

# Acer TravelMate 380 Series

## Service Guide

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

Project Code: T58

PRINTED IN TAIWAN

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# Revision History

Please refer to the table below for the updates made on TravelMate 380 service guide.

Date	Chapter	Updates

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## Conventions

The following conventions are used in this manual:

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

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## Preface

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

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



# System Specifications

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## Features

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

### Performance

- ☐ Intel® Pentium® M 715 ~ 755 or higher
- ☐ Intel® 855GM chipset
- ☐ Memory upgradeable up to 2 GB with 2 slots
- ☐ High-capacity, Enhanced-IDE hard disk
- ☐ Li-ion main battery pack
- ☐ Power management system with ACPI (Advanced Configuration Power Interface)

### Display

- ☐ 12.1" Thin-Film Transistor (TFT) Liquid Crystal Display (LCD) displaying 32-bit high colour up to 1024\*768 eXtended Graphics Array (XGA) resolution
- ☐ 3D graphics engine
- ☐ Simultaneous LCD and CRT display support
- ☐ Dual independent display support
- ☐ Supports simultaneous display between LCD and CRT display

### Multimedia

- ☐ 16-bit high-fidelity AC'97 stereo audio
- ☐ Built-in speaker

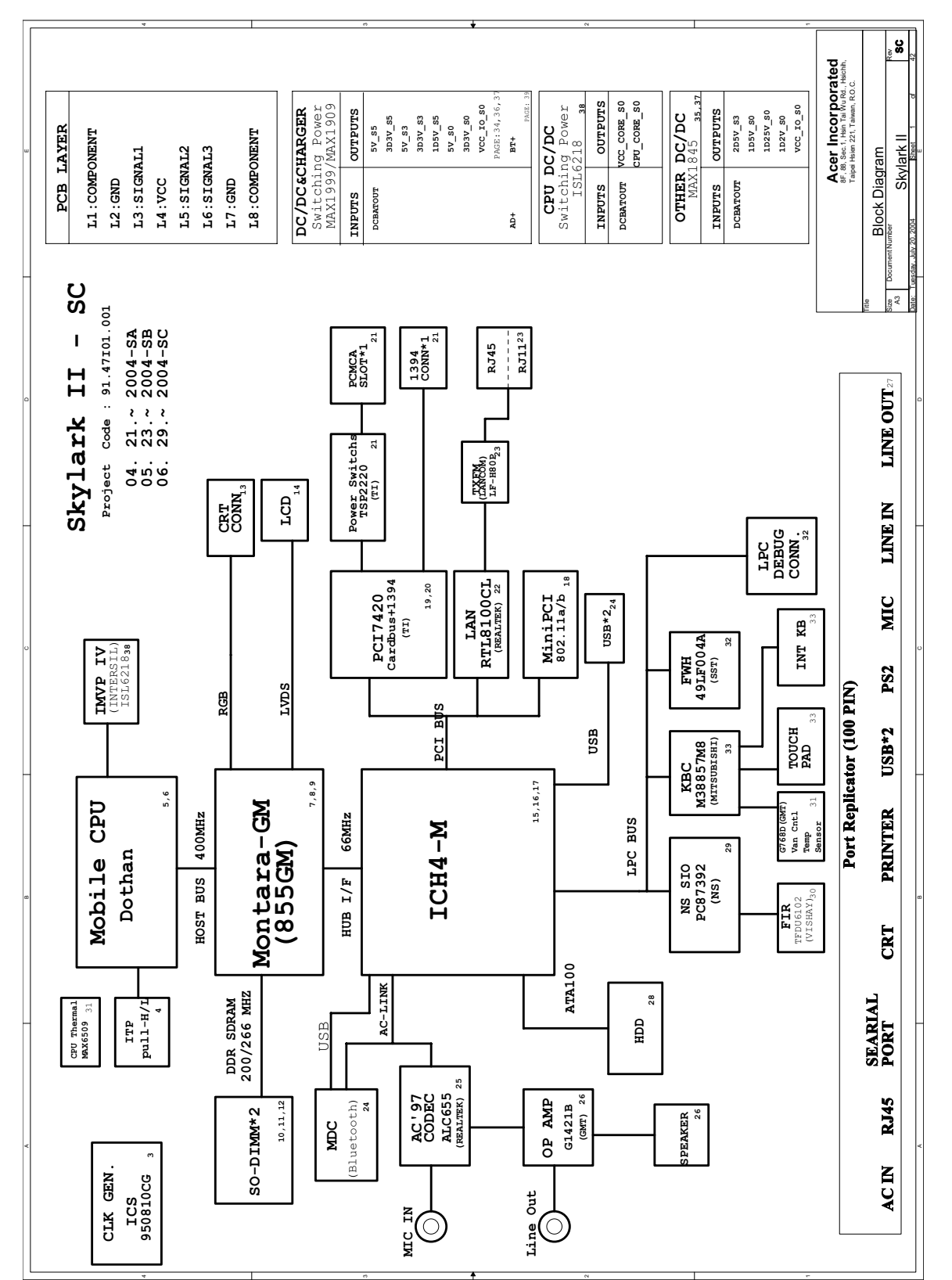
### Connectivity

- ☐ High-speed fax/data modem port
- ☐ Ethernet/Fast Ethernet port
- ☐ Fast infrared wireless communication
- ☐ Two USB 2.0 ports
- ☐ IEEE 1394 port
- ☐ InviLink™ 802.11 b/g wireless LAN and Wi-Fi®
- ☐ Bluetooth® wireless communication
- ☐ 100-pin Acer EasyPort or I/O port replicator connector

### Expansion

- ☐ One type II CardBus PC Card slot
- ☐ Upgradeable memory

System Block Diagram

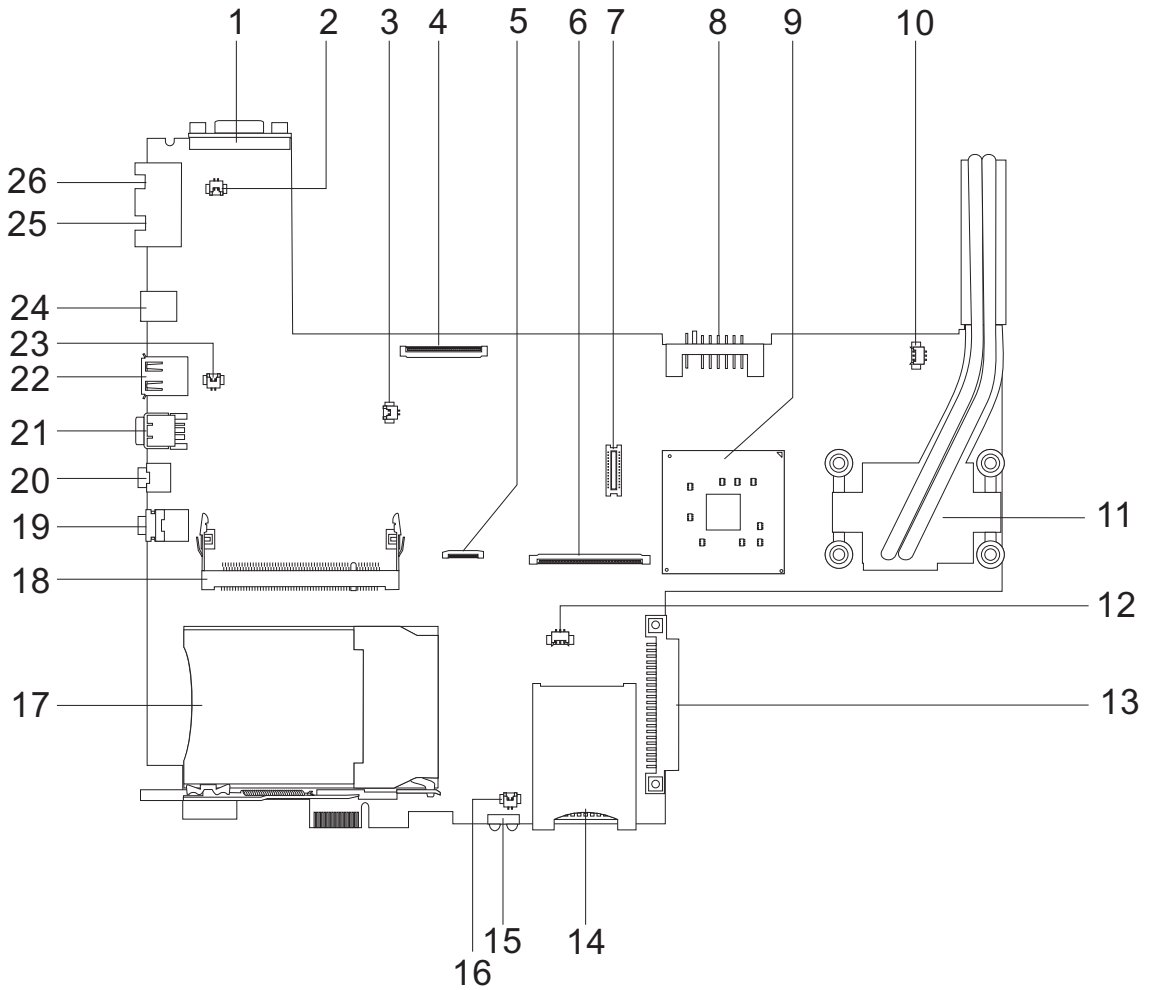




# Board Layout

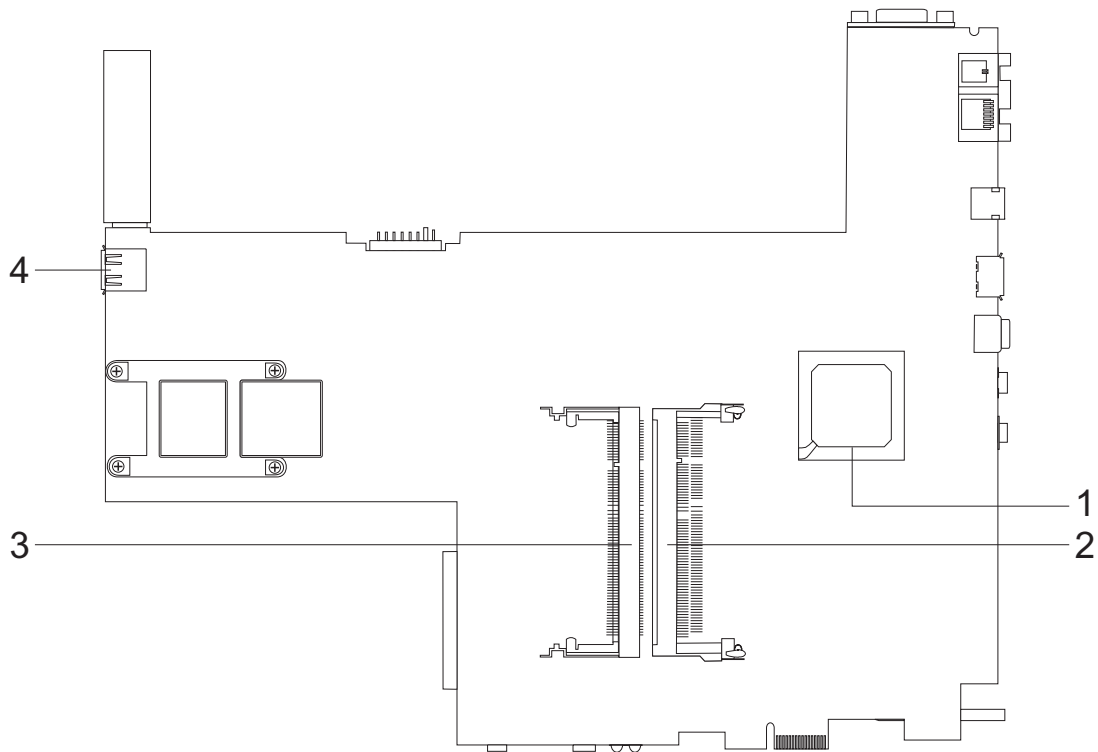
## Top View

**NOTE:** The board layout is not ready as the service guide released. The board views (bot top and bottom) in this chapter are for TravelMate 370. We will update the service guide as soon as we get the main board layout.



1	External Display Port	14	3-in1 Card Reader Slot
2	Modem Cable Connector	15	Infrared Port
3	Speaker Connector	16	Microphone Connector
4	LCD FPC Connectors	17	PCMCIA Slot
5	Touchpad Board Connectors	18	Mini-PCI Slot
6	Keyboard Connector	19	Microphone/Line-in Jack
7	Modem Board Connector	20	Headphone/Speaker/Line-out Jack
8	Battery Connector	21	IEEE 1394 Port
9	North Bridge	22	USB Port
10	Fan Connector	23	Cover Switch Connector
11	CPU	24	DC-In
12	RTC Battery Connector	25	RJ45 Ethernet Connector

**Bottom View**



- 1 South Bridge
- 2 DIMM Slot

- 3 DIMM Slot
- 4 USB port

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## Outlook View

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




### Open front view



#	Item	Description
1	Display screen	Also called LCD (Liquid Crystal Display), displays computer output.
2	Status indicators	LEDs (Light Emitting Diode) that turn on and off to show the status of the computer and its components.
3	Power button	Turns the computer on and off.
4	Launch keys	Two special keys for frequently used programs.
5	Palmrest	Comfortable support area for your hands when you use the computer.
6	Click buttons (left, center and right)	The left and right button functions are like the left and right mouse buttons; the center button serves as a 4-way scroll button.
7	Touchpad	Touch-sensitive pointing device which functions are like a computer mouse.
8	Keyboard	Inputs data into your computer.
9	Speaker	Outputs sound.







# Front View



#	Item	Icon	Description
1	USB 2.0 port		Connects to Universal Serial Bus devices (e.g. USB mouse, USB camera).
2	Latch		Latch for opening and closing the computer.
3	Headphone/Speaker/ Line-out (SPDIF) jack		Connects to headphones or other line-out audio devices (speaker).
4	Microphone/Line-in jack		Accepts input from external microphones.





Left view



#	Item		Description
1	Modem port		Connects to a phone line.
2	Ethernet port		Connects to an Ethernet 10/100-based network.
3	EasyPort		Connects to Acer EasyPort or I/O port replicator.
4	DC-in jack		Connects the AC adapter.
5	IEEE 1394 port		Connects to IEEE 1394 devices.
6	PC Card slot		Accepts one Type II 16-bit PC Card or 32-bit CardBus PC Card.
7	Eject button		Eject the PC Card from the slot.


Right view



#	Item	Icon	Description
1	HDD		Houses the computer's hard disk.
2	Infrared port		Connects to Universal Serial Bus devices (e.g., USB mouse, USB camera).
3	USB 2.0 ports		Connects to Universal Serial Bus devices (e.g., USB mouse, USB camera).
4	Ventilation slot		Enable the computer to stay cool, even after prolonged use.
5	Security keylock		Connects to a Kensington-compatible computer security lock.

Rear view



#	Item		Description
1	Battery release latch		Unlatches the battery to remove the battery pack.
	External display port		Connects to a display device (e.g., external monitor, LCD projector) and displays up to 16.7 million colors with 2048 x 1536 pixel resolution.

