Aspire 3010/5010 Series

Service Guide

PRINTED IN TAIWAN

Revision History

Please refer to the table below for the updates made on Aspire 3010/5010 service guide.

Date	Chapter	Updates
2006/02/09	Chapter 6	Delete Bluetooth antenna on chapter six.

Copyright

Disclaimer

The information in this guide is subject to change without notice.

Acer Incorporated makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties of merchantability or fitness for any particular purpose. Any Acer Incorporated software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not Acer Incorporated, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software.

Conventions

The following conventions are used in this manual:

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

Preface

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

1. This Service Guide provides you with all technical information relating to the BASIC CONFIGURATION decided for Acer "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.

System Introduction

Features

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

Platform

- Mobile AMD Sempron™ processor 3000+ to 3100+ or higher with 128/256 KB L2 cache, supporting AMD Power Now! Technology and AMD HyperTransport technology (for Aspire 3010)
- Chipset: ATI RADEON™ XPRESS 200M (for Aspire 3010)
- AMD Athlon™ 64 processor 3000+ to 3700+ or higher with 1 MB L2 cache, supporting AMD HyperTransport™ technology (for Aspire 5010)
- Chipset: ATI RADEON™ XPRESS 200M (for Aspire 5010)

Memory

- 256/512 MB of DDR333 memory, upgradeable to 2 GB using dual soDIMM modules

Display

- 15” XGA color TFT LCD with 1024x768 pixel resolution
- 15.4” WXGA TFT LCD with 1280x800 pixel resolution, 16.7 million colors, supporting simulataneous multi-window viewing via Acer GridVista
- 15.4” WXGA+ TFT LCD with 1680x1050 pixel resolution, 16.7 million colors, supporting simulataneous multi-window viewing via Acer GridVista

Graphics

- ATI MOBILITY™ RADEON(R) X600 with 64 MB of DDR video RAM (for Aspire 3010)
- ATI MOBILITY™ RADEON(R) X700 with 6/1284 MB of DDR video RAM (for Aspire 5010)
- DualView™ support
- MPEG-2/DDVD hardware-assisted capability
- S-video/TV-out (NTSC/PAL) support
- DVI-D (true digital video interface) support (for Aspire 5010 only)
- Aspire-cinema vision video encoded technology
- Aspire clear vision video input optimization technology

Audio

- Audio system with two built-in speakers
- ATI MOBILITY™ RADEON(R) X700 with 6/1284 MB of DDR video RAM (for Aspire 5010)
- DualView™ support

Storage

- 40/60/80/100 GB (4200rpm) or higher ATA/100 hard disk drive

Optical media drive

- Optical drive options
  - --DVD-Dual
  - --DVD/CD-RW combo
- Disc performance compatibility
  - --DVD-Dual
    - Read: 4X DVD+R, 4X DVD+RW, 4X DVD-R, 4X DVD-RW, 8X DVD-ROM, 24X CD-ROM
    - Write: 4X DVD+R, 2.4X DVD+RW, 2X DVD-R, 2X DVD-RW, 16X CD-R, 10X CD-RW
  - --DVD/CD-RW
    - Read: 8X DVD-ROM, 24X CD-ROM
    - Write: 24X CD-R, 10X CD-RW

Communication

- Modem: 56K ITU V.92 with PTT approval; Wake-on-Ring ready
- LAN: 10/100 Mbps Fast Ethernet (Aspire 3010) or gigabit Ethernet (Aspire 5010); Wake-on-LAN ready
- WLAN (optional): integrated Acer InviLink™ 802.11g Wi-Fi CERTIFIED™ solution, supporting Acer SignalUp technology
- WPAN (optional): integrated Bluetooth®

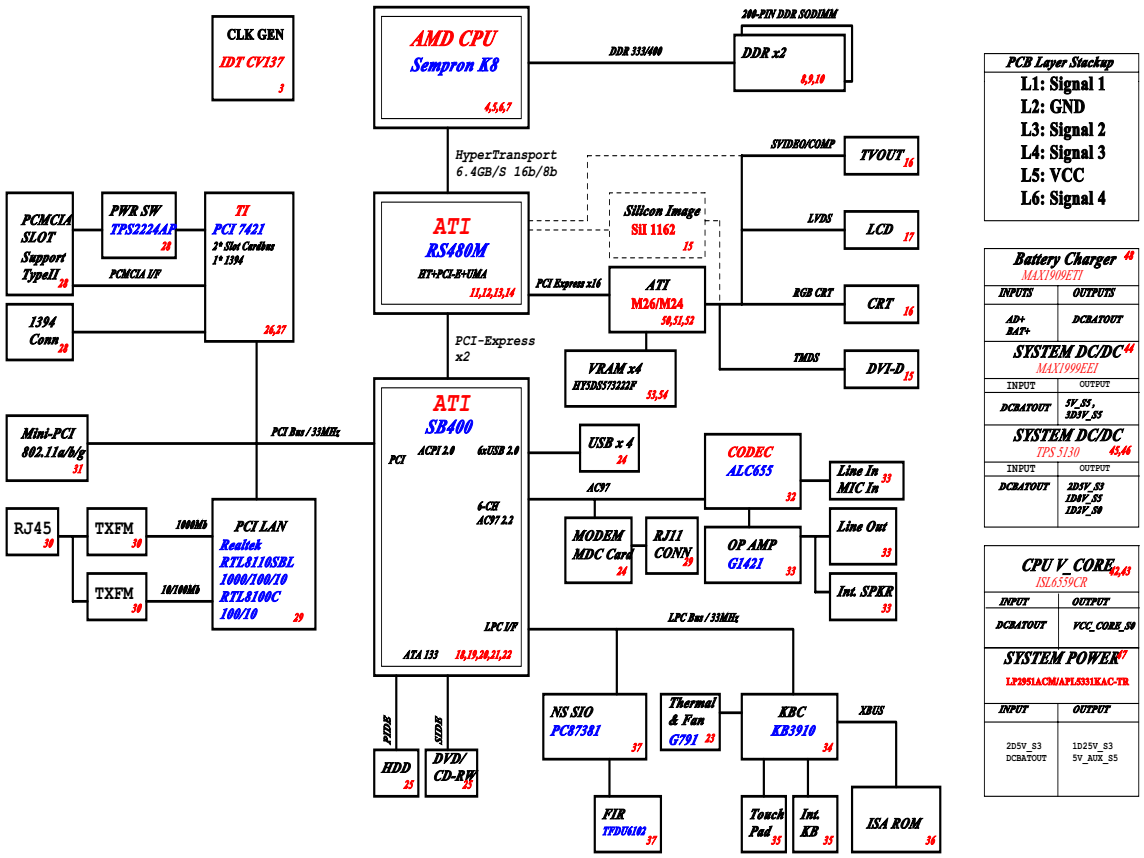
Special keys and controls

- Standard 84-/85-/88-key keyboard, inverted “T” cursor layout with interrnational language support
- Embedded numeric keypad
- Four easy-launch keys: internet browser, email with LED, Empowering Key, and one user-programmable button
- Acer InviLink™ wireless button
- Bluetooth® button
- Built-in touchpad with 4-way integrated scroll button

I/O Ports

- Four USB 2.0 ports
- One IEEE 1394 port
- Ethernet (RJ-45) port
- Modem (RJ-11) port
- S-video/TV-out (NTSC/PAL) port
- External display (VGA) port
- DVI-D port (only Aspire 5010)
- Infrared (FIR) port
- Microphone/line-in jack
- Headphone/speaker/line-out port
- PC card slot (one Type III or two Type II)
- DC-in jack for AC adaptor

System Block Diagram



PCB Layer Stackup

L1: Signal 1
L2: GND
L3: Signal 2
L4: Signal 3
L5: VCC
L6: Signal 4

Battery Charger 43
MAX1909ETI

INPUTS	OUTPUTS
AD+ BAT+	DCBATOUT

SYSTEM DC/DC 44
MAX1999EEI

INPUT	OUTPUT
DCBATOUT	5V_S5 , 3D3V_S5

SYSTEM DC/DC
TPS 5130 45,46

INPUT	OUTPUT
DCBATOUT	2D5V_S3 1D8V_S5 1D2V_S0

CPU V_CORE 42,43
ISL6559CR

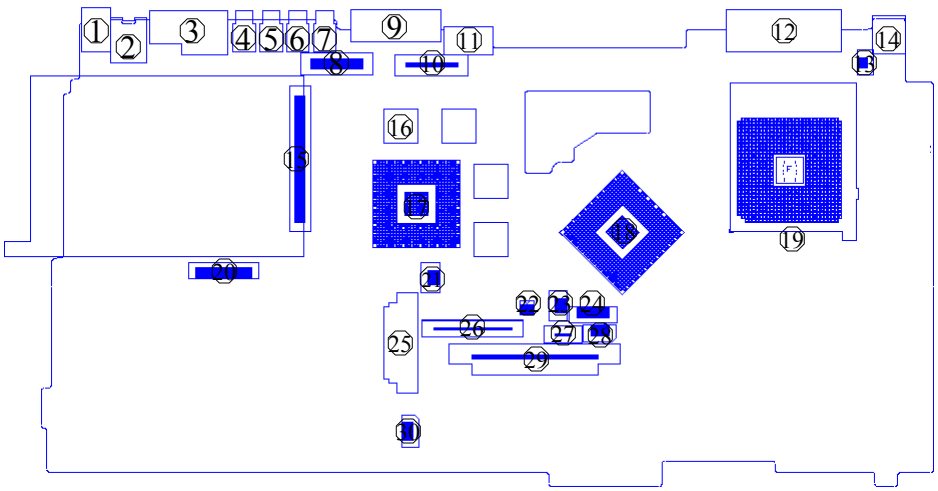
INPUT	OUTPUT
DCBATOUT	VCC_CORE_S0

SYSTEM POWER 47
LP2951ACM/APL5331KAC-TR

INPUT	OUTPUT
2D5V_S3 DCBATOUT	1D25V_S3 5V_AUX_S5

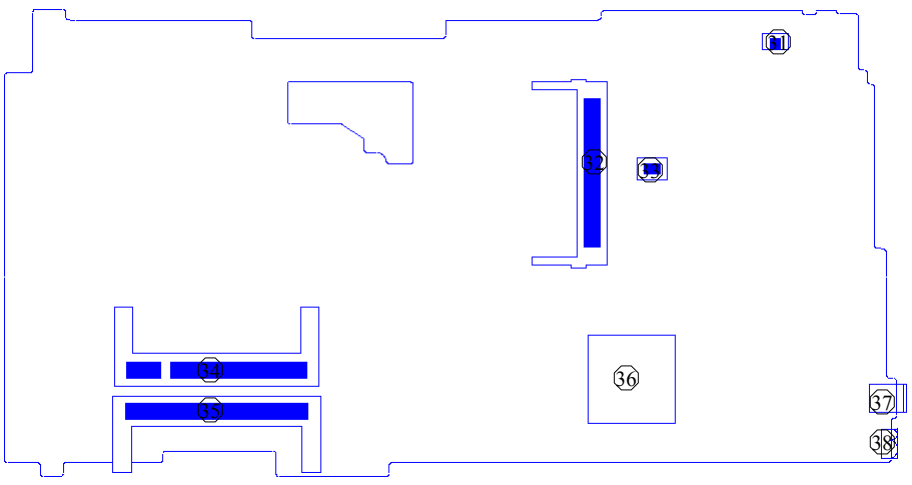
Board Layout

Top View



1	Line-in Port	16	Video Memory
2	Line-out Port	17	VGA Chip
3	RJ45+RJ11	18	North Bridge
4	USB Port	19	CPU Socket
5	USB Port	20	Launch Board Cable Connector
6	USB Port	21	RTC Battery Connector
7	USB Port	22	Check Password Switch
8	LCD Inverter Cable Connector	23	Fan Connector
9	VGA Port	24	Bluetooh Cable Connector
10	LCD Coaxial Cable Connector	25	Optical Drive Connector
11	S-Video Port	26	Keyboard Connector
12	DVI Port	27	Touchpad Cable Connector
13	LCD Lid Switch	28	Fan 2 Connector
14	DC-in Port	29	HDD Connector
15	PCMCIA Slot	30	Speaker Cable Connector

Bottom View



31	Modem Cable Connector	35	DIMM Socket 2
32	Wireless LAN Card Connector	36	South Bridge
33	Modem Board Connector	37	IEEE 1394 Port
34	DIMM Socket 1	38	FIR Port

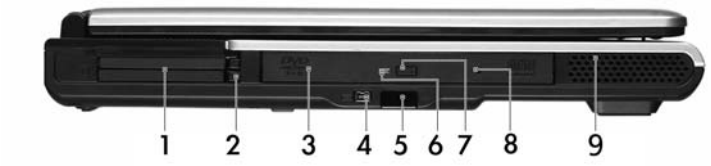
Panel

Ports allow you to connect peripheral devices to your computer as you would with a desktop PC.

Front View

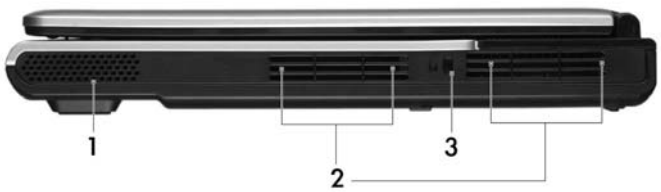
#	Item	Description
1	Display screen	Liquid-Crystal Display (LCD) provides visual output.
2	Status indicators	LEDs (Light Emitting Diodes) that turn on and off to show the status of the computer and its functions and components.
3	Power button	Turns the computer on and off.
4	Launch Keys	Buttons for launching frequently used programs.
5	Palmrest	Comfortable support area for your hands when you use the computer.
6	Click buttons & 4-way scroll key	The left and right buttons function like the left and right mouse buttons, the center button serves as a scroll up/ down button.
7	Touchpad	Touch-sensitive pointing device which functions like a computer mouse.
8	Keyboard	Inputs data into your computer.
9	Ventilation Slot	Enables the computer to stay cool, even after the prolonged use.

Left view



#	Icon	Item/ Port	Description
1		PC Card slots	Supports two Type II or one Type III CardBus PC Card(s).
2		PC Card slot eject button	Eject PC cards from the card slots.
3		Optical drive	Internal optical drive; accepts CDs or DVDs depending on the optical drive type.
4		IEEE 1394 port	Connects to IEEE 1394 devices.
5		CIR Receiver	Receive remote control infrared signals.
6		LED indicator	Lights up when the optical drive is active.
7		Optical drive eject button	Ejects the optical drive tray from the drive.
8		Emergency eject slot	Ejects the optical drive tray when the computer is turned off. There is a mechancial eject button on the DVD/CD-ROM combo or DVD-ROM drive. Simply insert the tip of a pen or paperclip and push to eject the tray.
9		Speakers	Left and right speakers deliver stereo audio output.

Right View

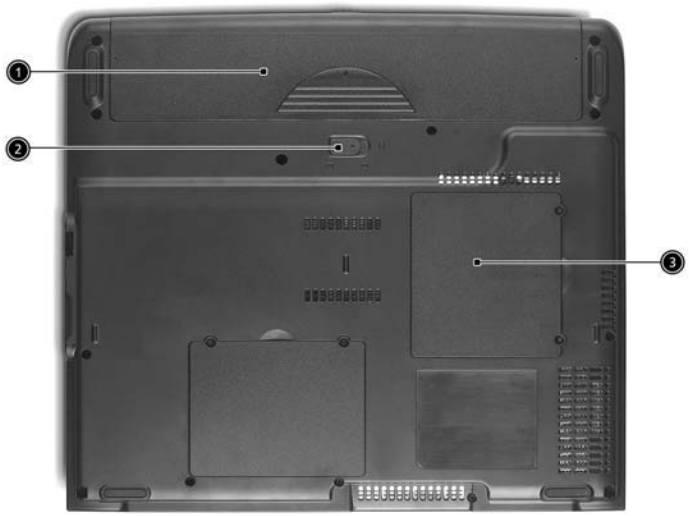


#	Item/ Port	Description
1	Speakers	Left and right speakers delivers stereo audio output.
2	Ventilation slots	Enable the computer to stay cool, even after prolonged use.
3	Security keylock	Connects to a Kensington-compatible computer security lock.

Rear Panel

#	Icon	Port	Description
1		Power Jack	Connects to an AC adapter
2		DVI-D port (Aspire 5010 only)t	For digital visual input.
3		Ventilation slots	Enable the computer to stay cool, even after prolonged use.
4		S-video port	Connects to a television or display device with S-video input.
5		External display port	Connects to a display device (e.g., external monitor, LCD projector).
6		Four USB 2.0 ports	Connects to any Universal Serial Bus devices(e.g., USB mouse, USB camera).
7		Network jack	Connects to an Ethernet LAN network
8		Modem jack	Connects to the phone line
9		Speaker/line-out/ headphone jack	Connects to audio line-out devices (e.g., speakers and headphones).
10		Line-in/mic-in jack	Accepts audio line-in devices (e.g., audio CD player and stereo walkman).

Bottom View



#	Item	Description
1	Battery bay	Houses the computer's battery pack.
2	Battery release latch	Release the battery for removal.
3	Memory compartment	Houses the computer's main memory and mini PCI card.

Indicators

The computer provides an array of seven indicators located below the display screen, showing the status of the computer and its components.

#	Icon	Function	Description
		Wireless indicator	Lights to indicate the status of wireless LAN communications.
1		Power	Lights when the computer is on.
2		Sleep	Lights when the computer enters Standby mode and blinks when it enters into or resumes from hibernation mode.
3		Media Activity	Indicates when the hard disk or optical drive is active.
4		Battery Charge	Lights when the battery is being charged. Charging: The light shows amber when the battery is charging. Fully charged: The light shows green when in AC mode.
5		Caps Lock	Lights when Caps Lock is activated.
6		Num Lock	Lights when Numeric Lock is activated.

Using the keyboard

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

Lock keys and embedded numeric keypad

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

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

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

Desired access	Num lock on	Num lock off
Number keys on embedded keypad	Type numbers using embedded keypad in a normal manner.	
Cursor-control keys on embedded keypad	Hold Shift while using cursor-control keys.	Hold Fn while using cursor-control keys.
Main keyboard keys	Hold Fn while typing letters on embedded keypad.	Type the letters in a normal manner.

Windows keys

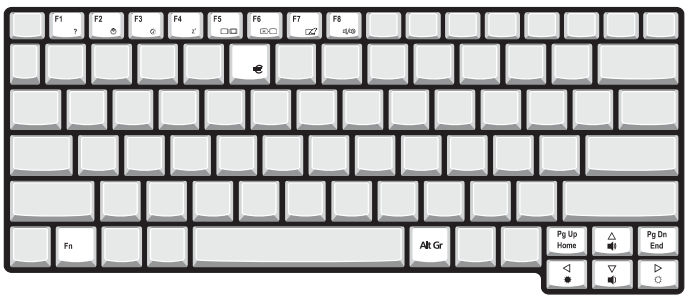
The keyboard has two keys that perform Windows-specific functions.

Keys	Description
Windows logo key	Start button. Combinations with this key perform shortcut functions. Below are a few examples: + Tab (Activates next taskbar button) + E (Opens the My Computer window) + F1 (Opens Help and Support) + F (Opens the Find: All Files dialog box) + R (Opens the Run dialog box) + M (Minimize all windows) <shift>+ + M (Undoes the minimize all windows action)
Application key	This key has the same effect as clicking the right mouse button; it opens the application's context menu.

Hot Keys

The computer employs hot keys or key combinations to access most of the computer's controls like screen contrast and brightness, volume output and the BIOS Utility.

To activate hot keys, press and hold the **Fn** key before pressing the other key in the hot key combination.



Hot Key	Icon	Function	Description
Fn+F1	?	Hotkey help	Displays help on hotkeys.
Fn+F2		Acer eSettings	Launches the Acer eSettings in Acer eManager.
Fn+F3		Acer ePowerManagement	Launches the Acer ePowerManagement in Acer eManager.
Fn+F4	Z z	Sleep	Puts the computer in Sleep mode.
Fn+F5		Display toggle	Switches display output between the display screen, external monitor (if connected) and both 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 speakers on and off; mutes the sound.
Fn+		Volume up	Increases the sound volume.
Fn+		Volume down	Decreases the sound volume.
Fn+		Brightness up	Increases the screen brightness.

Hot Key	Icon	Function	Description
Fn+		Brightness down	Decreases the screen brightness.
Fn+PgUp	Pg Up Home	Home	Functions as the PgUp key.
Fn+PgDn	Pg Dn End	End	Functions as the PgDn key.

Special keys

You can locate the Euro symbol at the upper-center and/or bottom-right of your keyboard. To type

The Euro symbol

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

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

Launch Keys

Located at the upper-left above the keyboard are four buttons.These buttons are called launch keys. They are designated as mail, Web browser, Acer Empowering keys and one user-programmable button.

Press the Empowering key to run the Acer eManager. The mail and Web browser are default for Email and Internet programs, but can be reset by users. To set the Web browser, mail and programmable keys, run the Acer Launch Manager.

