

# ***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>

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

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## ***Revision History***

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

<b>D ate</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

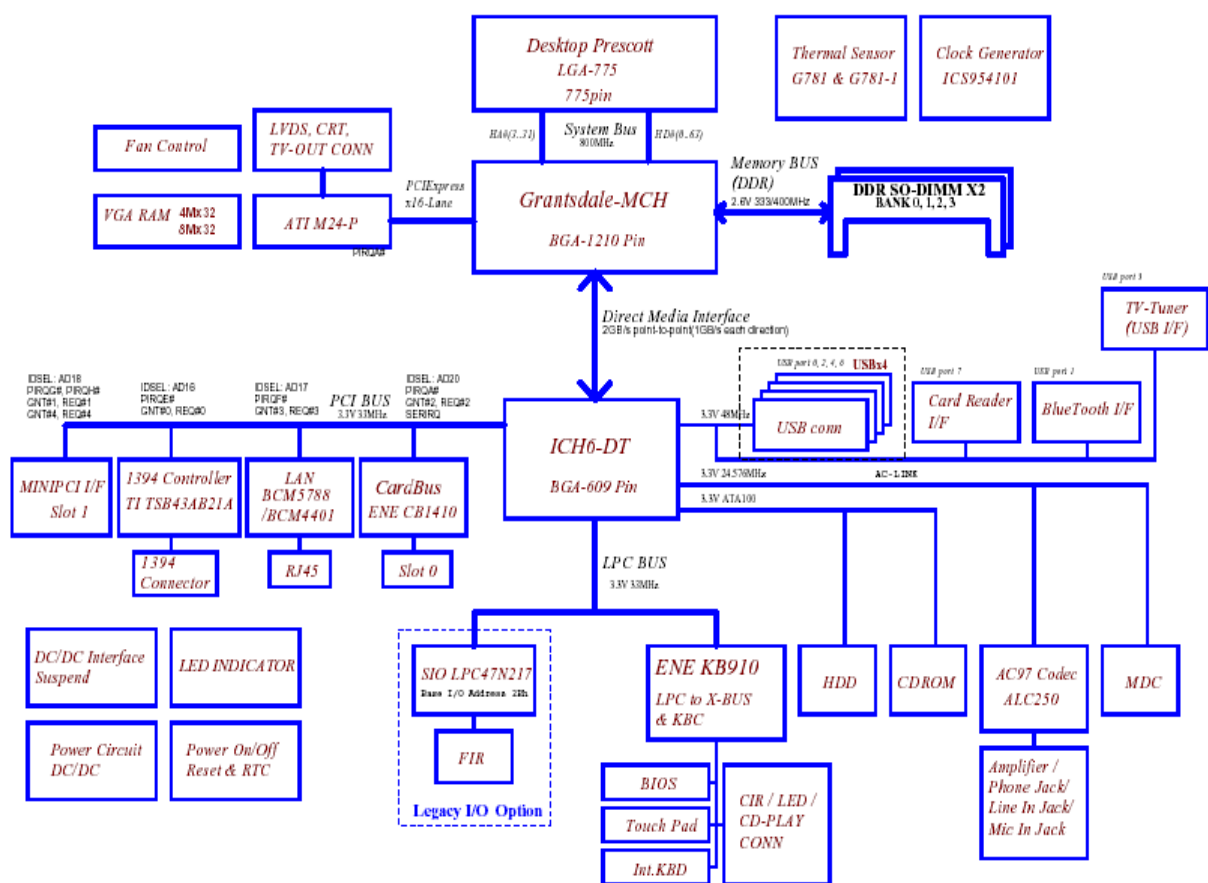
### ***Battery***

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

### ***IOMP***

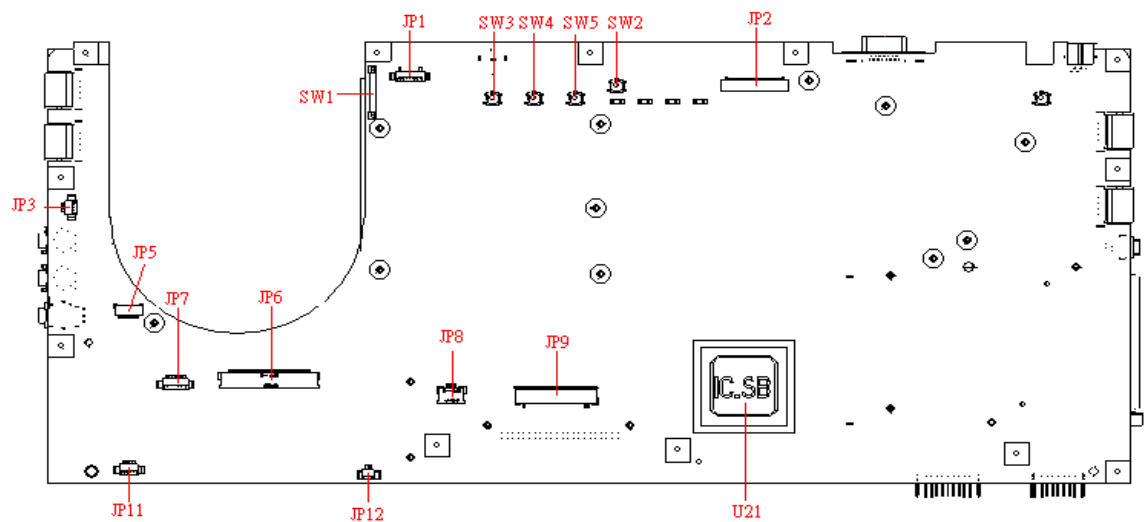
- ☐ Instant-on supported (CD-Player buttons in front of system, system can also be power on, CD-Player all function by the remote control)