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## Bottom Panel



#	Item	Description
1	Memory compartment	This compartment houses the computer's main memory.
2	Battery bay	Houses the computer's battery pack.
3	Ventilation slot	Enables the computer to stay cool, even after prolonged use.










## Indicators

The computer has seven easy-to-read status indicators on the display screen and three on the LCD panel.



The Wireless, Power and Sleep status indicators are visible even when the display is closed.

Icon	Function	Description
	InviLink™ /Bluetooth®	Orange indicates that wireless LAN is enabled. Blue indicates that Bluetooth® is enabled.
	Power mode	Lights green when power is on and standby mode.
	Sleep	Lights when the computer enters standby mode and blinks when it enters into or resumes from hibernation mode.
	Media activity	Lights when the floppy drive, hard disk drive or optical drive is active.
	Battery charge	Lights when the battery is being charged.
	Caps lock	Lights when Caps Lock is activated.
	Num lock	Lights when Num Lock is activated.

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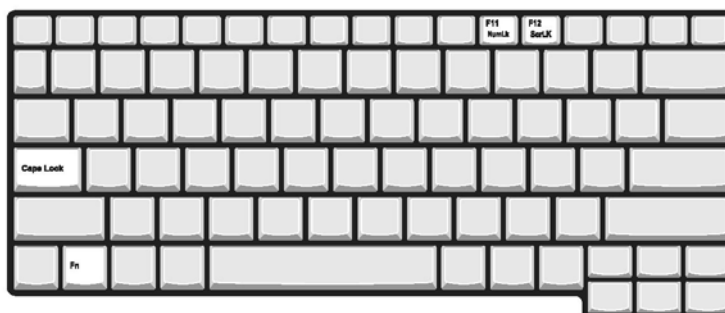
# Keyboard

The keyboard features full-size keys with an embedded keypad, separate cursor control keys, two Windows keys, and twelve function keys.

## Special keys

### Lock keys

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 are typed in uppercase.
Num lock (Fn-F11)	When Num Lock is on, the embedded numeric keyboard can be used. The keys function as a calculator (complete with the arithmetic operator +, -, *, 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.

## Embedded Keypad

The embedded 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.



To use the embedded numeric keys, toggle the Num Lock on by pressing the Fn + F11 keys simultaneously. With the embedded keypad turned on, the following actions are possible:









Desired Access	Num Lock On	Num Lock On
Number keys on embedded keypad	Type numbers in the normal manner.	
Cursor-control keys on embedded keypad	Hold  while using cursor-control keys.	Hold Fn key while using cursor-control keys.
Main keyboard keys	Hold Fn key while typing letters on embedded keypad.	Type the letters in the normal manner.

**NOTE:** If an external keyboard or keypad is connected to the computer, the Num Lock feature automatically shifts from the internal keyboard to the external keyboard or keypad.

## Windows Keys

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

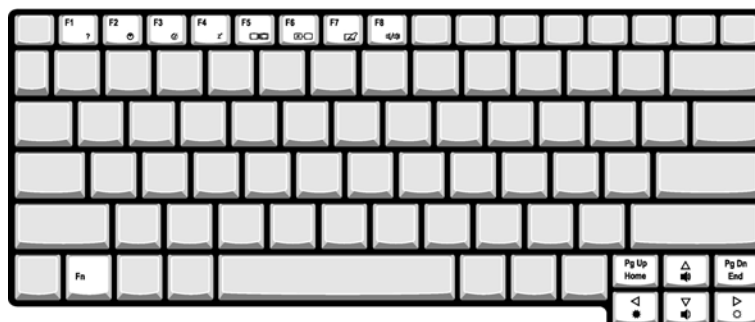



















Key	Description
<div>Windows logo key</div> <div></div>	<p>Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provide a variety of functions:</p> <div> + Tab (Activates the next Taskbar button)</div> <div> + E (Explores the My Computer)</div> <div> + F (Finds Document)</div> <div> + M (Minimizes all windows)</div> <div><div>SHIFT</div> +  + M (Undoes the minimize all windows action)</div> <div> + R (Displays the Run... dialog box)</div>
<div>Application key</div> <div></div>	<p>This key has the same effect as clicking the right mouse button; it opens the application's context menu.</p>







## Keyboard Hot keys

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

To activate a keyboard hot key, press and hold the Fn key before pressing the other key(s) in the hot key combination.



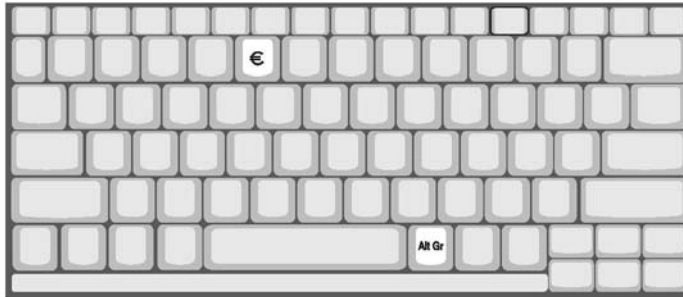
Hot Key	Icon	Function	Function
Fn + 	?	Hot key help	Displays help on hot keys.
Fn + 		Setup	Access the computer's configuration utility.
Fn + 		Power management scheme toggle	Switches the power management scheme used by the computer (function available if supported by operating system).
Fn + 		Sleep	Puts the computer in Sleep mode, which can be defined.
Fn + 		Display toggle	Switches display output between the display screen, external monitor (if connected) and both the display screen and external monitor.
Fn + 		Screen blank	Turns the display screen backlight off to save power. Press any key to return.
Fn + 		Touchpad toggle	Turns the internal touchpad on and off.
Fn + 		Speaker on/off	Turns the speaker on and off.
Fn + 		Brightness up	Increases the screen brightness.

Hot Key	Icon	Function	Function
Fn + 		Brightness down	Decreases the screen brightness.
Fn + 		Volume up	Increases the speaker volume.
Fn + 		Volume down	Decreases the speaker volume.

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## Euro key

If your keyboard layout is set to United States-International or United Kingdom or if you have a keyboard with a European layout, you can type the Euro symbol on your keyboard.



**NOTE:** For US keyboard users: The keyboard layout is set when you first set up Windows. For the Euro symbol to work, the keyboard layout has to be set to United States-International.

To verify the keyboard type in Windows Millennium Edition and Windows 2000, follow the steps below:

1. Click on **Start, Settings, Control Panel**.
2. Double-click on **Keyboard**.
3. Click on the **Language** tab.
4. Verify that the keyboard layout used for "En English (United States)" is set to United States-International. If not, select and click on **Properties**; then select **United States-International** and click on **OK**.
5. Click on **OK**.

To verify the keyboard type in Windows XP, follow the steps below:

1. Click on **Start, Control Panel**.
2. Double-click on **Regional and Language Options**.
3. Click on the **Language** tab and click on **Details**.
4. Verify that the keyboard layout used for "En English (United States)" is set to United States-International. If not, select and click on **ADD**; then select **United States-International** and click on **OK**.
5. Click on **OK**.

To type the Euro symbol:

1. Locate the Euro symbol on your keyboard.
2. Open a text editor or word processor.
3. Hold **Alt Gr** and press the Euro symbol.





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

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## Launch Keys

Located above the keyboard are six buttons. These buttons are special one-click buttons that perform special functions.



Launch key	Icon	Description
Wireless	 	This button permits user Enabled/Disabled Wireless LAN network and Bluetooth® options.
P1		User-programmable
P2		User-programmable
P3		User-programmable
Web browser		Launch Internet Explorer (or user-defined program).
Mail		Launch Outlook Express (or user-defined program).



# Touchpad

The built-in touchpad is a pointing device that senses movement on its surface. This means the cursor responds as you move your finger on the surface of the touchpad.

The central location on the palmrest provides optimum comfort and efficiency.




## Touchpad Basics

The following items teach you how to use the touchpad:



- ❑ Move your finger across the touchpad to move the cursor.
- ❑ Press the left (1) and right (3) buttons located on the edge of the touchpad to do selection and execution functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad produces similar results.
- ❑ Use the 4-way scroll (2) button to scroll a page up, down, left or right. This button mimics your cursor pressing on the vertical and horizontal scroll bars of Windows applications.

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

**NOTE:** **A.** Keep your fingers dry and clean when using the touchpad. Also keep the touchpad dry and clean. The touchpad is sensitive to your finger movements: the lighter your touch, the better the response. Tapping harder will not increase the touchpad's responsiveness. **B.** When using an external USB mouse, you can press Fn+ to disable the touchpad.

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# Hardware Specifications and Configurations

## Processor

Item	Specification
CPU type	Intel® Pentium® M 715 ~ 755 (1.5/1.6/1.7/1.8/1.9/2.0 GHz, 400FSB MHz) or higher
Core logic	Intel® Pentium® M 715 ~ 755+Intel® 855 GME
CPU package	Micro-FCBGA
CPU core voltage	0.95V ~ 1.420V

## BIOS

Item	Specification
BIOS vendor	Phoenix
BIOS Version	1.0
BIOS ROM type	Flash ROM
BIOS ROM size	512KB
BIOS package	PLCC
Supported protocols	ACPI 1.0b, APM 1.2, PC Card 95, AC97 2.1, EPP/IEEE 1284, ECP/IEEE 1284 1.7 & 1.9, PCI 2.2, PnP 1.0a, DMI 2.0, USB, DDC-2B, ODD bootable, Windows keyboard Microsoft Simple Boot Flag
BIOS password control	Set by setup manual

## Second Level Cache

Item	Specification
Cache controller	Built-in CPU
Cache size	2MB
1st level cache control	Always enabled
2st level cache control	Always enabled
Cache scheme control	Fixed in write-back

## System Memory

Item	Specification
Memory controller	Intel 855GM
Onboard memory size	0MB
DIMM socket number	2 sockets (4 banks)
Supports memory size per socket	128M / 256M / 512M / 1024MB(1GB)
Supports maximum memory size	2048MB (2GB)
Supports DIMM type	DDR SDRAM (Double Data Rate-Synchronous Dynamic Random Access Memory)
Supports DIMM Speed	266MHz
Supports DIMM voltage	2.5V
Supports DIMM package	200-pin SODIMM
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
128 / 256 / 512 / 1024MB	0 MB	128 / 256 / 512 / 1024MB
128 / 256 / 512 / 1024MB	128MB	256 / 384 / 640 / 1152MB
128 / 256 / 512 / 1024MB	256MB	384 / 512 / 768 / 1280MB
128 / 256 / 512 / 1024MB	512MB	640 / 768 / 1024 / 1536MB
128 / 256 / 512 / 1024MB	1024MB	1152 / 1280 / 1536 / 2048MB

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

## LAN Interface

Item	Specification
Chipset	Realtek RTL8100
Supports LAN protocol	10/100 Mbps
LAN connector type	RJ45
LAN connector location	Left side
PXE version	2.0

## Wireless LAN Interface

Item	Specification
Chipset	Intel PRO/Wireless 2200
Supports LAN protocol	802.11b/g
Data Throughput	11M~54M bps

## Modem Interface

Item	Specification
Chipset	Agere
Fax modem data baud rate (bps)	14.4K
Data modem data baud rate (bps)	56K
Supports modem protocol	V.90 / V.92 MDC
Modem connector type	RJ11
Modem connector location	Left side

## Hard Disk Drive Interface

Item					
Vendor & Model Name	HGST 40GB (IC25N040ATMR 04) CASCADE	TOSHIBA 40GB(MK4021G AS) NEPTUNE		HGST 60G(IC25N060A TMR04), CASCADE	TOSHIBA 60GB(MK6021G AS) NEPTUNE
Capacity (MB)	40000	40000		60000	60000
Bytes per sector	512	512		512	512
Data heads	2	3		3	4
Drive Format					
Disks	1	2		2	2

## Hard Disk Drive Interface

Item					
Spindle speed (RPM)	4200RPM	4200RPM		4200RPM	4200RPM
Performance Specifications					
Buffer size	2048KB	2048KB		8192KB	2048KB
Interface	ATA-6	ATA-5		ATA-6	ATA-5
Max. media transfer rate (disk-buffer, Mbytes/s)	350	298		350	298
Data transfer rate (host-buffer, Mbytes/s)	100 MB/Sec. Ultra DMA mode-5	100 MB/Sec. Ultra DMA mode-5		100 MB/Sec. Ultra DMA mode-5	100 MB/Sec. Ultra DMA mode-5
DC Power Requirements					
Voltage tolerance	5V(DC) +/- 5%	5V(DC) +/- 5%		5V(DC) +/- 5%	5V(DC) +/- 5%

## Audio Interface

Item	Specification
Audio Controller	Realtek ALC655
Audio onboard or optional	Built-in
Mono or Stereo	Mono
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	Microphone, CD, AUX
Sampling rate	48 kHz
Internal microphone	Yes
Internal speaker / Quantity	Yes
Supports PnP IRQ	IRQ10

## Video Interface

Item	Specification
Chip vendor	Intel
Chip name	855GM (Integrated with Northbridge)
Supports ZV (Zoomed Video) port	No
Graph interface	Inside 855GM (Accelerated Graphics Port) Bus
Maximum resolution (LCD)	1024*768
Maximum resolution (CRT)	1600*1200

## Video Memory

Item	Specification
Fixed or upgradeable	Fixed

## Video Memory

Item	Specification
Video memory size	64MB (Share system memory)

## IEEE 1394 Port

Item	Specification
IEEE 1394 controller	TI PCI 7420
Access location	Left side

## USB Port

Item	Specification
USB Compliancy Level	2.0
EHCI	USB 2.0
Number of USB port	2
Location	Front and right side
Serial port function control	Always Enabled

## PCMCIA Port

Item	Specification
PCMCIA controller	TI PCI 7420
Supports card type	Type II
Number of slots	One
Access location	Left side
Supports ZV (Zoomed Video) port	No ZV support
Supports 32 bit CardBus	Yes (IRQ10)

## System Board Major Chips

Item	Controller
System core logic	Intel 855GM
Super I/O controller	NS PC87392
Audio controller	Realtek ALC655
Video controller	Intel 855GM
Hard disk drive controller	Intel ICH4-M
Keyboard controller	Mitsubishi M38857M8
RTC	Intel ICH4-M
IEEE 1394	TI PCI 7420
PCMCIA	TI PCI 7420

## Keyboard

Item	Specification
Keyboard controller	Mitsubishi M38857M8
Keyboard vendor & model name	Darfon
Total number of keypads	84-/85-/88-key
Windows keys	Yes

## Keyboard

Item	Specification
Internal & external keyboard work simultaneously	1. Plug USB keyboard to the USB port directly: Yes 2. Use port replicator then plug a USB/PS 2 keyboard to the USB port/PS 2 port on the port replicator: Yes

## Battery

Item	Specification
Vendor & model name	Simplo
Battery Type	Li-ion
Pack capacity	2200mAh
Cell voltage	3.7 V/cell
Number of battery cell	6
Package configuration	3 cells in series, 2 series in parallel
Package voltage	11.1V/6cell

