1151-08CA 19V                 | AP.15003.003 |
| <b>BATTERY</b>  |   |  |              |
|    | BATTERY LI-ION 8<br>CELLS 4S2P 2.0AH<br>SANYO UR18650H          | BATTERY LI-ION 8 CELLS 4S2P<br>2.0AH SANYO UR18650H          | BT.A2903.001 |
|   | BATTERY LI-ION 8<br>CELLS 4S2P 2.0AH<br>PANASONIC<br>CGR18650CA | BATTERY LI-ION 8 CELLS 4S2P<br>2.0AH PANASONIC<br>CGR18650CA | BT.A2905.001 |
| <b>BOARD</b>  |   |  |              |
|    | MODEM BOARD -<br>AMBIT (T60M283.10)                             | MODEM BOARD - AMBIT<br>(T60M283.10)                          | 54.A29V5.001 |
|  | MINI PCI WIRELESS<br>BOARD (802.11b+g)<br>FOXCONN               | MINI PCI WIRELESS BOARD<br>(802.11b+g) FOXCONN               | 54.A29V5.002 |
|  | BLUETOOTH CARD<br>WNC 81.BU513001<br>BT+ANT                     | BLUETOOTH CARD WNC<br>81.BU513001 BT+ANT                     | 54.A14V5.004 |
|  | CD PLAYER BOARD   | CD PLAYER BOARD  | 55.A29V5.001 |
|  | TOUCHPAD BOARD  | TOUCHPAD BOARD W/FFC - TP<br>TO TP BOARD                     | 55.A29V5.002 |

|   |                                 |                                 |              |
|---|---------------------------------|---------------------------------|--------------|
|   | LCM BOARD                       | LCM BOARD                       | 55.A29V5.003 |
| CABLE   |                                 |                                 |              |
|  | FFC CABLE - CD PLAY BOARD TO MB | FFC CABLE - CD PLAY BOARD TO MB | 50.A29V5.001 |
|  | BLUETOOTH CABLE                 | BLUETOOTH CABLE                 | 50.A29V5.003 |
|  | CARD READER CABLE               | CARD READER CABLE               | 50.A29V5.004 |
|   | POWER CORD US 3PIN              | POWER CORD US 3PIN              | 27.A29V5.001 |
|   | POWER CORD EU 3PIN              | POWER CORD EU 3PIN              | 27.A29V5.002 |
|   | POWER CORD UK 3PIN              | POWER CORD UK 3PIN              | 27.A29V5.003 |
|   | POWER CORD AUS 3PIN             | POWER CORD AUS 3PIN             | 27.A29V5.004 |
|   | POWER CORD CHINA 3PIN           | POWER CORD CHINA 3PIN           | 27.A29V5.005 |
|   | POWER CORD DENMARK 3PIN         | POWER CORD DENMARK 3PIN         | 27.A29V5.006 |
|   | POWER CORD ITALY 3PIN           | POWER CORD ITALY 3PIN           | 27.A29V5.007 |
|   | POWER CORD SWISS 3PIN           | POWER CORD SWISS 3PIN           | 27.A29V5.008 |
|   | POWER CORD KOREA 3PIN           | POWER CORD KOREA 3PIN           | 27.A29V5.009 |
|   | POWER CORD SOUTH AFRICA 3PIN    | POWER CORD SOUTH AFRICA 3PIN    | 27.A29V5.010 |
| CASE/COVER/BRACKET ASSEMBLY   |                                 |                                 |              |
|   | MIDDLE COVER W/ BUTTON          | MIDDLE COVER W/BUTTON           | 42.A29V5.001 |