# Block Diagram

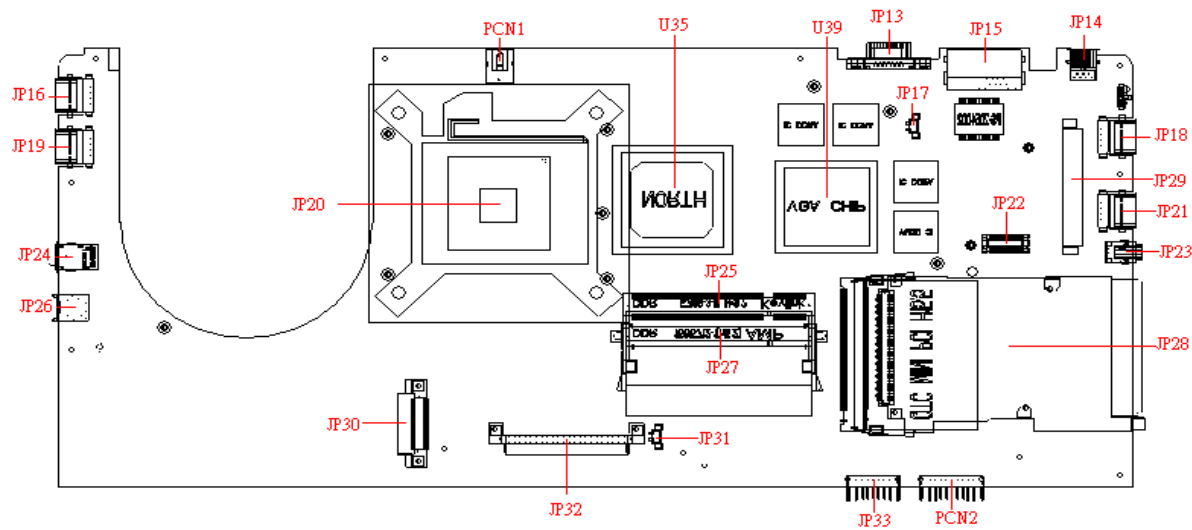


# Mainboard Placement

## 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

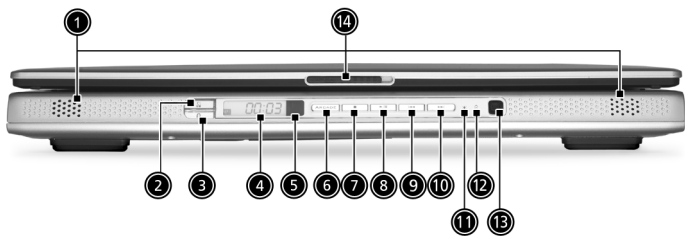
A general introduction of ports allow you to connect peripheral devices, as you would with a desktop PC.

### Open View



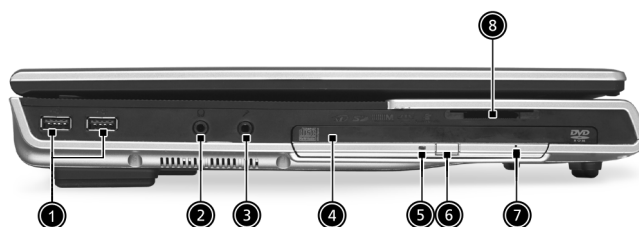
#	Item	Description
1	Screen	Wide screen display provides visual output
2	Status Indicators	LEDs that turn on and off to show system status.
3	Launch keys	Buttons that can be programmed to start frequently used applications.
4	Keyboard	Full-size keyboard for inputting typed data.
5	Built-in Microphone	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



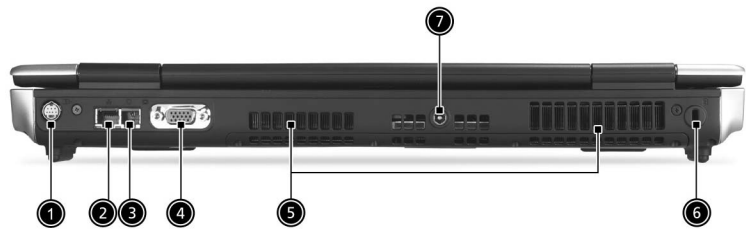
#	Icon	Item	Description
1		USB ports	USB 2.0 ports
2		Headphone-in jack	Connects headphones for analog audio output and digital S/PDIF output
3		Microphone-in jack	Connects an external microphone for audio input
4	N/A	Optical drive	Internal optical drive; accepts CDs or DVDs depending on the optical 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 	Type II PC card supports PCMCIA or CardBus.
3	IEEE 1394 Port 	Connects IEEE 1394 devices.
4	USB Ports 	USB 2.0 ports
5	Infrared port 	Interfaces with infrared devices (e.g. infrared printer, IR-aware computer, etc...)

# Rear View



#	Item	Description
1	S-video out port 	Connects to a television or display device supporting S-video input.
2	Network jack 	Connects the computer to the 10/100/1000 Ethernet network.
3	Modem Jack 	Connects the built-in fax/data modem to a phone line.
4	External display port 	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	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

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# 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.

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## 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 keypad 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
Windows logo key 	<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>
Application key 	<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.



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## 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), DVD-R (3.95G/4.7G), DVD-RAM (2.6G/4.7G), DVD-RW CD: CD-Audio, CD-ROM(mode 1 and mode 2), CD-ROM XA ( mode2, form 1 and form 2), CD-RW Photo CD Video CD Enhanced Music CD 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 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 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 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 1-A4-K2	17" WXGA	45/60/70	3.5/6/6.5	1500Vrms	750 Vrms at 6mA	130/160
2	Samsung	LTN170W X-L01	17" WXGA	55/60/65	4/6/6.5	1800Vrms	730 Vrms at 6mA	145/170
3	AU	B170PW0 1	17" WXGA	50/60/70	-/6/7	1500 Vrms	785 Vrms at 6mA	160/190
4	LG	LP171W0 2-A3	17" WXGA	40/60/80	3/6.5/7	1560 Vrms	720 Vrms 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.

---

### ***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 *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 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 *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	$\frac{I_{-p}}{I_{rms}}$ or $I_{rms} * 10$
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>	--	--	150Vp -p	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  $\Omega$ .