## LCD

Item	Specification
Vendor & model name	IDT/IAXG01W IDT/IAXG02L TOSHIBA/LTM12C505W
LCD display area (diagonal, inch)	12.1
Display technology	TFT
Resolution	XGA (1024X768)
Screen Diagonal [mm]	307
Active Area [mm]	245.76(H) x 184.32(V)
Pixel Pitch [mm]	0.080(per one triad) x 0.240
Pixel Arrangement	R,G,B Vertical Stripe
Weight [grams]	290 Typ.
Physical Size [mm]	261.0(W) x 198.0(H) x 5.0(D) Typ.
Support Color	Native 262K colors(RGB 6-bit data driver)
White Luminance [cd/m2] Design Point 1:(ICFL=3.5mA) Design Point 2:(ICFL=6.5mA)	95 Typ. (center), 90 Typ. (5 points average) 160 Typ. (center),150 Typ. (5 points average)
Contrast Ratio	250 : 1 Typ.
Optical Rise Time/Fall Time [msec]	30Typ.,50 MAX.
Nominal Input Voltage VDD [Volt]	+3.3 Typ.
Power Consumption [Watt] (VDD Line) (VCFL Line)	1.2 Typ. 3.5 Typ.
Electrical Interface	4 pairs, single LVDS
Temperature Range [degree C] Operating Storage (Shipping)	0 to +50 -20 to +60

## AC Adapter

Item	Specification
Vendor & model name	Lite-on 65W PA 1650-02 (WPFC) 3P
Input Requirements	
Maximum input current (A, @100Vac, full load)	1.7A max@3.5A/100Vac and 240 Vac
Nominal frequency (Hz)	50 / 60
Frequency variation range (Hz)	47 - 63
Nominal voltages (Vrms)	100 - 240
Inrush current	The maximum inrush current will be less than 220A when the adapter is connected to 100Vac(60Hz) and 240Vac(50Hz) respectively.
Efficiency	High efficiency 82% minimum, at 100~240Vac AC input, full load, warm-up condition.
Output Ratings (CV mode)	
DC output voltage	Offers constant voltage 19.0V output source with 65W max output power capacity.
Noise + Ripple	380mvp-pmax (20MHz bandwidth) for resistor load
Output current	0A (min.) 3.42A (max.)
Output Ratings (CC mode)	
DC output voltage	18.05 ~ 19.95V
Constant output	3.8A
Dynamic Output Characteristics	
Start-up time	5 sec. (@115 Vac and 230Vac full load)
Hold up time	5ms min. (@115 Vac input, full load)
Over Voltage Protection (OVP)	29V
Short circuit protection	Output can be shorted without damage, and auto recovery
Electrostatic discharge (ESD)	15kV (at air discharge) 8kV (at contact discharge)
Dielectric Withstand Voltage	
Primary to secondary	2150Vdc 10mA for 1 second
Leakage current	60uA max (240Vac, 60Hz)
Regulatory Requirements	Internal filter meets; 1. FCC class B requirements. 2. VDE 243/1991 class B requirements. 3. CISPR 22 Class B requirements. 3. VCCI class II requirements.

## Power Management

Power Saving Mode	Phenomenon
<b>Standby Mode</b> Waiting time specified by the System Standby value or the operating system elapses without any system activity. Or When the computer is about to enter Hibernation mode (e.g. during a battery-low condition), but the Hibernation file is invalid or not present.	The Sleep indicator lights up

## Power Management

Power Saving Mode	Phenomenon
<b>Hibernation Mode</b> When customized functions for power management are set to Hibernation and the corresponding action is taken.	All power shuts off
<b>Display Standby Mode</b> Keyboard, built-in touchpad, and an external PS/2 pointing device are idle for a specified period.	The display shuts off
<b>Hard Disk Standby Mode</b> Hard disk is idle within a specified period of time	Hard disk drive is in standby mode. (spindle turned-off)

## Environmental Requirements

Item	Specification
<b>Temperature</b>	
Operating	5 ~ +35 °C
Non-operating	-20 ~ +65 °C (unpacked)
Non-operating	Non (storage package)
<b>Humidity</b>	
Operating	20% to 80% RH, non-condensing
Non-operating	20% to 80% RH, non-condensing (unpacked)
Non-operating	Non (storage package)
<b>Vibration</b>	
Operating (unpacked)	5 ~ 500Hz: 1.0Grms (random)
Non-operating (unpacked)	5 ~ 500Hz: 2.16Grms (random)
Non-operating (packed)	5 ~ 500Hz: 2.16Grms (random)

## Mechanical Specification

Item	Specification
Dimensions	274mm (W) x 234mm (D) x 35.5mm (H) (10.76 x 9.10 x 0.95 inches)
Weight	1.61Kg (3.5 lbs) with 6-cell battery
I/O Ports	Two USB port, IEEE1394 port, Ethernet (RJ45) port, modem (RJ11) port, one VGA (external monitor) port, Microphone/line-in jack, Headphone/speakers/line-out (S/PDIF) jack, built-in microphone, infrared port, PC card slot (one Type II), 100-pin port replicator connector, DC-in jack for AC adapter
Drive Bays	One
Material	Plastic, aluminum-magnesium alloy
Indicators	InviLink™/Bluetooth(R), Power, Sleep, Media Activity, Battery Charge, Caps Lock and Num Lock indicators
Switch	Power

## I/O Address Map

I/O Address	Function
0000-001F	DMA controller
0020-0029, 002C-002D	Programmable interrupt controller
002E-002F	PCI bus
0030-0031, 0034-0035, 0038-0039, 003C-003D	Programmable interrupt controller



## I/O Address Map

I/O Address	Function
0040-0043, 0050-0053	System timer
0060, 0064	Keyboard controller
0062, 0066	ACPI-Compliant Embedded Controller
0070-0077	System CMOS/real time clock
0081-0091, 0093-009F	DMA controller
00A0-00A1, 00A4-00A5, 00A8-00A9, 00AC-00AD, 00B0-00B5, 00B8-00B9, 00BC-00BD	Programmable interrupt controller
00C0-00DF	DMA controller
00F0-00F0	Numeric data processor
0170-0177, 0376	2nd EIDE device (optical drive) select
01F0-01F7, 03F6	1st EIDE device (hard drive) select
0274-0277, 0279, 0A79	ISAPNP Read Data Port
02F8-02FF	IrDA FIR
03B0-03BB, 03C0-03DF, 1800-1807	Video Controller
04D0-04D1	Programmable interrupt controller
0D00-FFFF	PCI bus
1810-181F	Ultra ATA Storage Controller
1820-187F	USB Universal Host Controller
1881-189F	SMBus Controller
18C0-18FF, 1C00-1CFF	Audio Controller
2000-207F, 2400-24FF	Modem Controller
3000-30FF	Ethernet Controller
FC00-FFFF	Compatible CardBus Controller

## IRQ Assignment Map

Interrupt Channel	Function (Hardware)
IRQ00	System timer
IRQ01	Keyboard
IRQ03	IrDA FIR/PCI candidate
IRQ04	COM1/PCI candidate
IRQ05	PCI candidate
IRQ06	Reserved
IRQ07	LPT (Parallel port)/PCI Candidate
IRQ08	CMOS/RTC
IRQ09	SCI IRQ used by ACPI
IRQ10	SMBus(PIRQB#) AC'97 Audio(PIRQB#) AC'97 MODEM(PIRQB#) USB 1.1 UHCI (PIRQC#, PIRQD#) LAN(PIRQD#) CardBus(PIRQB#) IEEE1394(PIRQC#)/PCI Candidate
IRQ11	VGA(PRIQA#) FlashMemory(PIRQF#) USB 1.1 UHCI (PIRQA#) USB 2.0 EHCI(PIRQH#)/PCI Candidate
IRQ12	Touchpad (Auxiliary device)

---

### IRQ Assignment Map

Interrupt Channel	Function (Hardware)
IRQ13	Numeric data processor
IRQ14	1st EIDE device (hard disk)
IRQ15	2nd EIDE device (optical drive)

### DMA Channel Assignment

DMA Channel	Function (Hardware)
DRQ1	IrDA FIR
DRQ2	Reserved
DRQ3	Not support
DRQ4	Reserved

# 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 **F2** to enter setup. Press <F12> during POST to enter multi-boot menu. In this menu, user can change boot device without entering BIOS SETUP Utility.

PhoenixBIOS Setup Utility

Info.

Main

Advanced

Security

Boot

Exit

CPU Type:

Intel (R) Pentium (R) M processor

CPU Speed

1.50GHz

HDD Model Name:

ST94019A - (PM)

HDD Serial Number:

3KW3HCVL

System BIOS Ver:

V0.10

VGA BIOS Ver:

2991

KBC Ver:

02.13.26

Serial Number

xxxxxxxxxxxxxxxxxxxxxx

22 Byte

Asset Tag Number:

N/A

32 Byte

Product

TravelMate 380

16 Byte

Manufacturer Name:

Acer

16 Byte

UUID:

31313232-3333-3434-3535-363637373838

F1 Help

↑↓ Select Item

F5/F6 Change Values

F9 Setup Defaults

Esc Exit

←→ Select Menu

Enter Select ▶ Sub-Menu











F10 Save and Exit

---

## Navigating the BIOS Utility

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

Follow these instructions:

- ☐ To choose a menu, use the cursor left/right keys (   ).
- ☐ To choose a parameter, use the cursor up/down keys (   ).
- ☐ To change the value of a parameter, press  or .
- ☐ While the item has sub-items, press  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 . You can also press  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

PhoenixBIOS Setup Utility					
Info.	Main	Advanced	Security	Boot	Exit
CPU Type: Intel (R) Pentium (R) M processor					
CPU Speed 1.50GHz					
HDD Model Name: ST94019A - (PM)					
HDD Serial Number: 3KW3HCVL					
System BIOS Ver: V0.10					
VGA BIOS Ver: 2991					
KBC Ver: 02.13.26					
Serial Number xxxxxxxxxxxxxxxxxxxxxx				22 Byte	
Asset Tag Number: N/A				32 Byte	
Product TravelMate 380				16 Byte	
Manufacturer Name: Acer				16 Byte	
UUID: 31313232-3333-3434-3535-363637373838					

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

Parameter	Description
CPU Type	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.
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.

PhoenixBIOS Setup Utility					
Info.	Main	Advanced	Security	Boot	Exit
				Item Specific Help	
System Time: [10:01:23]				<Tab>, <Shift-Tab>, or <Enter> selects field.	
System Date: [08/17/2004]					
System Memory: 640 KB		Shows system base memory size			
Extended Memory: 238 KB		Shows extended memory size			
Video Memory 16 MB		VGA memory size			
Quiet Boot: [Enabled]					
Power on Display: [Auto ]					
LCD Auto Dim: [Enabled]					
PXE Boot From LAN: [Enabled]					
F12 Boot Menu: [Disabled]					
F1 Help	↑↓ Select Item	F5/F6 Change Values		F9 Setup Defaults	
Esc Exit	←→ Select Menu	Enter Select ► Sub-Menu		F10 Save and Exit	

**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.	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. The user can not change the memory setting. This is display-only field. Memory size is fixed to 640 KB	
Extended Memory	This field reports the memory size of the extended memory in the system. The user can not change the memory setting. This is display-only field. Extended Memory size=Total memory size -1MB	
VGA Memory	The total amounts of memory for VGA. The user can not change the memory setting. This is display-only field.	
Quiet Boot	Determines if Logo will be displayed or not; shows diagnostic screen is disabled or enabled. Enabled: Logo is displayed, and diagnostic screen is disabled. Disabled: Logo is not displayed, and diagnostic screen is enabled.	Option: <b>Enabled</b> or Disabled
Power on display	Selects display device. 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: <b>Auto</b> 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.	Option: <b>Enabled</b> or Disabled
PXE Boot From LAN	Selects PXE boot from LAN function.	Option: <b>Enabled</b> or Disabled
F12 Boot Menu	Selects the F12 boot menu function.	Option: Enabled or <b>Disabled</b>

**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.

PhoenixBIOS Setup Utility					
Info.	Main	Advanced	Security	Boot	Exit
Infrared Port (FIR) : [Auto] Base I/O address : [2F8] Interrupt : [IRQ 3] DMA channel : [DMA 1]  Legacy USB Support : [Disabled] Hard Disk Recovery : [Disabled]		Item Specific Help			
		Configure Infrared Port using options: [Disable] No configuration  [Enabled] User configuration  [Auto] BIOS or OS chooses configuration  (OS Controlled) Displayed when controlled by OS			
F1 Help	↑ ↓ Select Item	F5/F6 Change Values	F9 Setup Defaults		
Esc Exit	← → Select Menu	Enter Select ► Sub-Menu	F10 Save and Exit		

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

Parameter	Description	Options
Infrared Port (FIR)	Selects serial port address and IRQ.	Disabled/Enabled/ <b>Auto</b>
Legacy USB Support	Selects legacy USB support.	<b>Enabled</b> /Disabled
Hard Disk Recovery	Enables or disables Hard Disk to Hard Disk system Recovery via ALT+F10 key during POST.	<b>Disabled</b> /Enabled



## Security

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

PhoenixBIOS Setup Utility					
Info.	Main	Advanced	Security	Boot	Exit
User Password is : <b>Clear</b> Supervisor Password is : <b>Clear</b>  Set User Password [Enter] Set Supervisor Password [Enter]  Primary HardDisk Security [Disabled]  Password on Boot [Disabled]				Item Specific Help	
				Supervisor Password controls accesses of the whole setup utility. It can be used to boot up when Password on boot is enabled.	
F1 Help	↑↓ Select Item	F5/F6 Change Values	F9 Setup Defaults		
Esc Exit	←→ Select Menu	Enter Select ▶ Sub-Menu	F10 Save and Exit		

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




Parameter	Description	Option
User Password is	Shows the setting of the user password.	<b>Clear</b> or Set
Supervisor Password is	Shows the setting of the supervisor password.	<b>Clear</b> 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	Shows the setting of the primary hard disk Security.	<b>Disabled</b> 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.	<b>Disabled</b> 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  and  keys to highlight the Set Supervisor Password parameter and press the  key. The Set Supervisor Password box appears:

Set Supervisor Password	
Enter New Password	[ ]
Confirm New Password	[ ]




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  .  
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  to save the changes and exit the BIOS Setup Utility.

## Removing a Password




Follow these steps:

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

Set Supervisor Password	
Enter current password	[ ]
Enter New Password	[ ]
Confirm New Password	[ ]



2. Type the current password in the Enter Current Password field and press  .
3. Press  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  to save the changes and exit the BIOS Setup Utility.