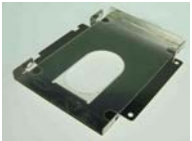



|   |   |   |              |
|---|---|---|--------------|
|   | LOWER CASE ASSY W/O FAN SPEAKERS SUB-WOOFER   | LOWER CASE ASSY W/O FAN SPEAKERS SUB-WOOFER                 | 60.A29V5.001 |
|   | UPPER CASE ASSY W/ ARCADE PLATE W/O TOUCHPAD  | UPPER CASE ASSY W/ ARCADE PLATE W/O TOUCHPAD                | 60.A29V5.002 |
|   | DIMM COVER                                    | DIMM COVER  | 42.A29V5.002 |
|   | MINI PCI COVER                                | MINI PCI COVER  | 42.A29V5.003 |
|   | TOUCHPAD SUPPORT                              | TOUCHPAD SUPPORT  | 33.A29V5.001 |
|   | THERMAL COVER                                 | THERMAL COVER   | 42.A29V5.004 |
| COMMUNICATION MODULE  |   |   |              |
|   | WIRELESS ANTENNA ASSY                         | WIRELESS ANTENNA ASSY                                       | 50.A29V5.005 |
| CPU/PROCESSOR   |   |   |              |
|   | INTEL PRECOTT 2.80GHZ/1MB L2/800 FSB/HT (520) | PRECOTT 2.80GHZ/1MB L2/800 FSB/HT LGA775 SL7J5 D-0 STEPPING | KC.D0001.520 |
|   | INTEL PRECOTT 3 GHZ/1MB L2/800 FSB/HT (530)   | PRECOTT 3 GHZ/1MB L2/800 FSB/HT LGA775 SL7E4 D-0 STEPPING   | KC.D0001.530 |
|   | INTEL PRECOTT 3.2GHZ/1MB L2/800 FSB/HT (540)  | PRECOTT 3.2GHZ/1MB L2/800 FSB/HT LGA775 SL7J7 D-0 STEPPING  | KC.D0001.540 |
|   | INTEL PRECOTT 3.4GHZ/1MB L2/800 FSB/HT (550)  | PRECOTT 3.4GHZ/1MB L2/800 FSB/HT LGA775 SL7J8 D-0 STEPPING  | KC.D0001.550 |
| COMBO DRIVE   |   |   |              |
|  | DVD/CDRW COMBO MODULE HLDS (GCC-4243N)        | DVD/CDRW COMBO MODULE HLDS (GCC-4243N)                      | 6M.A29V5.001 |
|   | DVD/CDRW COMBO MODULE QSI (SBW-242C)          | DVD/CDRW COMBO MODULE QSI (SBW-242C)                        | 6M.A29V5.002 |
|   | SUPER-MULTI MODULE PANASONIC (UJ-830B)        | SUPER-MULTI MODULE PANASONIC (UJ-830B)                      | 6M.A29V5.003 |
|   | SUPER-MULTI MODULE HLDS (GSA-4080N)           | SUPER-MULTI MODULE HLDS (GSA-4080N)                         | 6M.A29V5.004 |
|  | DVD/CDRW COMBO DRIVE HLDS (GCC-4243N)         | DVD/CDRW COMBO DRIVE HLDS (GCC-4243N)                       | KO.02405.005 |

|   |                                       |                                       |              |
|---|---------------------------------------|---------------------------------------|--------------|
|  | DVD/CDRW COMBO BEZEL HLDS             | DVD/CDRW COMBO BEZEL HLDS             | 42.A29V5.006 |
|  | OPTICAL DEVICE BRACKET                | OPTICAL DEVICE BRACKET                | 33.A29V5.002 |
|   | DVD/CDRW COMBO DRIVE QSI (SBW-242C)   | DVD/CDRW COMBO DRIVE QSI (SBW-242C)   | KO.02407.013 |
|   | DVD/CDRW COMBO BEZEL QSI              | DVD/CDRW COMBO BEZEL QSI              | 42.A29V5.007 |
|   | SUPER-MULTI DRIVE PANASONIC (UJ-830B) | SUPER-MULTI DRIVE PANASONIC (UJ-830B) | KU.00807.002 |
|   | SUPER MULTI BEZEL PANASONIC           | SUPER MULTI BEZEL PANASONIC           | 42.A29V5.008 |

