Acer TravelMate 3200 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

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Revision History

Please refer to the table below for the updates made on TravelMate 3200 service guide.

Date	Chapter	Updates
2004/09/30	Chapter 1 and 5	Add one power button description on board layout (top view)

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Conventions

The following conventions are used in this manual:

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

Preface

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

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

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System Specifications

Features

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

Performance

- Intel® Pentium M® processor 715, 725,735,745,755
- Intel® 855GME chipset
- 256/512 MB of DDR333 SDRAM standard, upgradeable to 2048 MB with dual soDimm modules
- 40 GB and above high-capacity, Enhanced-IDE hard disk
- Advanced Configuration Power Interface (ACPI) power management system.

Display

- The 14.1" XGA (1024x768 resolution) SXGA+ (will ship)TFT LCD panel providing a large viewing area for maximum efficiency and ease-of-use
- 3D graphics support
- TravelMate 3200 series employs ATI MOBILITY™ RADEON™ 9700 with 64MB of video memory (manufacturing option)
- Simultaneous display on LCD and CRT monitor, and other display devices like projector support
- "Automatic LCD dim" feature that automatically decides the best settings for your display and conserves pwer
- Dual indenpendent display

Multimedia

- 16-bit high-fidelity AC'97 stereo audio
- Built-in dual speakers
- Built-in microphone
- High-speed DVD/CD-RW Combo or DVD-Super Multi drive (no DVD dual)

Connectivity

- Built-in 56Kbps fax/data modem
- Integrated 10/100/1000 Mbps Fast Ethernet connection
- Fast infrared wireless communication
- Two USB 2.0 (Universal Serial Bus) ports
- IEEE 1394 port
- Invilink™ 802.11b/g or IInvilink™ 802.11a/b/g wireless LAN (manufacturing optional)
- Bluetooth ready (manufacturing optional)
- SD/MMC/MS memory card reader
- 100-pin port replicator connector

Keyboard and Pointing Device

- 84/85-key Windows keyboard
- Ergonomically-centered touchpad pointing device with scroll function