## Changing a Password

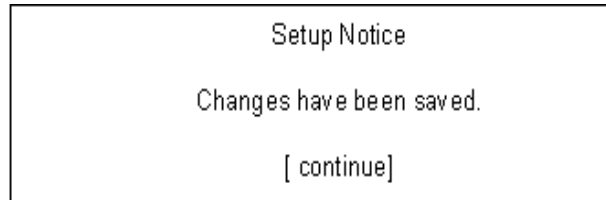
1. Use the  and  keys to highlight the Set Supervisor Password parameter and press the  key. The Set Password box appears:


Set Supervisor Password	
Enter current password	[ ]
Enter New Password	[ ]
Confirm New Password	[ ]

2. Type the current password in the Enter Current Password field and press  .

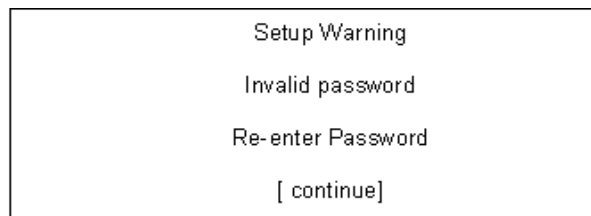
- 
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
  4. Press . After setting the password, the computer sets the User Password parameter to “Set”.
  5. If desired, you can enable the Password on boot parameter.
  6. When you are done, press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

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

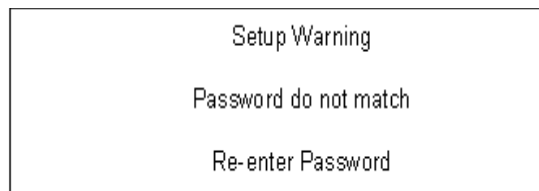


The password setting is complete after the user presses .

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.



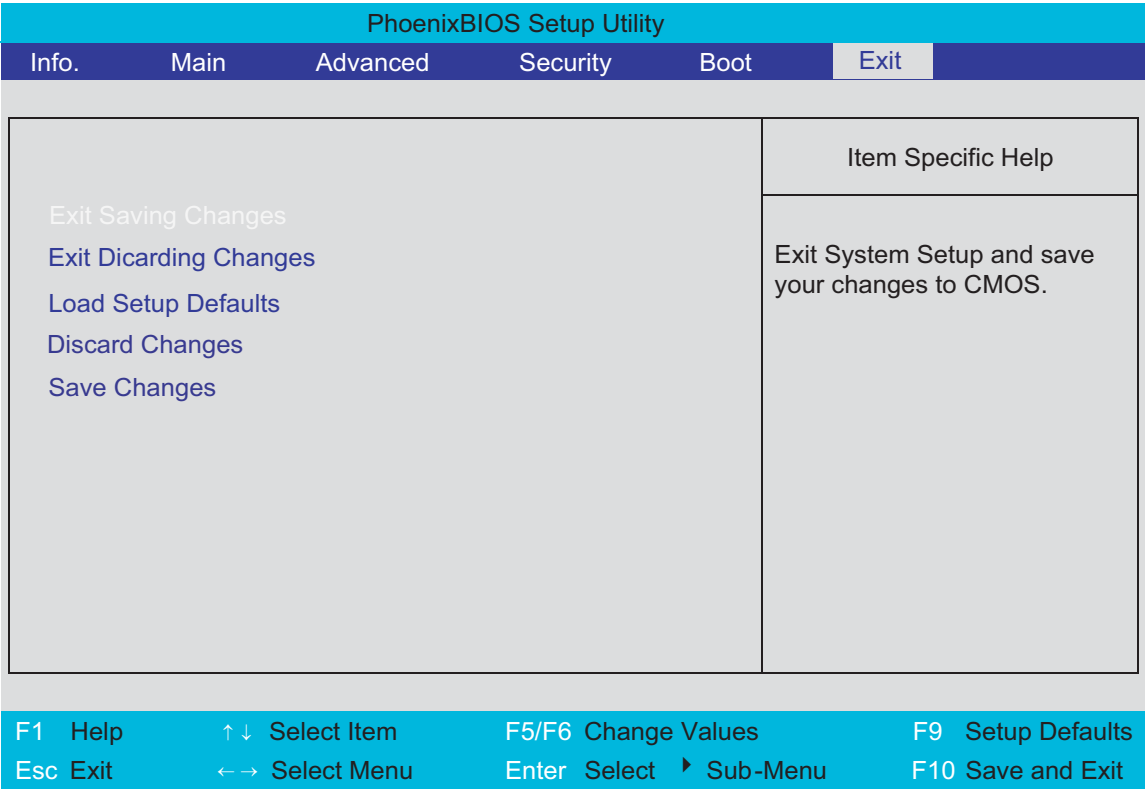
## Boot

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

PhoenixBIOS Setup Utility					
Info.	Main	Advanced	Security	Boot	Exit
<div>+Hard Drive</div> <div>Removable Devices</div> <div>CD-ROM Drive</div> <div>Network Boot Agent</div>				Item Specific Help	
				Use <↑> or <↓> to select a devices, then press<F6> to move it up the list, or <F5> move it down the list. Press <ESC> to escape the menu	
<div>F1 Help      ↑↓ Select Item      F5/F6 Change Values      F9 Setup Defaults</div> <div>Esc Exit      ←→ Select Menu      Enter Select      ▶ Sub-Menu      F10 Save and Exit</div>					

# 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.

Follow 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
- ☐ small Philips screwdriver
- ☐ flat head screwdriver
- ☐ Philips screwdriver
- ☐ tweezers

**NOTE:** The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding components to avoid mismatch when putting back the components. When you remove the stripe cover, please be careful not to scrape the cover.

---

## General Information

### Before You Begin

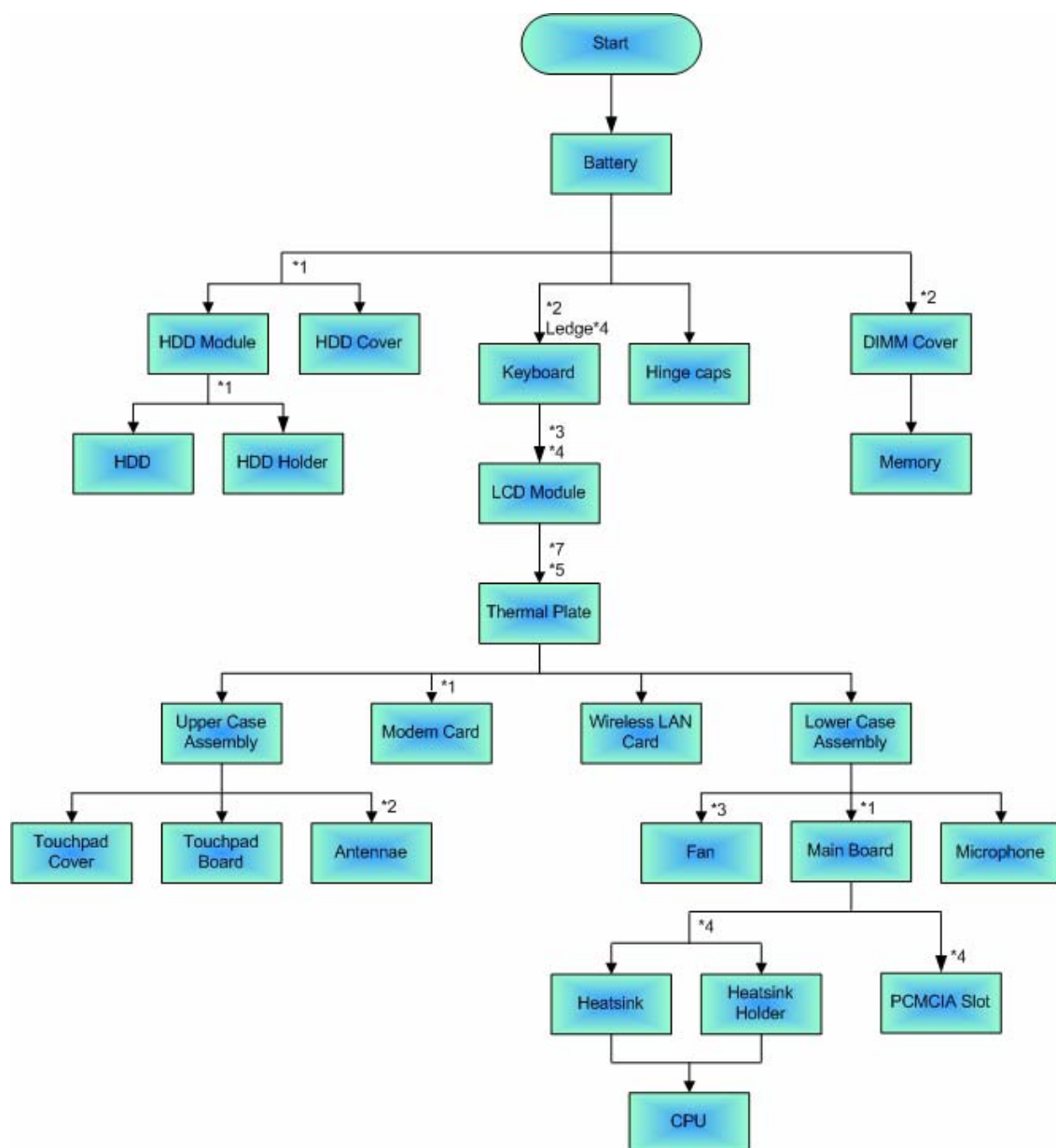
Before proceeding with the disassembly procedure, make sure that you do the following:

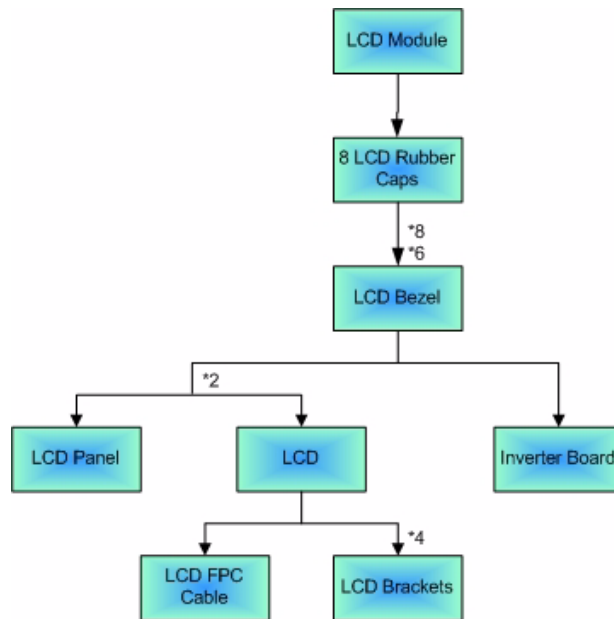
1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.
3. Remove the battery pack.



## 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 system board, you must first remove the keyboard, then disassemble the inside assembly frame in that order.





---

## Removing the Battery

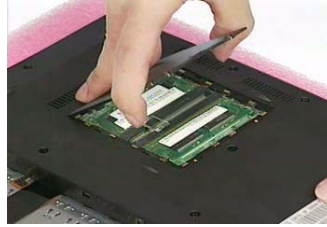
1. Slide the two battery latches.
2. Then remove the battery.



---

## Removing the Memory/HDD Module

1. Remove the two screws holding the DIMM cover.
2. Then remove the DIMM cover.



3. Pop out the memory.
4. Then remove the memory.



5. Remove one screw that secures the HDD cover.
6. Then remove the HDD cover.
7. Pull out the HDD module carefully.



---

## Removing the Keyboard

1. Remove the two screws holding the keyboard on the bottom.
2. Use a small Philips screwdriver and your finger to unlock four ledges as the picture shows.



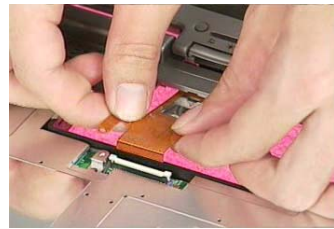
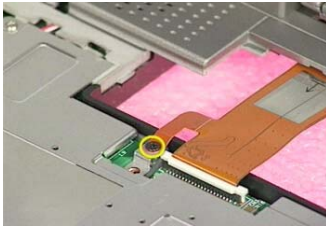
3. Turn over the keyboard as the picture shows.
4. Disconnect the keyboard cable.
5. Then remove the keyboard.



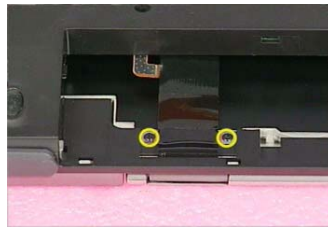
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## Disassembling the Main Unit

1. Remove one screw that secures the LCD FPC cable as the picture shows.
2. Then disconnect the LCD FPC cable from the main board.



3. Remove the two screws holding the LCD FPC cable on the bottom.



4. Push the left and right hinge caps on the front side carefully.
5. Then hold the left and right hinge caps on the rear side as the picture shows.
6. Remove the left and right hinge caps.



7. Remove the two screws holding the LCD module on one side.
8. Then remove another two screws on the other side.



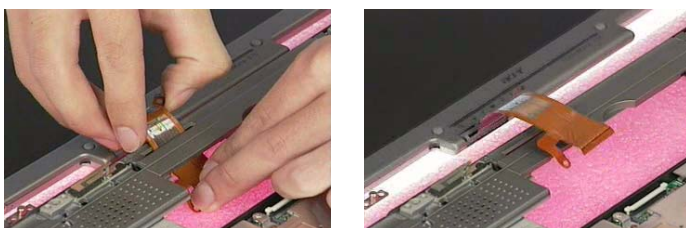
9. Slide the LCD latch.



- 
- 10.** Then turn over the LCD module as the picture shows.



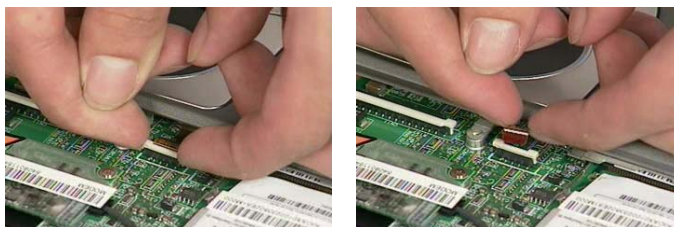
- 11.** Pull out the LCD FPC cable carefully.  
**12.** Then detach the entire LCD module.



- 13.** Remove the seven screws on the bottom.  
**14.** Remove the five screws holding the thermal plate.  
**15.** Then take out the thermal plate.



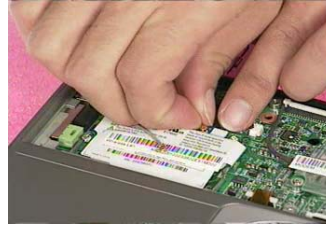
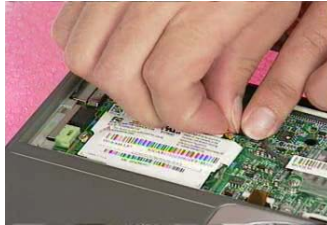
- 16.** Disconnect the touchpad cable as the picture shows.



- 17.** Disconnect the speaker cable from the main board.



- 18.** Disconnect the main and aux wireless LAN antennae. (main: left/black, aux: right/gray)



- 19.** Pop out the wireless LAN card.  
**20.** Then take out the wireless LAN card.