|   |   |   |              |
|---|---|---|--------------|
|    | OPTICAL DEVICE BRACKET  | OPTICAL DEVICE BRACKET  | 33.A29V5.002 |
|    | SUPER-MULTI DRIVE HLDS (GSA-4080N)                            | SUPER-MULTI DRIVE HLDS (GSA-4080N)                            | KU.0040D.008 |
|    | SUPER MULTI BEZEL HLDS  | SUPER MULTI BEZEL HLDS  | 42.A29V5.009 |
|   | OPTICAL DEVICE BRACKET  | OPTICAL DEVICE BRACKET  | 33.A29V5.002 |
| HDD/HARD DISK DRIVE   |   |   |              |
|  | HDD 40G 2.5 IN. 420RPM TOSHIBA PLUTO MK4025GAS                | HDD 40G 2.5 IN. 420RPM TOSHIBA PLUTO MK4025GAS                | KH.04004.002 |
|   | HDD 40G 4200PRM SEAGATE ST94019A                              | HDD 40G 4200PRM SEAGATE ST94019A                              | KH.04001.010 |
|   | HDD 40GB 4200PRM HGST MORAGA HTS4204040M9AT00 13G1132         | HDD 40G 2.5 IN. HGST MORAGA HTS4204040M9AT00 13G1132 FW:A60M  | KH.04007.010 |
|   | HDD 60G 2.5 IN. 4200RPM TOSHIBA PLUTO MK6025GAS 2M F/W KA200A | HDD 60G 2.5 IN. 4200RPM TOSHIBA PLUTO MK6025GAS 2M F/W KA200A | KH.06004.003 |
|   | HDD 60GB 2.5 IN. 4200RPM FUJITSU V-40+ MHT2060AT A3 FW:0022   | HDD 60GB 2.5 IN. 4200RPM FUJITSU V-40+ MHT2060AT A3 FW:0022   | KH.06006.004 |
|   | HDD 80GB 2.5IN. 4200RPM TOSHIBA PLUTO MK8025GAS               | HDD 80GB TOSHIBA PLUTO MK8025GAS F/W:KA023A                   | KH.08004.001 |
|   | HDD 80GB 2.5IN. 4200RPM FIJITSU MHT2080AT A3 F/W:0022         | HDD 80GB 2.5IN. 4200RPM FIJITSU MHT2080AT A3 F/W:0022         | KH.08006.002 |

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|   |               |               |              |
|---|---------------|---------------|--------------|
|  | HDD SHIELDING | HDD SHIELDING | 33.A29V5.003 |
|  | HDD COVER     | HDD COVER     | 42.A29V5.005 |

|   |  |  |              |
|---|--|--|--------------|
|  | KEYBOARD<br>SUNREX ARABIC                    | KEYBOARD SUNREX ARABIC                 | KB.A2909.011 |
|   | KEYBOARD<br>SUNREX BELGIAN                   | KEYBOARD SUNREX BELGIAN                | KB.A2909.013 |
|   | KEYBOARD<br>SUNREX CANADIAN<br>FRENCH        | KEYBOARD SUNREX<br>CANADIAN FRENCH     | KB.A2909.007 |
|   | KEYBOARD<br>SUNREX<br>TRADITIONAL<br>CHINESE | KEYBOARD SUNREX<br>TRADITIONAL CHINESE | KB.A2909.005 |
|   | KEYBOARD<br>SUNREX CZECH                     | KEYBOARD SUNREX CZECH                  | KB.A2909.015 |
|   | KEYBOARD<br>SUNREX DENMARK                   | KEYBOARD SUNREX DENMARK                | KB.A2909.018 |
|   | KEYBOARD<br>SUNREX FRENCH                    | KEYBOARD SUNREX FRENCH                 | KB.A2909.006 |
|   | KEYBOARD<br>SUNREX GERMAN                    | KEYBOARD SUNREX GERMAN                 | KB.A2909.003 |
|   | KEYBOARD<br>SUNREX GREECE                    | KEYBOARD SUNREX GREECE                 | KB.A2909.021 |
|   | KEYBOARD<br>SUNREX HUNGARY                   | KEYBOARD SUNREX HUNGARY                | KB.A2909.016 |
|   | KEYBOARD<br>SUNREX ITALY                     | KEYBOARD SUNREX ITALY                  | KB.A2909.004 |
|   | KEYBOARD<br>SUNREX NORWAY                    | KEYBOARD SUNREX NORWAY                 | KB.A2909.017 |
|   | KEYBOARD<br>SUNREX<br>PORTUGUESE             | KEYBOARD SUNREX<br>PORTUGUESE          | KB.A2909.010 |
|   | KEYBOARD<br>SUNREX RUSSIAN                   | KEYBOARD SUNREX RUSSIAN                | KB.A2909.019 |
|   | KEYBOARD<br>SUNREX SPAIN                     | KEYBOARD SUNREX SPAIN                  | KB.A2909.009 |
|   | KEYBOARD<br>SUNREX SWEDEN                    | KEYBOARD SUNREX SWEDEN                 | KB.A2909.014 |
|   | KEYBOARD<br>SUNREX SWISS/G                   | KEYBOARD SUNREX SWISS/G                | KB.A2909.008 |
|   | KEYBOARD<br>SUNREX THAILAND                  | KEYBOARD SUNREX THAILAND               | KB.A2909.012 |
|   | KEYBOARD<br>SUNREX TURKISH                   | KEYBOARD SUNREX TURKISH                | KB.A2909.020 |
|   | KEYBOARD<br>SUNREX UK                        | KEYBOARD SUNREX UK                     | KB.A2909.002 |
| KEYBOARD<br>SUNREX US<br>INTERNATIONAL  | KEYBOARD SUNREX US<br>INTERNATIONAL          | KB.A2909.001                           |              |