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	mA <sub>rms</sub>	DAC_BRIG: 0 V, PWM: 100%
	IL	3.3	3.6	3.9	mA <sub>rms</sub>	DAC_BRIG: 0 V, PWM:40%
	IL	5.7	6.0	6.3	mA <sub>rms</sub>	DAC_BRIG: 0.5V, PWM:100%
	IL	3	3.3	3.6	mA <sub>rms</sub>	DAC_BRIG: 0.5V, PWM:40%
	f	50	60	70	kHz	
	$\eta$	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:

- ☐  $\Delta T \leq 40^\circ \text{C}$ , at  $25^\circ \text{C}$  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 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) 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) 2. VDE class B requirements (German) 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 VGA Power Down PCMCIA Suspend Audio Power Down Hard Disk Power Down Super I/O Power Down
Sleeping State (S4)	Also called Hibernation 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" 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 Lid switch User define switch 1, 2 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***

I/O Address	Function
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***

Interrupt Channel	Function(Hardware)
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 Controller-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 Audio
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***

DMA Channel	Function(Hardware)
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:	xxxxxxxxxxxxxxxxxxxxxx				
Asset Tag Number:	N/A				
Product Name:	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx				
Manufacturer Name:	xxxxxxxxxxxxxx				
UUID:	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx				
F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup defaults		
Esc Exit	←→ Select Menu	Enter Select ▸ Sub-Menu	F10 Save and Exit		

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]			
F1   Help	↑↓   Select Item	F5/F6   Change Values		F9   Setup defaults
Esc   Exit	←→   Select Menu	Enter   Select ▶   Sub-Menu		F10   Save and Exit

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. 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	Advanced	Security	Boot	Exit
Infrared Port (FIR) : [Enabled] Base I/O address/IRQ: [2F8/IRQ 3] DMA channel: [DMA 3]				Item specific Help	
				[Disabled]	
				Infrared port is not active.	
				[Enabled] Infrared port is active and is user configured.	
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 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 <b>2F8/IRQ3</b> 3E8/IRQ4 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 <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		Security		Boot		Exit	
<div>Supervisor Password Is: Clear</div> <div>User Password Is: Clear</div> <div>Set Supervisor Password: [Enter]</div> <div>Set User Password: [Enter]</div> <div>Primary Harddisk Security: [Disabled]</div> <div>Password on Boot: [Disabled]</div>								Item specific Help			
								<div>Supervisor Password controls access to the setup utility.</div>			
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. 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 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</p> <p>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	Boot	Exit
<div>Boot priority order:</div> <div><div>1: IDE 0:</div><div>TOSHIBA MK6025GAS-(PM)</div></div> <div><div>2: IDE1:</div><div>QSI DVDRW SDW-042-(PS)</div></div> <div><div>3: PCI LAN:</div><div></div></div> <div><div>4: USB FDC:</div><div></div></div> <div></div>				Item specific Help	
				<div>Keys used to view or Configure devices: Up and Down arrows Select a device. Press press &lt;F6&gt; to move it up the List, or &lt;F5&gt; to move it down the list. Press &lt;Esc&gt; to escape the menu.</div>	
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
Exit Saving Changes				Item specific Help	
				Exit System Setup and save your changes to CMOS.	
				Exit utility without saving Setup data to CMOS.	
				Load default values for all SETUP items.	
				Load previous values From CMOS for all SETUP Items,	
Exit Discarding Changes				Save Setup Data to CMOS.	
Load Setup Defaults					
Discard changes					
Save changes					
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.

---

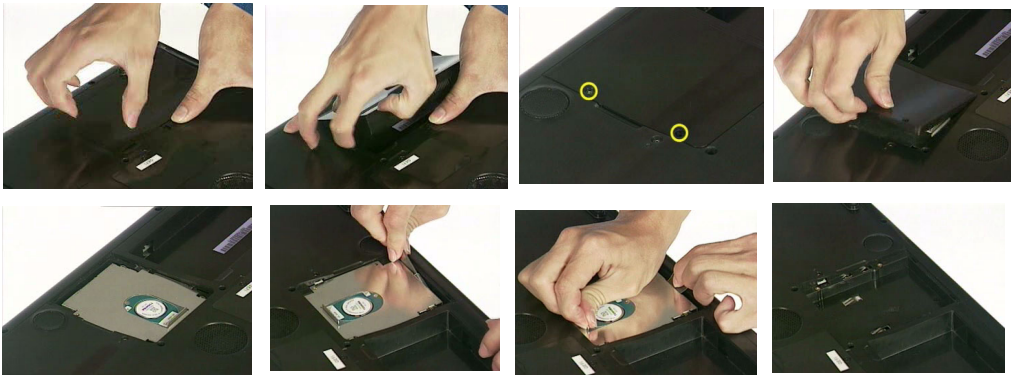
## Aspire 1800 Disassembly Procedure

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

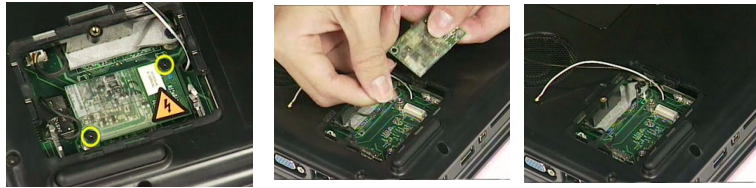
1. Remove the one screw to release the Wireless door.
2. Take the wireless door from the system.
3. Disconnect the Antenna cables from the wireless board.
4. Push outward the tabs on both side to release the wireless board then pull it out from the system.



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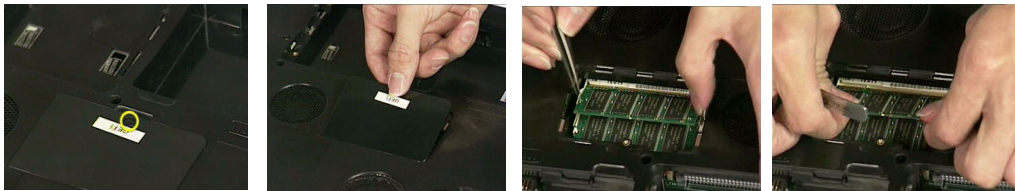
## ***Disassemble the Modem Card***

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.