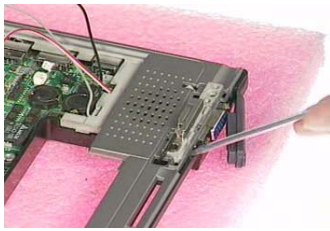


- 21.** Disconnect the cover switch cable from the main board.

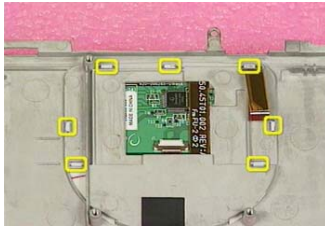


- 22.** Use a flat screwdriver as the picture shows to detach the upper case assembly.  
**23.** Then detach the upper case carefully.

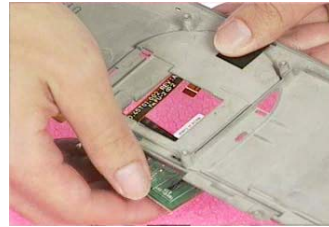
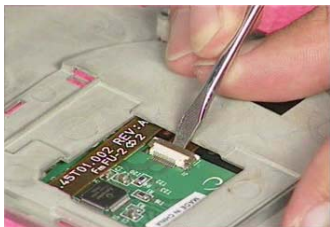




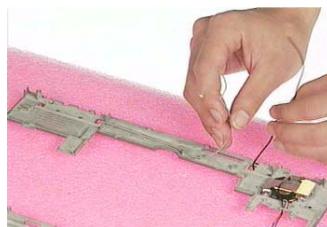
24. Remove the touchpad cover from the upper case as the picture shows.



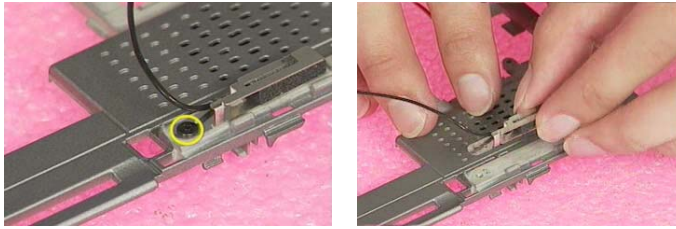
25. Disconnect the touchpad cable from the touchpad board.
26. Then take out the touchpad board carefully.



27. Tear off the tape fastening the wireless LAN antennae as picture shows.
28. Take out the wireless LAN antennae from the fastening fillisters.
29. Pull out the main and aux wireless LAN antennae carefully.



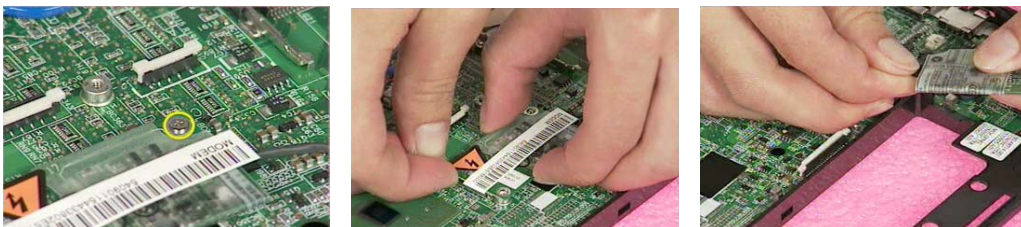
30. Remove one screw holding the main wireless LAN antenna.
31. Then take out the main wireless LAN antenna.



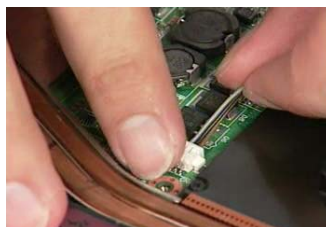
- 32.** Remove one screw holding the aux wireless LAN antenna.
- 33.** Then take out the aux wireless LAN antenna.



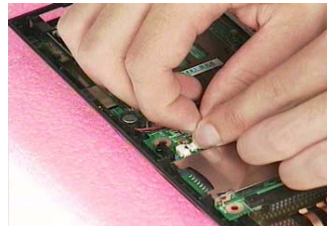
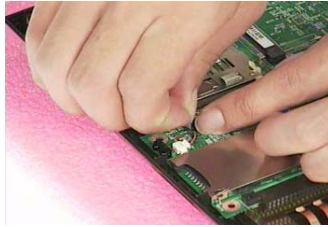
- 34.** Remove one screw that secures the modem card.
- 35.** Remove the modem card.
- 36.** Then disconnect the modem card cable from the modem card.



- 37.** Disconnect the fan cable from the main board.



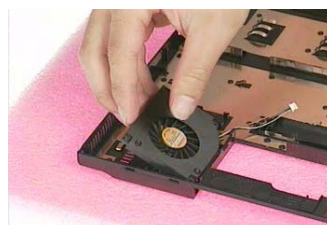
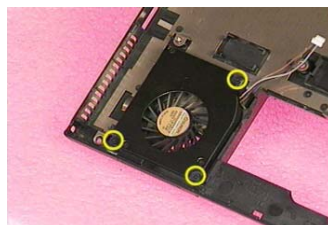
- 38.** Tear off the tape fastening the microphone cable as picture shows.
- 39.** Then disconnect the microphone cable from the main board.



- 40.** Remove one screw that secure the main board.
- 41.** Then take out the main board from the lower case.



- 42.** Remove the three screws that secure the fan.
- 43.** Then remove the fan from the lower case.



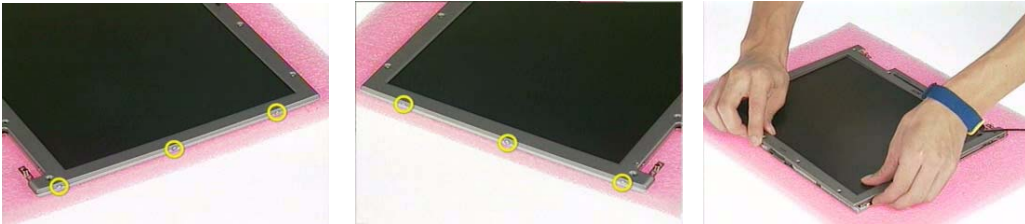
---

## Disassembling the LCD Module

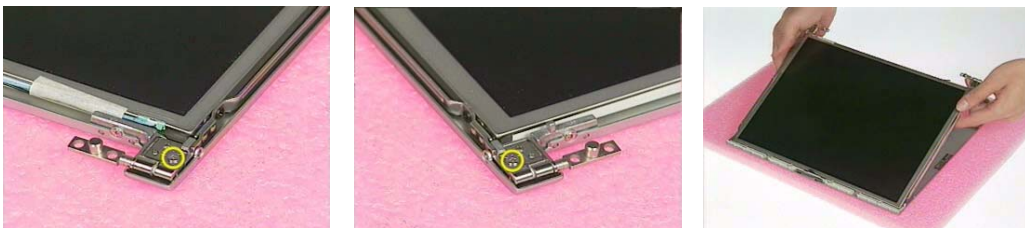
1. Remove the eight LCD rubber caps as the picture shows.
2. Then remove the eight screws holding the LCD bezel.



3. Remove the three screws on one side.
4. Remove another three screws on the other side.
5. Then detach the LCD bezel carefully.



6. Remove one screw holding the LCD bracket on one side.
7. Remove another screw holding the LCD bracket on the other side.
8. Then remove the entire LCD from the LCD panel.



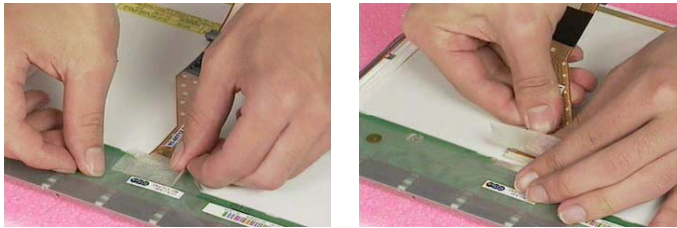
9. Disconnect the LCD FPC cable from the inverter board.
10. Disconnect the high voltage cable from the inverter board.
11. Then take out the inverter board.





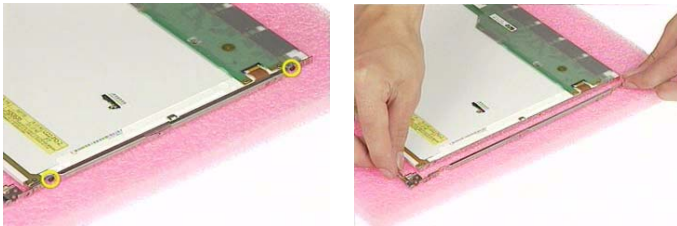
**12.** Tear off the tape that fastens the LCD FPC cable.

**13.** Disconnect the LCD FPC cable.



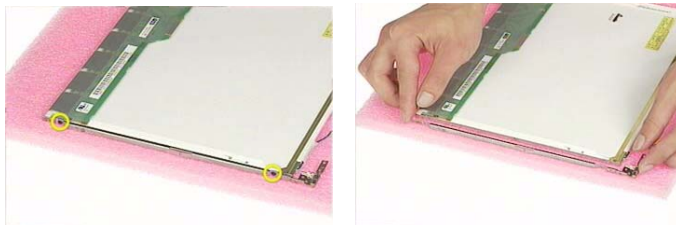
**14.** Remove the two screws holding the left LCD bracket.

**15.** Remove the left LCD bracket.



**16.** Remove the two screws holding the right LCD bracket.

**17.** Remove the right LCD bracket.



---

## Disassembling the External Modules

### Disassembling the HDD Module

1. Remove one screws holding the HDD holder.
2. Then remove the HDD carefully.



## Troubleshooting

Use the following procedure as a guide for computer problems.

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

1. Duplicate symptom and obtain the failing symptoms in as much detail as possible.
2. Distinguish symptom. Verify the symptoms by attempting to re-create the failure by running the diagnostic test or by repeating the same operation.
3. Disassemble and assemble the unit without any power sources.
4. If any problem occurs, you can perform visual inspection before you follow this chapter's instructions. You can check the following:
  - power cords are properly connected and secured;
  - there are no obvious shorts or opens;
  - there are no obviously burned or heated components;
  - all components appear normal.
5. Use the following table with the verified symptom to determine which page to go to.

Symptoms (Verified)	Go To
Power failure. (The power indicator does not go on or stay on.)	"Power System Check" on page 57
POST does not complete. No beep or error codes are indicated.	"Power-On Self-Test (POST) Error Message" on page 59 "Undetermined Problems" on page 70
POST detects an error and displayed messages on screen.	"Index of Error Messages" on page 60
Other symptoms (i.e. LCD display problems or others).	"Power-On Self-Test (POST) Error Message" on page 59
Symptoms cannot be re-created (intermittent problems).	Use the customer-reported symptoms and go to "Power-On Self-Test (POST) Error Message" on page 59 "Intermittent Problems" on page 69 "Undetermined Problems" on page 70

---

# System Check Procedures

## External Diskette Drive Check

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

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

If an error occurs with the internal diskette drive, reconnect the diskette connector on the system board.

If the error still remains:

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

## External CD-ROM Drive Check

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

Do the following to select the test device:

1. Boot from the diagnostics diskette and start the diagnostics program (refer to “System Diagnostic Diskette” on page 38).
2. See if CD-ROM Test is passed when the program runs to CD-ROM 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 external diskette drive/CD-ROM module.
2. Replace the external diskette drive/CD-ROM module.
3. Replace the main board.

## Keyboard or Auxiliary Input Device Check

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

If the internal keyboard does not work or an unexpected character appears, make sure that the flexible cable extending from the keyboard is correctly seated in the connector on the system board.

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 diagnostics 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 Battery Pack" on page 58

---

## 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. After rebooting, run Tracking Pad PS2 Mode Driver. For example, run Syn touch driver.
2. Run utility with the PS/2 mouse function and check if the mouse is working.
3. If the PS/2 mouse does not work, then check if the main board to switch board FPC is connected O.K.
4. If the main board to switch board FPC is connected well, then check if the FCC on touch pad PCB connects properly.
5. If the FCC on touch pad PCB connects properly, then check if LS851 JP1 Pin6=5V are pulsed. If yes, then replace switch board. If no, then go to next step.
6. Replace touch pad PCB.
7. If the touch pad still does not work, then replace FPC on Track Pad PCB.

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

---

## 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 70

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 Message List

Error Messages	FRU/Action in Sequence
Struck Key	See "Keyboard or Auxiliary Input Device Check" on page 56
System CMOS checksum bad - Default configuration used	RTC battery Run BIOS Setup Utility to reconfigure system, then reboot system.
Real time clock error	RTC battery Run BIOS Setup Utility to reconfigure system time, then reboot system. Main board
Previous boot incomplete - Default configuration used	"Load Setup Defaults" in BIOS Setup Utility. RTC batter Main board.
Invalid System Configuration Data	"Load Setup Defaults" in BIOS Setup Utility. Main board.
Operating system not found	Enter Setup and see if fixed disk and drive A are properly identified. Diskette drive Hard disk drive Main board.