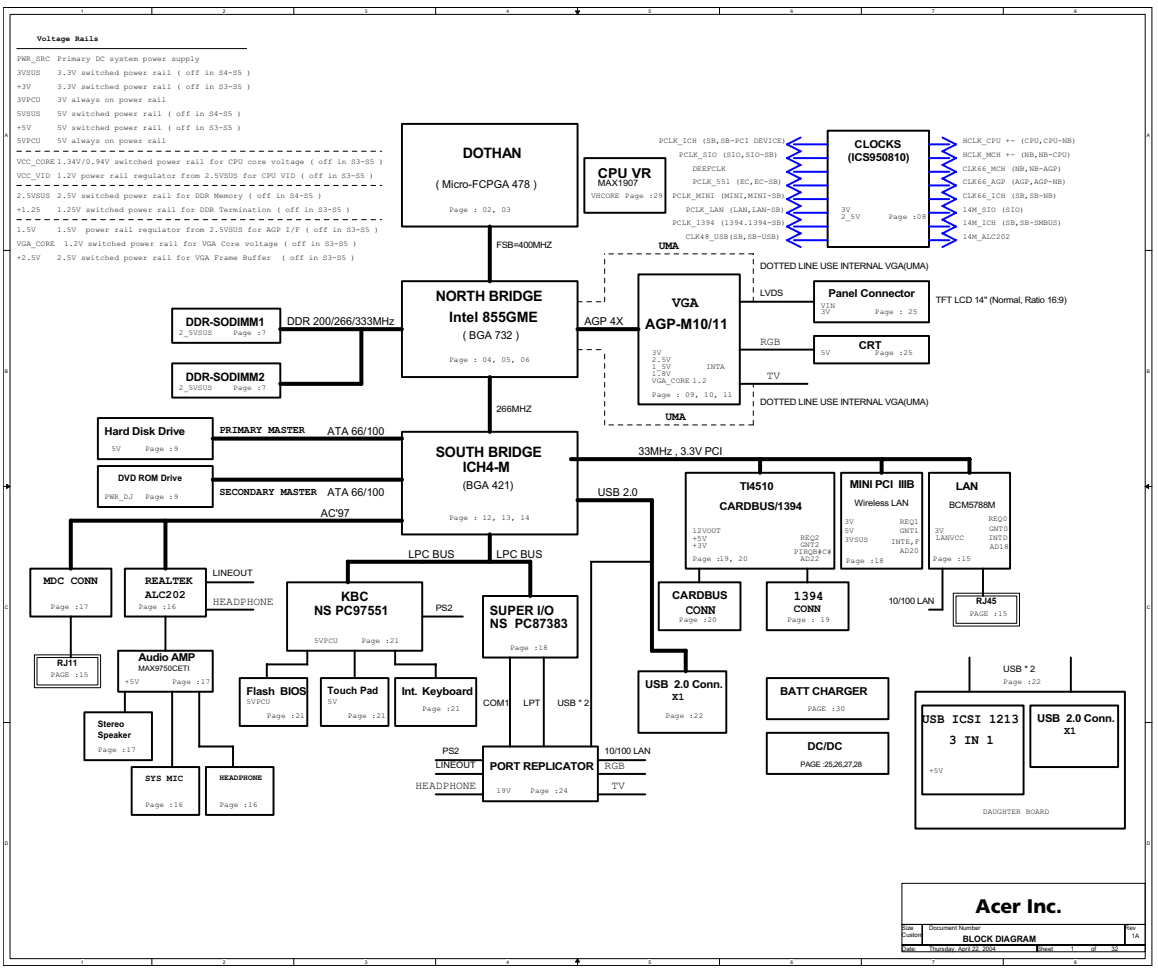
Expansion

- One Type II CardBus PC Card slot
- Upgradeable memory modules
- Acer EasyPort

I/O Ports

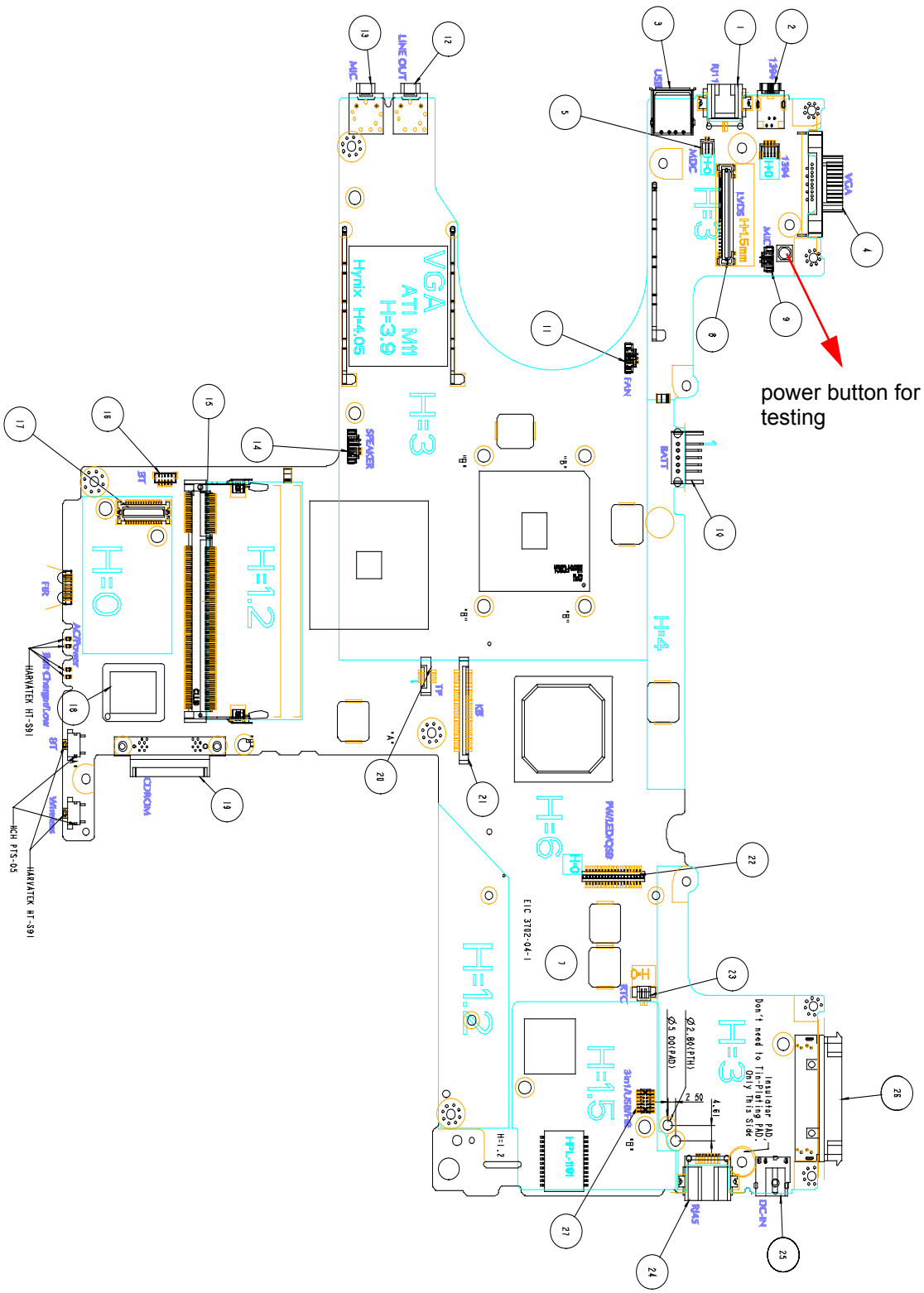
- One Type II PC Card slot
- One RJ-11 phone jack (V.90/92)
- One RJ-45 jack for LAN (Ethernet 10/100/1000 Base-T)
- One 100-pin port replicator
- One external monitor port
- One line-out jack (3.5mm minijack)
- One microphone jack (3.5mm minijack)
- One Infrared (FIR) port
- One IEEE 1394 port
- Two USB 2.0 ports
- One 3-in-1 memory card reader (MS/MMC/SD)