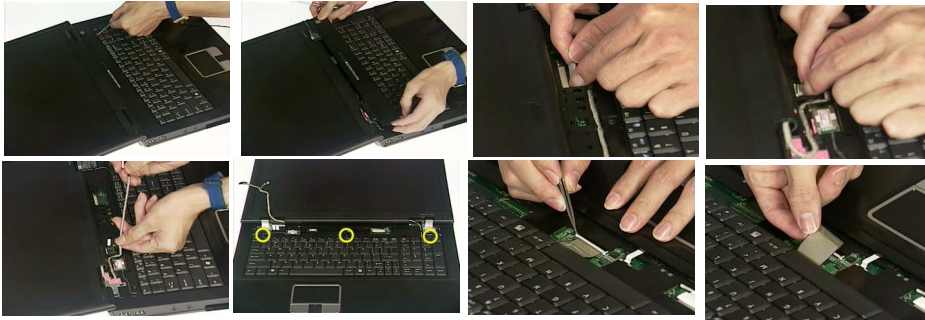
7. Remove the four screws to detach the ODD module.
8. Detach the ODD bracket from the position.
9. Eject the ODD tray.
10. Remove the one screw as highlight.
11. Detach the ODD panel out from the unit.



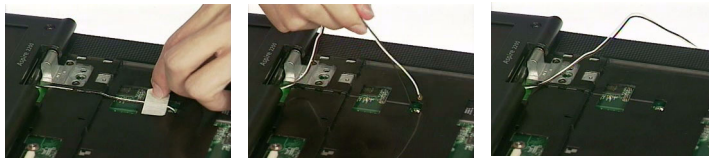
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## ***Disassemble the Keyboard***

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 top case.



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

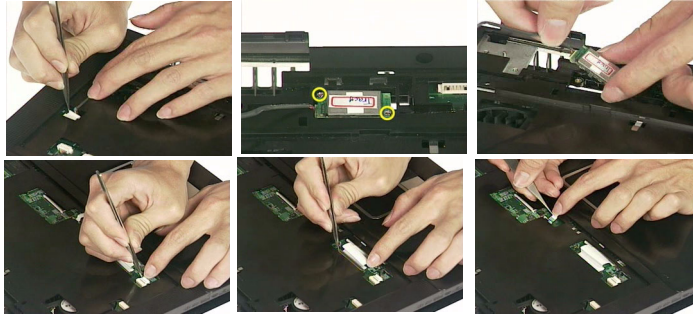
1. Remove the four screws located on the top case
2. Then remove the two screws on the rear of the system
3. Detach the panel module away from the system



---

## ***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

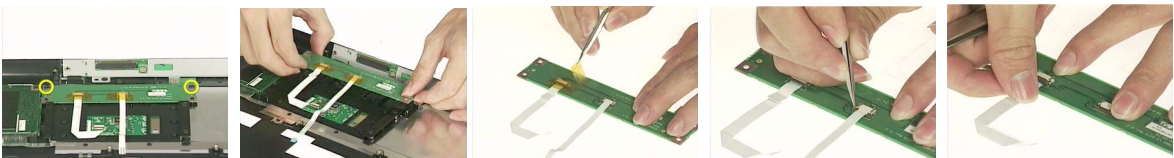


## ***Disassemble Case, Touchpad and CD-Player***

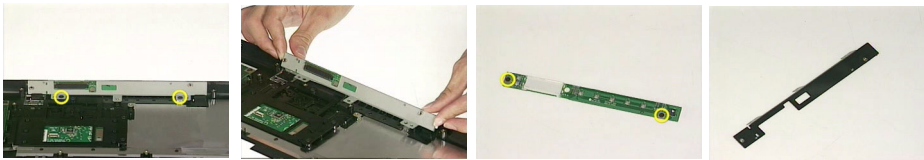
1. Remove the one screw located as highlight on the top case.
2. Remove the fourteen screws located on the base.
3. Detach the top case out from the system.
4. Pull up the tabs on both side to disconnect the CD-Player flat flexible cable from the CD-Player board.
5. Pull the tabs on both side forward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



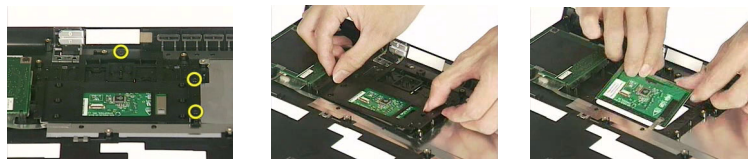
6. Remove the two screws to release the touchpad board.
7. Then detach the touchpad board from the support.
8. Tear tape on these positions to disconnect the cables.
9. Pull the tabs on both side forward to disconnect the cables from touchpad board.



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.

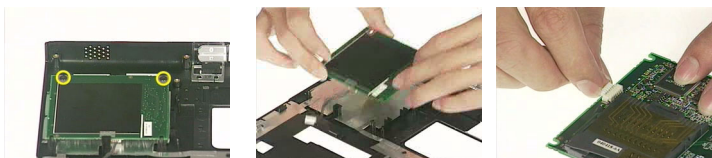


14. Remove the three screws to release the Touchpad support.
15. Detach the touchpad support from the touchpad then take the touchpad from the top case.



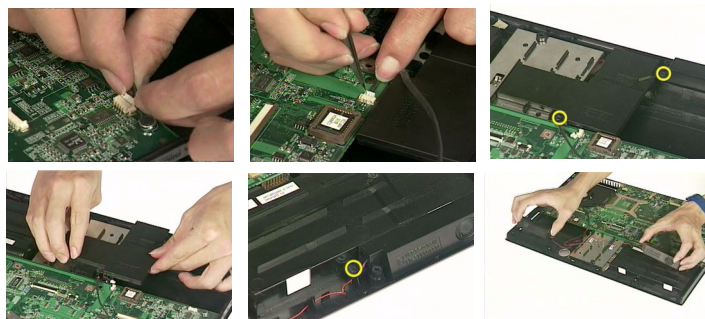
### ***Disassemble the Card Reader***

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***

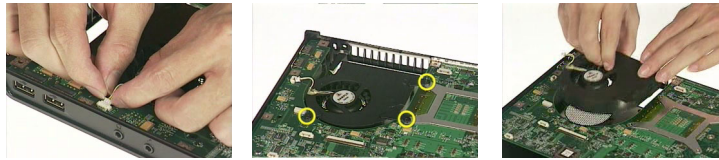
1. Disconnect the speaker cable from the mainboard.
2. Disconnect the sub-woofer cable from the mainboard.
3. Remove the two screws to detach the sub-woofer module.
4. Then detach the sub-woofer from the top case.
5. Remove the one screw to detach the speaker.
6. Take the speaker set out from the system.