## Error Message List

No beep Error Messages	FRU/Action in Sequence
Power-on indicator turns off and LCD is blank.	Power source (battery pack and power adapter.) See "Power System Check" on page 57. Ensure every connector is connected tightly and correctly. Reconnect the DIMM. Main board.
Power-on indicator turns on and LCD is blank.	Power source (battery pack and power adapter.) See "Power System Check" on page 57. Reconnect the LCD connector Hard disk drive LCD cable LCD inverter LCD Main board
Power-on indicator turns on and LCD is blank. But you can see POST on an external CRT.	Reconnect the LCD connectors. LCD cable LCD inverter LCD Main board
Power-on indicator turns on and a blinking cursor shown on LCD during POST.	Ensure every connector is connected tightly and correctly. Main board

## Phoenix BIOS Beep Codes

Code	Beeps	POST Routine Description
02h		Verify Real Mode
03h		Disable Non-Maskable Interrupt (NMI)
04h		Get CPU type
06h		Initialize system hardware
08h		Initialize chipset with initial POST values
09h		Set IN POST flag
0Ah		Initialize CPU registers
0Bh		Enable CPU cache
0Ch		Initialize caches to initial POST values
0Eh		Initialize I/O component
0Fh		Initialize the local bus IDE
10h		Initialize Power Management
11h		Load alternate registers with initial POST values
12h		Restore CPU control word during warm boot
13h		Initialize PCI Bus Mastering devices
14h		Initialize keyboard controller
16h	1-2-2-3	BIOS ROM checksum
17h		Initialize cache before memory autosize
18h		8254 timer initialization
1Ah		8237 DMA controller initialization
1Ch		Reset Programmable Interrupt Controller
20h	1-3-1-1	Test DRAM refresh
22h	1-3-1-3	Test 8742 Keyboard Controller
24h		Set ES segment register to 4 GB
26h		Enable A20 line
28h		Autosize DRAM
29h		Initialize POST Memory Manager
2Ah		Clear 215 KB base RAM
2Ch	1-3-4-1	RAM failure on address line xxxx
2Eh	1-3-4-3	RAM failure on data bits xxxx of low byte of memory bus
2Fh		Enable cache before system BIOS shadow
30h	1-4-1-1	RAM failure on data bits xxxx of high byte of memory bus
32h		Test CPU bus-clock frequency
33h		Initialize Phoenix Dispatch Manager
36h		Warm start shut down
38h		Shadow system BIOS ROM
3Ah		Autosize cache
3Ch		Advanced configuration of chipset registers
3Dh		Load alternate registers with CMOS values
42h		Initialize interrupt vectors
45h		POST device initialization
46h	2-1-2-3	Check ROM copyright notice

Code	Beeps	POST Routine Description
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
8Ch		Initialize floppy controller

Code	Beeps	POST Routine Description
8Fh		Determine number of ATA drives (optional)
90h		Initialize hard-disk controllers
91h		Initialize local-bus hard-disk controllers
92h		Jump to UserPatch2
93h		Build MPTABLE for multi-processor boards
95h		Install CD ROM for boot
96h		Clear huge ES segment register
97h		Fixup Multi Processor table
98h	1-2	Search for option ROMs. One long, two short beeps on checksum failure.
99h		Check for SMART drive (optional)
9Ah		Shadow option ROMs
9Ch		Set up Power Management
9Dh		Initialize security engine (optional)
9Eh		Enable hardware interrupts
9Fh		Determine number of ATA and SCSI drives
A0h		Set time of day
A2h		Check key lock
A4h		Initialize Typematic rate
A8h		Erase F2 prompt
AAh		Scan for F2 key stroke
ACh		Enter SETUP
A Eh		Clear Boot flag
B0h		Check for errors
B2h		POST done- prepare to boot operating system
B4h	1	One short beep before boot
B5h		Terminate QuietBoot (optional)
B6h		Check password (optional)
B9h		Prepare Boot
BAh		Initialize DMI parameters
BBh		Initialize PnP Option ROMs
BCh		Clear parity checkers
BDh		Display MultiBoot menu
BEh		Clear screen (optional)
BFh		Check virus and backup reminders
C0h		Try to boot with INT 19
C1h		Initialize POST Error Manager (PEM)
C2h		Initialize error logging
C3h		Initialize error display function
C4h		Initialize system error handler
C5h		PnPnd dual CMOS (optional)
C6h		Initialize notebook docking (optional)
C7h		Initialize notebook docking late
C8h		Force check (optional)
C9h		Extended checksum (optional)
D2h		Unknown interrupt

Code	Beeps	POST Routine Description
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	First, plug a monitor to CRT port. Next, enter BIOS utility to running "Load Setup Defaults" then reboot the system. Reconnect the LCD connectors. Keyboard (if the brightness function key doesn't work). LCD cable LCD inverter LCD Main board
LCD is too dark LCD brightness cannot be adjusted	Enter BIOS Utility to execute "Load Setup Defaults", then reboot system. Reconnect the LCD connectors. Keyboard (if the brightness function key doesn't work). LCD cable LCD inverter LCD Main board
Unreadable LCD screen Missing pels in characters Abnormal screen Wrong color displayed LCD has extra horizontal or vertical lines displayed.	Reconnect the LCD cable LCD cable LCD Main board

## Indicator-Related Symptoms

Symptom / Error	Action in Sequence
Indicator incorrectly remains off or on, but system runs correctly	Main board
HDD/CD-ROM active indicators cannot work	HDD/CD-ROM drive Device driver Main 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 57. Battery pack AC adapter See if the thermal module is overheat (Heat sink or fan). Main board
The system cannot power-on.	Power source (battery pack and power adapter). See "Power System Check" on page 57. Battery pack Power adapter CPU Main board
The system cannot power-off.	In Windows XP operating system, hold and press the power switch for more than 4 seconds. If the system can power off, then the main board is OK. Verify OS in the HDD. Main board

### Power-Related Symptoms

Symptom / Error	Action in Sequence
Battery can't be charged or discharged	See "Check the Battery Pack" on page 58. Battery pack Main board
System hang during POST	ODD/HDD/FDD/RAM module Main board

### PCMCIA-Related Symptoms

Symptom / Error	Action in Sequence
System cannot detect the PC Card (PCMCIA)	PCMCIA slot assembly Main board
PCMCIA slot pin is damaged.	PCMCIA slot assembly
PC Card cannot be inserted or ejected	Check if the PCMCIA slot is blocked Main board

### Memory-Related Symptoms

Symptom / Error	Action in Sequence
Memory count (size) appears different from actual size.	Enter BIOS Setup Utility to execute "Load Setup Defaults" then reboot system. RAM module Main board Check BIOS revision
System can power on, but you hear two long beeps: "B--, B--" and the LCD is blank.	Reinsert DIMM DIMM Main board

### Speaker-Related Symptoms

Symptom / Error	Action in Sequence
In Windows, multimedia programs, no sound comes from the computer.	OS volume control Audio driver Speaker Main board
Internal speakers make noise or emit no sound.	Speaker Main board
Microphone cannot work	Audio driver Volume control in Windows XP Main board

### Power Management-Related Symptoms

Symptom / Error	Action in Sequence
The system will not enter hibernation mode	Power option in Windows XP Hard disk drive Main board
The system doesn't enter standby mode after closing the lid of the portable computer.	Driver of Power Option Properties Lid close switch in upper case Main board

## Power Management-Related Symptoms

Symptom / Error	Action in Sequence
The system doesn't resume from hibernation/standby mode.	Connect AC adapter then check if the system resumes from Standby/Hibernation mode. Check if the battery is low. Hard disk drive Main board
The system doesn't resume from standby mode after opening the lid of the portable computer.	LCD cover switch Main board
Battery fuel gauge in Windows doesn't go higher than 90%.	Refresh battery (continue use battery until power off, then charge battery). Battery pack Main board
System hangs intermittently.	Reconnect hard disk/CD-ROM drives. Main board

## Peripheral-Related Symptoms

Symptom / Error	Action in Sequence
System configuration does not match the installed devices.	Enter BIOS Setup Utility to execute "Load Setup Defaults", then reboot system. Reconnect hard disk/CD-ROM drives/FDD or other peripherals. Main board
External display does not work correctly.	Press Fn+F5, LCD/CRT/Both display switching Keyboard Main board
USB does not work correctly	Main board
Print problems.	Enter BIOS Setup Utility to execute "Load Setup Defaults" then reboot the system. Run printer self-test. Printer driver Printer cable Printer Main board
Parallel port device problems	Enter BIOS Setup Utility to execute "Load Setup Defaults" then reboot the system. Device driver Device cable Device Main board

## Keyboard/Touchpad-Related Symptoms

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

---

### Modem/LAN-Related Symptoms

Symptom / Error	Action in Sequence
Internal modem does not work correctly.	Phone cable Driver Reconnect the Internal modem cable to the main board tightly. Main board
Internal LAN does not work correctly	Lan cable Driver Main board

**NOTE:** If you cannot find a symptom or an error in this list and the problem remains, see “Undetermined Problems” on page 70.

---

## 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 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 57):

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
  - ☐ 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.

```
=====
                        The HDD Must bigger then 20GB.
=====

Do you want to build NAPP Master HDD?
press any key to continue or Ctrl-C to exit
_
```

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

```
Acer NAPP Preload Selector for Acer System Version 1.4.0.1
Copyright 2003 Acer Inc.

=====

This will preload your system. Are you sure?[Y,N]?
```

5. Select CD to Disk Recovery.

```
Method Selector
=====
1. Disk To Disk Recovery
2. CD to Disk Recovery
X. Quit

Please select your Choose...[1,2,x]?
```

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.

```
Please Insert Any Recovery CD

Please Press Any Key to Continue.
Press any key to continue...
—
```

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

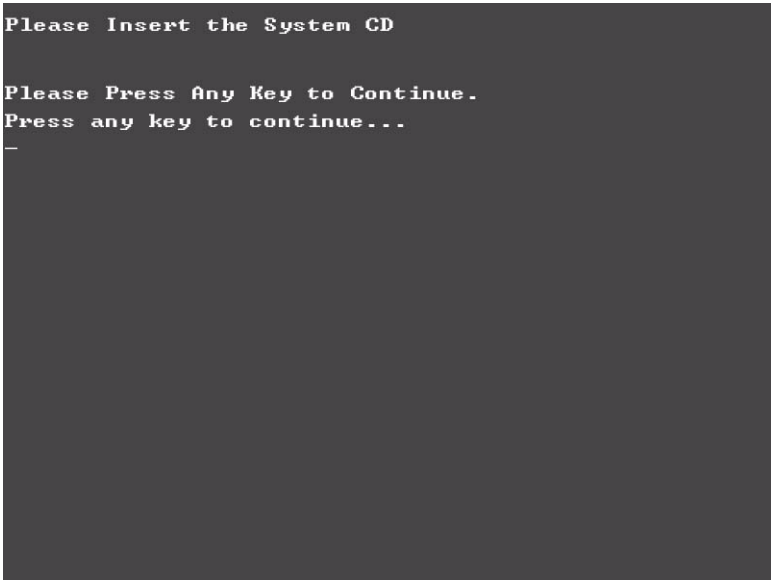


---



```
Please Wait for COPYING .....  
X:\images \70E40101.HDD
```

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



```
Please Insert the System CD  
  
Please Press Any Key to Continue.  
Press any key to continue...  
—
```

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

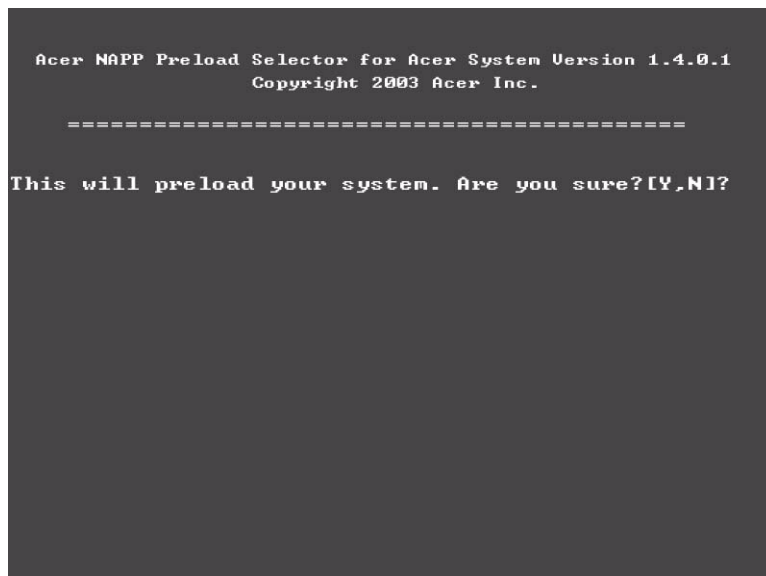


## Disk to Disk Recovery

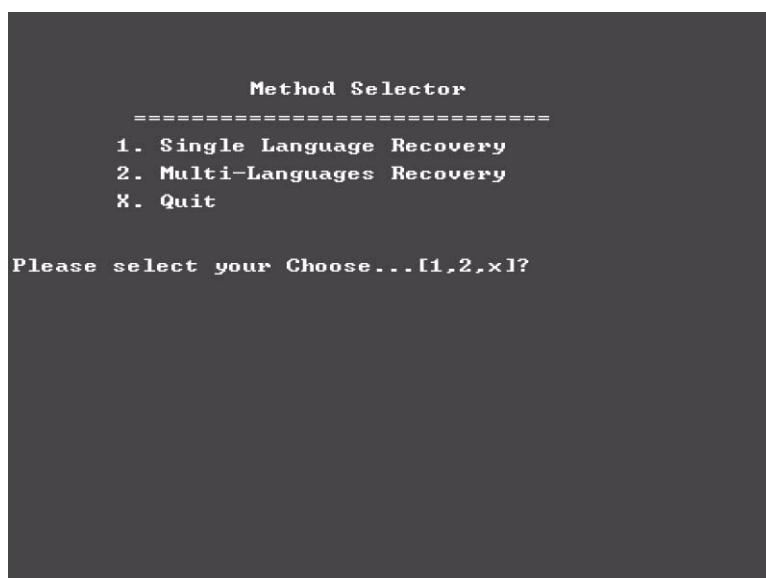
1. Prepare NAPP CD, Recovery CD and System CD.
2. Put NAPP CD into the optical drive. Then boot up the system.
3. The system will ask you if you want to build NAPP Master HDD. Please press any key to continue.



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

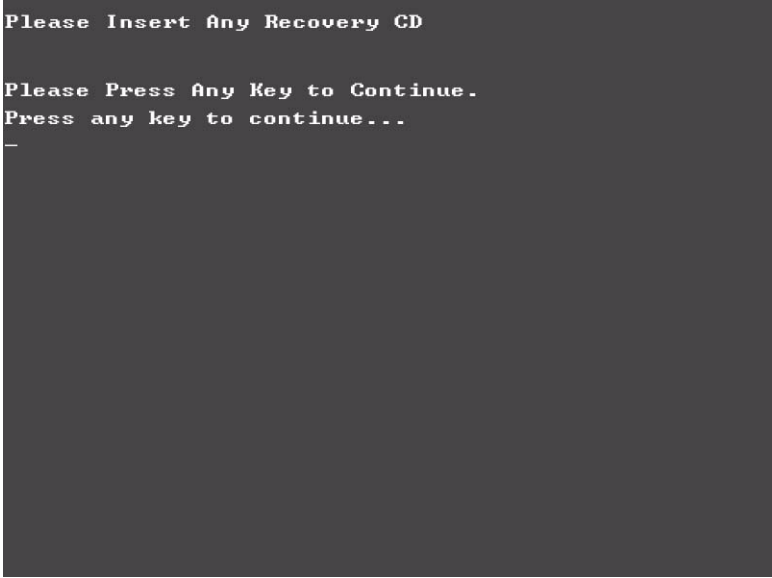


5. Select Disk to Disk Recovery. Then choose Single Language or Multi-Languages Recovery.  
**NOTE:** For Multi-Languages Recovery, not more than five languages could be loaded to the system.



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.

---



```
Please Insert Any Recovery CD

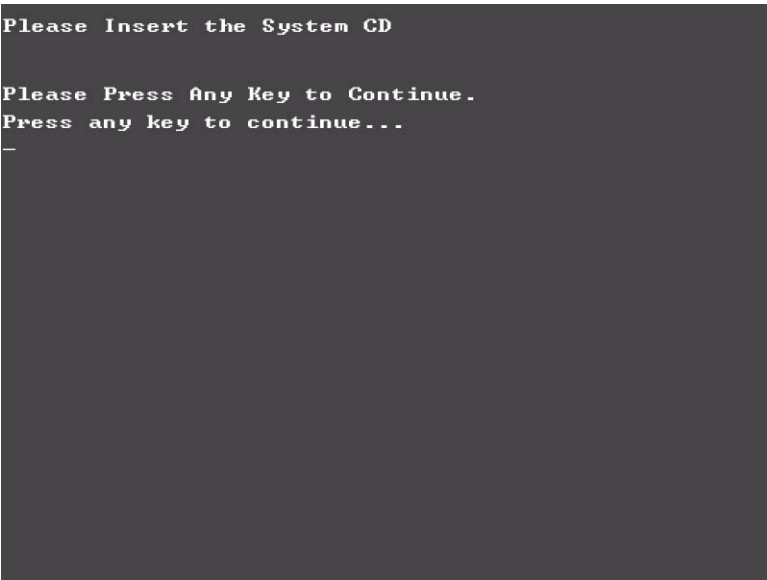
Please Press Any Key to Continue.
Press any key to continue...
_
```

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



```
Please Wait for COPYING .....
X:\images \70E40101.HDD
```

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.