System Block Diagram



Board Layout

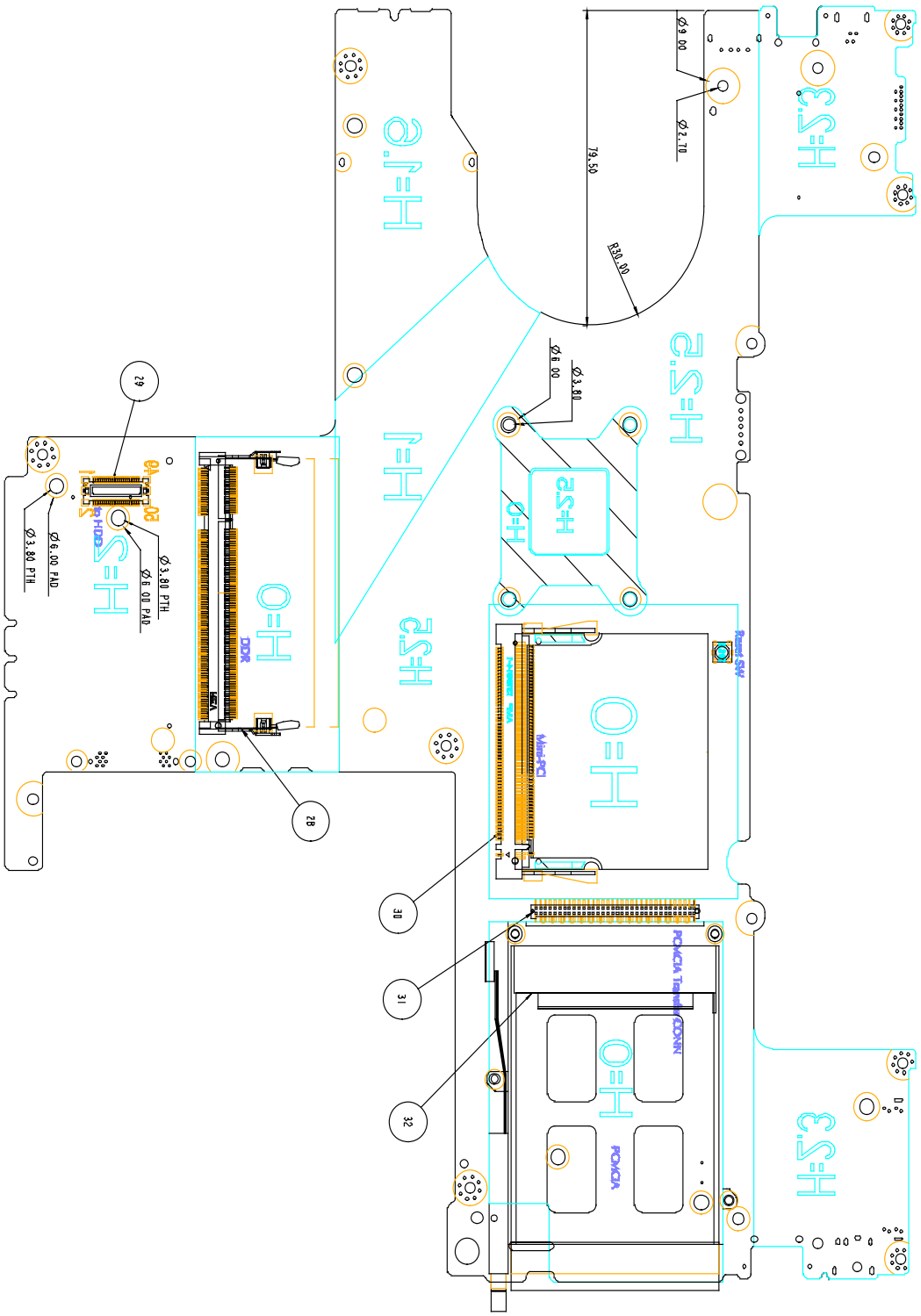
Top View



1	RJ11	16	Bluetooth Connector
2	1394 Connector	17	MDC Connector
3	USB Connector	18	BIOS Socket
4	VGA Connector	19	ODD Connector
5	Modem Cable Connector	20	Touchpad Connector
8	LCD Connector	21	Keyboard Connector
9	Internal MIC Connector	22	QSB Cable Connector
10	Battery Connector	23	RTC battery Connector
11	FAN Connector	24	RJ45 Connector
12	Line-out Connector	25	Power Jack
13	MIC Connector	26	Docking
14	Speaker Connector	27	3-in-1 Module Connector
15	DDR SO-DIMM (TOP)		

NOTE: The power button here is not the power button for end-customer. Service engineers can use this power button to see if the main board functions well. For example, if the customer can not power on the laptop, it could be launch board, launch board cable or main board problem. If you can boot up the system by pressing this power button then you know the main board works normally. The problematic part may be the launch board and the launch board cable.

Bottom View


H=9
H=3.3
H=2.5
H=1.5
H=3
H=0
Ø9.00
Ø2.70
79.50
R30.00
Ø6.00
Ø3.80
Ø6.00 PAD
Ø3.80 PTH
Ø8.00 PAD
Ø3.80 PTH
DDR
Mini-PCI
PCMCIA
29
30
31
32

28	DDR SO-DIMM (BOT)	31	PCMCIA Connector
29	HDD Connector	32	PCMCIA Slot
30	Mini-PCI Slot		

Outlook View

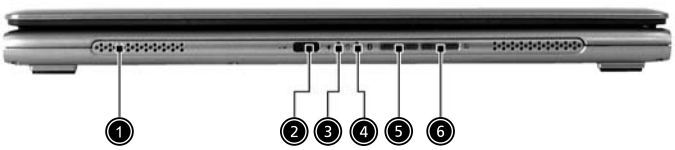
A general introduction of ports allow you to connect peripheral devices, as you would with a desktop PC.