| LCD -- AU   |   |  |              |
|---|---|--|--------------|
|    | ASSY LCD MODULE<br>17 IN. WXGA AU<br>(B170PW01)               | ASSY LCD MODULE 17 IN.<br>WXGA AU (B170PW01)               | 6M.A29V5.011 |
|   | LCD 17 IN. WXGA<br>AU (B170PW01)                              | LCD 17 IN. WXGA AU<br>(B170PW01)                           | LK.17005.002 |
|   | LCD INVERTER<br>(THICKNESS 7.5)                               | LCD INVERTER (THICKNESS<br>7.5)                            | 19.A29V5.001 |
|   | LCD PANEL WITH<br>LOGO W/ANTENNA<br>(THICKNESS 7.5)           | LCD PANEL WITH LOGO W/<br>ANTENNA (THICKNESS 7.5)          | 60.A29V5.003 |
|    | LCD INVERTER<br>(THICKNESS 7.5)                               | LCD INVERTER (THICKNESS<br>7.5)                            | 19.A29V5.001 |
|   | LCD PANEL WITH<br>LOGO W/ANTENNA<br>(THICKNESS 7.5)           | LCD PANEL WITH LOGO W/<br>ANTENNA (THICKNESS 7.5)          | 60.A29V5.003 |
|   | LCD BEZEL W/<br>LOGO  | LCD BEZEL W/ LOGO  | 60.A29V5.004 |
|   | LCD BRACKET L -<br>AU (B170PW01)                              | LCD BRACKET L - AU<br>(B170PW01)                           | 33.A29V5.004 |
|   | LCD BRACKET R -<br>AU (B170PW01)                              | LCD BRACKET R - AU<br>(B170PW01)                           | 33.A29V5.005 |
|  | LCD WIRE SET<br>(THICKNESS 7.5)                               | LCD WIRE SET (THICKNESS<br>7.5)                            | 50.A29V5.006 |
|   | LCD RUBBER -<br>ROUND   | LCD RUBBER -ROUND  | 47.A29V5.001 |
|   | LCD SCREW PAD -<br>SQUARE                                     | LCD SCREW PAD - SQUARE                                     | 47.A29V5.002 |
| LCD --LG  |   |  |              |
|   | ASSY LCD MODULE<br>17 IN. WXGA LG<br>(VESA) (LP171W01-<br>A4) | ASSY LCD MODULE 17 IN.<br>WXGA LG (VESA) (LP171W01-<br>A4) | 6M.A29V5.012 |
|   | IN. WXGA LG<br>(VESA) (LP171W01-<br>A4)                       | LCD 17 IN. WXGA LG (VESA)<br>(LP171W01-A4)                 | LK.17108.001 |
|   | LCD INVERTER<br>(THICKNESS 7.5)                               | LCD INVERTER (THICKNESS<br>7.5)                            | 19.A29V5.001 |