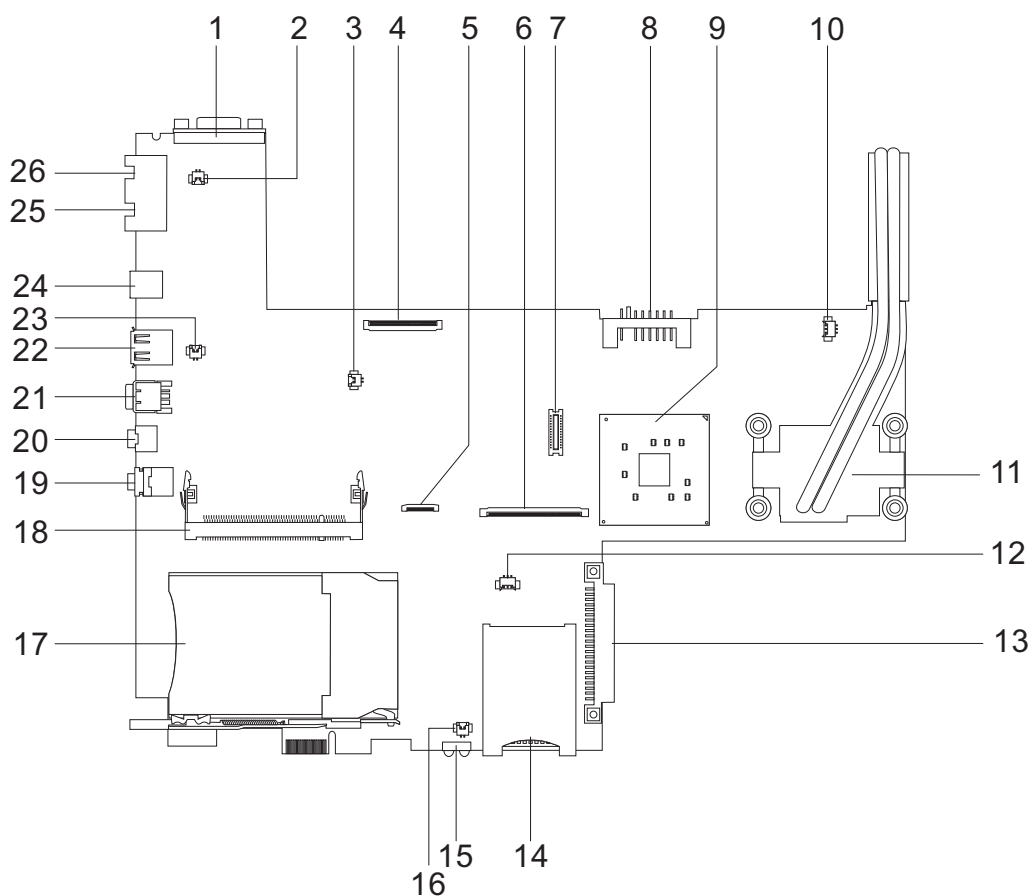




## Jumper and Connector Locations

### Top View

**NOTE:** The board layout is not ready as the service guide released. The board views (bot top and bottom) in this chapter are for TravelMate 370. We will update the service guide as soon as we get the main board layout.



1	External Display Port	14	3-in1 Card Reader Slot
2	Modem Cable Connector	15	Infrared Port
3	Speaker Connector	16	Microphone Connector
4	LCD FPC Connectors	17	PCMCIA Slot
5	Touchpad Board Connectors	18	Mini-PCI Slot
6	Keyboard Connector	19	Microphone/Line-in Jack
7	Modem Board Connector	20	Headphone/Speaker/Line-out Jack
8	Battery Connector	21	IEEE 1394 Port
9	North Bridge	22	USB Port
10	Fan Connector	23	Cover Switch Connector
11	CPU	24	DC-In

---

12      RTC Battery Connector

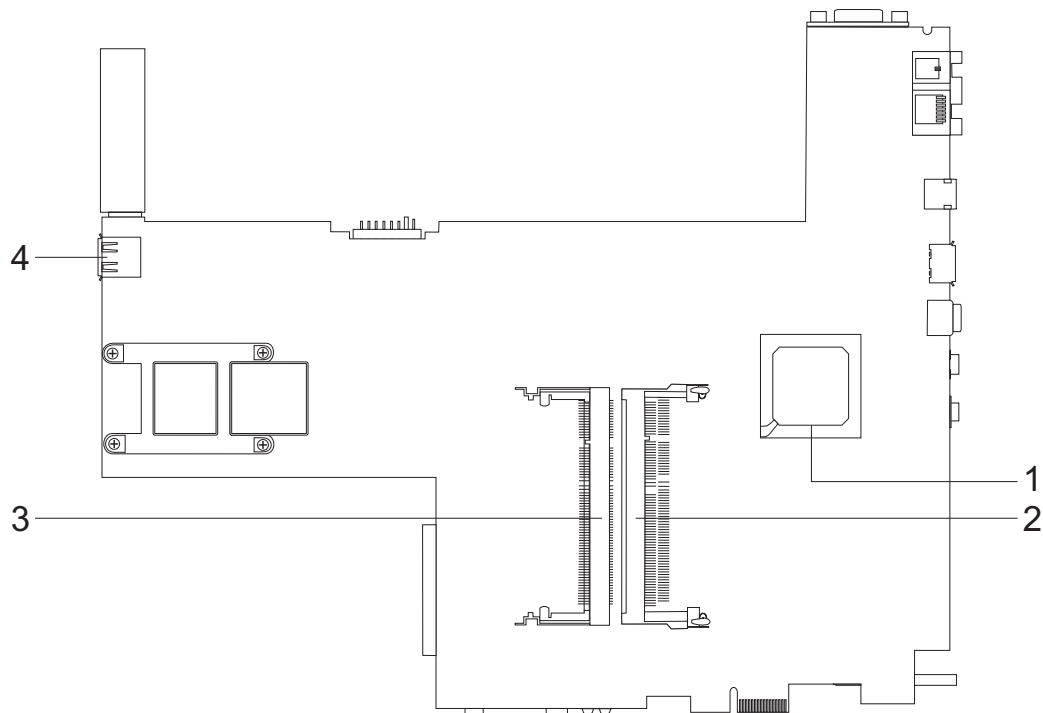
13      HDD Connector

25      RJ45 Ethernet Connector

26      RJ11 Modem Connector



# Bottom View



- 1

South Bridge
- 2

DIMM Slot
- 3

DIMM Slot
- 4

USB port

## Switch Settings

### SW1

	Switch Close	Switch Open
CHKPW#	Pypass User password	Check User Password
BOOTLOCK#	BIOS Program	Disable

## FRU (Field Replaceable Unit) List

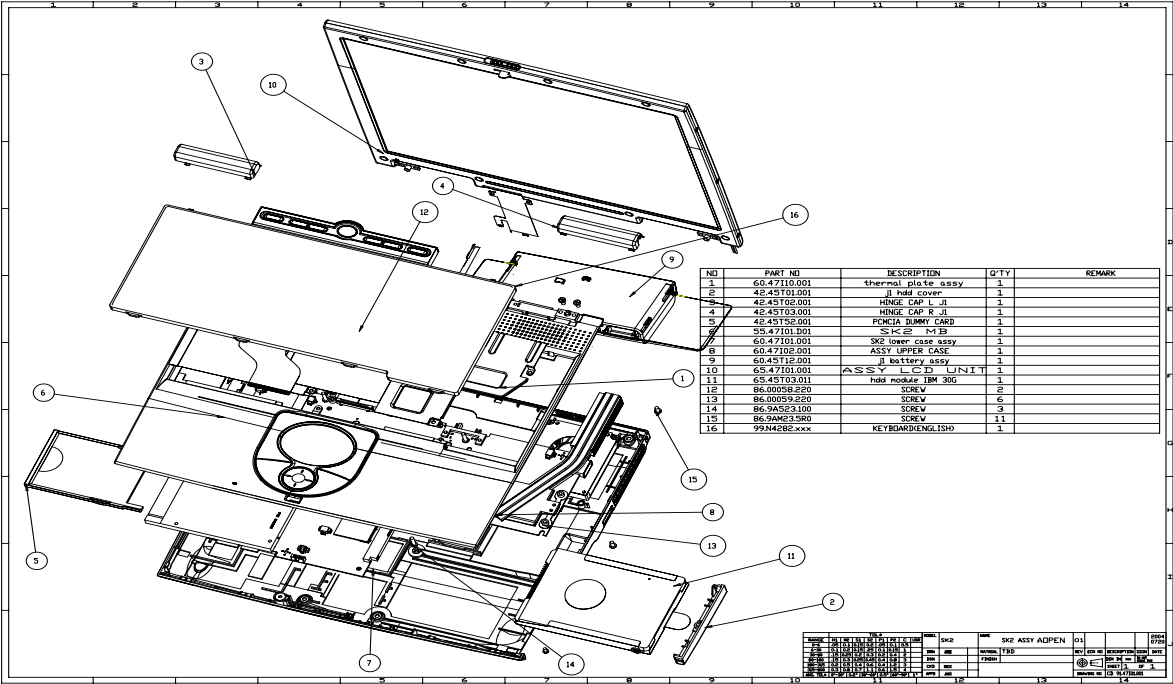
---

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of TravelMate 380. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization). Please also note that there are some common parts for TravelMate 380, yet the LCD modules are different in two model. 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.

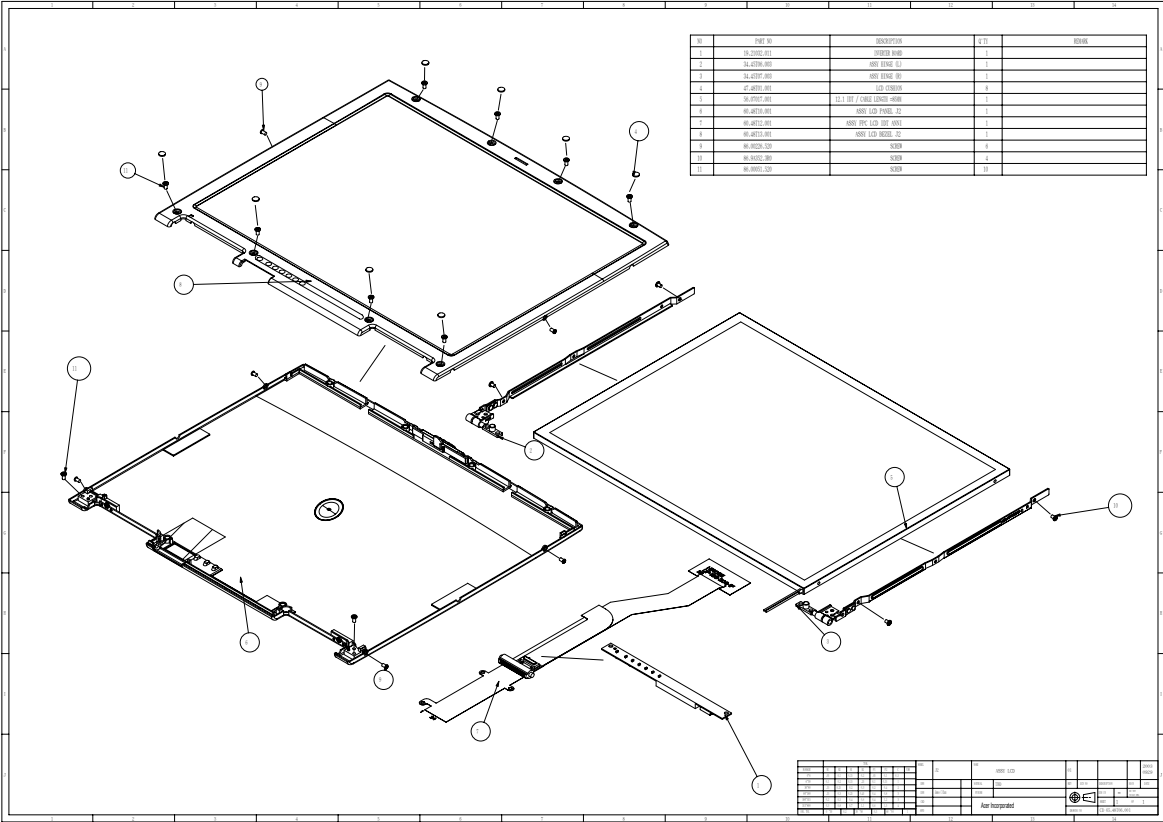
**NOTE:** To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

# Exploded Diagram

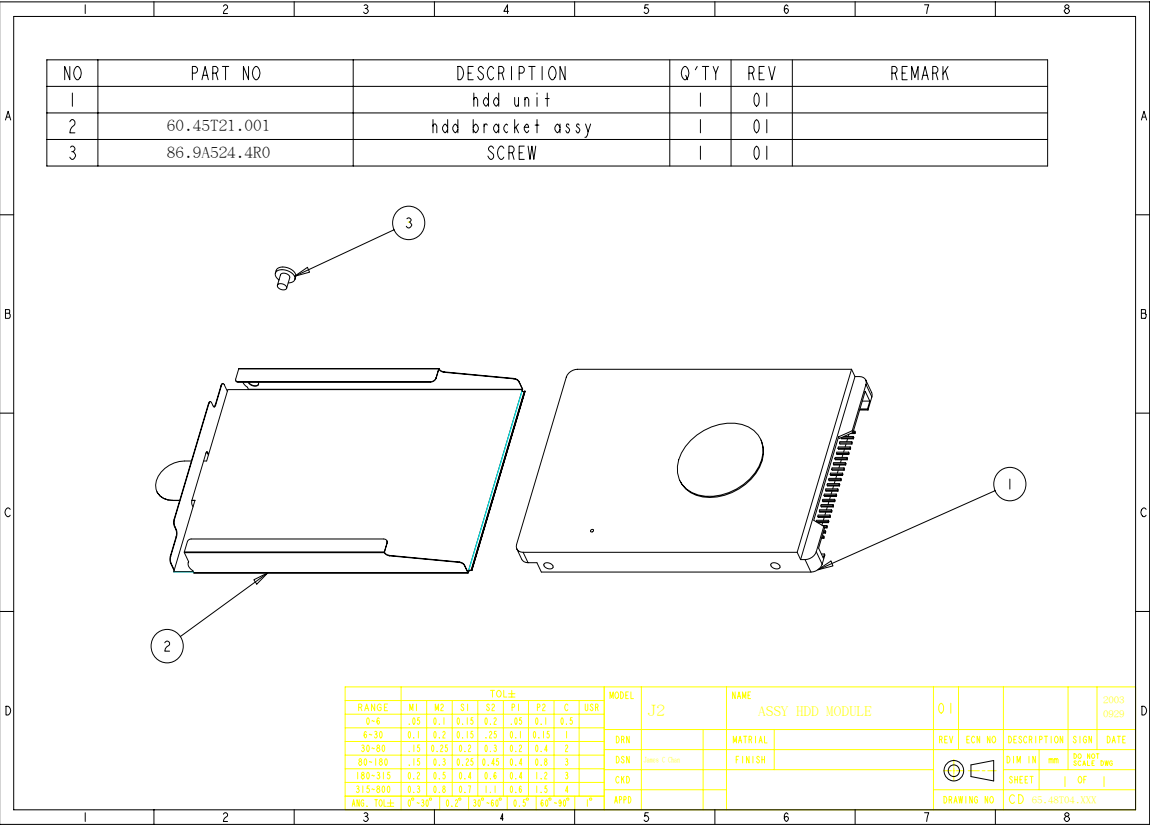
## The Unit










LCD 12.1"










HDD





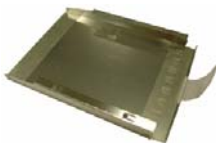



**NOTE:** Some part numbers appear on the exploded diagram are vendor's part number. Please refer to the FRU list for Acer part number.