#	Icon	Function	Description
1		Mail	Email application (user-programmable)
2		Web browser	Internet browser application (user-programmable)
3		e	Acer eManager (user-programmable
4		P	User-programmable
5		Bluetooth (optional)	Enables your Bluetooth
6		Wireless (optional)	Enables your 802.11g WLAN

System Board Major Chips

Item	Controller
System core logic	ATI RS480M+ATI SB400
Super I/O controller	NS PC87381
Audio controller	Realtek ALC 655
Video controller	ATI M26 (RADEON X600) for Aspire 3010 Series ATI M24 (RADEON X700) for Aspire 5010 Series
Hard disk drive controller	Embedded in ATI SB400
Keyboard controller	KB3910
CardBus controller	TI PCI 7421
LAN controller/chipset	10/100: Realtek RT8100C; Giga LAN: Realtek RT8110SBL
Memory Controller	Built-in CPU
Bluetooth Controller/Chipset (Does this chipset support voice function??)	Embedded in Realtek ALC 655
Modem Controller/Chipset	Embedded in ATI SB400
Optical disc drive controller	Embedded in ATI SB400
USB Controller	Embedded in ATI SB400
PCMCIA Controller	TI PCI 7421

Processor

Item	Specification
CPU type	Mobile AMD Sempron processor 3000+ to 3100+ or higher (for Aspire 3010) AMD Athlon™ 64 processor 3000+ to 3700+ or higher (for Aspire 5010)
CPU package uOG	uOG 754 pin
CPU core voltage	1.5V
CPU I/O voltage	High speed: 1.2V => for RAM 2.5V Low speed: 1.2V =>for Hypertransport 1.2V

BIOS

Item	Specification
BIOS vendor	Phoenix BIOS
BIOS Version	1.0
BIOS ROM type	Flash ROM
BIOS ROM size	512KB
BIOS package	32 Pin PLCC
Supported protocols	ACPI 2.0, SMBIOS 2.3, PCI 2.3, Boot Block, PXE 2.0, Mobile PC2001, Hard Disk Password, INT 13h Extensions, PCI Bus Power Management interface Specification, EI Torito-Bootable CD-ROM Format Specification V1.0, Simple Boot Flag 1.0

Second Level Cache

Item	Specification
Cache controller	Built-in CPU

Second Level Cache

Item	Specification
Cache size	128KB or 256KB for AMD Sempron CPU 1MB for AMD Athlon 64 DTR CPU
1st level cache control	Always Enabled
2nd level cache control	Always Enabled
Cache scheme control	Fixed-in write back

System Memory

Item	Specification
Memory controller	AMD Sempron K8
Onboard memory size	0MB
DIMM socket number	2 Sockets
Supports memory size per socket	256/512/1024MB (if available)
Supports maximum memory size	2048MB (Please confirm if 1024MB has passed the test or not)
Supports DIMM type	DDR-DRAM
Supports DIMM Speed	333 MHz
Supports DIMM voltage	2.5 V
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
0MB	128MB	128 MB
128MB	0MB	128 MB
128MB	128MB	256 MB
256MB	0MB	256MB
0MB	256MB	256MB
256MB	128MB	384MB
128MB	256MB	384MB
256MB	256MB	512MB
0MB	512MB	512MB
512MB	128MB	640MB
256MB	512MB	768MB
128MB	512MB	640MB
512MB	256MB	768MB
256MB	128MB	384MB
512MB	512MB	1024MB

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

LAN Interface

Item	Specification
Chipset	10/100: Realtek RT8100C; Giga LAN: Realtek RT8110SBL
Supports LAN protocol	10/100Mbps for Aspire 3010; 10/100/1000Mbps for Aspire 5010
LAN connector type	RJ45

LAN Interface

Item	Specification
LAN connector location	Rear side
PXE Version	2.0

Modem Interface

Item	Specification
Chipset	Embedded in ATI SB400
Fax modem data baud rate (bps)	14.4K
Data modem data baud rate (bps)	56K
Supports modem protocol	V.92MDC
Modem connector type	RJ11
Modem connector location	Rear side

.

Hard Disk Drive Interface

Item			
Vendor & Model Name	HGST Moraga IC25N030ATMR04 Fujitsu V-40 MHT2030AT Seagate N1 ST93015A	HGST Moraga IC25N040ATMR04- TOSHIBA Pluto 40G MK4025GAS Fujitsu V40+ MHT2040AT Seagate N1 ST94019A	HGST Moraga IC25N060ATMR04-0 TOSHIBA Neptune MK6021GAS
Capacity (MB)	30000	40000	60000
Bytes per sector	512	512	512
Logical heads	16	16	16
Logical sectors	63	63	63
Drive Format			
Logical cylinders	16383	16383	16383
Physical read/write heads	2/Not show/2	2/Not show/2/2	3/4
Disks	1/Not show/1	1/Not show/1/1	2
Spindle speed (RPM)	4200RPM	4200RPM	4200RPM
Performance Specifications			
Buffer size	2MB	2MB/8MB for Toshiba	2MB/8MB for HGST
Interface	ATA-5 for other vendors /ATA-6 for HGST and Toshiba	ATA-5 for other vendors /ATA-6 for HGST	ATA-5/ATA-6 for HGST
Data transfer rate (disk-buffer, Mbytes/s)	350	350	350
Data transfer, rate (host~buffer, Mbytes/s)	100 MB/Sec	100 MB/Sec	100MB/Sec
DC Power Requirements			
Voltage tolerance	5 +/- 5%	5 +/- 5%	5 +/- 5%

CD-ROM Interface

Items	Specification
Vendor & Model Name	QSI SCR242 Mitsumi SR244W1
Performance Specification	
Brust Data Transfer rate	PIO mode 4: 16.7 MB/sec Max. (Mode 0~4) Multi-word DMA mode 2: 16.7 MB/sec Max. (Mode 0~2) Ultra DMA mode 2: 33.3MB/sec Max.
Access time (typ.)	QSI- Random: 90 ms Full Stroke: 180 ms Mitsumi- Random: 100 ms Full Stroke: 240 ms
Rotation speed	5100 rpm for QSI 5400 rpm for Mitsumi 24X CAV mode
Data Buffer Capacity	128 KB (built-in)
Interface	Compliant to ATA/ATAPI-6
Applicable disc format	QSI: CD-DA, CD-ROM Mode-1, CD-ROM/XA Mode-2, Form-1 and Mode-2 Form-2, CD-i Ready, Video-CD (MPEG-1), Karaoke CD, Photo-CD, Enhanced CD, CD Plus, CD Extra, i-trax CD, CD-Text, CD-R and CD-RW Mitsumi: CD-DA, CD-ROM (Mode 1 and Mode2) CD-ROM XA (Mode 2 Form 1 and Form2), CD-I (Mode2 Form 1 and Form 2), CD-I Bridge (Photo CD, CD EXTRA), Enhanced CD, CD-RW, CD-R, CD-TEXT
Loading mechanism	Drawer with soft eject and emergency eject hole
Power Requirement	
Input Voltage	+5V[DC]+/-5%

DVD-ROM Interface

Item	Specification	
Vendor & model name	MKE SR-8177	
Performance Specification	With CD Diskette	With DVD Diskette
Transfer rate (KB/sec)	Average Sustained: CAV mode 775~1800 blocks/sec (10.3X to 24X) 1550~3600kBytes/sec (Mode 1) 1768~4106 kBytes/sec (Mode 2)	DVD-5: Normal Speed (1X) 11.08 Mbits/sec CAV mode 36.67~88.64 Mbits/sec DVD-9/DVD-R: Normal Speed (1X) 11.08 Mbits/sec CAV mode 36.67~88.64 Mbits/sec

DVD-ROM Interface

Item	Specification	
Average Full Access time (typ.)	Random CAV mode 110 msec typical 150 msec average max Full Stroke CAV mode 200 msec typical 260 msec average max	DVD-5: Random 120 msec typical 160 msec average max Full Stroke 270 msec typical 350 msec average max DVD-9: Random 150 msec typical 200 msec average max Full Stroke 340 msec typical 450 msec average max DVD-RAM (2.6G) Random 200 msec typical 300 msec average max Full Stroke 300 msec typical 600 msec average max DVD-RAM (4.7G) Random 180 msec typical 300 msec average max Full Stroke 320 msec typical 700 msec average max
Data Buffer Capacity	512 kBytes	
Interface	IDE	
Applicable disc format	DVD: DVD-5, DVD-9, DVD-10, DVD-R (3.95G), DVD-RAM (2.6G), DVD-RAM (4.7G) CD: CD-Audio, CD-ROM (mode 1 and mode 2), CD-ROM XA (mode 2, form 1 and form 2), CD-I (mode 2, form 1 and form 2), CD-I Ready, CD-I Bridge, CD-WO, CD-RW, Photo CD, Video CD, Enhanced Music CD, CD-TEXT	
Loading mechanism	Soft eject (with emergency eject hole)	
Power Requirement		
Input Voltage	+5V[DC]+/-5%	

Combo Drive Interface

Item	Specification
Vendor & model name	KME UJDA750
Performance Specification	

Combo Drive Interface

Item	Specification
Transfer rate (KB/sec)	Read Sustained: DVD-ROM MAX 8X CAV (MAX 10800 KB/sec) CD-ROM MAX 24X CAV (MAX 3600 KB/sec) Write: CD-R 4X, 8X (CLV), Max 16X, MAX 24X (ZCLV) CD-RW 4X (CLV) HS-RW 4X,8X, 10X (CLV) ATAPI Interface: PIO mode 16.6 MB/sec :PIO Mode 4 DMA mode 16.6 MB/sec:Multi word mode 2 Ultra DMA mode 33.3MB/sec: Ultra DMA mode 2
Buffer rate	2MB
Access time	DVD-ROM 180 ms typ. (1/3 stroke) CD-ROM 130 ms typ. (1/3 stroke)
Start up time	less than 15s
Stop time	less than 6s
Acoustic noise	less than 50 dBA
Interface	Enhanced IDE (ATAPI) compatible
Master/Slave	Set by Cable Select (By host)
PC compatible	PC2001 compatible
Applicable disc format	CD: CD-DA, CD-ROM, CD-ROM XA, CD-R, CD-RW, PhotoCD (multiSession), Video CD, CD-Extra(CD+), CD-text DVD: DVD-ROM, DVD-R, DVD-RW (Ver.1.1), DVD-VIDEO, DVD-RAM (2.6GB, 4.7GB)
Slope	15 degree (Any direction)
Dimensions, Weight	128X129X12.7mm (WXDXH) (except protrusion) 200g+- 10g
Eject	Soft Eject (with emergency eject hole)

DVD Dual Interface

Item	Specification
Vendor & model name	Liteon DVD-Dual SDW-431S
Disc type for read/write application	
Applicable Formats	CD-DA, CD-TEXT, CD ROM Mode-1, CD-ROM/XA Mode-2 Form-1 and Form-2, CD-I Ready, Video-CD (MPEG-1), Karaoke-CD, Photo-CD, Enhance CD, CD extra, I-Trax CD and UDF DVD-ROM, DVD-Video, DVD-Audio, DVD-R single/multi border(s) DVD+R single/multi session(s) DVD-RW DVD+RW
Applicable Media Type	CD-ROM, CD-R and CD-RW DVD-ROM (4.7G/8.54G) single layer on single/double side (read only), DVD-ROM dual layer (PTP/OTP) on single/double side (read only) DVD-R (3.9G, 4.7G for General and Authoring), DVD-RW, DVD+RW (4.7G) DVD+R

DVD Dual Interface

Item	Specification
Disc Diameter	12cm and 8cm
Capacity	2048 bytes/sector (DVD) 2048 bytes/block (CD Mode-1 and Mode-2 Form-1) 2336 bytes/block (Mode-2) 2328 bytes/block (Mode-2 Form-2)
Operation environment for “write/rewrite” application	
Host Machine	IBM compatible PC (Pentium 166 MHz or above)
OS	MS-Windows 90/ME/2000/XP/NT 4.0
Memory	Min. 128MB required
Hard Disk	Empty Storage Capacity:100 MB or more Average access time: 20ms or less
Disc Diameter	12cm and 8cm
Recommended Media	**CD-R:** AMT, CMC, Csita, Delphi, EverMedia, Imation, LeadData(Silver-Sil), Maxell, MCC (Bagdad), Mirage, Mitsui, MoserBaer(India), MPO, NanYa, Plasmon, Prodisc, RAMedia, Ricoh, Ritek(JS, S, Richodye), SAST (ultra green), SKC(Korea), TDK, TY (DX dye) **Low Speed CD-RW:** CMC, Daxon, Fornet, Gigastorage, Imation, Infodisc, LeadData, MCC, Nanya, Princo, Prodisc, Ricoh, Ritek **High Speed CD-RW:** AMT, CMC, Infodisc, Nanya, Postech, Prodisc, Ritek, Ricoh, MCC, SKC(Korea) **Ultra Speed CD-RW:** Daxon, Imation, Infodisc, MCC, Prodisc, Ritek **DVD+R:** BEALL, CMC, Daxon, Fuji, HP, Maxell, MCC, Memorex, OPTODISC, PRODISC, Ricoh, RICOH, Ritek, SONY, TDK, TYUDE **DVD+RW:** CMMC, Daxon, Imation, MCC, Philips, Ricoh, Ritek, Sony **DVD-R:** BeAll, CMMC, DAXON, DVSN Fornex, GSC, Imation, LeadData, Maxell, Mitsubishi, Nanya, Pioneer, Princo, Prodisc, Ritec, Ritek, SKC, Sony, That’s **DVD-RW:** CMC, Mitsubishi, Princo Ritek
Mechanism	
Pick-up	NA: CD: 0.51 DVD: 0.65 Focusing: Astigmatism Tracking: CD: DPP DVD-ROM: DPD DVD+R/RW: DPP Wave length: CD: 785+/- 5 nm DVD: 650+/- 15 nm Output power: Read CD: 1.5 mw max@objective lens DVD: 1.0 mw max Write CD: 65 mw max2@objective lens DVD: 20 mw max
Traverse mechanism	DC Stepping motor driven
Spindle motor	DC burshless motor

DVD Dual Interface

Item	Specification
Loading mechanism	Manual load/DC brushless mortor system

Audio Interface

Item	Specification
Audio Controller	VT 1612A
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 PC98/PC99, AC97 2.1
Mixed sound source	Line-in, CD, Video, AUX
Voice channel	8/16 bit, mono/stereo
Sampling rate	44.1 KHz
Internal microphone	Yes
Internal speaker / Quantity	Yes/2
Supports PnP DMA channel	DMA channel 0 DMA channel 1
Supports PnP IRQ	IRQ10

Video Interface

Item	Specification
Vendor & Model Name	ATI M26 (for Aspire 3010) ATI M24 (for Aspire 5010)
Chip voltage	N/A
Supports ZV (Zoomed Video) port	NO
Graph interface	PCIE X16
Maximum resolution (LCD)	1024 x768 (32bit colors)
Maximum resolution (CRT)	1600x1200 (32 bit colors)

VGA Display Resolution

Display device	Source image in the frame buffer					
	640x480	800x600	1024x768	1280x1024	1400x1050	1600x1200
800x600 LCD	Expanded	True image	Partial image	Partial image	Partial image	Partial image
1024x768 LCD	Expanded	Expanded	True image	Partial image	Partial image	Partial image
1280x1024 LCD	Expanded	Expanded	Expanded	True image	Partial image	Partial image
1400x1050 LCD	Expanded	Expanded	Expanded	Expanded	True image	Partial image
1600x1200 LCD	Expanded	Expanded	Expanded	Expanded	Centered	True image
640x480 CRT	True image	Partial image	Partial image	Partial image	Partial image	Partial image
800x600 CRT	True image	True image	Partial image	Partial image	Partial image	Partial image
1024x768 CRT	True image	True image	True image	Partial image	Partial image	Partial image
1280x1024 CRT	True image	True image	True image	True image	Partial image	Partial image
1600x1200 CRT	True image	True image	True image	True image	True image	True image

Video Memory

Item	Specification
Fixed or upgradeable	Fixed for UMA models upgradeable for ATI M26/M24
Video memory size	64MB for ATI M26 (Aspire 3010) 64/128 MB for ATI M24 (Aspire 5010)

LCD Display Resolution

Resolution	8 bit (256colors)	16 bits (Hi color)	24 bits (True color)	32 bits (True color)
640x480	Yes	Yes	Yes	Yes
720x480	Yes	Yes	Yes	Yes
800x600	Yes	Yes	Yes	Yes
848x480	Yes	Yes	Yes	Yes
1024x768	Yes	Yes	Yes	Yes

CRT Display Resolutions

Resolution	8 bit (256colors)	16 bits (Hi color)	24 bits (True color)	32 bits (True color)
640x480	Yes	Yes	Yes	Yes
720x480	Yes	Yes	Yes	Yes
800x600	Yes	Yes	Yes	Yes
848x480	Yes	Yes	Yes	Yes
1024x768	Yes	Yes	Yes	Yes
1152x864	Yes	Yes	Yes	Yes
1280x1024	Yes	Yes	Yes	Yes
1400x1050	Yes	Yes	Yes	Yes
1600x1200	Yes	Yes	Yes	Yes

USB Port

Item	Specification
USB Compliancy Level	1.1/2.0 support
OHCI	USB 2.0
Number of USB port	4 5V/500 mA per slot
Location	Rear side

PCMCIA Port

Item	Specification
PCMCIA controller	TI PCI 7421
Supports card type	Type II, Tpye III
Number of slots	Two type II, one type III
Access location	Left side
Supports ZV (Zoomed Video) port	Yes
Supports 32 bit CardBus	Yes (IRQ17)

Keyboard

Item	Specification
Keyboard controller	KB3910
Keyboard vendor & model name	Darfon/Sunrex
Total number of keypads	84-/85-/88-key
Windows keys	Yes
Internal & external keyboard work simultaneously	Yes

Battery

Item	Specification
Vendor & model name	Normal: Sanyo/Simplo; Highrate: Sanyo/Sony
Battery Type	Li-ION
Pack capacity	2000mAH
Number of battery cell	8
Package configuration	4 serial 2 parallel
Output voltage	14.4Vdc (nominal)

LCD

Item			
Vendor & model name	LCD 15.4" WXGA QDI	LCD 15.4" WXGA AU B154EW01	LCD 15.4" WXGA HITACHI
Screen Diagonal (mm)	390.1	391	391
Active Area (mm)	331.2x207.0	331.2x207.0	331.2x207.0
Display resolution (pixels)	1280x800 WXGA	1280x800 WXGA	1280x800 WXGA
Pixel Pitch	0.2588x0.2588	0.2588x0.2588	0.25875x0.25875
Pixel Arrangement	R.G.B. Vertical Stripe	R.G.B. Vertical Stripe	R.G.B. Vertical Stripe
Display Mode	Normally White	Normally White	Normally White
Typical White Luminance (cd/m^2) also called Brightness	185	195 min (5 point average) 220 Typ. (5 point average)	185
Luminance Uniformity	1.4 (5pts)	1.25 max. (5pts) 1.50 max. (13pts)	N/A
Contrast Ratio	400	400	200
Response Time (Optical Rise Time/Fall Time)	5/20	18/7	30/20
Nominal Input Voltage VDD	+3.3V Typ.	+3.3V Typ.	+3.3V Typ.
Typical Power Consumption (watt)	4.38	6.5	N/A
Weight	585	580	620
Physical Size(mm)	344x222.0x6.35 max	344x222.0x6.5 max	344.5x222.5x6.5 max
Electrical Interface	1 channel LVDS	1 channel LVDS	1 channel LVDS
Support Color	262K colors (RGB 6-bit data driver)	262K colors (RGB 6-bit data driver)	262K colors (RGB 6-bit data driver)
Viewing Angle (degree) Horizontal: Right/Left Vertial: Upper/Lower	 15/35 45/45	 70/70 60/60	 60/60 35/65

LCD

Item			
Temperature Range(° C) Operating Storage (shipping)	 0 to +50 -25 to +60	 0 to +50 -20 to +60	 0 to +50 -20 to +60

AC Adapter

Item	Specification
Vendor & model name	Liteon, 135W power supply
Input Voltage	
Low Range	90(min.)/137(max.)/100-127(nominal)
High Range	180(min.)/265(max.)200-240(nominal)
Input current	2.2A(max)
Nominal frequency (Hz)	50-60
Frequency variation range (Hz)	47-63
Efficiency	It should provide an efficiency of 85% minimum, when measured at maximum load under 115Vac.
Output Requirements	
DC output voltage	19V
Noise + Ripple	380mV as output voltage is 19V
Peak Load	18.5V-19.71V
Dynamic Output Characteristics	
Turn-on delay time	5 sec (@ 115Vac)
Hold up time	5ms (@115Vac, Full load)
Over Voltage Protection (OVP)	29V
Short circuit protection	9.5A @19V output voltage
Electrostatic discharge (ESD)	15KV (at air discharge) 8KV (at contact discharge)
Dielectric Withstand Voltage	
Primary to secondary	2150VDC for 1 sec.
Ground leakage current	less than 250uA

Power Management

Power Saving Mode	Phenomenon
Standby Mode Enter Standby Mode when 1.Standby/Hibernation hot-key is pressed and system is not ready to enter Hibernation mode. 2.System standby/ Hibernation timer expires and system is not ready to enter Hibernation mode.	q The buzzer beeps q The Sleep indicator lights up
Hibernation Mode **Enter Hibernation Mode (suspend to HDD) when** **1.Hibernation hot-key is pressed and system is ready to enter Hibernation mode** **2.System Hibernation timer expires and system is ready to enter Hibernation mode.**	q All power shuts off