|                |  |  |              |
|----------------|--|--|--------------|
|                | LCD PANEL WITH LOGO W/ANTENNA (THICKNESS 7.5)      | LCD PANEL WITH LOGO W/ ANTENNA (THICKNESS 7.5)     | 60.A29V5.003 |
|                | LCD BEZEL W/ LOGO                                  | LCD BEZEL W/ LOGO                                  | 60.A29V5.004 |
|                | LCD BRACKET L - LG (VESA) (LP171WX2-A4)            | LCD BRACKET L - LG (VESA) (LP171WX2-A4)            | 33.A29V5.006 |
|                | LCD BRACKET R - LG (VESA) (LP171WX2-A4)            | LCD BRACKET R - LG (VESA) (LP171WX2-A4)            | 33.A29V5.007 |
|                | LCD WIRE SET (THICKNESS 7.5)                       | LCD WIRE SET (THICKNESS 7.5)                       | 50.A29V5.006 |
|                | LCD RUBBER   | LCD RUBBER   | 47.A29V5.001 |
|                | LCD SCREW PAD                                      | LCD SCREW PAD                                      | 47.A29V5.002 |
| LCD -- SAMSUNG |  |  |              |
|                | ASSY LCD MODULE 17 IN. WXGA SAMSUNG (LTN170WX-L01) | ASSY LCD MODULE 17 IN. WXGA SAMSUNG (LTN170WX-L01) | 6M.A29V5.013 |
|                | LCD 17 IN. WXGA SAMSUNG (LTN170WX-L01)             | LCD 17 IN. WXGA SAMSUNG (LTN170WX-L01)             | LK.17006.003 |
|                | LCD INVERTER (THICKNESS 7.5)                       | LCD INVERTER (THICKNESS 7.5)                       | 19.A29V5.001 |
|                | LCD PANEL WITH LOGO W/ANTENNA (THICKNESS 7.5)      | LCD PANEL WITH LOGO W/ ANTENNA (THICKNESS 7.5)     | 60.A29V5.003 |
|                | LCD BEZEL W/ LOGO                                  | LCD BEZEL W/ LOGO                                  | 60.A29V5.004 |
|                | LCD BRACKET L - SAMSUNG (LTN170WX-L01)             | LCD BRACKET L - SAMSUNG (LTN170WX-L01)             | 33.A29V5.008 |
|                | LCD BRACKET R - SAMSUNG (LTN170WX-L01)             | LCD BRACKET R - SAMSUNG (LTN170WX-L01)             | 33.A29V5.009 |
|                | LCD WIRE SET (THICKNESS 7.5)                       | LCD WIRE SET (THICKNESS 7.5)                       | 50.A29V5.006 |
|                | LCD RUBBER   | LCD RUBBER   | 47.A29V5.001 |
|                | LCD SCREW PAD                                      | LCD SCREW PAD                                      | 47.A29V5.002 |
| LCD -- AU      |  |  |              |
|                | ASSY LCD MODULE 17 IN. WXGA AU (B170PW02)          | ASSY LCD MODULE 17 IN. WXGA AU (B170PW02)          | 6M.A29V5.014 |
|                | LCD 17 IN. WXGA AU (B170PW02) W/2 LAMPS            | LCD 17 IN. WXGA AU (B170PW02) W/2 LAMPS            | LK.17005.003 |
|                | LCD INVERTER (THICKNESS 10)                        | LCD INVERTER (THICKNESS 10)                        | 19.A29V5.002 |
|                | LCD PANEL WITH LOGO W/ANTENNA (THICKNESS 10)       | LCD PANEL WITH LOGO W/ ANTENNA (THICKNESS 10)      | 60.A29V5.005 |

|   |  |   |              |
|---|--|---|--------------|
|   | LCD BEZEL W/<br>LOGO   | LCD BEZEL W/ LOGO   | 60.A29V5.004 |
|   | LCD BRACKET L -<br>AU (B170PW02)                               | LCD BRACKET L - AU<br>(B170PW02)                            | 33.A29V5.010 |
|   | LCD BRACKET R -<br>AU (B170PW02)                               | LCD BRACKET R - AU<br>(B170PW02)                            | 33.A29V5.011 |
|   | LCD WIRE SET<br>(THICKNESS 10)                                 | LCD WIRE SET (THICKNESS 10)                                 | 50.A29V5.007 |
|   | LCD RUBBER   | LCD RUBBER  | 47.A29V5.001 |
|   | LCD SCREW PAD  | LCD SCREW PAD   | 47.A29V5.002 |
| LCD -- LG   |  |   |              |
|   | ASSY LCD MODULE<br>17 IN. WSXGA LG<br>(VESA) (LP171W02-<br>A3) | ASSY LCD MODULE 17 IN.<br>WSXGA LG (VESA) (LP171W02-<br>A3) | 6M.A29V5.015 |
|   | LCD 17 IN. WSXGA<br>LG (VESA)<br>(LP171W02-A3)                 | LCD 17 IN. WSXGA LG (VESA)<br>(LP171W02-A3)                 | LK.17108.002 |
|   | LCD INVERTER<br>(THICKNESS 7.5)                                | LCD INVERTER (THICKNESS<br>7.5)                             | 19.A29V5.001 |
|   | LCD PANEL WITH<br>LOGO W/ANTENNA<br>(THICKNESS 7.5)            | LCD PANEL WITH LOGO W/<br>ANTENNA (THICKNESS 7.5)           | 60.A29V5.003 |
|   | LCD BEZEL W/<br>LOGO   | LCD BEZEL W/ LOGO   | 60.A29V5.004 |
|   | LCD BRACKET L -<br>LG (VESA)<br>(LP171W02-A4)                  | LCD BRACKET L - LG (VESA)<br>(LP171W02-A4)                  | 33.A29V5.012 |
|   | LCD BRACKET R -<br>LG (VESA)<br>(LP171W02-A4)                  | LCD BRACKET R - LG (VESA)<br>(LP171W02-A4)                  | 33.A29V5.013 |
|   | LCD WIRE SET<br>(THICKNESS 7.5)                                | LCD WIRE SET (THICKNESS<br>7.5)                             | 50.A29V5.006 |
|   | LCD RUBBER   | LCD RUBBER  | 47.A29V5.001 |
|   | LCD SCREW PAD  | LCD SCREW PAD   | 47.A29V5.002 |
| MAINBOARD   |  |   |              |
|  | MAINBOARD 64 MB<br>W/ PCMCIA SLOT<br>W/O CPU MEMORY,<br>GIGA   | MAINBOARD 64 MB W/ PCMCIA<br>SLOT W/O CPU MEMORY, GIGA      | LB.A2902.001 |
| PCMCIA SLOT/PC CARD SLOT  |  |   |              |
|   | PCMCIA SLOT  | PCMCIA SLOT   | 22.A29V5.001 |