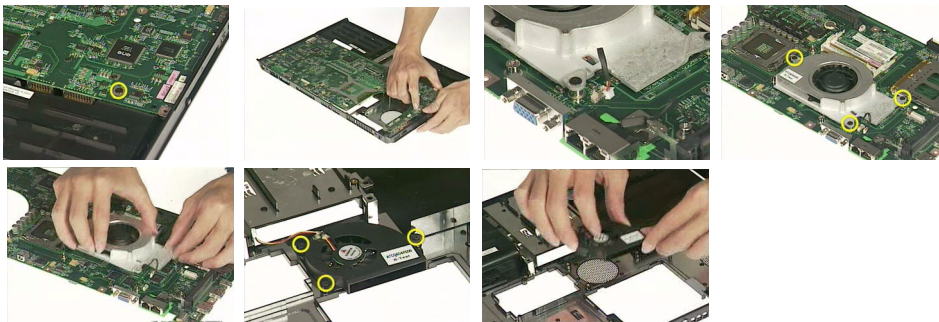
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## ***Disassemble the System FAN and Mainboard***

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.

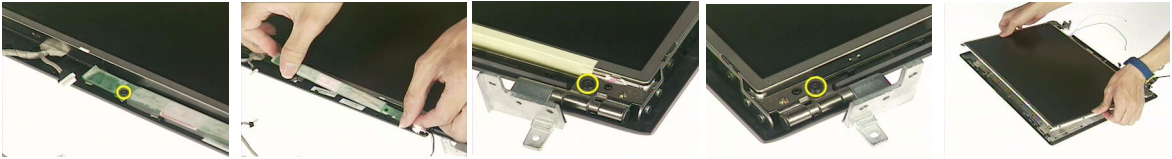


## ***Disassemble the LCD Module***

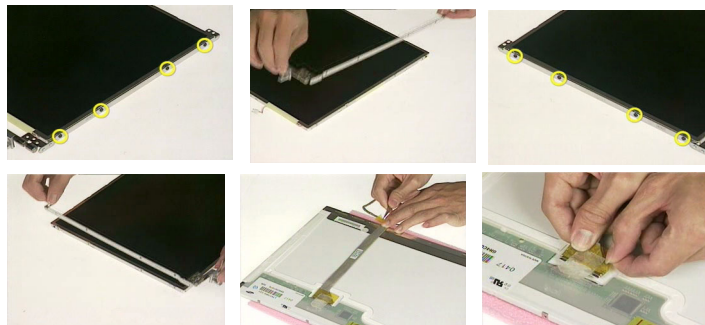
1. Remove the four screws on the other side to release the LCD front bezel.
2. Detach the front bezel from the LCD panel.
3. Disconnect the inverter cable from the inverter board.
4. Disconnect the LCD cable from the inverter board.



- 
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" "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 "Intermittent Problems" "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 diagnosis 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.

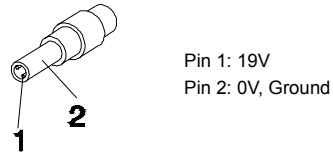
If you suspect a power problem, see the appropriate power supply check in the following list:

- ☐ "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



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)

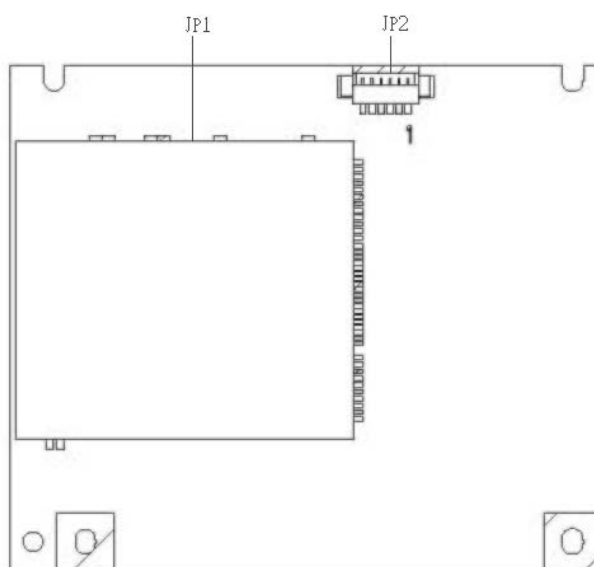
Code	Beeps	POST Routine Description
C7h		Initialize notebook docking late
C8h		Force check (optional)
C9h		Extended checksum (optional)
D2h		Unknown interrupt