Power Management

Power Saving Mode	Phenomenon
Display Standby Mode Keyboard, built-in touchpad, and an external PS/2 pointing device are idle for a specified period.	q The display shuts off
Hard Disk Standby Mode Hard disk is idle within a specified period of time.	q Hard disk drive is in standby mode. (spindle turned-off)

Environmental Requirements

Item	Specification
Temperature	
Operating	+5~+35 °C
Non-operating	-20~+60 °C
Humidity	
Operating	10% to 95% RH, non-condensing without disktte 10% to 80% RH, non-condensing with disktte
Non-operating	20% to 80% RH, non-condensing (Unpacked)
Non-operating	20% to 90% RH, non-condensing (Storage package)
Vibration	
Operating	5~250Hz 0.5Grms, 15mins per axis
Non-operating (unpacked)	1.04 Grms, 2-200Hz 15 mins per axis
Non-operating (packed)	1.04 Grms, 2-200Hz 15 mins per axis

Mechanical Specification

Item	Specification
Dimensions	361(W) x 292.5(D) x 47.3(H)mm (14.2 x 11.5 x 1.8 inches)
Weight	3.6kg (7.9lbs)
I/O Ports	Four USB 2.0 ports One IEEE 1394 port Ethernet (RJ-45) port Modem (RJ-11) port S-video/TV-out (NTSC/PAL) port External display (VGA) port DVI-D port (only Aspire 5010) Infrared (FIR) port Microphone/line-in jack Headphone/speaker/line-out port PC card slot (one Type III or two Type II) DC-in jack for AC adaptor
Drive Bays	One
Material	Plastic
Indicators	Wireless Communication, Power, Sleep, Media Activity, Battery Charge, Caps Lock and NumLock
Switch	Power

System Utilities

BIOS Setup Utility

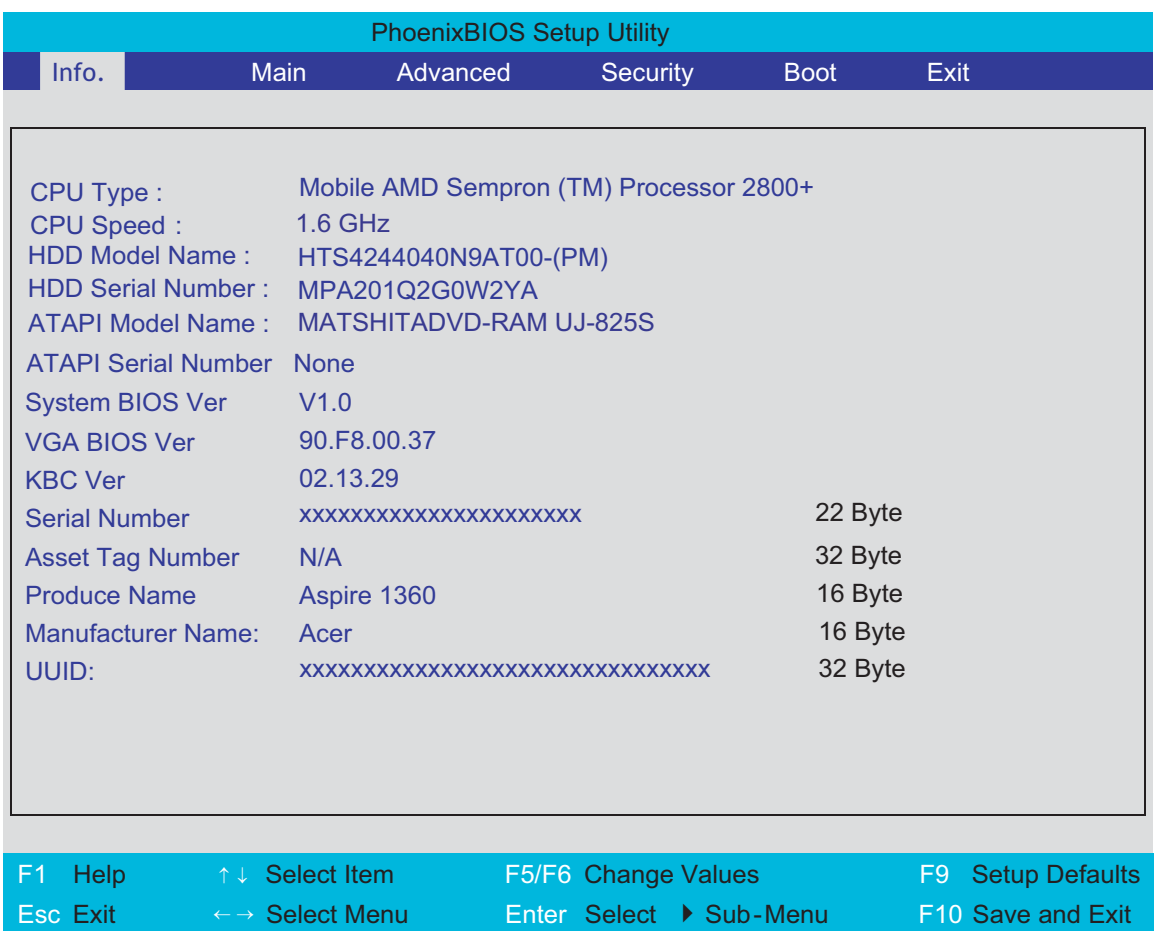
The BIOS Setup Utility is a hardware configuration program built into your computer's BIOS (Basic Input/ Output System).

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).

Press m to enter setup. The default parameter of F12 Boot Menu is set to "disabled". If you want to change boot device without entering BIOS Setup Utility, please set the parameter to "enabled".

Press <F12> during POST to enter multi-boot menu. In this menu, user can change boot device without entering BIOS SETUP Utility.



Navigating the BIOS Utility

There are six menu options: Info., Main, System Devices, Security, Boot, and Exit.

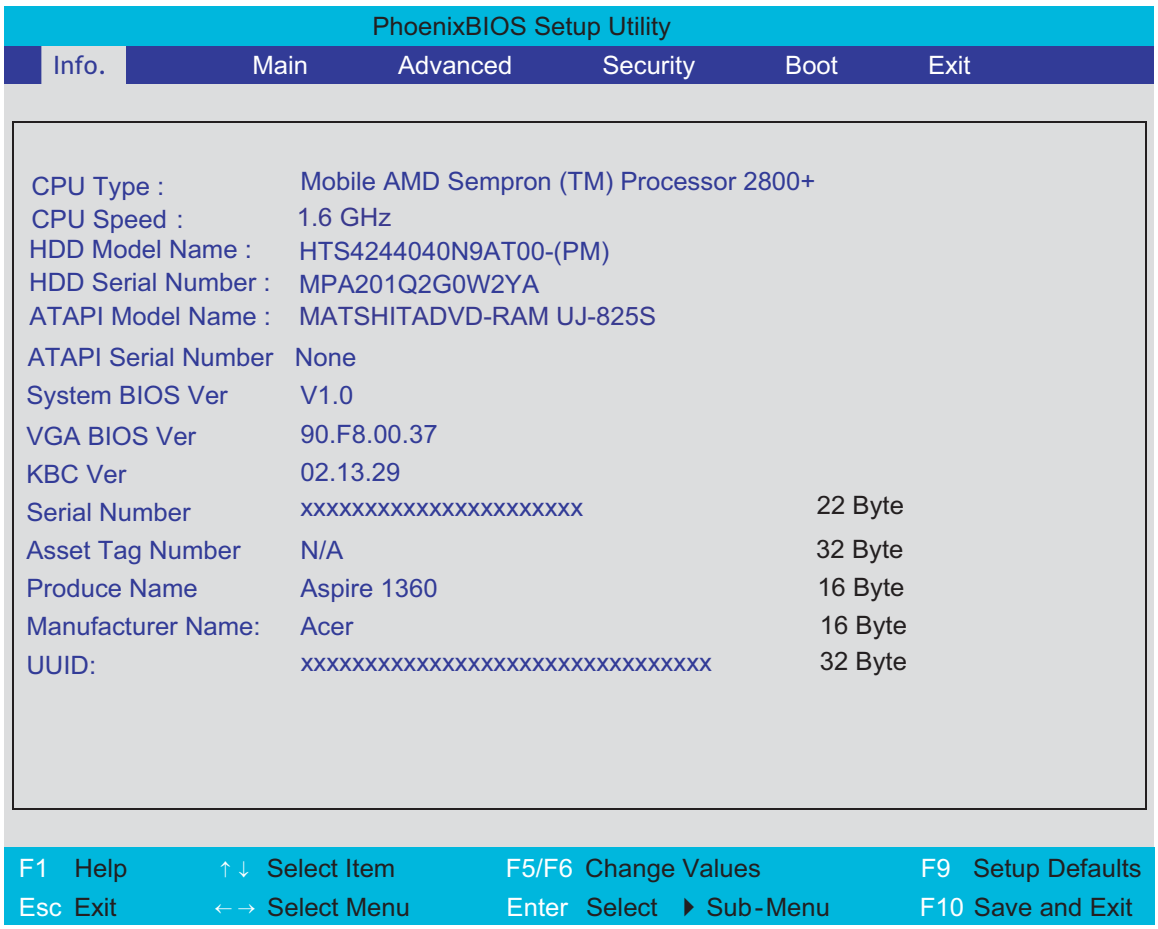
Follow these instructions:

- To choose a menu, use the cursor left/right keys (zx).
- To choose a parameter, use the cursor up/down keys (wy).
- To change the value of a parameter, press por q.
- A plus sign (+) indicates the item has sub-items. Press e to expand this item.
- Press ^ 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 t. You can also press u 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.

This menu provides you the information of the system.

Information

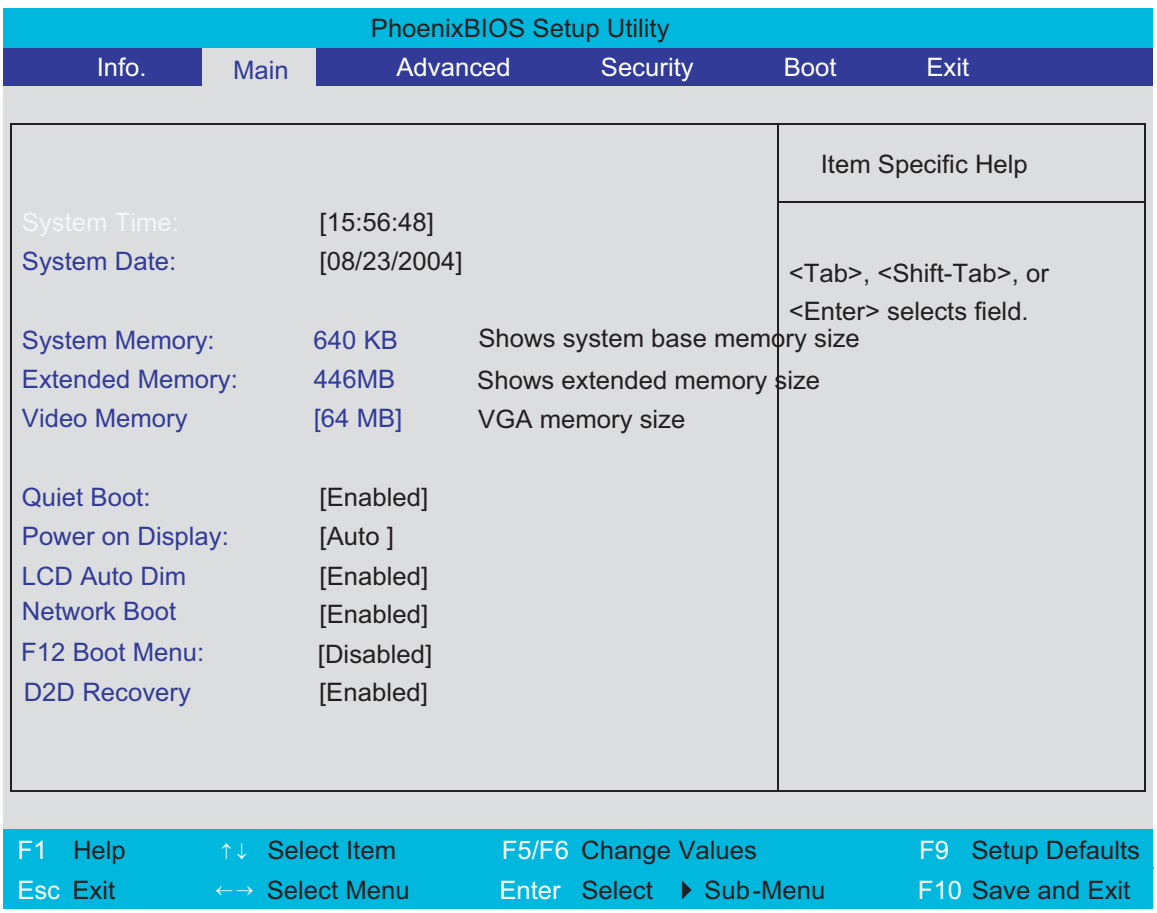


NOTE: The system information is subject to different models.

Parameter	Description
CPU Type	Displays the CPU type information.
CPU Speed	Displays the CPU speed.
HDD Model Name	HDD device model name information will be retrieved automatically during system boot.
HDD Serial Number	HDD device serial number information will be retrieved automatically during system boot.
ATAPI Model Name	Display the ATAPI device model name.
ATAPI Serial Number	Display the ATAPI device serial number
System BIOS Ver	Displays the system BIOS version.
VGA BIOS Ver	Displays the VGA BIOS version.
KBC Ver	Displays the keyboard controller firmware version.
Serial Number	Displays the system serial number.
Asset Tag Number	N/A
Product Name	Displays the product name.
Manufacturer Name	Displays the Acer company.
UUID Number	Displays the UUID (Universal Unique IDentifier) string = 32 bytes.

Main

The Main screen displays a summary of your computer hardware information, and also includes basic setup parameters. It allows the user to specify standard IBM PC AT system parameters.



NOTE: The screen above is for reference only. Actual values may differ.

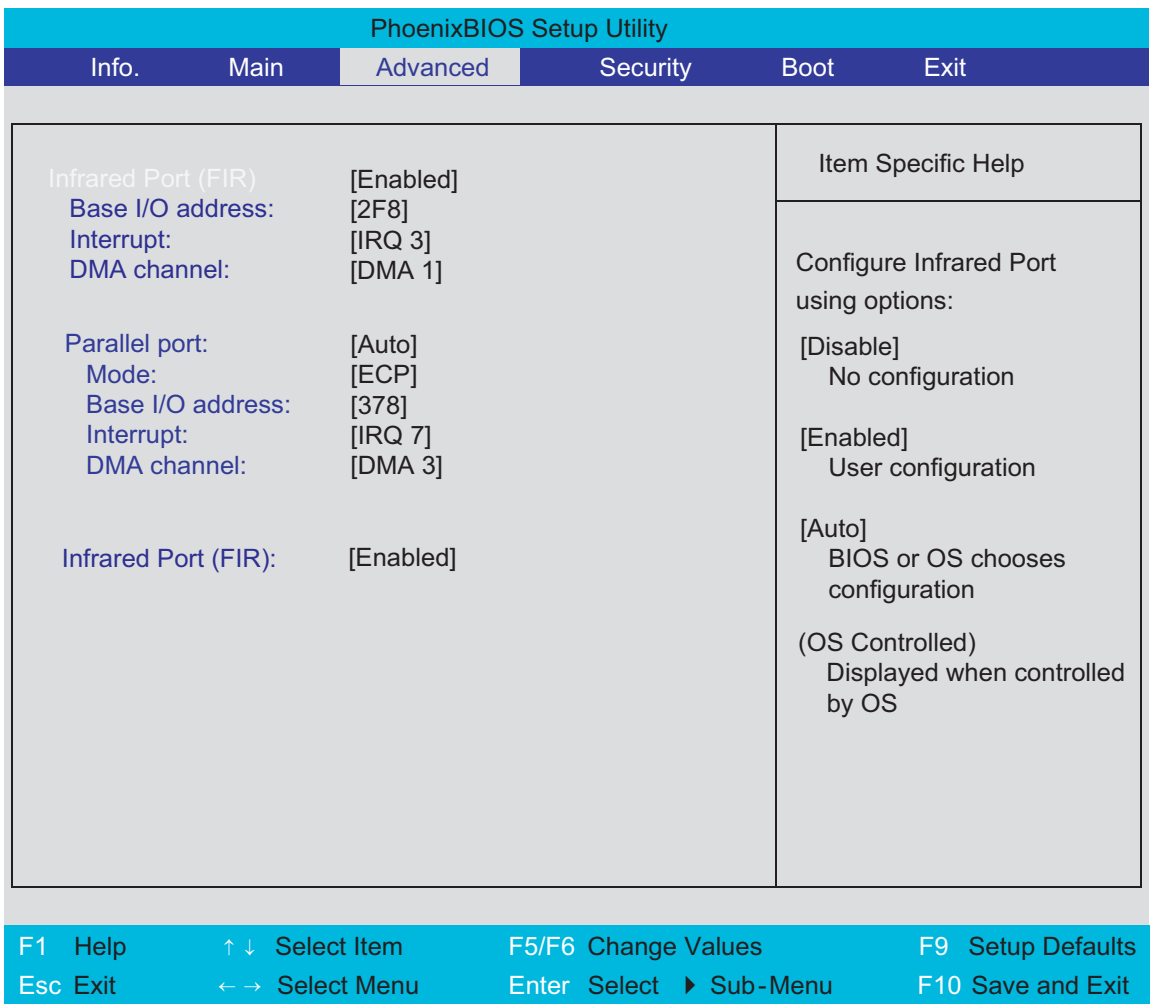
The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Format/Option
System Time	Sets the system time. The hours are displayed with 24-hour format.	Format: HH:MM:SS (hour:minute:second) System Time
System Date	Sets the system date.	Format MM/DD/YYYY (month/day/ year) System Date
System Memory	This field reports the memory size of the system. Memory size is fixed to 640MB	
Extended Memory	This field reports the memory size of the extended memory in the system. Extended Memory size=Total memory size-1MB	
VGA Memory	Shows the VGA memory size. VGA Memory size=64/128MB	
Fast Boot	Determines if Customer Logo will be displayed or not; shows Summary Screen is disabled or enabled. Enabled: Customer Logo is displayed, and Summary Screen is disabled. Disabled: Customer Logo is not displayed, and Summary Screen is enabled.	Option: **Enabled** or Disabled
Power on display	Auto: During power process, the system will detect if any display device is connected on external video port. If any external display device is connected, the power on display will be in CRT (or projector) only mode. Otherwise it will be in LCD only mode. Both: Simultaneously enable both the integrated LCD screen and the system's external video port (for an external CRT or projector).	Option: **Auto** or Both
LCD Auto Dim	Determines if the system will automatically dim the LCD brightness in order to save power when AC is not present. The system will support an automatic dimming of the LCD backlight when the AC power is NOT available (running on battery power).	Option: **Enabled** or Disabled
Network Boot	Enables, disables the system boot from LAN (remote server).	Option: **Enabled** or Disabled
F12 Boot Menu	Enables, disables Boot Menu during POST.	Option: **Disabled** or Enabled
D2D Recovery	Enables or disables Hard Disk to Hard Disk system Recovery by pressing Fn+F10 key during POST.	Option: **Enabled** or Disabled

NOTE: The sub-items under each device will not be shown if the device control is set to disable or auto. This is because the user is not allowed to control the settings in these cases.

Advanced

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



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

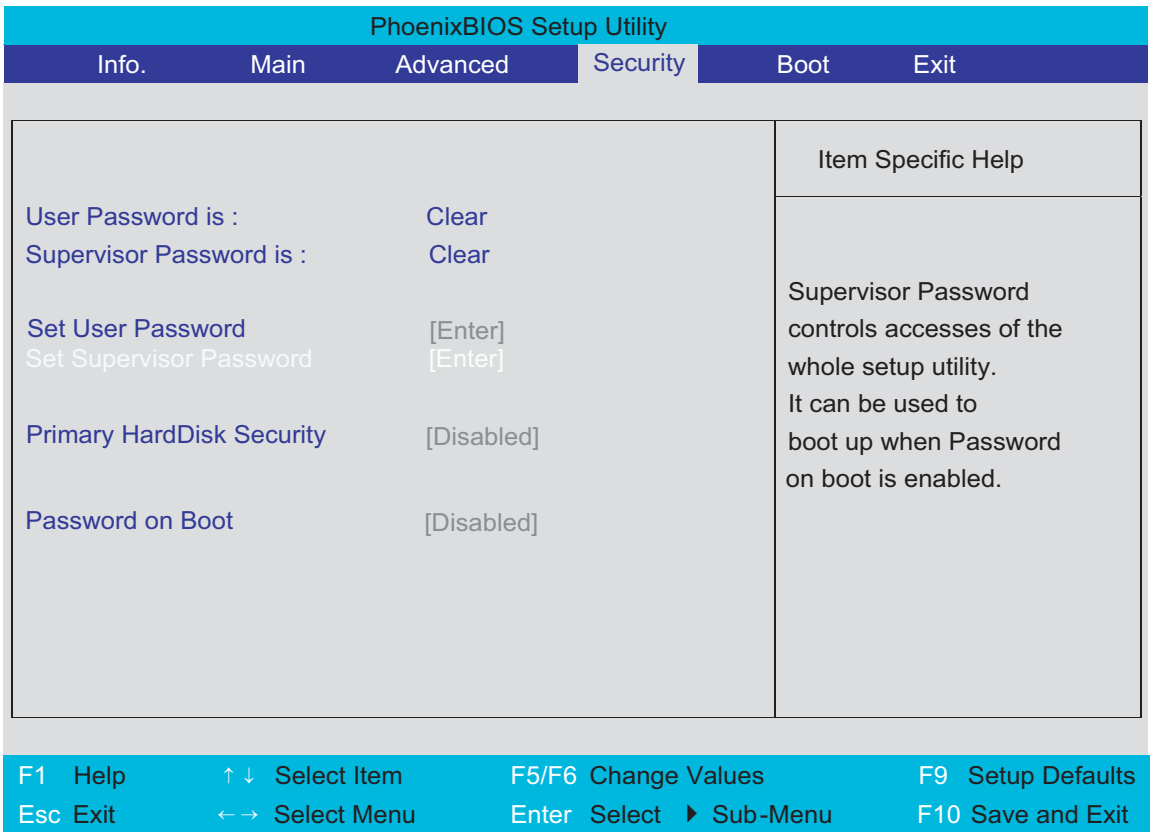
.