| MEMORY  |   |  |              |
|---|---|--|--------------|
|    | MEMORY DDR333<br>256MB NANYA<br>NT256D64SH8BAG<br>M-6K (.14u)           | MEMORY DDR333 256MB<br>NANYA NT256D64SH8BAGM-6K<br>(.14u)            | KN.25603.009 |
|   | MEMORY DDR333<br>256M INFINEON<br>HYS64D32020HDL-<br>6-C 32x64 (.11u/G) | MEMORY DDR333 256M<br>INFINEON HYS64D32020HDL-6-<br>C 32x64 (.11u/G) | KN.25602.012 |
|   | MEMORY DDR333<br>256MB MICRON<br>MT4VDDT3264HG-<br>335C2 (0.11u/512Mb)  | MEMORY DDR333 256MB<br>MICRON MT4VDDT3264HG-<br>335C2 (0.11u/512Mb)  | KN.25604.016 |
|   | MOMERY DDR333<br>256MB SAMSUNG<br>M470L3224FT0-CB3<br>(.13u)            | MOMERY DDR333 256MB<br>SAMSUNG M470L3224FT0-CB3<br>(.13u)            | KN.2560B.008 |
|   | MOMERY DDR333<br>512MB INFINEON<br>HYS64D64020GBDL<br>-6-C (.11u/B)     | MOMERY DDR333 512MB<br>INFINEON HYS64D64020GBDL-<br>6-C (.11u/B)     | KN.51202.013 |
|   | MOMERY DDR333<br>512MB NANYA<br>NT512D64SH8A0FM<br>-6K                  | MOMERY DDR333 512MB<br>NANYA NT512D64SH8A0FM-6K                      | KN.51203.011 |
|   | MOMERY DDR333<br>512MB MICRON<br>MT8VDDT6464HDG-<br>335C1 (.11u/512Mb)  | MOMERY DDR333 512MB<br>MICRON MT8VDDT6464HDG-<br>335C1 (.11u/512Mb)  | KN.51204.013 |
| FAN   |   |  |              |
|  | FAN - LOGIC<br>LOWER  | FAN - LOGIC LOWER  | 23.A29V5.001 |
|  | FAN - METAL   | FAN - METAL  | 23.A29V5.002 |
|  | FAN - PLASTIC   | FAN - PLASTIC  | 23.A29V5.003 |
| HEATSINK  |   |  |              |

|   |                              |                              |              |
|---|------------------------------|------------------------------|--------------|
|    | THERMAL MODULE               | THERMAL MODULE               | 60.A29V5.006 |
| MISCELLANEOUS   |                              |                              |              |
|   | RUBBER FOOT - LOWER CASE - B | RUBBER FOOT - LOWER CASE - B | 47.A29V5.003 |
|   | RUBBER FOOT - LOWER CASE - M | RUBBER FOOT - LOWER CASE - M | 47.A29V5.004 |
|   | RUBBER FOOT - LOWER CASE - F | RUBBER FOOT - LOWER CASE - F | 47.A29V5.005 |
| POINTING DEVICE   |                              |                              |              |
|    | TOUCHPAD                     | TOUCHPAD                     | 56.A14V5.001 |
| SPEAKER   |                              |                              |              |
|   | SPEAKER SET (R&L) 1.5W       | SPEAKER SET (R&L) 1.5W       | 23.A29V5.004 |
|  | SUB-WOOFER 2W                | SUB-WOOFER 2W                | 23.A29V5.005 |
| SCREWS  |                              |                              |              |
|   | SCREW, M1.7X 2.5ZS           | SCREW, M1.7X 2.5ZS           | 86.A29V5.001 |
|   | SCREW, CPU TO MB             | SCREW, CPU TO MB             | 86.A29V5.002 |
|   | SCREW, M2.5X4                | SCREW, M2.5X4                | 86.A29V5.003 |
|   | SCREW, M2.5X6                | SCREW, M2.5X6                | 86.A29V5.004 |
|   | SCREW, M2X3(NL)              | SCREW, M2X3(NL)              | 86.A29V5.005 |
|   | SCREW, M2X3                  | SCREW, M2X3                  | 86.A29V5.006 |
|   | SCREW, M3*4 (NL)             | SCREW, M3*4 (NL)             | 86.A29V5.007 |
|   | SCREW, D-SUB NUT             | SCREW, D-SUB NUT             | 86.A29V5.008 |