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

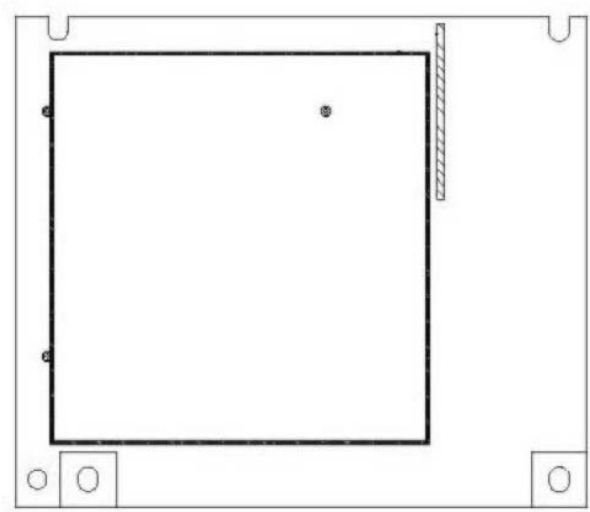
### Card Reader Board

#### Top View



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

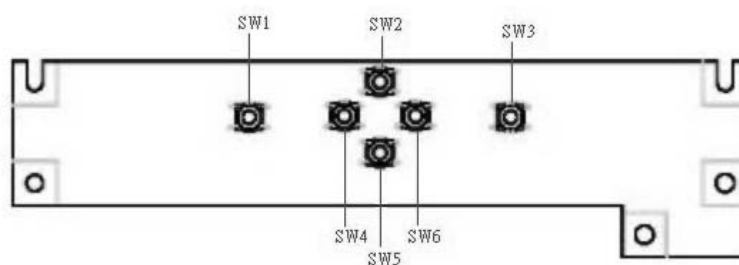
***Rear View***



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

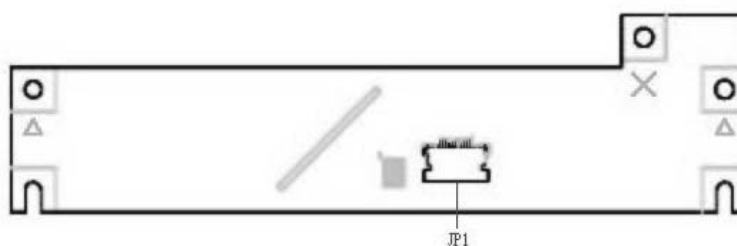
## Touch Pad Board

### Top View



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

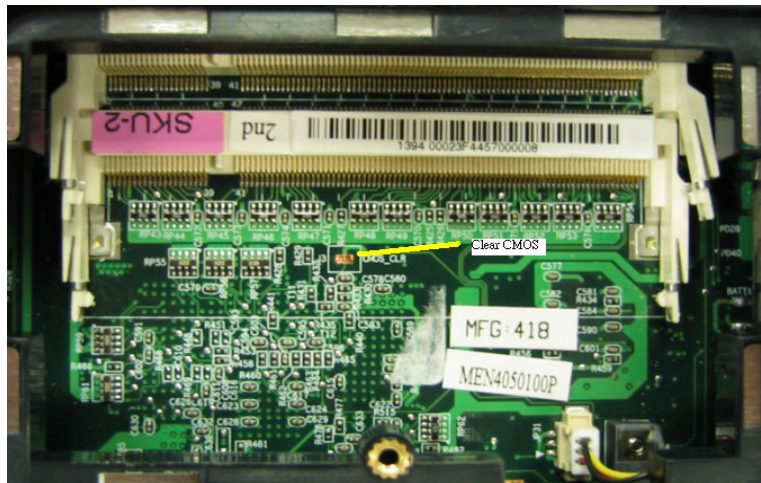
### Rear View



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

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## Clear CMOS



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

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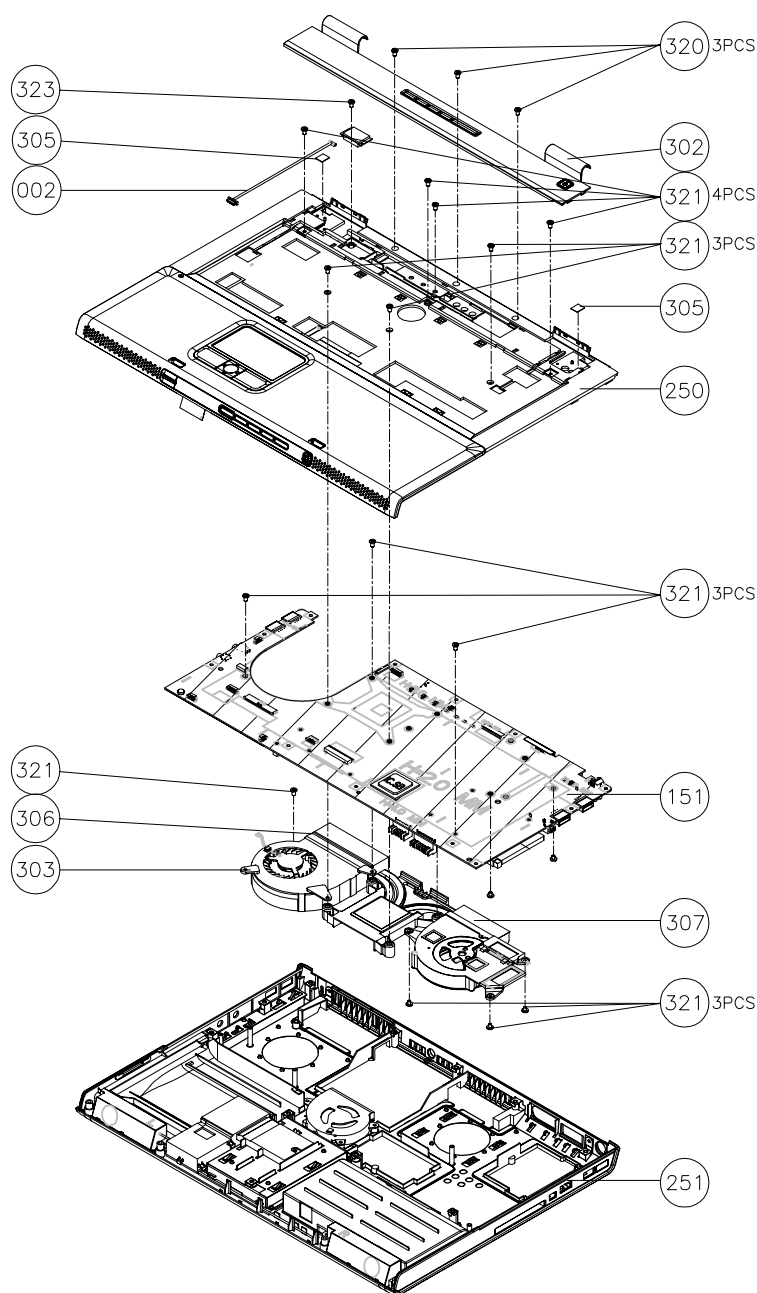
Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have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