Parameter	Description	Options
Infrared Port	Enables, disables or auto detects the infrared port.	**Enabled**/Disabled/Auto
Base I/O address	Sets the I/O address of the infrared port.	**2F8**/3F8/3E8/2E8
Interrupt	Sets the interrupt request of the parallel port.	**IRQ3**/IRQ4
DMA channel	Sets a DMA channel for the infrared port.	**DMA**/DMA3
Parallel Port	Enables, disables or auto detects the parallel port.	**Enabled**/Disabled/Auto
Mode	Sets the operation mode of the parallel port.	**ECP**, EPP, Output only or Bi-directional
Base I/O address	Sets the I/O address of the parallel port.	**378**/278
Interrupt	Sets the interrupt request of the parallel port.	**IRQ7**/IRQ5

Parameter	Description	Options
DMA channel	Sets a DMA channel for the printer to operate in ECP mode. This parameter is enabled only if Mode is set to ECP.	**DMA3**/DMA1
Legacy USB Support	Enables, disables USB interface devices support. (Enable for use with a non-USB aware Operating System such as DOS or UNIX).	Option: **Disabled** or Enabled

Security

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



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

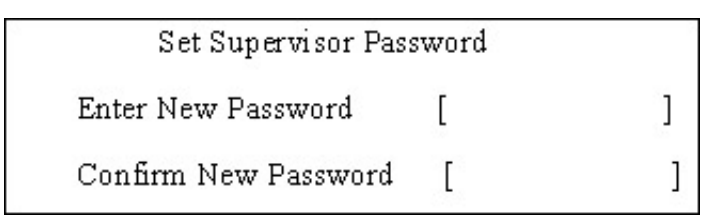
Parameter	Description	Option
User Password is	Shows the setting of the user password.	**Clear** or Set
Supervisor Password is	Shows the setting of the Supervisor password	**Clear** or Set
Set User Password	Press Enter to set the user password. When set, this password protects the BIOS Setup Utility from unauthorized access.	
Set Supervisor Password	Press Enter to set the supervisor password. When set, this password protects the BIOS Setup Utility from unauthorized access.	
Primary Harddisk Security	This feature is available to user when Supervisor password is set. Password can be written on HDD only when Supervisor password or user password is set and password on HDD is set to enabled. Supervisor Password is written to HDD only when Supervisor password is being set. User password is written to HDD when both passwords are set. When both Supervisor and user password are present, both passwords can unlock the HDD.	**Disabled** or Enabled
Password on Boot	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.	**Disabled** or Enabled

NOTE: When you are prompted to enter a password, you have three tries before the system halts. Don't forget your password. If you forget your password, you may have to return your notebook computer to your dealer to reset it.

Setting a Password

Follow these steps as you set the user or the supervisor password:

1. Use the w andy keys to highlight the Set Supervisor Password parameter and press the e key. The Set Supervisor Password box appears:



2. Type a password in the "Enter New Password" field. The password length can not exceeds 8 alphanumeric characters (A-Z, a-z, 0-9, not case sensitive). Retype the password in the "Confirm New Password" field.

IMPORTANT: Be very careful when typing your password because the characters do not appear on the screen.

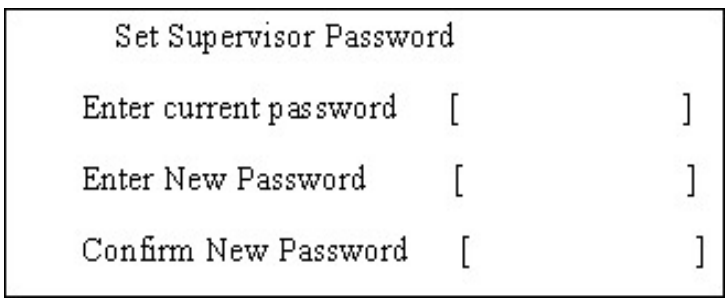
3. Press e.
   After setting the password, the computer sets the User Password parameter to "Set".
4. If desired, you can opt to enable the Password on boot parameter.

5. When you are done, press u to save the changes and exit the BIOS Setup Utility.

Removing a Password

Follow these steps:

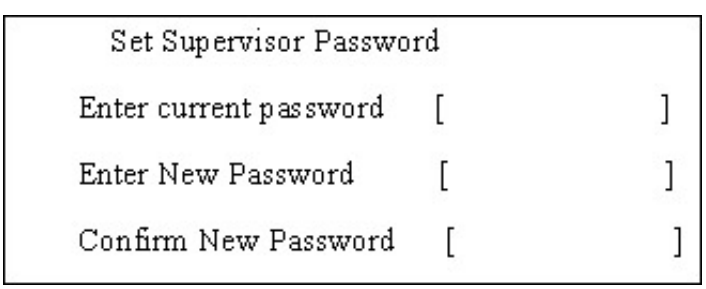
1. Use the w and y keys to highlight the Set Supervisor Password parameter and press the e key. The Set Password box appears:



2. Type the current password in the Enter Current Password field and press e.
3. Press e twice **without** typing anything in the Enter New Password and Confirm New Password fields. The computer then sets the Supervisor Password parameter to “Clear”.
4. When you have changed the settings, press u to save the changes and exit the BIOS Setup Utility.

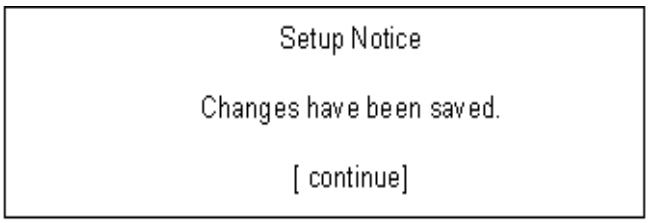
Changing a Password

1. Use the w and y keys to highlight the Set Supervisor Password parameter and press the e key. The Set Password box appears:



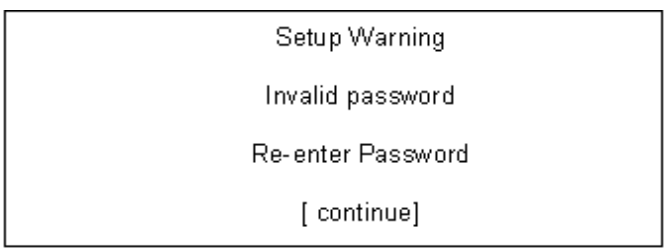
2. Type the current password in the Enter Current Password field and press e.
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
4. Press e. After setting the password, the computer sets the User Password parameter to “Set”.
5. If desired, you can enable the Password on boot parameter.
6. When you are done, press u to save the changes and exit the BIOS Setup Utility.

If the verification is OK, the screen will display as following.

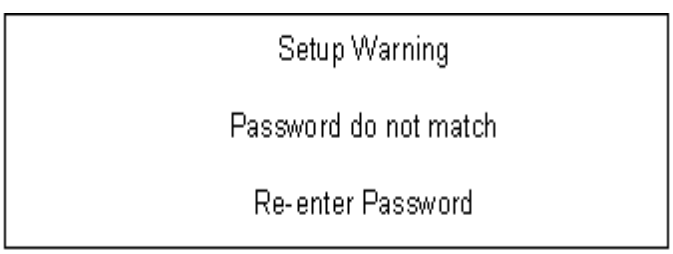


The password setting is complete after the user presses u.

If the current password entered does not match the actual current password, the screen will show you the Setup Warning.

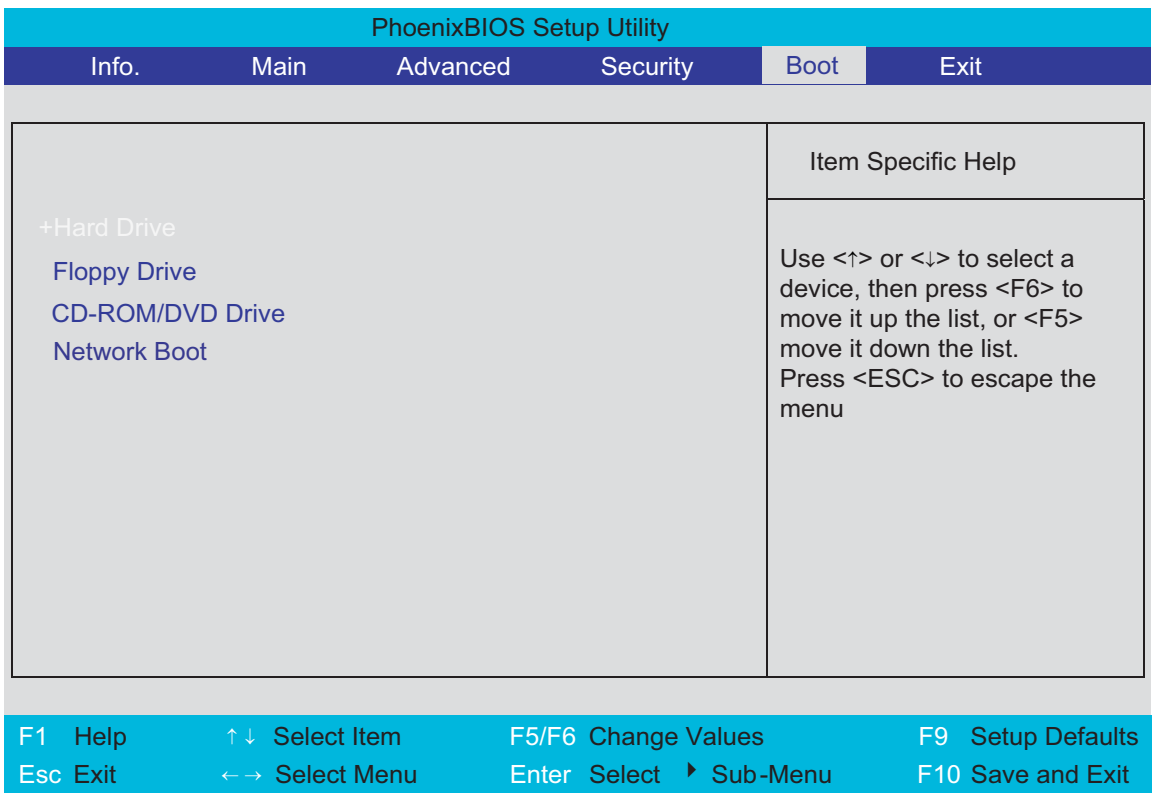


If the new password and confirm new password strings do not match, the screen will display the following message.



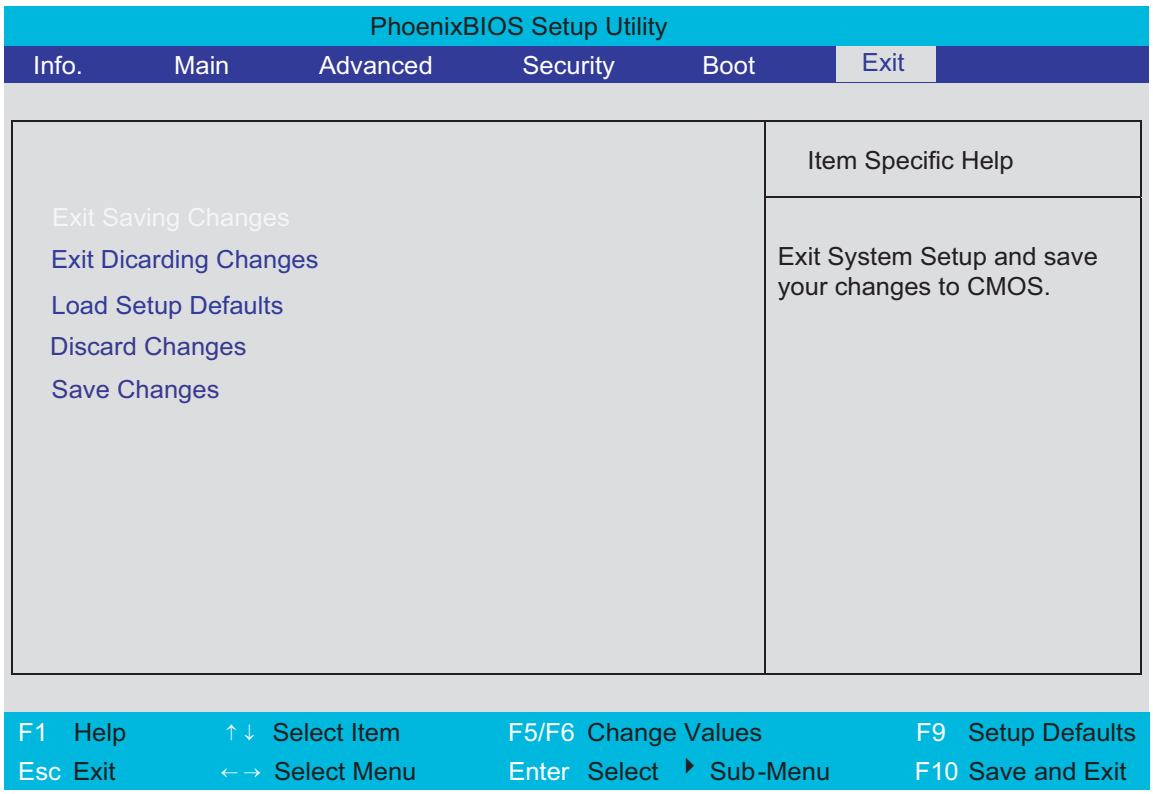
Boot

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.



Exit

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



The table below describes the parameters in this screen.

Parameter	Description
Exit Saving Changes	Exit System Setup and save your changes to CMOS.
Exit Discarding Changes	Exit utility without saving setup data to CMOS.
Load Setup Default	Load default values for all SETUP item.
Discard Changes	Load previous values from CMOS for all SETUP items.
Save Changes	Save Setup Data to CMOS.

BIOS Flash Utility

The BIOS flash memory update is required for the following conditions:

- New versions of system programs
- New features or options
- Restore a BIOS when it becomes corrupted.

Use the Phlash utility to update the system BIOS flash ROM.

NOTE: If you do not have a crisis recovery diskette at hand, then you should create a **Crisis Recovery Diskette** before you use the Phlash utility.

NOTE: Do not install memory-related drivers (XMS, EMS, DPMI) when you use the Phlash.

NOTE: Please use the AC adaptor power supply when you run the Phlash utility. If the battery pack does not contain enough power to finish BIOS flash, you may not boot the system because the BIOS is not completely loaded.

Fellow the steps below to run the Phlash.

1. Prepare a bootable diskette.
2. Copy the Phlash utilities to the bootable diskette.
3. Then boot the system from the bootable diskette. The Phlash utility has auto-execution function.

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
- Flat-bladed screw driver
- Phillips screw driver
- Tweezers
- Plastic Flat-bladed screw driver
- Hexed Screw Driver

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.

NOTE: This chapter has been revised from previous model (TravelMate 240/250). Please refer to the disassembling *procedures* instead of the *images*. Some of the images below contain the parts used in TravelMate 240/250, but not in Aspire 3010/5010.

General Information

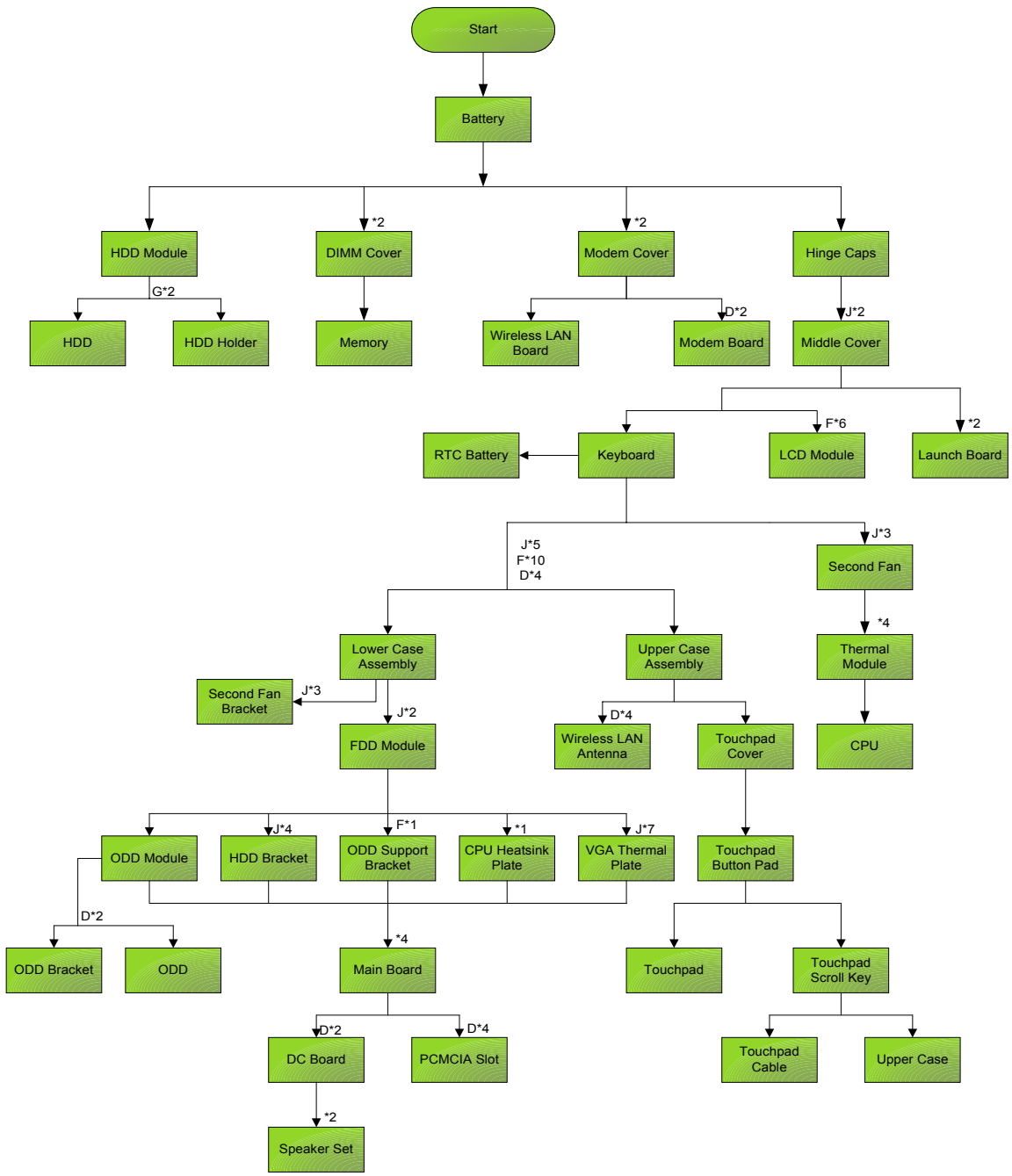
Before You Begin

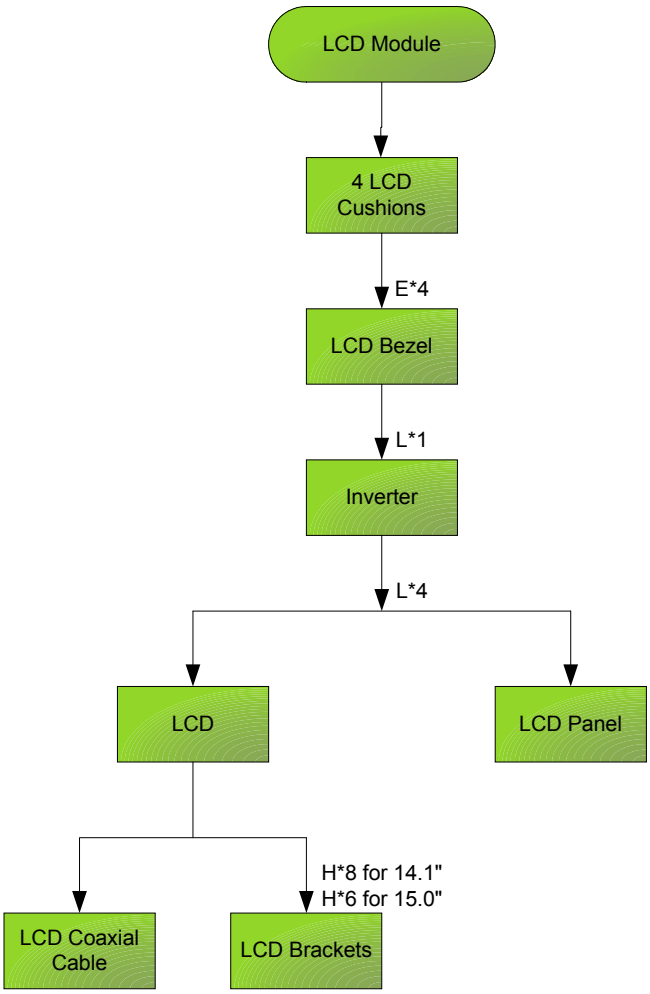
Before proceeding with the disassembly procedure, make sure that you do the following:

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.