Front Open View

#	Icon	Item	Description
1		Display screen	Also called LCD (liquid-crystal display), displays computer output.
2		Power button	Turns on the computer.
3		Status indicators	Light-Emitting Diodes (LEDs) that turn on and off to show the status of the computer's functions and components.
4		Keyboard	Inputs data into your computer.
5		Palmrest	Comfortable support area for your hands when you use the computer.
6		Click buttons (left, center and right)	The left and right buttons function 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 like a computer mouse. Turns on the computer power.
8		Launch keys	Special keys for launching Internet browser, E-mail program and frequently used programs.

9		Microphone	Internal microphone for sound recording.

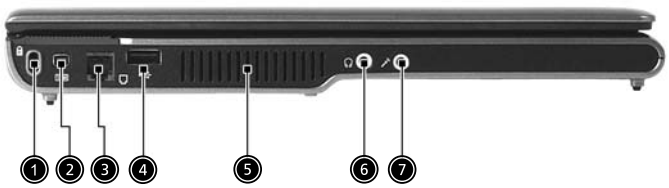
Front Closed View



#	Icon	Item	Description
1		Speakers	Left and right speakers deliver stereo audio output.
2		Infrared port	Interfaces with infrared devices (e.g., infrared printer, IR-aware computer).
3		Power indicator	Lights when the computer is on.
4		Battery indicator	Lights when the battery is being charged
5		Bluetooth communications	Indicates that (optional) Bluetooth is enabled.
6		Wireless communication	Indicates status of wireless LAN communication.

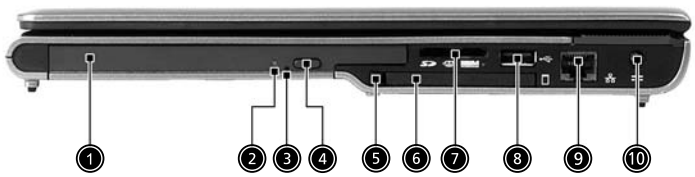
NOTE: The Bluetooth and Wireless buttons and indicators only work on models with Bluetooth and Wireless features, respectively.

Left View



#	Icon	Item	Description
1		Security keylock	Connects to a Kensington-compatible computer security lock.
2	1394	IEEE 1394 port	Connects to IEEE 1394 devices.
3		Modem jack	Connects to aphone line.
4		USB port	Connect to Universal Serial Bus (USB) 2.0 devices (e.g., USB mouse, USB camera).
5		Ventilation slots	Enable the computer to stay cool, even after prolonged use.
6		Speaker/Line-Out/ Headphone jack	Connects to audio line-out devices (e.g., speakers, headphones).
7		Microphone jack	Accepts input from external microphones or audio line-in devices (e.g., audio CD player, stereo walkman).

Right Panel



#	Icon	Item	Description
1		Optical drive	Internal optical drive; accepts CDs or DVDs depending on the optical drive type.
2		LED indicator	Lights up when the optical drive is active.
3		Emergency eject hole	Ejects the optical drive tray when the computer is turned off.
4		Optical drive eject button	Ejects the optical drive tray from the drive.
5		Eject button	Ejects the PC Card from the slot.
6		PC Card slot	Connects to one Type II CardBus PC Card.
7		3-in-1 card reader	Accepts MS, MMC and SD card. Note: The 3-in-1 card reader only supports one card at a time.
8		USB 2.0 port	Connects to Universal Serial Bus (USB) 2.0 devices (e.g., USB mouse, USB camera).
9		Network jack	Connect to an Ethernet 10/100-based network.
10		Power jack	Connects to an AC adapter.

Rear Panel

#	Icon	Item	Description
1		Expansion port	Connects to I/O port replicator or EasyPort expansion devices.
2		External display port	Connects to a display device (e.g., external monitor, LCD projector).

Bottom Panel

#	Icon	Item	Description
1		Memory compartment	Houses the computer's main memory.
2		Cooling fan	Helps keep the computer cool. Note: Don't cover or obstruct the opening of the fan.
3		Battery release latches	Unlatches the battery to remove the battery pack.
4		Battery bay	Houses the computer's battery pack.
5		Battery lock	Locks the battery in place.

Indicators

The computer has three easy-to-read status icons on the upper-left above the keyboard.

Icon	Function	Description
	Caps lock	Lights when Caps Lock is activated.
	Num lock	Lights when Num Lock is activated.
	Media Activity	Lights when the disc or AcerMedia is activated.

In addition, there are two indicators at the front panel. Even when the cover is closed, the state or features can still b seen.

Icon	Function	Description
	Power	Lights green when the power is on and orange when the computer is in standby mode.
	Battery	Lights orange when the battery is charging.