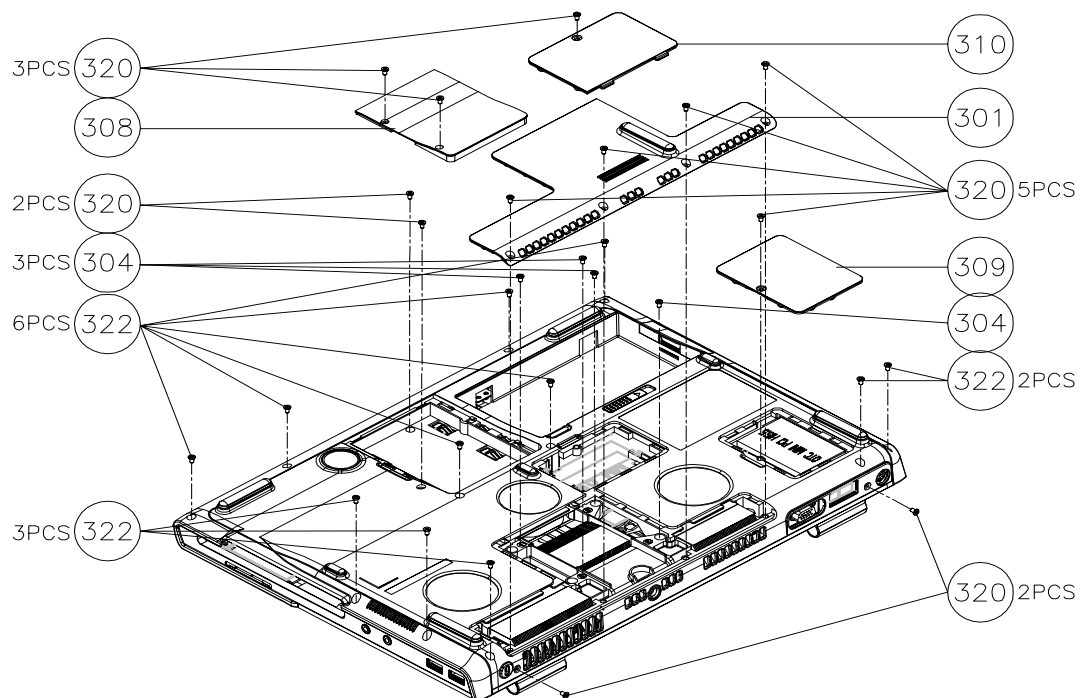
**NOTE:** To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

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
ADAPTER			
	ADAPTER 150W 3PIN DELTA ADP- 150CB B PFC	ADAPTER 150W 3PIN DELTA ADP-150CB B PFC	PY.15009.001
	ADAPTER 150W 3PIN LITEON PA- 1151-08CA 19V	ADAPTER 150W 3PIN LITEON PA-1151-08CA 19V	AP.15003.003
BATTERY			
	BATTERY LI-ION 8 CELLS 4S2P 2.0AH SANYO UR18650H	BATTERY LI-ION 8 CELLS 4S2P 2.0AH SANYO UR18650H	BT.A2903.001
	BATTERY LI-ION 8 CELLS 4S2P 2.0AH PANASONIC CGR18650CA	BATTERY LI-ION 8 CELLS 4S2P 2.0AH PANASONIC CGR18650CA	BT.A2905.001
BOARD			
	MODEM BOARD - AMBIT (T60M283.10)	MODEM BOARD - AMBIT (T60M283.10)	54.A29V5.001
	MINI PCI WIRELESS BOARD (802.11b+g) FOXCONN	MINI PCI WIRELESS BOARD (802.11b+g) FOXCONN	54.A29V5.002
	BLUETOOTH CARD WNC 81.BU513001 BT+ANT	BLUETOOTH CARD WNC 81.BU513001 BT+ANT	54.A14V5.004
	CD PLAYER BOARD	CD PLAYER BOARD	55.A29V5.001
	TOUCHPAD BOARD	TOUCHPAD BOARD W/FFC - TP 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/BRAKET 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 2.5 IN. 4200RPM TOSHIBA PLUTO MK8025GAS	HDD 80GB TOSHIBA PLUTO MK8025GAS F/W:KA023A	KH.08004.001
	HDD 80GB 2.5 IN. 4200RPM FUJITSU MHT2080AT A3 F/W:0022	HDD 80GB 2.5 IN. 4200RPM FUJITSU 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 SUNREX ARABIC	KEYBOARD SUNREX ARABIC	KB.A2909.011
	KEYBOARD SUNREX BELGIAN	KEYBOARD SUNREX BELGIAN	KB.A2909.013
	KEYBOARD SUNREX CANADIAN FRENCH	KEYBOARD SUNREX CANADIAN FRENCH	KB.A2909.007
	KEYBOARD SUNREX TRADITIONAL CHINESE	KEYBOARD SUNREX TRADITIONAL CHINESE	KB.A2909.005
	KEYBOARD SUNREX CZECH	KEYBOARD SUNREX CZECH	KB.A2909.015
	KEYBOARD SUNREX DENMARK	KEYBOARD SUNREX DENMARK	KB.A2909.018
	KEYBOARD SUNREX FRENCH	KEYBOARD SUNREX FRENCH	KB.A2909.006
	KEYBOARD SUNREX GERMAN	KEYBOARD SUNREX GERMAN	KB.A2909.003
	KEYBOARD SUNREX GREECE	KEYBOARD SUNREX GREECE	KB.A2909.021
	KEYBOARD SUNREX HUNGARY	KEYBOARD SUNREX HUNGARY	KB.A2909.016
	KEYBOARD SUNREX ITALY	KEYBOARD SUNREX ITALY	KB.A2909.004
	KEYBOARD SUNREX NORWAY	KEYBOARD SUNREX NORWAY	KB.A2909.017
	KEYBOARD SUNREX PORTUGUESE	KEYBOARD SUNREX PORTUGUESE	KB.A2909.010
	KEYBOARD SUNREX RUSSIAN	KEYBOARD SUNREX RUSSIAN	KB.A2909.019
	KEYBOARD SUNREX SPAIN	KEYBOARD SUNREX SPAIN	KB.A2909.009
	KEYBOARD SUNREX SWEDEN	KEYBOARD SUNREX SWEDEN	KB.A2909.014
	KEYBOARD SUNREX SWISS/G	KEYBOARD SUNREX SWISS/G	KB.A2909.008
	KEYBOARD SUNREX THAILAND	KEYBOARD SUNREX THAILAND	KB.A2909.012
	KEYBOARD SUNREX TURKISH	KEYBOARD SUNREX TURKISH	KB.A2909.020
	KEYBOARD SUNREX UK	KEYBOARD SUNREX UK	KB.A2909.002
	KEYBOARD SUNREX US INTERNATIONAL	KEYBOARD SUNREX US INTERNATIONAL	KB.A2909.001