Disassembly Procedure Flowchart

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





Screw List

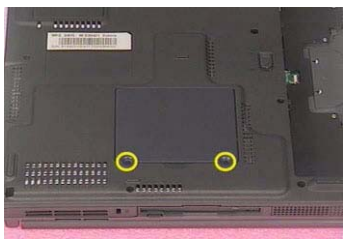
Item	Description
A	SCREW MAC FLAT M2.5*L4 NI NYLOK (86.00123.630)
B	SCREW M2.0*L10 NYLOK(86.9A352.100)
C	SCREW M2*3 NYLON 1JMCPC-420325(86.9A352.3R0)
D	SCREW M2.5X6(86.9A353.6R0)
E	SCREW M3x4 (86.9A524.4R0)
F	SCREW M2X2.0 (86.9A552.2R0)
G	SCREW WAFER NYLOK NI 2ML3 (86.9A552.3R0)
H	SCRW M2*4 WAFER NI (86.9A552.4R0)
I	SCRW M2.5*3 WAFER NI (86.9A553.3R0)
J	SCREW M2.5*4L NI (86.9A553.4R0)

Removing the Battery

1. To remove the battery, push the battery release latch.
2. Then slide the battery out from the machine.

Removing the Memory Module

1. See “Removing the Battery” on page 50.
2. To remove the memory module from the machine, first remove the two screws holding the dimm cover.



3. Remove the dimm cover.

4. Pop up the memory.
5. Then remove the memory.

Removing the Wireless LAN Board and the Modem Board

1. See “Removing the Battery” on page 50.
2. To remove the wireless LAN board, first remove the two screws holding the modem cover.

3. Remove the modem cover from the machine.
4. Disconnect the wireless antennae.

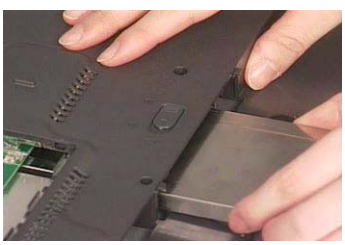
5. Pop out the wireless LAN board.
6. To remove the modem board, first remove the two screws fastening the modem board.

7. Detach the modem board and disconnect the modem cable carefully, then remove the modem board.

Removing the Hard Disk Drive Module

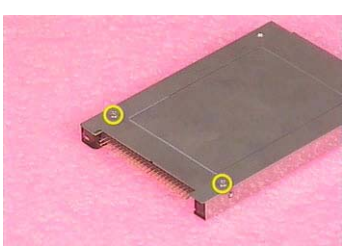
1. See “Removing the Battery” on page 50.
2. To remove the hard disk drive, pull the hard disk dirve carefully.

3. Then take the hard disk drive out of the main unit.



Disassembling the Hard Disk Drive Module

1. See “Removing the Battery” on page 50.
2. See “Removing the Hard Disk Drive Module” on page 53.
3. Remove the two screws that fasten the HDD holder.

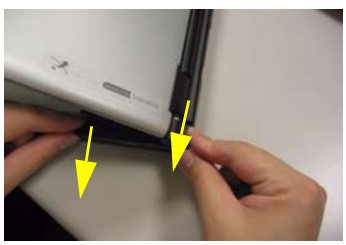


4. Detach the hard disk drive from the HDD holder.

Removing the LCD Module

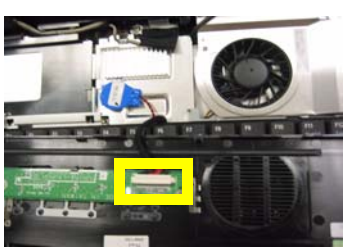
Removing the Middle Cover

1. See “Removing the Battery” on page 50.
2. To remove the middle cover, first use a plastic flat screwdriver to detach the right hinge cap. If you do not have a plastic flat screwdriver, you can simply detach the right hinge cover as the image shows. There is no screw fastening the right hinge cap to the main unit. Please just detach it.
3. Detach the left hinge cap.



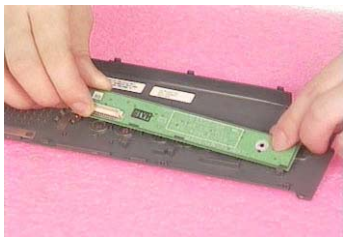
4. Remove the two screws holding the middle cover.
5. Then detach the middle cover from the machine.

6. Turn over the middle cover then disconnect the launch board cable. Then remove the middle cover.



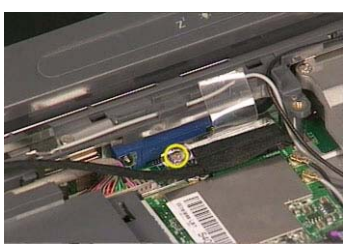
Removing the Launch Board

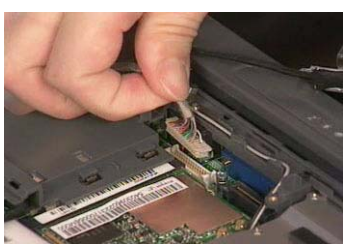
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. Remove the two screws that secure the launch board to the middle cover. Then detach the launch board from the middle cover.



Removing the LCD Module

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. Remove the screw that fastens the LCD coaxial cable and disconnect the cable. Then disconnect the LCD inverter cable.Then pull out the wireless antennae from the main unit carefully.

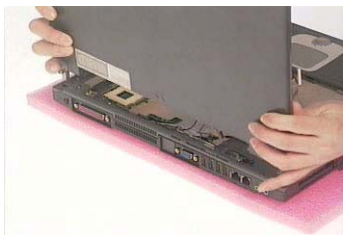




5. Remove the four screws holding the LCD hinge; two on the right and two on the left.Remove the four screws holding the LCD hinge; two on the right and two on the left.

6. Remove the two screws on the bottom; one on the right and the other on the left.

7. Then you can remove the entire LCD module from the main unit.



Disassembling the LCD Module

Removing the LCD Bezel

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. See “Removing the LCD Module” on page 55.
5. Use plastic tweezers to remove the four screw pads, and then remove the four screws that fasten the LCD bezel.


6. Snap off the bezel carefully, and then remove the LCD bezel from the LCD module.



Removing the Inverter Board (15” LCD)

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. See “Removing the LCD Module” on page 55.
5. See “Removing the LCD Bezel” on page 57.
6. To remove the inverter board, first remove one screw from the inverter board.

7. Disconnect the LCD power cable then disconnect the inverter cable from the inverter board.

NOTE: Please arrange the LCD inverter cable well to the LCD panel as the picture below shows when you reassemble the LCD module.

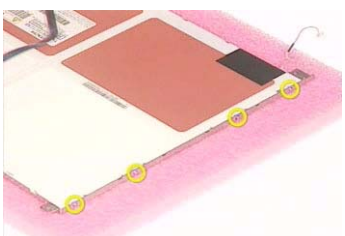
Removing the 15” TFT LCD

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. See “Removing the LCD Module” on page 55.
5. See “Removing the LCD Bezel” on page 57.
6. See “Removing the Inverter Board (15” LCD)” on page 57.
7. To remove the LCD, first remove the four screws that secure the LCD hinges.

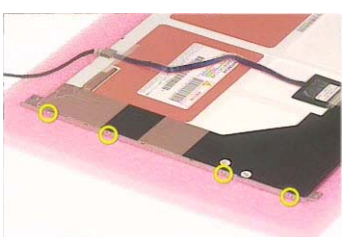
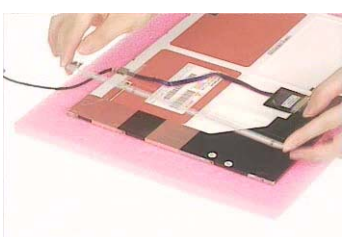
8. Then take the LCD out of the LCD panel.

Removing the LCD Brackets

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. See “Removing the LCD Module” on page 55.
5. See “Removing the LCD Bezel” on page 57.
6. See “Removing the Inverter Board (15” LCD)” on page 57.
7. See “Removing the 15” TFT LCD” on page 58.
8. Remove the four screws holding the right LCD bracket.Then remove the right bracket.




9. Remove the four screws holding the left LCD bracket. Then remove the left bracket..

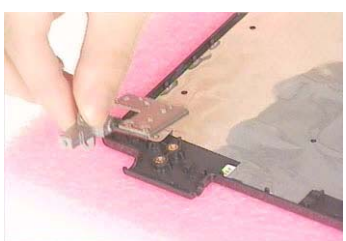
Removing the LCD Coaxial Cable

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. See “Removing the LCD Module” on page 55.
5. See “Removing the LCD Bezel” on page 57.
6. See “Removing the Inverter Board (15” LCD)” on page 57.
7. See “Removing the 15” TFT LCD” on page 58.
8. Tear off the mylar fastening the LCD coaxial cable, then disconnect the coaxial cable.


Removing the LCD Hinges

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Launch Board” on page 54.
4. See “Removing the LCD Module” on page 55.
5. See “Removing the LCD Bezel” on page 57.
6. See “Removing the Inverter Board (15” LCD)” on page 57.
7. See “Removing the 15” TFT LCD” on page 58.
8. Remove the screw holding the right hinge, then remove the right hinge.


9. Remove the screw holding the left hinge, then remove the left hinge.

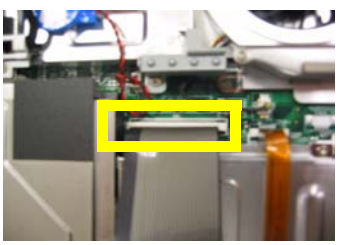



Disassembling the Main Unit

Removing the Keyboard

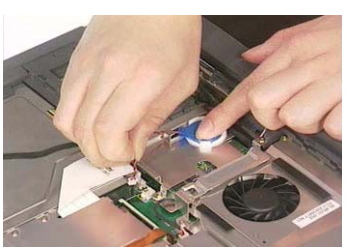
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. Detach the keyboard from the main unit. Then turn over the keyboard.
4. Disconnect the keyboard cable and remove the keyboard.

.



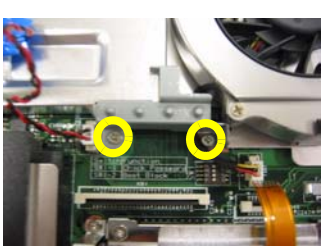
Removing the RTC Battery

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. Disconnect the RTC battery cable then remove it.



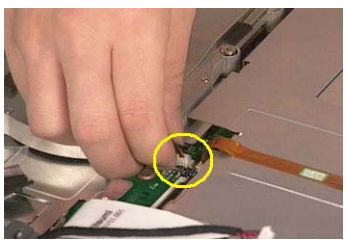
Removing the Middle Cover Hook /Fan

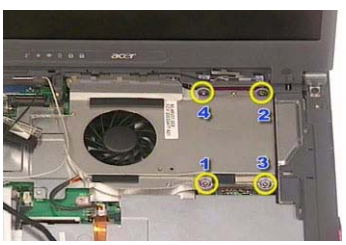
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. Remove the two screws holding the middle cover hook, then remove it.



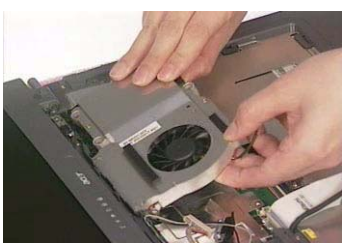
Removing the Thermal Module

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Middle Cover Hook /Fan” on page 61.
5. Disconnect the fan cable then remove the four screws fastening the thermal module.



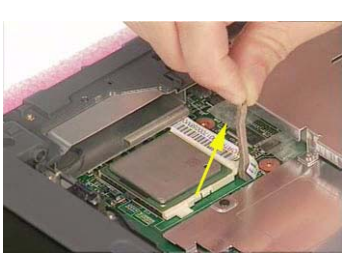


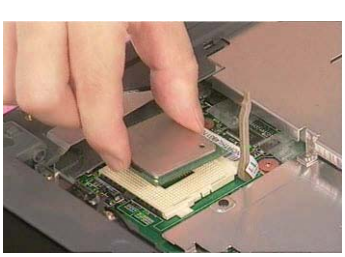
6. Then remove the thermal module.

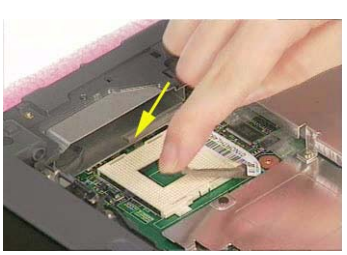


Removing the Processor

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the RTC Battery” on page 61.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. Lift up the CPU socket lever. Then remove the CPU. Remember to press down the lever as the video shows after you remove the CPU.



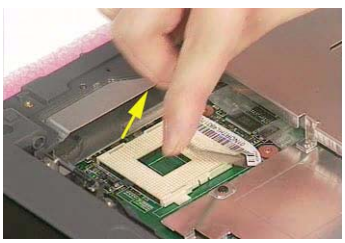
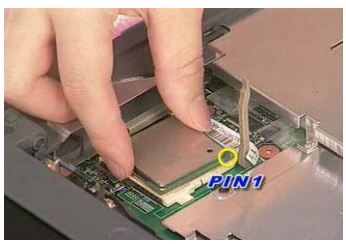


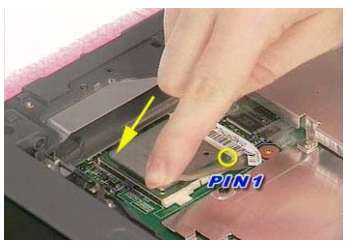


Installing the Processor

1. See “Removing the Battery” on page 50.

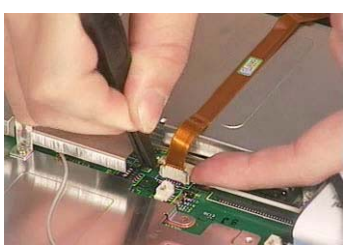
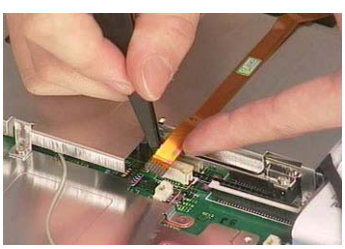
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the RTC Battery” on page 61.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. Lift up the CPU lever, then place the CPU back to the CPU socket. Please remember to press the CPU lever after you put the CPU back to the socket.

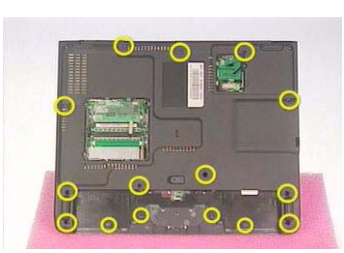


Removing the Upper Case Assemly

1. See “Removing the Keyboard” on page 61.
2. Disconnect the touchpad cable.

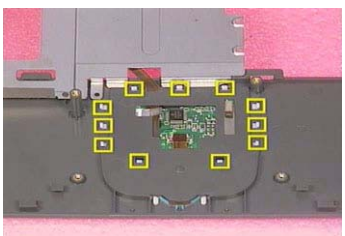
3. Remove the 5 screws that secure the upper case to the lower case. Then turn over the main unit and remove the 15 screws holding the lower case to the upper case.

4. Then take the upper case assembly off the main unit.

Removing the Touchpad Board

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. To detach the touch pad board, first disconnect the touch pad cable from the touch pad board with a plastic tweezers.Then release the touchpad cover lock on the back as the picture shows.

6. Remove the touchpad cover, the remove the touchpad button pad. Finally remove the touchpad board from the upper case.



Removing the Touchpad Cable

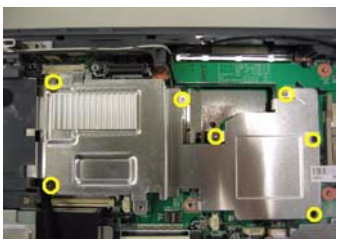
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the LCD Module” on page 55.
4. See “Removing the Keyboard” on page 61.
5. See “Removing the Upper Case Assemly” on page 63.
6. See “Removing the Touchpad Board” on page 64.
7. Remove the touchpad scroll key then remove the touchpad cable.



Removing the VGA Thermal Plate

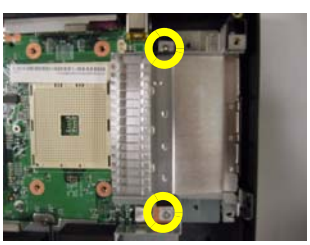
1. See “Removing the Battery” on page 50.

2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Middle Cover Hook /Fan” on page 61.
5. See “Removing the Thermal Module” on page 62.
6. Remove the seven screws holding the VGA thermal plate then remove it.



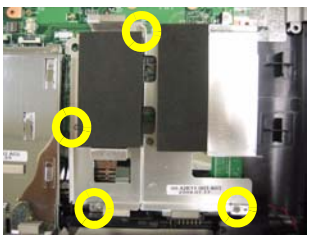
Removing the CPU Heatsink Plate

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Middle Cover Hook /Fan” on page 61.
5. See “Removing the Thermal Module” on page 62.
6. Remove two screws that fasten the CPU heatsink plate then remove it.



Removing the Second Fan Bracket

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the LCD Module” on page 55.
4. See “Removing the RTC Battery” on page 61.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. Remove the four screws that fasten the second fan bracket then remove the bracket.



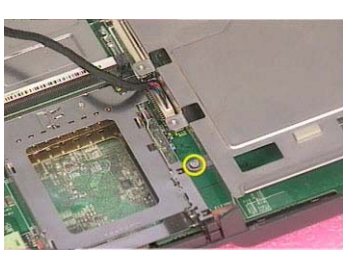
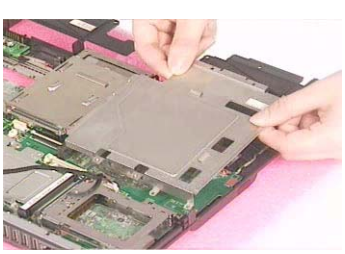
Removing the ODD Module(1)

1. See “Removing the Battery” on page 50.
2. Remove the screw that fastens the ODD bracket on the bottom. Push the ODD module at the point the red arrow indicates hard.Then remove the ODD module from the lower case.


NOTE: If you need to replace the ODD module only, you can remove the ODD module as the steps above.

Removing the ODD Module(2)

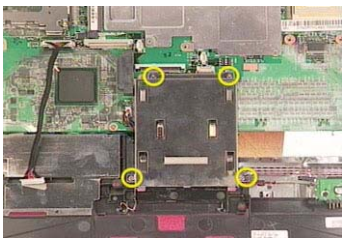
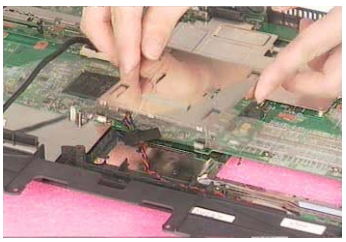
1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. See “Removing the Thermal Module” on page 62.
6. See “Removing the VGA Thermal Plate” on page 64.
7. Push the ODD module outwards then take the ODD out of the support bracket. Remove the screw that fastens the ODD support bracket then remove it.

Removing the HDD Bracket

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.

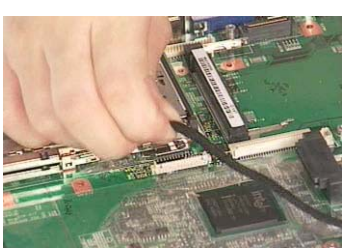
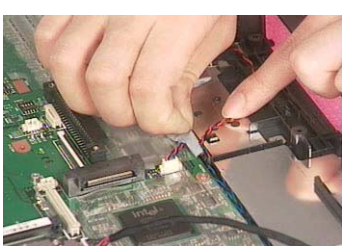
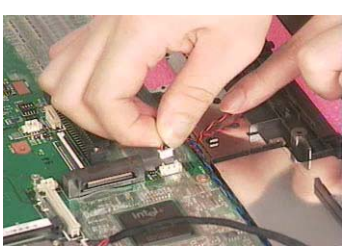
4. See “Removing the Upper Case Assemly” on page 63.
5. Remove the four screws holding the HDD bracket, then remove the HDD bracket.

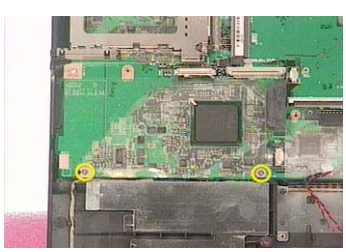
Removing the Main Board

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. See “Removing the VGA Thermal Plate” on page 64.
8. See “Removing the CPU Heatsink Plate” on page 65.
9. See “Removing the Second Fan Bracket” on page 65.
10. See “Removing the ODD Module(2)” on page 66.
11. See “Removing the HDD Bracket” on page 66.
12. Disconnect the launch board cable. Tear off the tape that fastens the speaker set cable. Then disconnect the speaker set cable.

.