Using the Keyboard

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

Lock Keys

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

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

Embedded Numeric Keypad

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

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

Windows Keys

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

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

Hot Keys

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

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

Hot Key	Icon	Function	Description
Fn-F1	?	Hot key help	Displays help on hot keys.
Fn-F2		Acer eSetting	Launches the Acer eSetting in the Acer eManager set by the Acer Empowering key.
Fn-F3		Acer ePowerManagement	Launches the Acer ePowerManagement in the Acer eManager set by the Acer Empowering key.
Fn-F4	z z	Sleep	Puts the computer in Sleep mode.
Fn-F5		Display toggle	Switches display output between the display screen, external monitor (if connected) and both the display screen and external monitor.
Fn-F6		Screen blank	Turns the display screen backlight off to save power. Press any key to return.
Fn-F7		Touchpad toggle	Turns the internal touchpad on and off.
Fn-F8		Speaker toggle	Turns the speakers on and off.
Fn-		Volume up	Increases the speaker volume.

Hot Key	Icon	Function	Description
Fn-		Volume down	Decreases the speaker volume.
Fn-		Brightness up	Increases the screen brightness.
Fn-		Brightness down	Decreases the screen brightness
Alt Gr-Euro		Euro	Types the Euro symbol.

The Euro Symbol

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 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 for more information.

Launch Keys

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

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

Launch Key	Default application
Email	Email application (user programmable)
Web browser	Internet browser application (user programmable)
e	Acer EManager application (user-programmable)
P	User-programmable

In addition, there are two launch keys at the front panel. Even when the cover is closed, you can easily access the features of Wireless and Bluetooth. However, the Wireless and Bluetooth keys cannot be set by users.

Description	Default application
Bluetooth communications	Lights to indicate the status of Bluetooth (optional) communications.
Wireless communication	Lights to indicate the status of wireless LAN (optional) communications.

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 optimal comfort and support.

NOTE: If you are using an external USB mouse, you can press **Fn-F7** to disable the touchpad.

Touchpad Basics

The following teaches 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 (top/bottom/left/and right) to scroll.

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

Function	Left Button	Right Button	Scroll Button	Tap
Scroll			Click and hold the button in the desired direction (up/ down/left/right)	

NOTE: Keep your fingers dry and clean when using the touchpad. Also keep the touchpad dry and clean. The touchpad is sensitive to finger movements. Hence, the lighter the touch, the better the response. Tapping too hard will not increase the touchpad's responsiveness.

Hardware Specifications and Configurations

Processor

Item	Specification
CPU type	Intel Pentium M processor at 1.5~2.0GHz (Dothan)
Core logic	Intel 855GME+ICH4M
CPU package	Intel socketable 478pin Micro-BGA
CPU core voltage	1.308V (highest frequency mode) to 0.956V (low frequency mode) 0.748V (deeper sleep mode)

BIOS

Item	Specification
BIOS vendor	Phneoix
BIOS Version	3A01
BIOS ROM type	Flash ROM
BIOS ROM size	512KB
BIOS package	32-pin PLCC
Supported protocols	ACPI 2.0, PC Card 95, SM BIOS 2.0, IEEE1284-ECP/EPP, PCI 2.2, PnP 1.0a, DMI 2.0, PS/2 keyboard and mouse, USB 2.0, VGA BIOS, CD-ROM bootable, IEEE 1394
BIOS password control	Set by setup manual

Second Level Cache

Item	Specification
Cache controller	Built-in CPU
Cache size	2MB for Intel Pentium M processor at 1.5~2.0GHz (Dothan)
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 855GME built-in
Memory size	0MB (no on-board memory)
DIMM socket number	2 sockets
Supports memory size per socket	1024MB
Supports maximum memory size	2G (by two 1024MB SO-DIMM module)
Supports DIMM type	DDR Synchronous DRAM
Supports DIMM Speed	333 MHz
Supports DIMM voltage	2.5V and 1.25V
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
0MB	128MB	128MB
0MB	256MB	256MB
0MB	512MB	512MB
0MB	1024MB	1024MB
128MB	128MB	256MB
128MB	256MB	384MB
128MB	512MB	640MB
128MB	1024MB	1152MB
256MB	128MB	384MB
256MB	256MB	512MB
256MB	512MB	768MB
256MB	1024MB	1280MB
512MB	128MB	640MB
512MB	256MB	768MB
512MB	512MB	1024MB
512MB	1024MB	1536MB
1024MB	0MB	1024MB
1024MB	128MB	1125MB
1024MB	256MB	1280MB
1024MB	512MB	1536MB
1024MB	1024MB	2048MB

NOTE: Above table lists some system memory configurations. You may combine DIMMs with various capacities to form other combinations. On above table, the configuration of slot 1 and slot 2 could be reversed.

LAN Interface

Item	Specification
Chipset	BroadCom BCM5705M
Supports LAN protocol	10/100/1000Mbps
LAN connector type	RJ45
LAN connector location	Right panel
Features	Integrated 10/100/1000 BASE-T transceiver Wake on LAN support compliant with ACPI 2.0 PCI v2.2

IR Interface

Item	Specification
Part name	VISHAY TFU6102F
Package	8-pin SMT type
Performance	4Mbit/s
Compliant	IrDA 1.1

Modem Interface

Item	Specification
Data modem data baud rate (bps)	56K

Modem Interface

Item	Specification
Supports modem protocol	V.90/V.92
Modem connector type	RJ11
Modem connector location	Left panel

Bluetooth Interface

Item	Specification
Chipset	Broadcom BCM2035
Data throughput	200k bps
Protocol	Bluetooth 1.1 (Upgradeable to Bluetooth 1.2 when SIG specification is ratified).
Interface	USB 1.1

Wireless Module 802.11b (optional device)