LCD -- AU			
	ASSY LCD MODULE 17 IN. WXGA AU (B170PW01)	ASSY LCD MODULE 17 IN. WXGA AU (B170PW01)	6M.A29V5.011
	LCD 17 IN. WXGA AU (B170PW01)	LCD 17 IN. WXGA AU (B170PW01)	LK.17005.002
	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 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 - AU (B170PW01)	LCD BRACKET L - AU (B170PW01)	33.A29V5.004
	LCD BRACKET R - AU (B170PW01)	LCD BRACKET R - AU (B170PW01)	33.A29V5.005
	LCD WIRE SET (THICKNESS 7.5)	LCD WIRE SET (THICKNESS 7.5)	50.A29V5.006
	LCD RUBBER - ROUND	LCD RUBBER -ROUND	47.A29V5.001
	LCD SCREW PAD - SQUARE	LCD SCREW PAD - SQUARE	47.A29V5.002
LCD --LG			
	ASSY LCD MODULE 17 IN. WXGA LG (VESA) (LP171W01-A4)	ASSY LCD MODULE 17 IN. WXGA LG (VESA) (LP171W01-A4)	6M.A29V5.012
	IN. WXGA LG (VESA) (LP171W01-A4)	LCD 17 IN. WXGA LG (VESA) (LP171W01-A4)	LK.17108.001
	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 - 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/ LOGO	LCD BEZEL W/ LOGO	60.A29V5.004
	LCD BRACKET L - AU (B170PW02)	LCD BRACKET L - AU (B170PW02)	33.A29V5.010
	LCD BRACKET R - AU (B170PW02)	LCD BRACKET R - AU (B170PW02)	33.A29V5.011
	LCD WIRE SET (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 17 IN. WSXGA LG (VESA) (LP171W02-A3)	ASSY LCD MODULE 17 IN. WSXGA LG (VESA) (LP171W02-A3)	6M.A29V5.015
	LCD 17 IN. WSXGA LG (VESA) (LP171W02-A3)	LCD 17 IN. WSXGA LG (VESA) (LP171W02-A3)	LK.17108.002
	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 - LG (VESA) (LP171W02-A4)	LCD BRACKET L - LG (VESA) (LP171W02-A4)	33.A29V5.012
	LCD BRACKET R - LG (VESA) (LP171W02-A4)	LCD BRACKET R - LG (VESA) (LP171W02-A4)	33.A29V5.013
	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
MAINBOARD			
	MAINBOARD 64 MB W/ PCMCIA SLOT W/O CPU MEMORY, GIGA	MAINBOARD 64 MB W/ PCMCIA SLOT W/O CPU MEMORY, GIGA	LB.A2902.001
PCMCIA SLOT/PC CARD SLOT			
	PCMCIA SLOT	PCMCIA SLOT	22.A29V5.001

MEMORY			
	MEMORY DDR333 256MB NANYA NT256D64SH8BAG M-6K (.14u)	MEMORY DDR333 256MB NANYA NT256D64SH8BAGM-6K (.14u)	KN.25603.009
	MEMORY DDR333 256M INFINEON HYS64D32020HDL-6-C 32x64 (.11u/G)	MEMORY DDR333 256M INFINEON HYS64D32020HDL-6-C 32x64 (.11u/G)	KN.25602.012
	MEMORY DDR333 256MB MICRON MT4VDDT3264HG-335C2 (0.11u/512Mb)	MEMORY DDR333 256MB MICRON MT4VDDT3264HG-335C2 (0.11u/512Mb)	KN.25604.016
	MOMERY DDR333 256MB SAMSUNG M470L3224FT0-CB3 (.13u)	MOMERY DDR333 256MB SAMSUNG M470L3224FT0-CB3 (.13u)	KN.2560B.008
	MOMERY DDR333 512MB INFINEON HYS64D64020GBDL-6-C (.11u/B)	MOMERY DDR333 512MB INFINEON HYS64D64020GBDL-6-C (.11u/B)	KN.51202.013
	MOMERY DDR333 512MB NANYA NT512D64SH8A0FM-6K	MOMERY DDR333 512MB NANYA NT512D64SH8A0FM-6K	KN.51203.011
	MOMERY DDR333 512MB MICRON MT8VDDT6464HDG-335C1 (.11u/512Mb)	MOMERY DDR333 512MB MICRON MT8VDDT6464HDG-335C1 (.11u/512Mb)	KN.51204.013
FAN			
	FAN - LOGIC 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 (2.8GHz/1M)	17" WXGA	DDR333 2x256MB	40GB	24x Combo	NA	802.11b/g- AS1800	Li-Ion- AS1800
1801WSMi	DT P4 520 (2.8GHz/1M)	17" WXGA	DDR333 2x256MB	60GB	8x DVD- SMulti	BT- AS1800	802.11b/g- AS1800	Li-Ion- AS1800
1801WSM	DT P4 520 (2.8GHz/1M)	17" WXGA	DDR333 2x256MB	60GB	8x DVD- SMulti	NA	NA	Li-Ion- AS1800
1802WSMi	DT P4 530 (3.0GHz/1M)	17" WXGA	DDR333 2x256MB	60~80G B	8x DVD- SMulti	NA	802.11b/g- AS1800	Li-Ion- AS1800
1802WSM	DT P4 530 (3.0GHz/1M)	17" WXGA	DDR333 2x256MB	60GB	8x DVD- SMulti	NA	NA	Li-Ion- 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
	17.0" WSXGA+ (1680 x 1050)	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 NT256D64SH8BAGM-6K (.14u)
		Infineon	SO-DIMM DDR333 256MB HYS64D32020GDL-6-C (.11u/black)
			SO-DIMM DDR333 256MB HYS64D32020HDL-6-C 32x64 (.11u/green)
		Micron	SO-DIMM DDR333 256MB MT4VDDT3264HG-335C2 (0.11u/512Mb)
		Samsung	SO-DIMM DDR333 256MB M470L3224FT0-CB3 (.13u)
	512MB DDR333	Infineon	SO-DIMM DDR333 512MB HYS64D64020GBDL-6-C (.11u/B)
		Nanya	SO-DIMM DDR333 512MB NT512D64SH8A0FM-6K
		Micron	SO-DIMM DDR333 512MB 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.



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