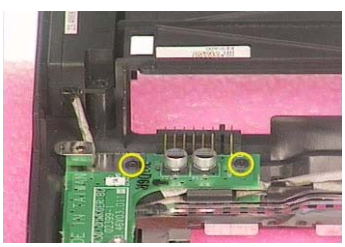




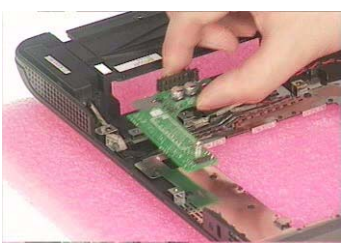
13. Remove the two screws holding the main board as the picture shows. Remove another two screws that fasten the main board. Then detach the main board from the lower case carefully.



Removing the DC Board

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. See “Removing the VGA Thermal Plate” on page 64.
8. See “Removing the CPU Heatsink Plate” on page 65.
9. See “Removing the Second Fan Bracket” on page 65.
10. See “Removing the ODD Module(2)” on page 66.
11. See “Removing the HDD Bracket” on page 66.
12. See “Removing the Main Board” on page 67.
13. Remove the two screws that fasten the DC board. Then detach the DC board from the lower case.



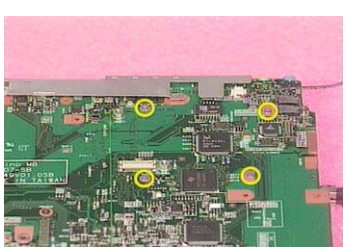


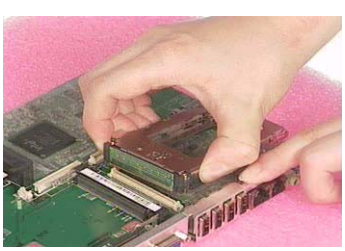
Removing the I/O Port Bracket

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. See “Removing the VGA Thermal Plate” on page 64.
8. See “Removing the CPU Heatsink Plate” on page 65.
9. See “Removing the Second Fan Bracket” on page 65.
10. See “Removing the ODD Module(2)” on page 66.
11. See “Removing the HDD Bracket” on page 66.
12. See “Removing the Main Board” on page 67.
13. Remove the four hex screws to detach the I/O port bracket from the main board.

Removing the PCMCIA Slot

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. See “Removing the VGA Thermal Plate” on page 64.
8. See “Removing the CPU Heatsink Plate” on page 65.
9. See “Removing the Second Fan Bracket” on page 65.
10. See “Removing the ODD Module(2)” on page 66.
11. See “Removing the HDD Bracket” on page 66.
12. See “Removing the Main Board” on page 67.
13. Remove the four screws that secure the PCMCIA slot, then remove the PCMCIA slot from the lower case.





Removing the Speaker Set

1. See “Removing the Battery” on page 50.
2. See “Removing the Middle Cover” on page 54.
3. See “Removing the Keyboard” on page 61.
4. See “Removing the Upper Case Assemly” on page 63.
5. See “Removing the Middle Cover Hook /Fan” on page 61.
6. See “Removing the Thermal Module” on page 62.
7. See “Removing the VGA Thermal Plate” on page 64.
8. See “Removing the CPU Heatsink Plate” on page 65.
9. See “Removing the Second Fan Bracket” on page 65.

10. See “Removing the ODD Module(2)” on page 66.
11. See “Removing the HDD Bracket” on page 66.
12. See “Removing the Main Board” on page 67.
13. See “Removing the DC Board” on page 68.
14. Tear off the tape fastening the speaker set cable. Then remove the four screws that secure the speaker set. Remove the speaker set from the lower case.

System Upgrade Procedure

Base Unit to Wireless Unit

1. Turn out the two screws fastening the modem cover then open the cover.
2. Connect the wirless antennae.
3. Insert the wireless LAN board to the wireless socket on the main board.
4. Close the modem cover and fasten the cover with the two screws.

NOTE: You must connect the wireless antennae before you insert the wireless LAN board to the socket. If you insert the wireless LAN card first, the pressure you press to fasten the wireless antennae may damage the main board.

Troubleshooting

Use the following procedure as a guide for computer problems.

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

1. Obtain the failing symptoms in as much detail as possible.
2. Verify the symptoms by attempting to re-create the failure by running the diagnostic test or by repeating the same operation.
3. 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” on page 73.
POST does not complete. No beep or error codes are indicated.	“Power-On Self-Test (POST) Error Message” on page 77 “Undetermined Problems” on page 89
POST detects an error and displayed messages on screen.	“Error Message List” on page 78
Other symptoms (i.e. LCD display problems or others).	“Power-On Self-Test (POST) Error Message” on page 77
Symptoms cannot be re-created (intermittent problems).	Use the customer-reported symptoms and go to “Power-On Self-Test (POST) Error Message” on page 77 “Intermittent Problems” on page 88 “Undetermined Problems” on page 89

System Check Procedures

Optical Disk Drive Check

Do the following to isolate the problem to a controller, drive, or optical drive. Make sure that the optical drive 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. Boot from the diagnostics diskette and start the diagnostics program.
2. See if optical drive test is passed when the program runs to optical drive test.
3. Follow the instructions in the message window.

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

1. Reconnect the optical drive module.
2. Replace the optical drive 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 system 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:

- 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.

1. Boot from the diagnostics diskette and start the doagmpstotics program (please refer to main board.
2. Go to the diagnostic memory in the test items.
3. Press F2 in the test items.
4. Follow the instructions in the message window.

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.

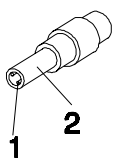
3. Disconnect the power adapter and install the charged battery pack; then check that power is supplied by the battery pack.

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

- “Check the Power Adapter” on page 75
- “Check the Battery Pack” on page 76

Check the Power Adapter

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



Pin 1: +19 to +20.5V
Pin 2: 0V, Ground

1. If the voltage is not correct, replace the power adapter.
2. If the voltage is within the range, do the following:
   - Replace the System board.
   - If the problem is not corrected, see “Undetermined Problems” on page 89.
   - If the voltage is not correct, go to the next step.

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

3. If the power-on indicator does not light up, check the power cord of the power adapter for correct continuity and installation.
4. If the operational charge does not work, see “Check the Battery Pack” on page 76.

Check the Battery Pack

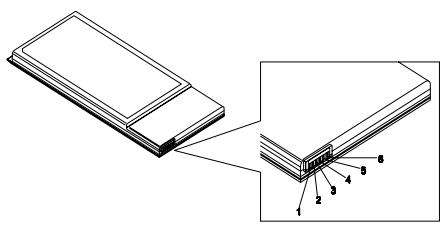
To check the battery pack, do the following:

From Software:

1. Check out the Power Management 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). See the following figure



3. If the voltage is still less than 7.5 Vdc after recharging, replace the battery.

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 light up, 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. Reconnect the touchpad cables.
2. Replace the touchpad.
3. Replace the system board.

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.

Power-On Self-Test (POST) Error Message

The POST error message index lists the error message and their possible causes. The most likely cause is listed first.

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

This index can also help you determine the next possible FRU to be replaced when servicing a computer.

If the symptom is not listed, see “Undetermined Problems” on page 89.

The following lists the error messages that the BIOS displays on the screen and the error symptoms classified by function.

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

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

Index of Error Messages

Error Code List

Error Codes	Error Messages
006	Equipment Configuration Error Causes: 1. CPU BIOS Update Code Mismatch 2. IDE Primary Channel Master Drive Error (THe causes will be shown before “Equipment Configuration Error”)
010	Memory Error at xxxx:xxxx:xxxxh (R:xxxxh, W:xxxxh)
070	Real Time Clock Error
071	CMOS Battery Bad
072	CMOS Checksum Error
110	System disabled. Incorrect password is specified.
<No error code>	Battery critical LOW In this situation BIOS will issue 4 short beeps then shut down system, no message will show.
<No error code>	Thermal critical High In this situation BIOS will shut down system, not show message.

Error Message List

Error Messages	FRU/Action in Sequence
Failure Fixed Disk	Reconnect hard disk drive connector. “Load Default Settings” in BIOS Setup Utility. Hard disk drive System board
Stuck Key	see “Keyboard or Auxiliary Input Device Check” on page 73.
Keyboard error	see “Keyboard or Auxiliary Input Device Check” on page 73.
Keyboard Controller Failed	see “Keyboard or Auxiliary Input Device Check” on page 73.
Keyboard locked - Unlock key switch	Unlock external keyboard
Monitor type does not match CMOS - Run Setup	Run “Load Default Settings” in BIOS Setup Utility.
Shadow RAM Failed at offset: nnnn	BIOS ROM System board
System RAM Failed at offset: nnnn	DIMM System board
Extended RAM Failed at offset: nnnn	DIMM System board
System battery is dead - Replace and run Setup	Replace RTC battery and Run BIOS Setup Utility to reconfigure system time, then reboot system.
System CMOS checksum bad - Default configuration used	RTC battery Run BIOS Setup Utility to reconfigure system time, then reboot system.
System timer error	RTC battery Run BIOS Setup Utility to reconfigure system time, then reboot system. System board

Error Message List

Error Messages	FRU/Action in Sequence
Real time clock error	RTC battery Run BIOS Setup Utility to reconfigure system time, then reboot system. System board
Previous boot incomplete - Default configuration used	Run “Load Default Settings” in BIOS Setup Utility. RTC battery System board
Memory size found by POST differed from CMOS	Run “Load Default Settings” in BIOS Setup Utility. DIMM System board
Diskette drive A error	Check the drive is defined with the proper diskette type in BIOS Setup Utility See “External Diskette Drive Check” on page 73.
Incorrect Drive A type - run SETUP	Check the drive is defined with the proper diskette type in BIOS Setup Utility
System cache error - Cache disabled	System board
CPU ID:	System board
DMA Test Failed	DIMM System board
Software NMI Failed	DIMM System board
Fail-Safe Timer NMI Failed	DIMM System board
Device Address Conflict	Run “Load Default Settings” in BIOS Setup Utility. RTC battery System board
Allocation Error for device	Run “Load Default Settings” in BIOS Setup Utility. RTC battery System board
Failing Bits: nnnn	DIMM BIOS ROM System board
Fixed Disk n	None
Invalid System Configuration Data	BIOS ROM System board
I/O device IRQ conflict	Run “Load Default Settings” in BIOS Setup Utility. RTC battery System board
Operating system not found	Enter Setup and see if fixed disk and drive A: are properly identified. Diskette drive Hard disk drive System board

Error Message List

No beep Error Messages	FRU/Action in Sequence
No beep, power-on indicator turns off and LCD is blank.	Power source (battery pack and power adapter). See “Power System Check” on page 73. Ensure every connector is connected tightly and correctly. Reconnect the DIMM. LED board. System board.
No beep, power-on indicator turns on and LCD is blank.	Power source (battery pack and power adapter). See “Power System Check” on page 73. Reconnect the LCD connector Hard disk drive LCD inverter ID LCD cable LCD Inverter LCD System board
No beep, power-on indicator turns on and LCD is blank. But you can see POST on an external CRT.	Reconnect the LCD connectors. LCD inverter ID LCD cable LCD inverter LCD System board
No beep, power-on indicator turns on and a blinking cursor shown on LCD during POST.	Ensure every connector is connected tightly and correctly. System board
No beep during POST but system runs correctly.	Speaker System board

POST Code

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

Code	Beeps	POST Routine Description
46h	2-1-2-3	Check ROM copyright notice
48h		Check video configuration against CMOS
49h		Initialize PCI bus and devices
4Ah		Initialize all video adapters in system
4Bh		QuietBoot start (optional)
4Ch		Shadow video BIOS ROM
4Eh		Display BIOS copyright notice
50h		Display CPU type and speed
51h		Initialize EISA board
52h		Test keyboard
54h		Set key click if enabled
58h	2-2-3-1	Test for unexpected interrupts
59h		Initialize POST display service
5Ah		Display prompt “Press F2 to enter SETUP”
5Bh		Disable CPU cache
5Ch		Test RAM between 512 and 640 KB
60h		Test extended memory
62h		Test extended memory address lines
64h		Jump to User Patch1
66h		Configure advanced cache registers
67h		Initialize Multi Processor APIC
68h		Enable external and CPU caches
69h		Setup System Management Mode (SMM) area
6Ah		Display external L2 cache size
6Bh		Load custom defaults (optional)
6Ch		Display shadow-area message
6Eh		Display possible high address for UMB recovery
70h		Display error messages
72h		Check for configuration errors
76h		Check for keyboard errors
7Ch		Set up hardware interrupt vectors
7Eh		Initialize coprocessor if present
80h		Disable onboard Super I/O ports and IRQs
81h		Late POST device initialization
82h		Detect and install external RS232 ports
83h		Configure non-MCD IDE controllers
84h		Detect and install external parallel ports
85h		Initialize PC-compatible PnP ISA devices
86h		Re-initialize onboard I/O ports
87h		Configure Motherboard Configurable Devices (optional)
88h		Initialize BIOS Area
89h		Enable Non-Maskable Interrupts (NMIs)
8Ah		Initialize Extended BIOS Data Area
8Bh		Test and initialize PS/2 mouse

Code	Beeps	POST Routine Description
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
AEh		Clear Boot flag
B0h		Check for errors
B2h		POST done- prepare to boot operating system
B4h	1	One short beep before boot
B5h		Terminate QuietBoot (optional)
B6h		Check password (optional)
B9h		Prepare Boot
BAh		Initialize DMI parameters
BBh		Initialize PnP Option ROMs
BCh		Clear parity checkers
BDh		Display MultiBoot menu
BEh		Clear screen (optional)
BFh		Check virus and backup reminders
C0h		Try to boot with INT 19
C1h		Initialize POST Error Manager (PEM)
C2h		Initialize error logging
C3h		Initialize error display function
C4h		Initialize system error handler
C5h		PnPnd dual CMOS (optional)
C6h		Initialize notebook docking (optional)
C7h		Initialize notebook docking late
C8h		Force check (optional)
C9h		Extended checksum (optional)

Code	Beeps	POST Routine Description
D2h		Unknown interrupt

Code	Beeps	For Boot Block in Flash ROM
E0h		Initialize the chipset
E1h		Initialize the bridge
E2h		Initialize the CPU
E3h		Initialize the system timer
E4h		Initialize system I/O
E5h		Check force recovery boot
E6h		Checksum BIOS ROM
E7h		Go to BIOS
E8h		Set Huge Segment
E9h		Initialize 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

Index of Symptom-to-FRU Error Message

LCD-Related Symptoms

Symptom / Error	Action in Sequence
LCD backlight doesn't work LCD is too dark LCD brightness cannot be adjusted LCD contrast cannot be adjusted	Enter BIOS Utility to execute “Load Setup Default Settings”, then reboot system. Reconnect the LCD connectors. Keyboard (if contrast and brightness function key doesn't work). LCD inverter ID LCD cable LCD inverter LCD System board
Unreadable LCD screen Missing pels in characters Abnormal screen Wrong color displayed	Reconnect the LCD connector LCD inverter ID LCD cable LCD inverter LCD System board
LCD has extra horizontal or vertical lines displayed.	LCD inverter ID LCD inverter LCD cable LCD System board

Indicator-Related Symptoms

Symptom / Error	Action in Sequence
Indicator incorrectly remains off or on, but system runs correctly	Reconnect the inverter board Inverter board System board

Power-Related Symptoms

Symptom / Error	Action in Sequence
Power shuts down during operation	Power source (battery pack and power adapter). See “Power System Check” on page 73. Battery pack Power adapter Hard drive & battery connection board System board
The system doesn’t power-on.	Power source (battery pack and power adapter). See “Power System Check” on page 73. Battery pack Power adapter Hard drive & battery connection board System board
The system doesn’t power-off.	Power source (battery pack and power adapter). See “Power System Check” on page 73. Hold and press the power switch for more than 4 seconds. System board

Power-Related Symptoms

Symptom / Error	Action in Sequence
Battery can't be charged	See "Check the Battery Pack" on page 76. Battery pack System board

PCMCIA-Related Symptoms

Symptom / Error	Action in Sequence
System cannot detect the PC Card (PCMCIA)	PCMCIA slot assembly System board
PCMCIA slot pin is damaged.	PCMCIA slot assembly

Memory-Related Symptoms

Symptom / Error	Action in Sequence
Memory count (size) appears different from actual size.	Enter BIOS Setup Utility to execute "Load Default Settings, then reboot system. DIMM System board

Speaker-Related Symptoms

Symptom / Error	Action in Sequence
In Windows, multimedia programs, no sound comes from the computer.	Audio driver Speaker System board
Internal speakers make noise or emit no sound.	Speaker System board

Power Management-Related Symptoms

Symptom / Error	Action in Sequence
The system will not enter hibernation	Keyboard (if control is from the keyboard) Hard disk drive System board
The system doesn't enter hibernation mode and four short beeps every minute.	See "Hibernation Mode" on page 29. Press Fn+**O**and see if the computer enters hibernation mode. Touchpad Keyboard Hard disk connection board Hard disk drive System board
The system doesn't enter standby mode after closing the LCD	See "Hibernation Mode" on page 29. LCD cover switch System board
The system doesn't resume from hibernation mode.	See "Hibernation Mode" on page 29. Hard disk connection board Hard disk drive System board
The system doesn't resume from standby mode after opening the LCD.	See "Hibernation Mode" on page 29. LCD cover switch System board

Power Management-Related Symptoms

Symptom / Error	Action in Sequence
Battery fuel gauge in Windows doesn't go higher than 90%.	Remove battery pack and let it cool for 2 hours. Refresh battery (continue use battery until power off, then charge battery). Battery pack System board
System hangs intermittently.	Reconnect hard disk/CD-ROM drives. Hard disk connection board System board

Peripheral-Related Symptoms

Symptom / Error	Action in Sequence
System configuration does not match the installed devices.	Enter BIOS Setup Utility to execute "Load Default Settings", then reboot system. Reconnect hard disk/CD-ROM/diskette drives.
External display does not work correctly.	Press Fn+F5, LCD/CRT/Both display switching System board
USB does not work correctly	System board
Print problems.	Ensure the "Parallel Port" in the "Onboard Devices Configuration" of BIOS Setup Utility is set to Enabled. Onboard Devices Configuration Run printer self-test. Printer driver Printer cable Printer System Board
Serial or parallel port device problems.	Ensure the "Serial Port" in the Devices Configuration" of BIOS Setup Utility is set to Enabled. Device driver Device cable Device System board

Keyboard/Touchpad-Related Symptoms

Symptom / Error	Action in Sequence
Keyboard (one or more keys) does not work.	Reconnect the keyboard cable. Keyboard System board
Touchpad does not work.	Reconnect touchpad cable. Touchpad board System board

Modem-Related Symptoms

Symptom / Error	Action in Sequence
Internal modem does not work correctly.	Modem phone port modem combo board System board

NOTE: If you cannot find a symptom or an error in this list and the problem remains, see "Undetermined Problems" on page 89.

Intermittent Problems

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

When analyzing an intermittent problem, do the following:

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

Undetermined Problems

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

Follow these procedures to isolate the failing FRU (do not isolate non-defective FRU).

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

NOTE: Verify that the power supply being used at the time of the failure is operating correctly. (See “Power System Check” on page 73):

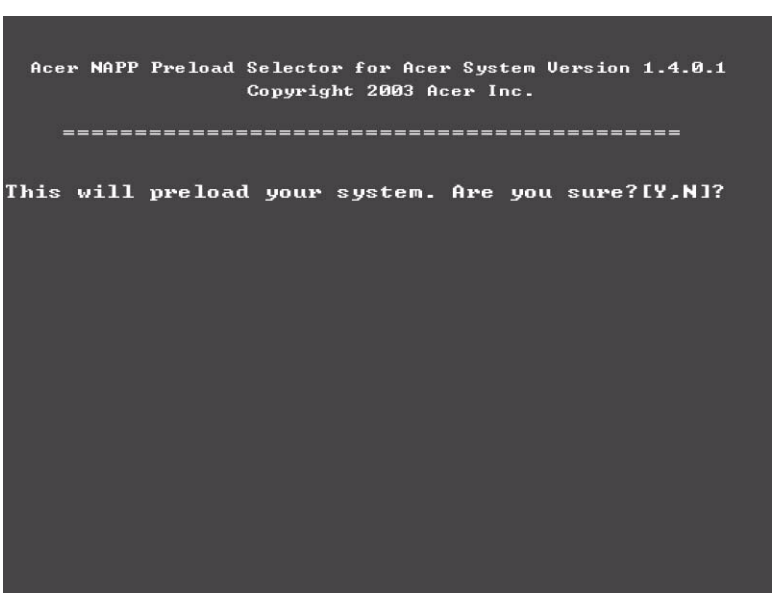
1. Power-off the computer.
2. Visually check them for damage. If any problems are found, replace the FRU.
3. Remove or disconnect all of the following devices:
    - Non-Acer devices
    - Printer, mouse, and other external devices
    - Battery pack
    - Hard disk drive
    - DIMM
    - CD-ROM/Diskette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

How to Build NAPP Master Hard Disc Drive

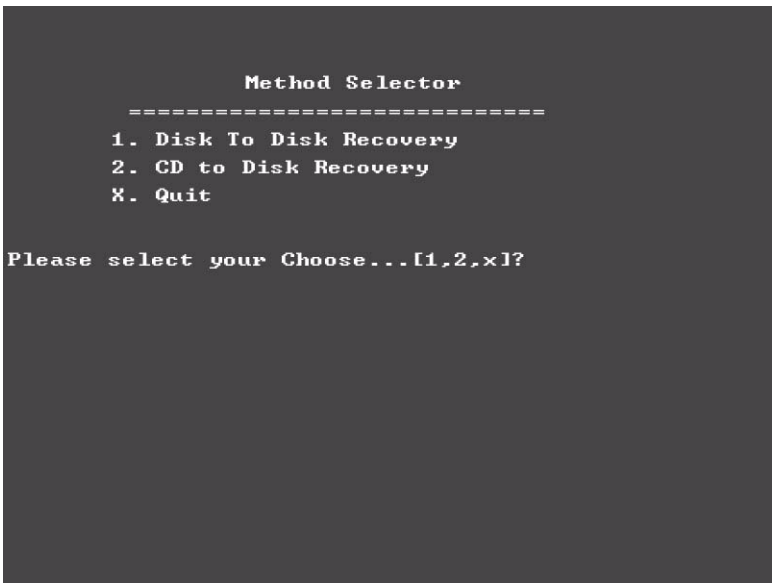
CD to Disk Recovery

1. Prepare NAPP CD, Recovery CD and System CD.
2. Put NAPP CD into the optical drive. Then boot up the system.
3. The system will ask you if you want to build NAPP Master HDD. Please press any key to continue.