# Model Definition and Configuration

## Aspire 1800 series

| Model Number | CPU                      | LCD         | Memory            | HDD         | Optical           | Bluetooth     | Mini PCI             | Battery           |
|--------------|--------------------------|-------------|-------------------|-------------|-------------------|---------------|----------------------|-------------------|
| 1801WSCi     | DT P4 520<br>(2.8GHz/1M) | 17"<br>WXGA | DDR333<br>2x256MB | 40GB        | 24x<br>Combo      | NA            | 802.11b/g-<br>AS1800 | Li-Ion-<br>AS1800 |
| 1801WSMi     | DT P4 520<br>(2.8GHz/1M) | 17"<br>WXGA | DDR333<br>2x256MB | 60GB        | 8x DVD-<br>SMulti | BT-<br>AS1800 | 802.11b/g-<br>AS1800 | Li-Ion-<br>AS1800 |
| 1801WSM      | DT P4 520<br>(2.8GHz/1M) | 17"<br>WXGA | DDR333<br>2x256MB | 60GB        | 8x DVD-<br>SMulti | NA            | NA                   | Li-Ion-<br>AS1800 |
| 1802WSMi     | DT P4 530<br>(3.0GHz/1M) | 17"<br>WXGA | DDR333<br>2x256MB | 60~80G<br>B | 8x DVD-<br>SMulti | NA            | 802.11b/g-<br>AS1800 | Li-Ion-<br>AS1800 |
| 1802WSM      | DT P4 530<br>(3.0GHz/1M) | 17"<br>WXGA | DDR333<br>2x256MB | 60GB        | 8x DVD-<br>SMulti | NA            | NA                   | Li-Ion-<br>AS1800 |

# ***Test Compatible Components***

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This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows XP Home and Windows XP Professional 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 1800 Compatibility Test. Report released by the Acer Mobile System Testing Department.

## Microsoft Windows XP / Professional Environment Test

|     | Model                                | Vendor  | Description                             |
|-----|--------------------------------------|---------|---|
| CPU | DT Precott                           | Intel   | Precott 2.80GHz/1MB L2/800 FSB/HT (520) |
|     |                                      |         | Precott 3 GHz/1MB L2/800 FSB/HT (530)   |
|     |                                      |         | Precott 3.2GHz/1MB L2/800 FSB/HT (540)  |
|     |                                      |         | Precott 3.4GHz/1MB L2/800 FSB/HT (550)  |
|     |                                      |         | Precott 3.6GHz/1MB L2/800 FSB/HT (560)  |
|     |                                      |         | Precott 3.8GHz/1MB L2/800 FSB/HT (570)  |
| LCD | 17.0" WXGA(1440 x 900)               | AU      | AU B170PW01                             |
|     |                                      | LG      | LG LP171W01-A4                          |
|     |                                      | Samsung | Samsung LTN170WX-L06                    |
|     | 17.0" WXGA(with 2 lamps)(1440 x 900) | AU      | AU B170PW02                             |
|     |                                      | LG      | LG LP1717W02-A3                         |
|     |                                      |         | LG LP171X02-A4                          |
| HDD | 40GB(4200rpm)                        | Toshiba | Pluto MK4025GAS ,KA100A                 |
|     |                                      | Seagate | N1 ST94019A, 2MB                        |
|     |                                      | HGST    | Moraga+ HTS424040M9AT0013G1132          |
|     | 60GB(4200rpm)                        | Toshiba | Pluto MK6025GAS                         |
|     |                                      | Fijitsu | MHT2060AT, A3                           |
|     |                                      | Seagate | N2 or HGST Moraga+                      |
|     | 80GB(4200rpm)                        | Toshiba | Pluto MK8025GAS, 8MB                    |
|     |                                      | Fijitsu | MHT2080AT, A3                           |
|     |                                      | Seagate | N2 or HGST Moraga+                      |
| ODD | Combo drive                          | HLDS    | HLDS GCC-4243N Combo                    |
|     |                                      | QSI     | DVD/CDRW Combo QSI/SBW-242C             |
|     | DVD-Super Multi                      | KME     | UJ-830B DVD SUPER MULTI, 8X             |
|     |                                      | HLDS    | HLDS GSA-4080N DVD SUPER MULTI, 8X      |