Item	Specification
Chipset	Intel
Data throughput	11M bps
Protocol	802.11b
Interface	Mini-PCI type II

Wireless Module 802.11b/g (optional device)

Item	Specification
Chipset	Intel
Data throughput	11M~54M bps
Protocol	802.11 b+g
Interface	Mini-PCI type II

3-in-1 card reader

Item	Specification
Chipset	ICSI1213-F64TQ
Protocol	support Smart Media, Multi-Media Card and Security Digital

Hard Disk Drive Interface

Item	Specification			
Vendor & Model Name	HGST HTS424030M9AT00/ Toshiba Pluto MK3025GAS/	HGST HTS424040M9AT00/ Toshiba Pluto MK4025GAS/	HGST MORAGA IC25N060ATMR04-0 Toshiba Pluto MK6025GAS	HGST MORAGA IC25N080ATMR04-0 Toshiba Pluto MK8025GAS
Capacity (MB)	30000	40000	60000	80000
Bytes per sector	512	512	512	512
Data heads	2	2	3/4 (for Toshiba)	4
Drive Format				
Disks	1	1	2	2
Spindle speed (RPM)	4200 RPM	4200 RPM	4200 RPM	4200 RPM

Hard Disk Drive Interface

Item	Specification			
Performance Specifications				
Buffer size	2048KB/	2048KB	8192KB	8192KB
Interface	ATA/ATAPI-6; ATA-6	ATA/ATAPI-6; ATA-6	ATA/ATAPI-6; ATA-6	ATA/ATA-6; ATA-6
Max. media transfer rate (disk-buffer, Mbytes/s)	372	372	350	350
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%

Combo Drive Interface

Item	Specification
Vendor & model name	DVD/CDRW PANASONIC UJDA-755(24x24x8x24x)
Performance Specification	
Transfer rate (KB/sec) (1) Read DVD-ROM DVD-R CD-ROM (2) Write CD-R CD-RW HS-RW US-RW (3) ATAPI Interface PIO mode DMA mode Ultra DMA mode	 MAX 8X CAV (MAX 10800kB/s) MAX 4X CAV (MAX 5400kB/s) MAX 24X CAV (MAX 3600kB/s) 4X, 8X (CLV), MAX. 24X(ZCLV) 4X (CLV) 4X, 8X, 10X (CLV) 8X, 10X(CLV), MAX. 16X (ZCLV) 16.6MB/s: PIO mode4 16.6MB/s: Multi word mode2 33.3MB/s: Ultra DMA mode2
Buffer Memory	2MB
Interface	Enhanced IDE(ATAPI) compatible
Applicable disc format	DVD: DVD-ROM, DVD-Video, DVD-RAM, (2/6GB/4.7GB), DVD-R, DVD-RW (ver1.1) (supporting Multi Border) CD: CD-DA, CD-ROM, CD-R/W CD-ROM XA(except ADPCM), PhotoCD (Multi Session), Video CD, CD-Extra (CD+), CD-text
Loading mechanism	Load: Manual Release: (a) Electrical Release (Release Button) (b) Release by ATAPI command (c) Emergency Release
Power Requirement	
Input Voltage	5 V +/- 5 % (Operating)

Audio Interface

Item	Specification
Audio Controller	RealTek ALC202
Audio onboard or optional	Built-in
Mono or Stereo	Stereo

Audio Interface

Item	Specification
Resolution	20 bit stereo Digital to analog converter 18 bit stereo Analog to Ditial converter
Compatibility	AC97
Mixed sound source	Line-in, CD
Voice channel	8/16-bit, mono/stereo
Sampling rate	44,1 KHz (48K byte for AC97 interface)
Internal microphone	Yes
Internal speaker / Quantity	Yes/2

Audio Jack

Item	Specification
Number of audio jack	2
Rated input	1W
Connector type	Headphone out, microphone in

Video Interface

Item	Specification
Chipset	ATI Mobility RADEON 9700(ATI M11)
Package	BGA 667 pin
Interface	AGP 4X
Supports ZV (Zoomed Video) port	Yes

Video Memory

Item	Specification
Chipset	ATI Mobility RADEON 9700(ATI M11)
Memory size	64MB (memory on chip) but the chipset ATI M11 can also support VGA memory size to 128MB
Interface	DDR

USB Port

Item	Specification
Chipset	ICH4-M
USB Compliancy Level	2.0
OHCI	USB 2.0
Number of USB port	2
Location	one on the right side; one on the left side
Serial port function control	Enable/Disable by BIOS Setup

IEEE 1394 Port

Item	Specification
Chipset	TI PCI4510
Number of IEEE 1394 port	1

IEEE 1394 Port

Item	Specification
Location	Left side
Connector type	IEEE 1394

PCMCIA Port

Item	Specification
PCMCIA controller	TI PCI4510
Supports card type	Type-II
Number of slots	One type-II
Access location	Right panel
Supports ZV (Zoomed Video) port	Yes
Supports 32 bit CardBus	Yes

System Board Major Chips

Item	Controller
Core logic	Intel 855GME+ICH4-M
VGA	ATI Mobility RADEON 9700
LAN	BroadCom BCM5705M
IEEE 1394	TI PCI4510
USB 2.0	ICH4-M
Super I/O controller	NS 87383
MODEM	International LU97 Chipset (Scorpio+CSP1037B)
Bluetooth	Broadcom BCM2035
Wireless 802.11 b	Intel
Wireless 802.11 b+g	Intel
PCMCIA	TI PCI4510
Audio	RealTek ALC202
3-in-1 card reader	ICSI1213-F64TQ