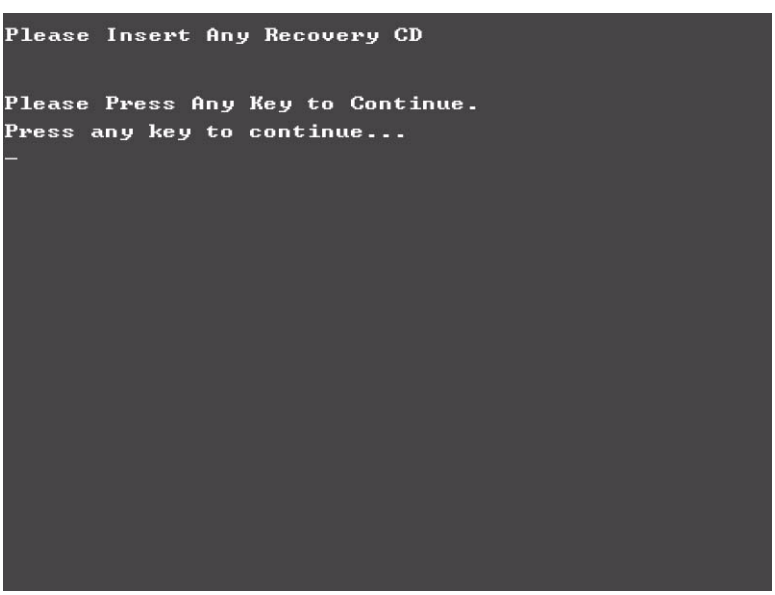
4. NAPP CD will start to preload the system, please click [Y].



5. Select CD to Disk Revocery.



6. Put the Recovery CD to the optical drive. This step is to create image files to the system, you do not have to put the Recovery CD to the optical drive in order. Place one Recovery CD to the drive at one time till you finish all Recovery CDs.



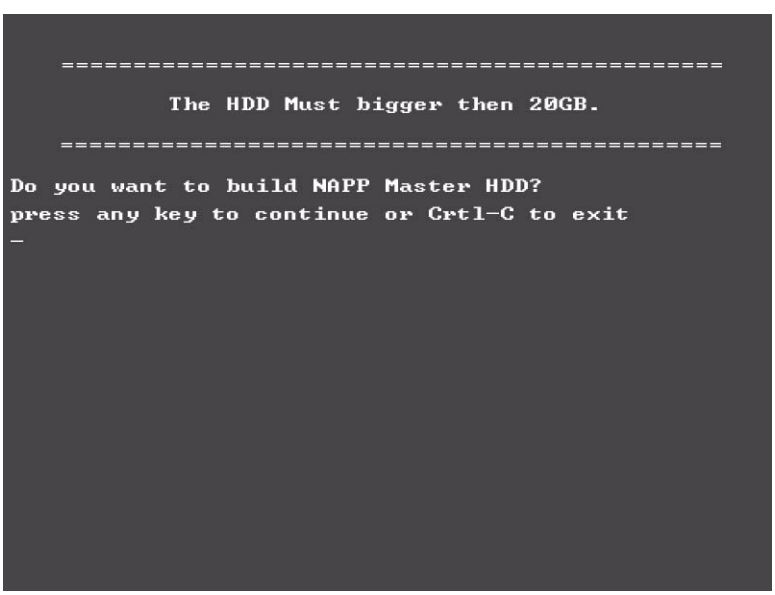
After you place the Recovery CD to the optical drive, you will see the display below.

7. Then insert the System CD to the optical drive.

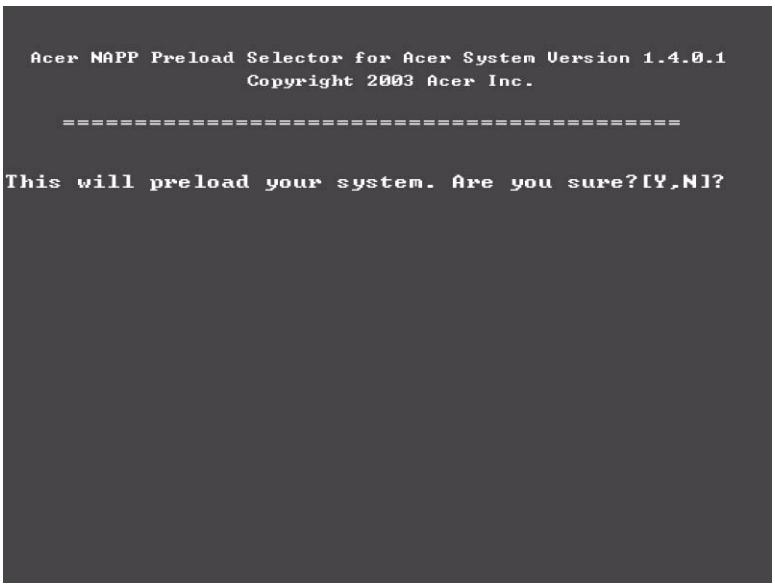
8. You will see the screen displaying “PASS” when the system has buit NAPP Master hard disc drive.

Disk to Disk Recovery

1. Prepare NAPP CD, Recovery CD and System CD.
2. Put NAPP CD into the optical drive. Then boot up the system.
3. The system will ask you if you want to build NAPP Master HDD. Please press any key to continue.

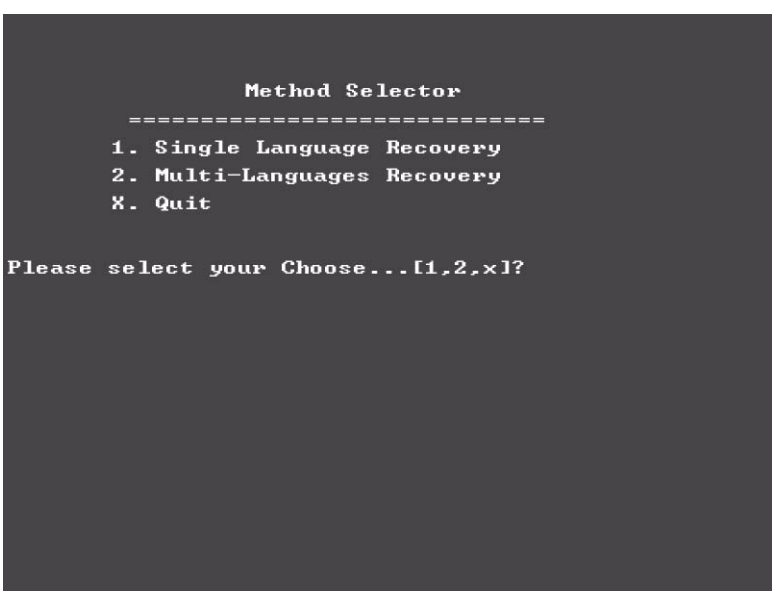


4. NAPP CD will start to preload the system, please click [Y].

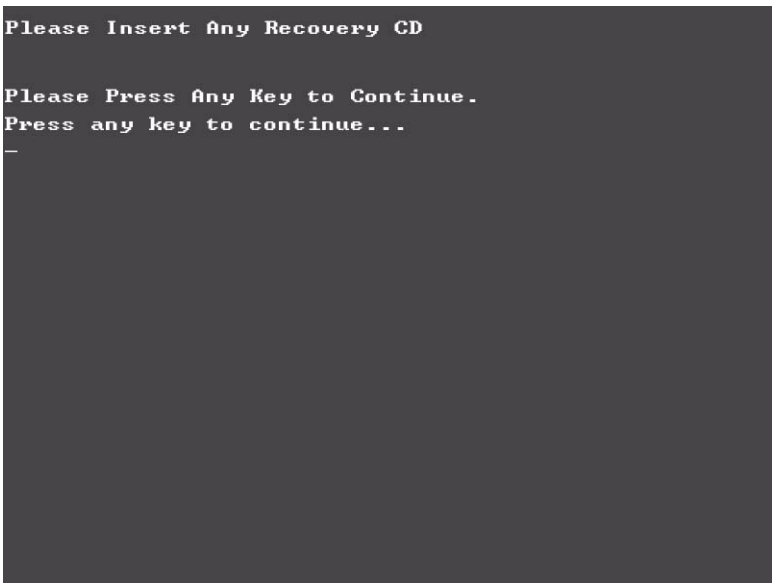


5. Select Disk to Disk Recovery. Then choose Single Language or Multi-Languages Recovery.

NOTE: For Multi-Languages Recovery, not more than five languages could be loaded to the system.

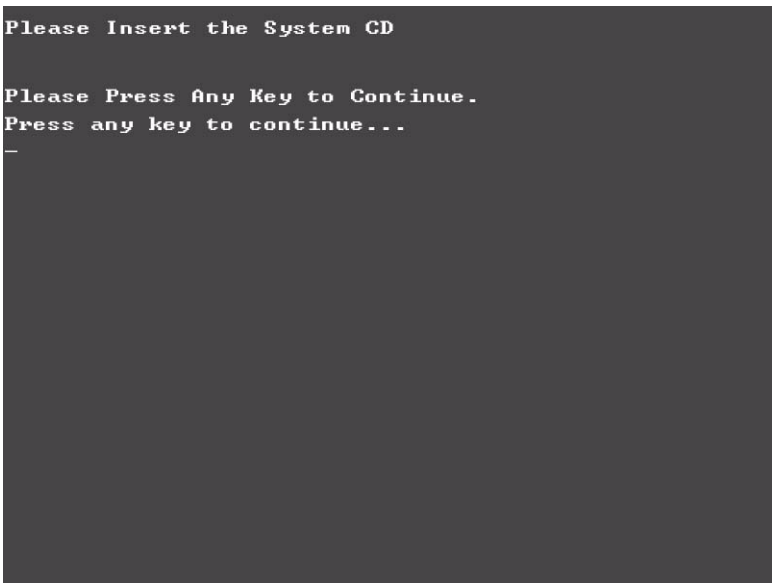


6. Put the Recovery CD to the optical drive. This step is to create image files to the system, you do not have to put the Recovery CD to the optical drive in order. Place one Recovery CD to the drive at one time till you finish all Recovery CDs.



After you place the Recovery CD to the optical drive, you will see the display below.

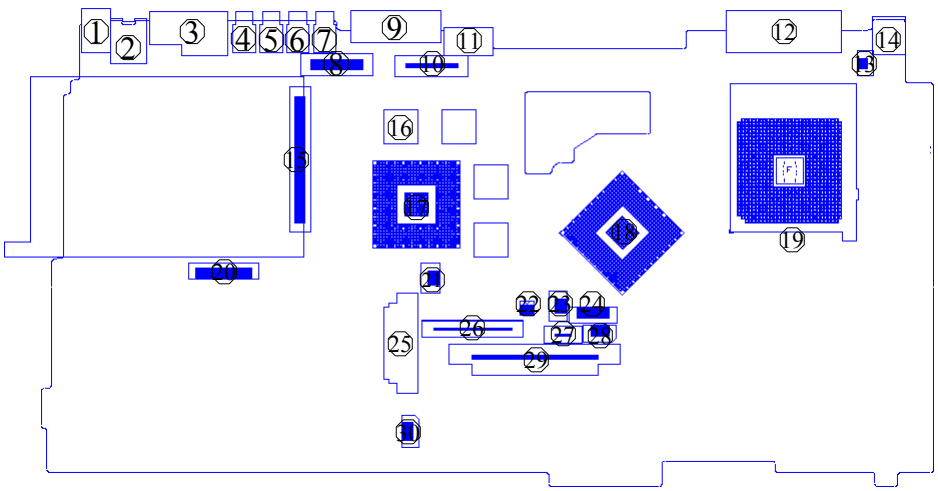
7. Then insert the System CD to the optical drive.



8. You will see the screen displaying “PASS” when the system has buit NAPP Master hard disc drive.

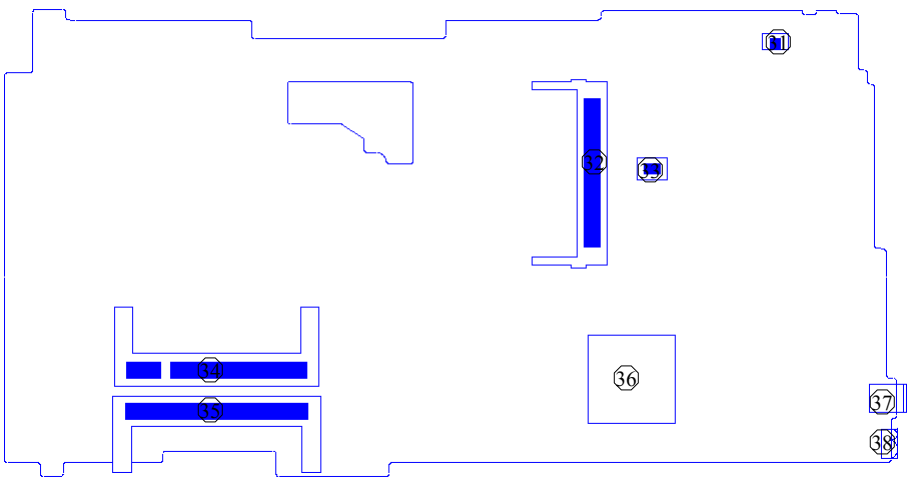
Jumper and Connector Locations

Top View



1	LIN1	Line-in Port	16	U7	Video Memory
2	LOUT1	Line-out Port	17	U17	VGA Chip
3	JK1	RJ45+RJ11	18	U20	North Bridge
4	CN1	USB Port	19	CPU1	CPU Socket
5	CN2	USB Port	20	CN7	Launch Board Cable Connector
6	CN3	USB Port	21	RTC1	RTC Battery Connector
7	CN4	USB Port	22	SW2	Check Password Switch
8	INV1	LCD Inverter Cable Connector	23	FAN1	Fan Connector
9	CRT1	VGA Port	24	CN8	Bluetooh Cable Connector
10	LCD1	LCD Coaxial Cable Connector	25	IDE1	Optical Drive Connector
11	TV1	S-Video Port	26	KB1	Keyboard Connector
12	DVI1	DVI Port	27	TPAD1	Touchpad Cable Connector
13	CN6	LCD Lid Switch	28	FAN2	Fan 2 Connector (Not presented)
14	DCIN1	DC-in Port	29	HDD1	HDD Connector
15	SKT1	PCMCIA Slot	30	SPK1	Speaker Cable Connector

Bottom View



31	CN9	Modem Cable Connector	35	DM2	DIMM Socket 2
32	CN11	Wireless LAN Card Connector	36	U84	South Bridge
33	CN10	Modem Board Connector	37	SKT2	IEEE 1394 Port
34	DM1	DIMM Socket 1	38	IR1	FIR Port

SW Settings

	SW2-1	SW2-2
Chkpw Enable	ON	X

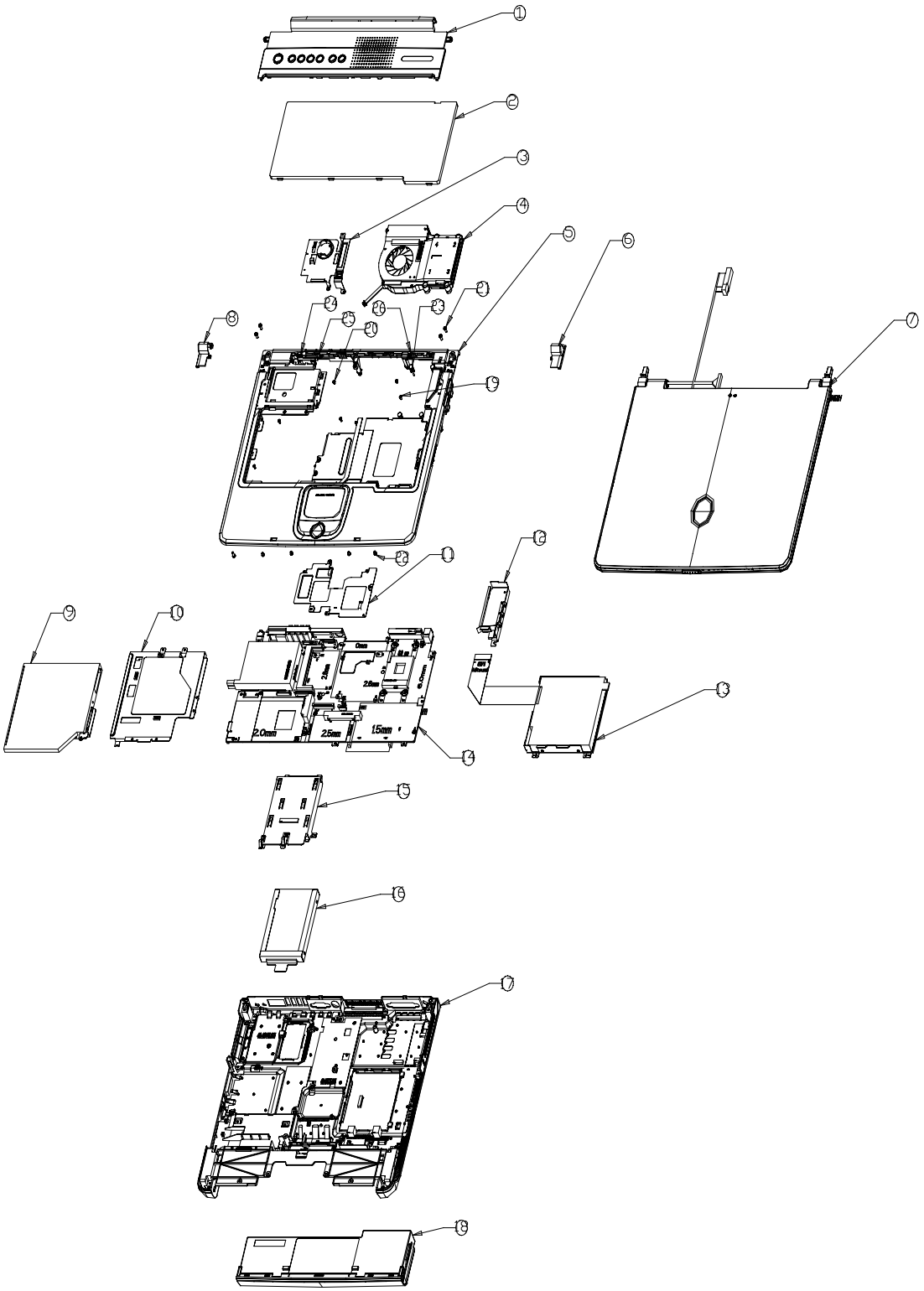
FRU (Field Replaceable Unit) List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of Aspire 3010/5010. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

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.