|            | Model                      | Vendor  | Description   |
|------------|----------------------------|---|---|
| Memory     | 256MB DDR333               | Nanya   | SO-DIMM DDR333 256MB<br>NT256D64SH8BAGM-6K (.14u)             |
|            |                            | Infineon  | SO-DIMM DDR333 256MB<br>HYS64D32020GDL-6-C (.11u/black)       |
|            |                            |   | SO-DIMM DDR333 256MB<br>HYS64D32020HDL-6-C 32x64 (.11u/green) |
|            |                            | Micron  | SO-DIMM DDR333 256MB<br>MT4VDDT3264HG-335C2 (0.11u/512Mb)     |
|            | Samsung                    | SO-DIMM DDR333 256MB<br>M470L3224FT0-CB3 (.13u) |   |
|            | 512MB DDR333               | Infineon  | SO-DIMM DDR333 512MB<br>HYS64D64020GBDL-6-C (.11u/B)          |
|            |                            | Nanya   | SO-DIMM DDR333 512MB<br>NT512D64SH8A0FM-6K                    |
|            |                            | Micron  | SO-DIMM DDR333 512MB<br>MT8VDDT6464HDG-335C1 (.11u/512Mb)     |
| 1GB DDR333 | Elpida                     | SO-DIMM DDR333 1GB EBD11UD8ADDA                 |   |
| MB         | MB for Giga Lan 64MB Vram  | Compal  | AS1800 Main Board Giga 64MB-Vram                              |
| Battery    | 8 Cell                     | Panasonic                                       | AS1800 BATECQ60 Battery (Panasonic)                           |
|            |                            | Sanyo   | AS1800 BATECQ60 Battery (Sanyo)                               |
| Adapter    | 150W                       | LiteOn  | Lite-On NB Adapter PA-1151-08CA, 19V, 3 pins(150W)            |
|            |                            | Delta   | Delta ADP-150CB B PFC 3-pin                                   |
| Wlan       | Wireless Lan               | Ambit   | 802.11b/g Mini-PCI  |
| TV-Tuner   | DVBT-K100 Digital TV-Tuner | Twinhan   | Digital TV-Tuner  |
|            | AST-K200 Analog TV-Tuner   | Lifeview  | Analog Silicon Tuner  |
| Remote     | STRC-100 Remote Control    | Formosa 21                                      | PCMCIA Slot Remote Control                                    |

|                         | Model            | Vendor | Description                      |
|-------------------------|------------------|--------|----------------------------------|
| KB                      | 84/85 keys,2.5mm | Sunrex | AS1800 Keyboard US International |
|                         |                  |        | AS1800 Keyboard UK               |
|                         |                  |        | AS1800 Keyboard German           |
|                         |                  |        | AS1800 Keyboard Italian          |
|                         |                  |        | AS1800 Keyboard Chinese          |
|                         |                  |        | AS1800 Keyboard French           |
|                         |                  |        | AS1800 Keyboard Canadian French  |
|                         |                  |        | AS1800 Keyboard Swiss/G          |
|                         |                  |        | AS1800 Keyboard Spanish          |
|                         |                  |        | AS1800 Keyboard Portuguese       |
|                         |                  |        | AS1800 Keyboard Arabic           |
|                         |                  |        | AS1800 Keyboard Thai             |
|                         |                  |        | AS1800 Keyboard Belgium          |
|                         |                  |        | AS1800 Keyboard Sweden           |
|                         |                  |        | AS1800 Keyboard Czech            |
|                         |                  |        | AS1800 Keyboard Hungaian         |
|                         |                  |        | AS1800 Keyboard Norway           |
|                         |                  |        | AS1800 Keyboard Danish           |
| AS1800 Keyboard Russian |                  |        |                                  |
| AS1800 Keyboard Turkish |                  |        |                                  |
| AS1800 Keyboard Greek   |                  |        |                                  |

# Online Support Information

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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)
- 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.