Keyboard

Item	Specification
Keyboard controller	NS PC97551
Total number of keypads	84-/85-key
Windows logo key	Yes
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	Sanyo SMP
Battery Type	Li-ion
Pack capacity	4800 mAh

Battery

Item	Specification
Number of battery cell	6
Package configuration	3 cells in series, 2 series in parallel
Normal voltage	14.4V
Charge voltage	19+-0.2V

LCD

Item	Specification	
Vendor & model name	AU B141XG05	CMO N141XB-L01
Screen Diagonal (mm)	357(14.1inch)	14inch
Active Area (mm)	285.7(H)x214.3(V)	285.7(H)x214.3(V)
Display resolution (pixels)	XGA (1024x768)	XGA (1024x768)
Pixel Pitch	0.279(H)x0.279(H)mm	0.279(H)x0.279(H)mm
Pixel Arrangement	RGB vertical stripe	RGB vertical stripe
Display Mode	Normally white	Normally white
Typical White Luminance (cd/m^2) also called Brightness	150	130(min)/160(typ)
Luminance Uniformity	1.2(5 points) 1.5(13 points)	not show
Contrast Ratio	250 (min)/ 300 (typ)	300(min)/450(typ)
Response Time (Optical Rise Time/Fall Time)msec	15/10	6/17(typ) 10/25(max)
Nominal Input Voltage VDD	+3.3V	not show
Typical Power Consumption (watt)	5.3	4.03 (for backlight unit)
Weight	400g (w/o inverter)	420
Physical Size(mm)	299(W)x228(H)x5.5(D)	299(W)x228(H)x5.2(D)
Electrical Interface	R/G/B Data, 3Sync, Signals, Clock (4 pairs LVDS)	1 channel LVDS
Support Color	Native 262K colours	262K colours
Viewing Angle (degree) Horizontal: Right/Left Vertial: Upper/Lower	 45/45 15/35	 45/45 15/35
Temperature Range(° C) Operating Storage (shipping)	 0 to 50 -20 to -60	 0 to 50 -20 to -60

LCD Inverter

Item	Specification
Vendor & model name	QCI: 34KT1IV0001
Brightness conditions	Vadj=3.3V
Input voltage (V)	14.4
Input current (mA)	410 (max)
Output voltage (V, rms)	1400 (no load)
Output current (mA, rms)	5.6~5.4
Output voltage frequency (k Hz)	55~58K Hz

AC Adaptor

Item	Specification
Input rating	90VAC to 264VAC, 47Hz to 63Hz
Maximum input AC current	3.16A
Inrush current	50A@115VAC 100A@230VAC
Efficiency	83% min. @115VAC input full load

System Power Management

ACPI mode	Power Management
Mech. Off (G3)	All devices in the system are turned off completely.
Soft Off (G2/S5)	OS initiated shutdown. All devices in the system are turned off completely.Support LAN and modem ring wake up
Working (G0/S0)	Individual devices such as the CPU and hard disc may be power managed in this state.
Suspend to RAM (S3)	CPU Power Down VGA Power Down PCMCIA Power Down Audio Power Down Hard Disk Power Down CD-ROM Power Down Super I/O Power Down DRAM suspand Support LAN and modem ring wake up
Save to Disk (S4)	Also called Hibernate state. System saves all system states and data onto the disc prior to power off the whole system.