Aspire 3010/5010 Exploded Diagram



Aspire 3010

Picture	No.	Partname And Description	Part Number
Adapter			
	N/S	ADAPTER 90W LITEON PA-1900-04AW	AP.09003.002
	N/S	ADAPTER 90W DELTA ADP-90SB BBAA	AP.09001.002
Battery			
	N/S	RTC BATTERY LONGTRUM	23.T30V1.001
	18	BATTERY MODULE 8CELL LI	6M.A56V1.001
		BATTERY MODULE 8 CELL LI	6M.A56V1.002
	N/S	BATTERY LI 8CELL 4.0MAH SANYO 4UR186	BT.00803.003
	N/S	BATTERY LI+ 8CELL 2.0MAH SONY	BT.00804.006
CASE/COVER/BRACKET ASSEMBLY			
		BATTERY COVER (The cover should be silver not black)	42.A30V1.001
Boards			
		VGA BOARD NV36-64M(DIP)	TBD
		DC-DC CHARGER BOARD	55.T30V1.001
		WIRELESS LAN BOARD 802.11BG FOXCONN	54.A36V1.001

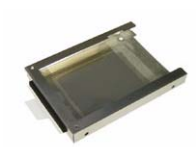
Aspire 3010

Picture	No.	Partname And Description	Part Number
		MODEM BOARD AMBIT T60M283.10(01)	54.09011.544
		LAUNCH BOARD	55.T30V1.002
Cables			
		POWER CORD 10A 125V US	27.01518.311
		COVER SWITCH CABLE	50.A30V1.004
		LAUNCH BOARD CABLE	50.T30V1.011
		MODEM CABLE 2PIN 2CONNECTOR 55MM	50.41T11.002
Case/Cover/Bracket Assembly			
		MODEM COVER W/SCREWS	42.A20V1.001
		HINGE CAP RIGHT	42.A30V1.002
		HINGE CAP LEFT	42.A30V1.003

Aspire 3010

Picture	No.	Partname And Description	Part Number
		HDD SUPPORT BRACKET	33.A30V1.002
		OPTICAL DEVICE SUPPORT BRACKET	33.A30V1.001
		2ND FAN BRACKET	33.A20V1.002
		TOUCHPAD COVER	42.A30V1.004
		MIDDLE COVER HOOK	31.A20V1.001
		UPPER CASE W/COVERSWITCH CABLE & TOUCHPAD CABLE & SCROLL KEY	60.A36V1.002
		MIDDLE COVER W/LAUNCH BOARD	60.A36V1.003
		LOWER CASE W/DIMM COVER& SPEAKER W/O MDC COVER	60.A36V1.001

Aspire 3010

Picture	No.	Partname And Description	Part Number
		DIMM COVER W/SCREWS	60.A36V1.007
Communication Module			
		WIRELESS ANTENNA LEFT/RIGHT	50.A36V1.002
CPU			
		CPU SEMPRON 2800+ 62W AMD	KC.A2802.62D
		CPU NB SEMPRON 3000+ 62W AMD	KC.A3002.62D
HDD/ Hard Disk Drive			
		HDD 40G HITACHI 4200RPM 13G1132	KH.04007.010
		HDD 40G TOSHIBA MK4025GAS	KH.04004.002
		HDD 40G 4200PRM SEAGATE ST94019A	KH.04001.010
		HDD 60G HITACHI C25N060ATMR04	KH.06007.006
		HDD 60G TOSHIBA MK6025GAS	KH.06004.003
		HDD 80G HITACHI IC25N080ATMR04	KH.08007.007
		HDD 80G TOSHIBA MK8025GAS KA023A	KH.08004.001
	16	HDD BRACKET	33.E02V1.001
Heatsink			

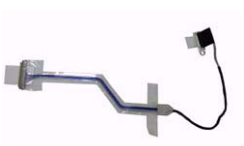
Aspire 3010

Picture	No.	Partname And Description	Part Number
		CPU THERMAL PLATE	34.A30V1.001
		CPU HEATSINK W/FAN	34.A36V1.001
		VGA THERMAL PLATE	33.A36V1.00
		VGA THERMAL PLATE (FOR UMA)	33.A36V1.003
Keyboard			
		KEYBOARD DARFON NSK-ACD1D US INT	KB.A3007.019
	2	KEYBOARD DARFON NSK-ACD00 SWISS	KB.A3007.016
		KEYBOARD DARFON NSK-ACD02 TAIWAN	KB.A3007.020
		KEYBOARD DARFON NSK-ACD03 THAILAND	KB.A3007.022
		KEYBOARD DARFON NSK-ACD06 PORTUGUES	KB.A3007.004
		KEYBOARD DARFON NSK-ACD0A ARABIC	KB.A3007.005
		KEYBOARD DARFON NSK-ACD0C CZECH	KB.A3007.008
		KEYBOARD DARFON NSK-ACD0D DANISH	KB.A3007.011
		KEYBOARD DARFON NSK-ACD0E ITALIAN	KB.A3007.003
		KEYBOARD DARFON NSK-ACD0F FRENCH	KB.A3007.015
		KEYBOARD DARFON NSK-ACD0G GERMAN	KB.A3007.002
		KEYBOARD DARFON NSK-ACD0K KOREAN	KB.A3007.018
		KEYBOARD DARFON NSK-ACD0L GREEK	KB.A3007.017
		KEYBOARD DARFON NSK-ACD0M FRENCH/CANADIAN	KB.A3007.013

Aspire 3010

Picture	No.	Partname And Description	Part Number
		KEYBOARD DARFON NSK-ACD0N NORWEGIAN	KB.A3007.010
		KEYBOARD DARFON NSK-ACD0Q HUNGARIAN	KB.A3007.009
		KEYBOARD DARFON NSK-ACD0R RUSSIAN	KB.A3007.014
		KEYBOARD DARFON NSK-ACD0S SPANISH	KB.A3007.021
		KEYBOARD DARFON NSK-ACD0T TURKISH	KB.A3007.012
		KEYBOARD DARFON NSK-ACD0U UK	KB.A3007.001
		KEYBOARD DARFON NSK-ACD0W SWEDISH/FINNISH	KB.A3007.007
		KEYBOARD DARFON NSK-ACD1A BELGIAN	KB.A3007.006
		KEYBOARD DARFON NSK-ACD1B BRAZILIAN	KB.A3007.023
LCD			
		LCD MODULE 15.4" WXGA W/ ANTENNA(QDI)	6M.A36V1.004
		LCD MODULE 15.4" WXGA W/ ANTENNA(AU)	6M.A36V1.005
		LCD MODULE 15.4" WXGA W/ ANTENNA(HITACHI)	6M.A36V1.006
		LCD 15" AU B150XG02 V.2	LK.15005.007
		LCD 15" XGA SAMSUNG LTN150XB-L03	LK.15006.005
		LCD 15.4" HITACHI TX39D85VC1F	LK.15404.003
		LCD 15.4" CMO WXGA N154I1-L02	LK.1540D.002
		LCD 15.4" WXGA AU B154EW01 V.5	LK.15405.002
		INVERTER BOARD 15" SUMIDA TWS-458-031	19.T30V1.201
		IINVERTER BOARD 15.4" SUMIDA IV11117/T R.1B	19.A30V1.101
		INVERTER BOARD 15.4" DARFON V0.21071.301	19.A36V1.001
		LCD BRACKET 15.4" RIGHT	33.A36V1.001
		LCD BRACKET ASSEMBLY 15.1 RIGHT	33.A36V1.004

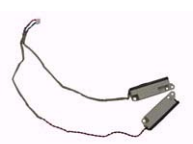
Aspire 3010

Picture	No.	Partname And Description	Part Number
	NS	LCD BRACKET 15.4" LEFT	33.A36V1.002
		LCD BRACKET ASSEMBLY 15.1 LEFT	33.A36V1.003
		INVERTER CABLE	50.A36V1.004
		INVERTER CABLE	50.A30V1.001
		LCD COAXIAL CABLE 15.4"	50.A30V1.002
		LCD COAXIAL CABLE 15.4"	50.A30V1.003
		LCD COAXIAL CABLE 15.1	50.A36V1.003
	NS	LCD PANEL 15.4" W/HINGE & LOGO	60.A30V1.005
		LCD PANEL 15” W/HINGE & LOGO	60.A36V1.005
	NS	LCD BEZEL 15.4" W/ICON PLATE	60.A30V1.004
		LCD BEZEL 15” W/ICON PLATE	60.A36V1.004
		HINGE PACK LEFT/RIGHT	TBD
		HINGE PACK 15" LEFT/RIGHT	6K.A36V1.001
Main Board			
		MAINBOARD SNIPE M24D W/O CPU W/LAUNCH CABLE & MODEM CABLE & RTC BATTERY	LB.A5701.001

Aspire 3010

Picture	No.	Partname And Description	Part Number
		MAINBOARD SNIPE UMA W/O CPU W/ LAUNCH CABLE & MODEM CABLE & RTC BATTERY	LB.A5601.001
		PCMCIA SLOT	22.T30V1.001
Miscellaneous			
		TOUCHPAD BUTTON	42.A30V1.005
		LCD SCREW CAP LOWER	47.A16V1.001
		LCD SCREW RUBBER UPPER	47.A16V1.002
		ICON PLATE	40.A30V1.001
		LOGO PLATE	31.A30V1.001
Memory			
	NS	SODIMM 256M NANYA NT256D64SH8BAGM-6K	KN.25603.009
		SODIMM 256M SAMSUNG M470L3224FT0-CB3	KN.2560B.008
		SODIMM 256M MICRON MT8VDDT3264HDG-335F4	KN.25604.021
		SODIMM 256M INFINEON HYS64D32020HDL-6-C	KN.25602.012
		SODIMM 512M INFINEON HYS64D64020GBDL-6-C	KN.51202.013
		SODIMM 512M MICRON MT8VDDT6464HDG-335C1	KN.51204.013
		SODIMM 512M SAMSUNG M470L6524BT0-CB3	KN.5120B.006
Optical Drive			
		CDRW/DVD COMBO MODULE 24X	6M.A36V1.002
		DVD-RW MODULE 4X	6M.A36V1.003

Aspire 3010

Picture	No.	Partname And Description	Part Number
		CDRW/DVD COMBO DRIVE 24x QSI SBW-242B	KO.02407.012
		CDRW/DVD COMBO DRIVE 24X PANASONIC UJDA760	KO.02406.001
		DVD-RW 4X QSI SDW-042 DUAL	KU.00403.003
		OPTICAL BRACKET	33.T30V1.004
PCMCIA slot/PC card slot			
		PCMCIA SLOT	22.T30V1.001
Pointing Device			
	NS	TOUCHPAD BOARD SYNAPTICS TM41P-357	56.17001.001
Speaker			
		SPEAKER	23.A30V1.001
Screws			
	NS	SCW HEX NYL I#R-40/O#4-40 L5.5	34.00015.081
	NS	SCRW THERMAL MODULE FOR J8	86.00B54.630
	NS	SCREW M2*3 NYLON 1JMCPC-420325	86.9A352.3R0
	NS	SCREW M2.5X6	86.9A353.6R0
	NS	SRW M2.5*8L B/ZN NYLOK 700	86.9A353.8R0
	NS	SCREW M3x4(86.9A524.4R0)	86.9A524.4R0
	NS	SCREW M2X2.0	86.9A552.2R0
	NS	SCREW WAFER NYLOK NI 2ML3	86.9A552.3R0
	NS	SCRW M2*4 WAFER NI	86.9A552.4R0
	NS	SCRW M2.5*3 WAFER NI	86.9A553.3R0
		SCRW M2.5*3 WAFER NI	86.9A553.3R0
	NS	SCREW M2.5*4L NI	86.9A553.4R0

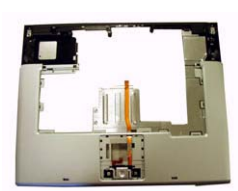
Aspire 5010

Picture	No.	Partname And Description	Part Number
	N/S	ADAPTER 90W LITEON PA-1900-04AW	AP.09003.002
	N/S	ADAPTER 90W DELTA ADP-90SB BBAA	AP.09001.002
Battery			
	N/S	RTC BATTERY LONGTRUM	23.T30V1.001
	18	BATTERY MODULE 8CELL LI	6M.A56V1.001
		BATTERY MODULE 8 CELL LI	6M.A56V1.002
	N/S	BATTERY LI 8CELL 4.0MAH SANYO 4UR186	BT.00803.003
	N/S	BATTERY LI+ 8CELL 2.0MAH SONY	BT.00804.006
CASE/COVER/BRACKET ASSEMBLY			
		BATTERY COVER (The cover should be silver not black)	42.A30V1.001
Boards			
		VGA BOARD NV36-64M(DIP)	TBD
		DC-DC CHARGER BOARD	55.T30V1.001
		WIRELESS LAN BOARD 802.11BG FOXCONN	54.A36V1.001

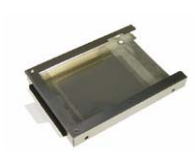
Aspire 5010

Picture	No.	Partname And Description	Part Number
		MODEM BOARD AMBIT T60M283.10(01)	54.09011.544
		MODEM/BLUETOOTH BOARD AMBIT T60M665.00	54.09061.001
		LAUNCH BOARD	55.T30V1.002
Cables			
		POWER CORD 10A 125V US	27.01518.311
		COVER SWITCH CABLE	50.A30V1.004
		LAUNCH BOARD CABLE	50.T30V1.011
		MODEM CABLE 2PIN 2CONNECTOR 55MM	50.41T11.002
Case/Cover/Bracket Assembly			
		MODEM COVER W/SCREWS	42.A20V1.001
		HINGE CAP RIGHT	42.A30V1.002
		HINGE CAP LEFT	42.A30V1.003

Aspire 5010

Picture	No.	Partname And Description	Part Number
		HDD SUPPORT BRACKET	33.A30V1.002
		OPTICAL DEVICE SUPPORT BRACKET	33.A30V1.001
		2ND FAN BRACKET	33.A20V1.002
		TOUCHPAD COVER	42.A30V1.004
		MIDDLE COVER HOOK	31.A20V1.001
		UPPER CASE W/COVERSWITCH CABLE & TOUCHPAD CABLE & SCROLL KEY	60.A36V1.002
		MIDDLE COVER W/LAUNCH BOARD	60.A36V1.003
		LOWER CASE W/DIMM COVER& SPEAKER W/O MDC COVER	60.A36V1.001

Aspire 5010

Picture	No.	Partname And Description	Part Number
		DIMM COVER W/SCREWS	60.A36V1.007
Communication Module			
		WIRELESS ANTENNA RIGHT (BLACK)	50.A20V1.001
		WIRELESS ANTENNA LEFT (GRAY)	50.A20V1.002
CPU			
		CPU SEMPRON 2800+ 62W AMD	KC.A2802.62D
		CPU NB SEMPRON 3000+ 62W AMD	KC.A3002.62D
HDD/ Hard Disk Drive			
		HDD 40G HITACHI 4200RPM 13G1132	KH.04007.010
		HDD 40G TOSHIBA MK4025GAS	KH.04004.002
		HDD 40G 4200PRM SEAGATE ST94019A	KH.04001.010
		HDD 60G HITACHI C25N060ATMR04	KH.06007.006
		HDD 60G TOSHIBA MK6025GAS	KH.06004.003
		HDD 80G HITACHI IC25N080ATMR04	KH.08007.007
		HDD 80G TOSHIBA MK8025GAS KA023A	KH.08004.001
	16	HDD BRACKET	33.E02V1.001

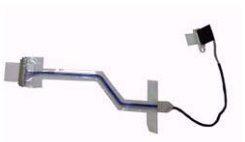
Aspire 5010

Picture	No.	Partname And Description	Part Number
Heatsink			
		CPU THERMAL PLATE	34.A30V1.001
		CPU HEATSINK W/FAN	34.A36V1.001
		VGA THERMAL PLATE	33.A36V1.00
		VGA THERMAL PLATE (FOR UMA)	33.A36V1.003
Keyboard			
		KEYBOARD DARFON NSK-ACD1D US INT	KB.A3007.019
	2	KEYBOARD DARFON NSK-ACD00 SWISS	KB.A3007.016
		KEYBOARD DARFON NSK-ACD02 TAIWAN	KB.A3007.020
		KEYBOARD DARFON NSK-ACD03 THAILAND	KB.A3007.022
		KEYBOARD DARFON NSK-ACD06 PORTUGUES	KB.A3007.004
		KEYBOARD DARFON NSK-ACD0A ARABIC	KB.A3007.005
		KEYBOARD DARFON NSK-ACD0C CZECH	KB.A3007.008
		KEYBOARD DARFON NSK-ACD0D DANISH	KB.A3007.011
		KEYBOARD DARFON NSK-ACD0E ITALIAN	KB.A3007.003
		KEYBOARD DARFON NSK-ACD0F FRENCH	KB.A3007.015
		KEYBOARD DARFON NSK-ACD0G GERMAN	KB.A3007.002
		KEYBOARD DARFON NSK-ACD0K KOREAN	KB.A3007.018
		KEYBOARD DARFON NSK-ACD0L GREEK	KB.A3007.017
		KEYBOARD DARFON NSK-ACD0M FRENCH/CANADIAN	KB.A3007.013

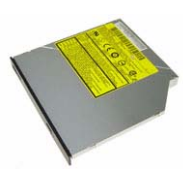
Aspire 5010

Picture	No.	Partname And Description	Part Number
		KEYBOARD DARFON NSK-ACD0N NORWEGIAN	KB.A3007.010
		KEYBOARD DARFON NSK-ACD0Q HUNGARIAN	KB.A3007.009
		KEYBOARD DARFON NSK-ACD0R RUSSIAN	KB.A3007.014
		KEYBOARD DARFON NSK-ACD0S SPANISH	KB.A3007.021
		KEYBOARD DARFON NSK-ACD0T TURKISH	KB.A3007.012
		KEYBOARD DARFON NSK-ACD0U UK	KB.A3007.001
		KEYBOARD DARFON NSK-ACD0W SWEDISH/FINNISH	KB.A3007.007
		KEYBOARD DARFON NSK-ACD1A BELGIAN	KB.A3007.006
		KEYBOARD DARFON NSK-ACD1B BRAZILIAN	KB.A3007.023
LCD			
		LCD MODULE 15.4" WXGA W/ ANTENNA(QDI)	6M.A30V1.001
		LCD MODULE 15.4" WXGA W/ ANTENNA(AU)	6M.A30V1.002
		LCD MODULE 15.4" WXGA W/ ANTENNA(HITACHI)	6M.A30V1.003
		LCD MODULE 15.4" WXGA W/O ANTENNA(QDI)	6M.A30V1.005
		LCD MODULE 15.4" WXGA W/O ANTENNA(AU)	6M.A30V1.006
		LCD MODULE 15.4" WXGA W/O ANTENNA(HITACHI)	6M.A30V1.007
		LCD 15.4" WXGA QDI	LK.15409.001
		LCD 15.4" WXGA AU	LK.15405.001
		LCD 15.4" WXGA HITACHI	LK.15404.001
		INVERTER BOARD 15.4" SUMIDA	19.A30V1.001
		LCD BRACKET 15.4" RIGHT	33.A30V1.004

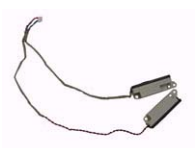
Aspire 5010

Picture	No.	Partname And Description	Part Number
	NS	LCD BRACKET 15.4" LEFT	33.A30V1.005
		INVERTER CABLE	50.A30V1.001
		LCD COAXIAL CABLE 15.4"	50.A30V1.003
	NS	LCD PANEL 15.4" W/HINGE & LOGO	60.A30V1.005
	NS	LCD BEZEL 15.4" W/ICON PLATE	60.A30V1.004
		HINGE PACK LEFT/RIGHT	TBD
Main Board			
		MAINBOARD SNIPE 128M W/O CPU W/LAUNCH CABLE & MODEM CABLE & RTC BATTERY	LB.A6001.001
		MAINBOARD SNIPE 64M W/O CPU W/ LAUNCH CABLE & MODEM CABLE & RTC BATTERY	LB.A5901.001
		MAINBOARD SNIPE UMA W/O CPU W/ LAUNCH CABLE & MODEM CABLE & RTC BATTERY	LB.A5801.001
		PCMCIA SLOT	22.T30V1.001
Miscellaneous			
		TOUCHPAD BUTTON	42.A30V1.005
		LCD SCREW CAP LOWER	47.A16V1.001

Aspire 5010

Picture	No.	Partname And Description	Part Number
		LCD SCREW RUBBER UPPER	47.A16V1.002
		ICON PLATE	40.A30V1.001
		LOGO PLATE	31.A30V1.001
Memory			
	NS	SODIMM 256M NANYA NT256D64SH8BAGM-6K	KN.25603.009
		SODIMM 256M SAMSUNG M470L3224FT0-CB3	KN.2560B.008
		SODIMM 256M MICRON MT8VDDT3264HDG-335F4	KN.25604.021
		SODIMM 256M INFINEON HYS64D32020HDL-6-C	KN.25602.012
		SODIMM 512M INFINEON HYS64D64020GBDL-6-C	KN.51202.013
		SODIMM 512M MICRON MT8VDDT6464HDG-335C1	KN.51204.013
		SODIMM 512M SAMSUNG M470L6524BT0-CB3	KN.5120B.006
Optical Drive			
		CDRW/DVD COMBO MODULE 24X	6M.A36V1.002
		DVD-RW MODULE 4X	6M.A36V1.003
		CDRW/DVD COMBO DRIVE 24x QSI SBW-242B	KO.02407.012
		CDRW/DVD COMBO DRIVE 24X PANASONIC UJDA760	KO.02406.001
		DVD-RW 4X QSI SDW-042 DUAL	KU.00403.003
		OPTICAL BRACKET	33.T30V1.004
PCMCIA slot/PC card slot			

Aspire 5010

Picture	No.	Partname And Description	Part Number
		PCMCIA SLOT	22.T30V1.001
Pointing Device			
	NS	TOUCHPAD BOARD SYNAPTICS TM41P-357	56.17001.001
Speaker			
		SPEAKER	23.A30V1.001
Screws			
	NS	SCW HEX NYL I#R-40/O#4-40 L5.5	34.00015.081
	NS	SCRW THERMAL MODULE FOR J8	86.00B54.630
	NS	SCREW M2*3 NYLON 1JMCPC-420325	86.9A352.3R0
	NS	SCREW M2.5X6	86.9A353.6R0
	NS	SRW M2.5*8L B/ZN NYLOK 700	86.9A353.8R0
	NS	SCREW M3x4(86.9A524.4R0)	86.9A524.4R0
	NS	SCREW M2X2.0	86.9A552.2R0
	NS	SCREW WAFER NYLOK NI 2ML3	86.9A552.3R0
	NS	SCRW M2*4 WAFER NI	86.9A552.4R0
	NS	SCRW M2.5*3 WAFER NI	86.9A553.3R0
		SCRW M2.5*3 WAFER NI	86.9A553.3R0
	NS	SCREW M2.5*4L NI	86.9A553.4R0