Picture		Partname And Description	Part Number
Adapter			
		ADAPTER 70W 3PIN DELTA ADP-65DB	AP.T2101.001
Battery			
		RTC BATTERY	23.T39V1.001
		BATTERY LI-ON 6CELL 2200MAH SIMPLO BTP-73E1	BT.T5807.001
Boards			
		MODEM/BLUETOOTH BOARD AMBIT T60M665.00	54.09061.001
		MODEM BOARD AMBIT T60M283.10(01)	54.09011.544
		WIRELESS LAN BOARD 802.11BG INTEL 2200BGMW2	KI.CAX01.008
		TOUCHPAD SYNAPTICS TM41P-341	56.T39V1.001
Cables			
		TOUCHPAD CABLE	50.T39V1.001
		MODEM CABLE 2CONNECTOR 155MM	50.T39V1.006
		POWER CORD 10A 125V US	27.T30V1.001
		POWER CORD 10A 250V 3PIN ITALY	27.01518.611

Picture		Partname And Description	Part Number
		POWER CORD 10A 250V 3PIN ITALY	27.T30V1.008
		POWER CORD 10A KINGCORD DEMARK	27.T30V1.007
		POWER CORD 220V 3PIN EUR	27.T30V1.004
		POWER CORD 10A 250V 2PIN EUROPEP	27.T30V1.004
		POWER CORD 3A 250V 3PIN UK	27.01518.541
		POWER CORD 3A 250V 3PIN UK	27.T30V1.003
		POWER CORD 10A 250V 3PIN CHINA	27.01518.591
		POWER CABLE 10A 250V 1830MM CHINA	27.T30V1.002
		POWER CORD 10A 250V 3PIN BK SOUTH AFRICA	27.01518.571
		POWER CORD 10A 250V SOUTH AFRICA	27.T30V1.005
		POWER CORD 10A 250V SWISS	27.01518.581
		POWER CORD 10A 250V SWISS	27.T30V1.006
Case/Cover/Bracket Assembly			
		PCMCIA DUMMY CARD	42.T39V1.003
		HINGE CAP RIGHT	42.T39V1.001
		HINGE CAP LEFT	42.T39V1.002
		HDD COVER	42.T39V1.005
		TOUCHPAD COVER W/ SCROLL KEY BUTTOM	60.T39V1.001
		HINGE SUPPORTOR RIGHT	33.T39V1.004
		HINGE SUPPORTOR LEFT	33.T39V1.005
		LOWER CASE W/DIMM COVER & FAN & MICROPHONE & FOOT	60.T58V1.001

Picture		Partname And Description	Part Number
		CPU HEATSINK HOLDER	33.T39V1.003
Microphone			
		MICROPHONE CABLE 2PIN 40MM	23.T39V1.002
Fan			
		FAN 53*60*9MM	23.T58V1.001
Miscellaneous			
		RUBBER FOOT FRONT	47.T39V1.001
Case/Cover/Bracket Assembly			
		DIMM COVER	42.T39V1.006
		UPPER CASE W/COVER SWITCH CABLE & SPEAKER	60.T39V1.003
Cables			
		COVER SWITCH CABLE 80MM	50.T39V1.002
		SPEAKER	23.T39V1.004
Combo Module			
		CDRW/DVD COMBO DRIVE 24X 1394 AOPEN AOPEN ESV-189I/6P	KO.0240E.001
Communication Module			



Picture		Partname And Description	Part Number
		WIRELESS ANTENNA LEFT 33MM BLACK	50.T39V1.003
		WIRELESS ANTENNA RIGHT 33MM GRAY	50.T39V1.004
		BLUETOOTH ANTENNA	50.T58V1.002
DVD-RW DRIVE			
		DVD-RW DUE 2X AOPEN ESV-288I/6P 1394	KU.0020E.001
HDD/ Hard Disk Drive			
		HDD BRACKET	33.T39V1.001
		HDD 40G 4200PRM HITACHI 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 KA200A	KH.06004.003
Heatsink			
		CPU THERMAL PLATE	34.T58V1.001
		CPU HEATSINK W/O FAN	34.T39V1.002
Keyboard			
		KEYBOARD DARFON NSK-A980E ITALIAN	KB.T5807.003
		KEYBOARD DARFON NSK-A980D DANISH	KB.T5807.015
		KEYBOARD DARFON NSK-A981D US-INT	KB.T5807.006
		KEYBOARD DARFON NSK-A9802 TAIWAN	KB.T5807.018
		KEYBOARD DARFON NSK-A980S SPANISH	KB.T5807.008
		KEYBOARD DARFON NSK-A980A ARABIC	KB.T5807.016
		KEYBOARD DARFON NSK-A980Q HUNGARIAN	KB.T5807.011

Picture		Partname And Description	Part Number
		KEYBOARD DARFON NSK-A980W SWEDISH	KB.T5807.013
		KEYBOARD DARFON NSK-A980G GERMAN	KB.T5807.001
		KEYBOARD DARFON NSK-A980U UK	KB.T5807.002
		KEYBOARD DARFON NSK-A9800 SWISS	KB.T5807.005
		KEYBOARD DARFON NSK-A9806 PORTUGAL	KB.T5807.009
		KEYBOARD DARFON NSK-A982C CZECH	KB.T5807.010
		KEYBOARD DARFON NSK-A9803 THAILAND	KB.T5807.017
LCD Module			
		LCD MODULE 12.1" TFT XGA	6M.T58V1.002
		LCD/INVERTER CABLE	50.T58V1.001
		HINGE PACK 12.1" LEFT/RIGHT	6K.T58V1.001
		LCD 12.1" TFT XGA TOSHIBA LTM12C505W	LK.1210F.001
		INVERTER BOARD SUMIDA IV09117	19.T58V1.001
		LCD PANEL 12.1" W/LOGO	60.T58V1.005
		LCD BEZEL 12.1" W/ICON PLATE & NAME PLATE (ICON PRINTING)	60.T58V1.004
Main board			

Picture		Partname And Description	Part Number
		MAINBOARD SK2 1.6GMHZ (CPU ON BOARD) W/CPU HEATSINK & MODEM CABLE & RTC BATTERY	LB.T5801.002
		MAINBOARD SK2 1.5GMHZ (CPU ON BOARD) W/CPU HEATSINK & MODEM CABLE & RTC BATTERY	LB.T5801.001
Memory			
		SDIMM 256M NANYA NT256D64SH8BAGM-6K	KN.25603.009
		SDIMM 256M INFINEON HYS64D32020HDL-6-C (.11u/G)	KN.25602.012
		SDIMM 256M INFINEON HYS64D32020GDL-6-C (.11u/B)	KN.25602.022
		SDIMM 256M MICRON MT8VDDT3264HDG-335F	KN.25604.021
		SDIMM 256M SAMSUNG M470L3224FT0-CB3	KN.2560B.008
MISCELLANEOUS			
		LOGO	31.42S08.001
		LCD SCREW RUBBER	47.T39V1.003
POINTING DEVICE			
		TOUCHPAD BOARD SYNAPTICS/TM41P-341	
PCMCIA SLOT/PC CARD SLOT			
		PCMCIA SLOT/PC CARD SLOT	22.T39V1.001
Screws			
		SCREW HEX NUT W/WASHER&NYLOK #4	34.00015.221
		SCREW MACH WAFER M2*L4 NI NYLOK	86.T39V1.001
		SCREW MACH WAFER M2*L4 NI	86.T39V1.002
		SCREW MAC FLAT M2*L4 NI NYL-GRN	86.T39V1.003
		SCREW MAC FLAT M2L4.5NI NYL-BL	86.T39V1.004
		SCREW M2*L4 NI NYLOK	86.00B78.520
		SCREW M2*3 NYLON 1JMCPC-420325	86.9A352.3R0
		SCREW	86.9A352.4R0
		SCREW M2.5*4L(NYLOCK)BLACK ZN	86.9A353.4R0
		SCREW M2.5X6	86.9A353.6R0
		SCREW M3x4(86.9A524.4R0)	86.9A524.4R0
		SCREW NYLOK M2.5-5	86.9A553.5R0



## Model Definition and Configuration

### TravelMate 380 series

Model Number	CPU	LCD	ODD	Memory	HDD	Battery	Wireless LAN	Card Reader
381Ti	PM 715 (1.5GHz/ 2M)	12.1" XGA	No ODD	DDR333 1x256MB	40G	6-cell Li-Ion	11b/g	4-in-1
381TCi	PM 715 (1.5GHz/ 2M)	12.1" XGA	6 pin 1394 Combo	DDR333 2x256MB DDR333 1x256MB	40G/ 60G	6-cell Li-Ion	11b/g Modem+ BT for AAP	4-in-1 (for GC area)
382TCi	PM 725 (1.6GHz/ 2M)	12.1" XGA	6 pin 1394 Combo	DDR333 2x256MB	40GB	6-cell Li-Ion	11b/g	N/A
382TMi	PM 725 (1.6GHz/ 2M)	12.1" XGA	6 pin 1394 DVD-Dual	DDR333 2x256MB	60GB	6-cell Li-Ion	11b/g	N/A

## Test Compatible Components

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This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows XP Home environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the TravelMate 380 Compatibility Test Report released by the Acer Mobile System Testing Department.

# Microsoft Windows XP (Home) Environment Test

Item	Specifications
PC Card/Lan Card	3Com EtherLink III IBM EtherJet CardBus Adapter 10/100 Intel EtherExpress Pro/100 Mobile Adapter Xircom CardBus Ethernet 10/100 32Bit
PC Card/Modem Card	3Com Megahertz 56K Modem PC Card Xircom CreditCard Modem 56 IBM 56K Double Jack Modem
PC Card/Combo Card	3Com Megahertz 10/100 LAN + 56K Modem PC Card Xircom RealPort CardBus Ethernet 10/100 + Modem 56
PC Card/ATA Card	IBM Microdrive 340MB IBM Microdrive 1G Iomega Click! 40MB Sony Memory Stick 64MB Sandisk Flash Card 20MB Apacer SD Flash Card 128MB Transcend SD Card 32MB Hagiwara sys-com SD Card 256MB Transcend SD Card 256MB Apacer SD Card 256MB
PC Card/USB 2.0 Card	EZ-USB2.0 Cardbus PC Card DTK USB 2.0 Two Port CardBus Host Controller Adaptec USB 2CONNECT
PC Card/1394 Card	Buffalo 1394 Interface Cardbus I-O Data 1394 Interface Cardbus Pixela 1394 Interface Cardbus
PC Card/SCSI Card	Adaptec 1408A or B SCSI CB NewMedia Bus Toaster SCSI II
PC Card/Wireless Lan Card	IBM Wireless Lan Card Bus Adapter Intel Pro/Wireless Lan PC Card Proxim Skyline 802.11a Cisco Aironet 350 series Wireless Lan Card NeWeb Wireless Lan Card 802.11b
PC Card/Bluetooth Card	IBM Community Bluetooth Toshiba Bluetooth PC Card
PC Card/ISDN Card	US Robotics Megahertz 128K ISDN Card IBM OBI International ISDN PC Card
PC Card/Token Ring Card	Token Ring 16/4 Adapter li
Printer (using Infrared)	HP LaserJet 6MP use IR HP LaserJet 2200 use IR Nokia 7210
Printer/Scanner (Parallel)	Canon BJC-600J (JP OS only) Epson Stylus Color 740 (parallel interface) HP DeskJet 890C HP DeskJet 880C (parallel interface) HP LaserJet 6MP HP LaserJet 2200

Item	Specifications
IEEE 1394 ODD	Sony 830 Sony DW-U50A Mitsumi SR244W1 Matsushita SR-8177
CRT/Projector Display	Acer 211c 21" ViewSonic PF790 19" Acer FP751 17" TFT LCD IBM Color TFT LCD 14" Compaq Color Monitor V70 ?" NET Color Monitor 20" Mozo 17" TFT LCD NEC MultiSync MT-1040 (Projector)
USB Keyboard/Mouse	Chicony USB Keyboard Microsoft Natural Keyboard Pro Acer Aspire USB Mouse Logicool USB Mouse Logitech Coreless MouseMan Wheel USB interface Logitech USB Wheel Mouse Microsoft IntelliMouse Optical USB interface
USB Printer/Scanner	Epson Stylus Color 740 USB interface HP DeskJet 880C USB interface Canon CanonScan D1250 HP ScanJet 3300C Color scanner
USB Speaker/Joystick	JS USB Digital Speaker Panasonic USB Speaker EAB-MPC57USB AIWA Multimedia Digital Speaker Microsoft SideWinder Precision Pro Joystick Logitech WingMan RumblePad
USB Camera	Intel Easy PC Camera Logitech QuickCam Express Internet Logitech QuickCam Home PC Video Camera Orange Micro USB 2.0 Web Cam
USB Storage Drive	Logitec CDRW+DVDROM combo USB interface Iomega USB Zip 250MB
USB Flash Drive	IBM 32MB USB memory key Apacer USB Handy Drive 32MB Apacer USB Handy Drive 256MB
USB Hub	Belkin 4 Port USB Hub Eizo I Station USB Hub Elecom USB Hub 4 Port Sanwa USB Hub 4 Port
Wireless LAN Card	Hitachi DC-CN3300 (802.11b) Lucent RG-1000 (802.11b) Lucent WavePoint-II (802.11b) Cisco Aironet 350 (802.11b) Orinoco AP-500 (802.11b) Intel Dual Pro/Wireless 5000 (802.11a+b) Intel Pro/Wireless 5000 (802.11a)



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Item	Specifications
Bluetooth	Macwireless Bluetooth USB Dongle Compaq iPAQH5500 HP Deskjet 450WBi printer HP Deskject995 (build-in bluetooth) printer Ericson T610 Ericson Bluetooth HBH-30 Headset Motorola V600 phones with bluetooth

## Online Support Information

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

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

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

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

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

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

Also contained on this website are:

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

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



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