System Utilities

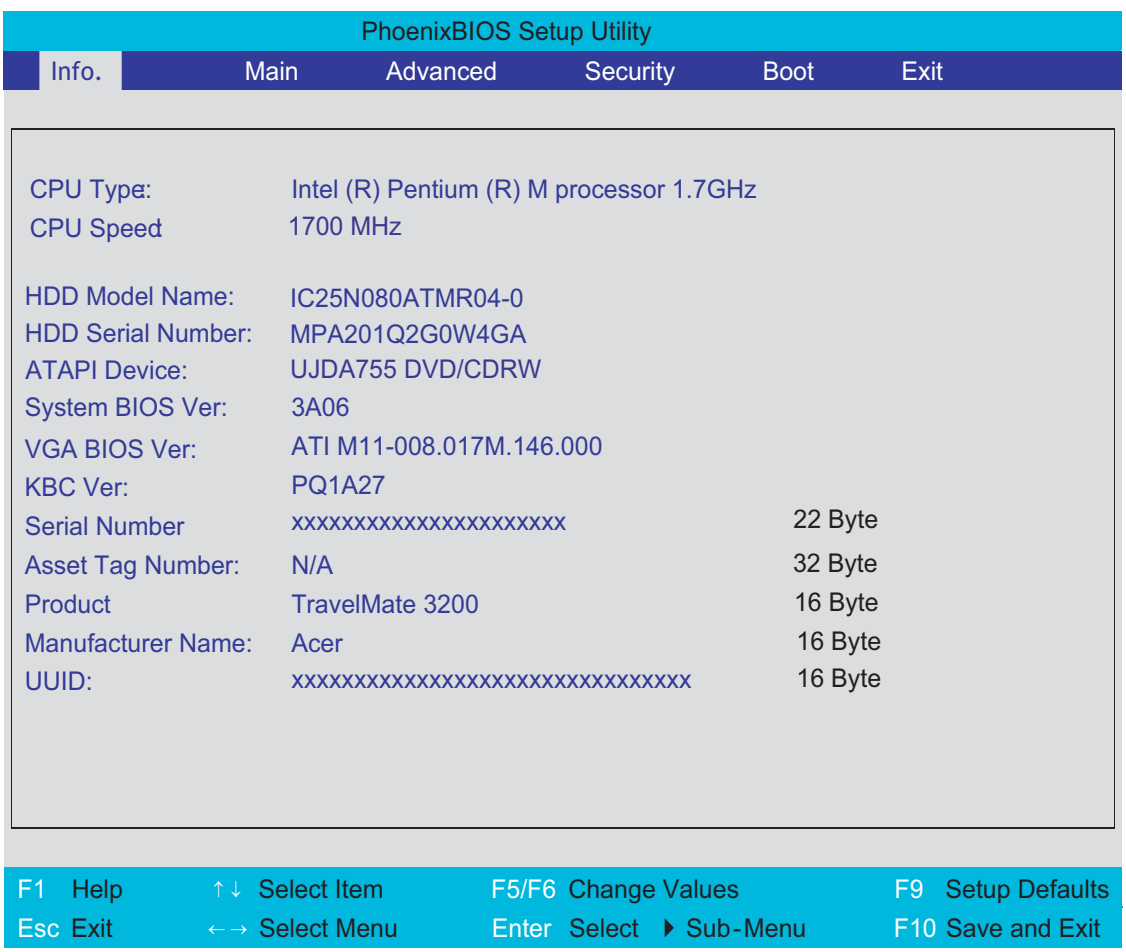
BIOS Setup Utility

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.



Navigating the BIOS Utility

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

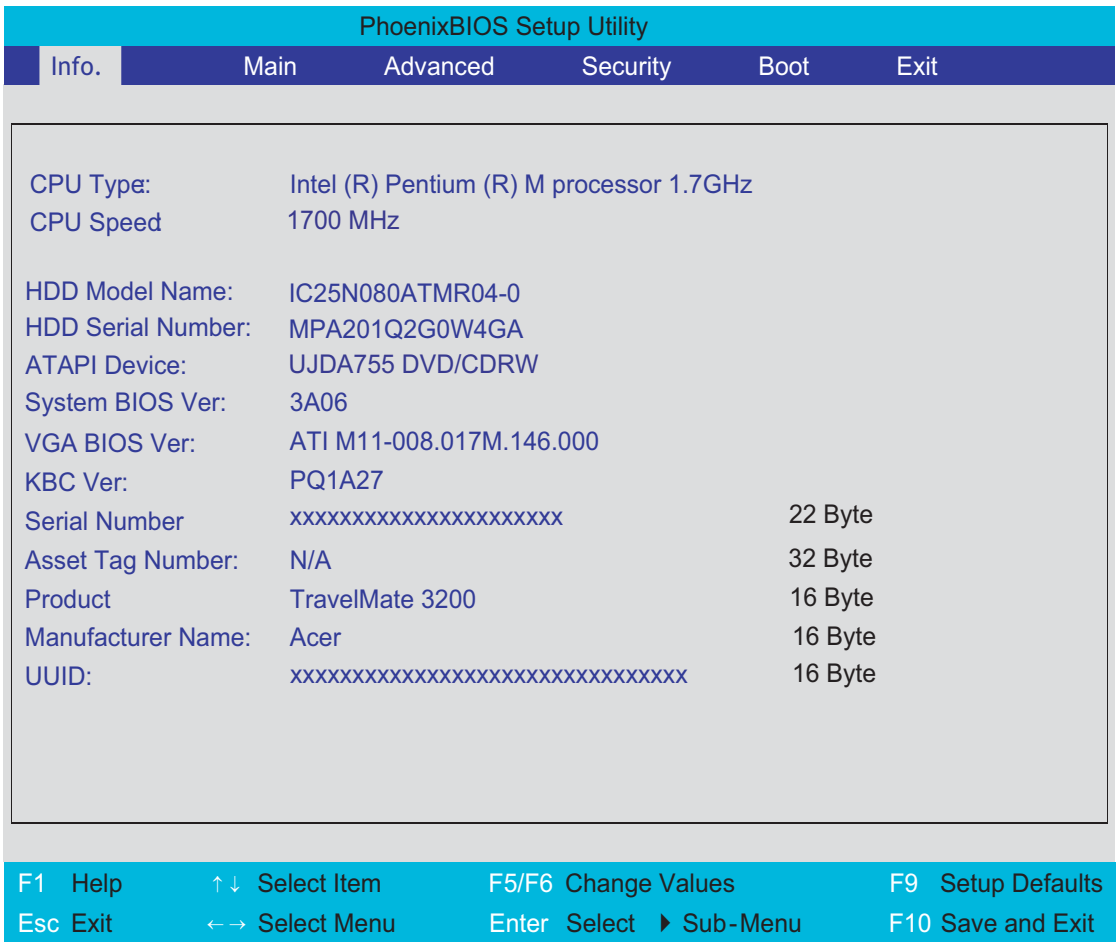
Follow these instructions:

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

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

This menu provides you the information of the system.

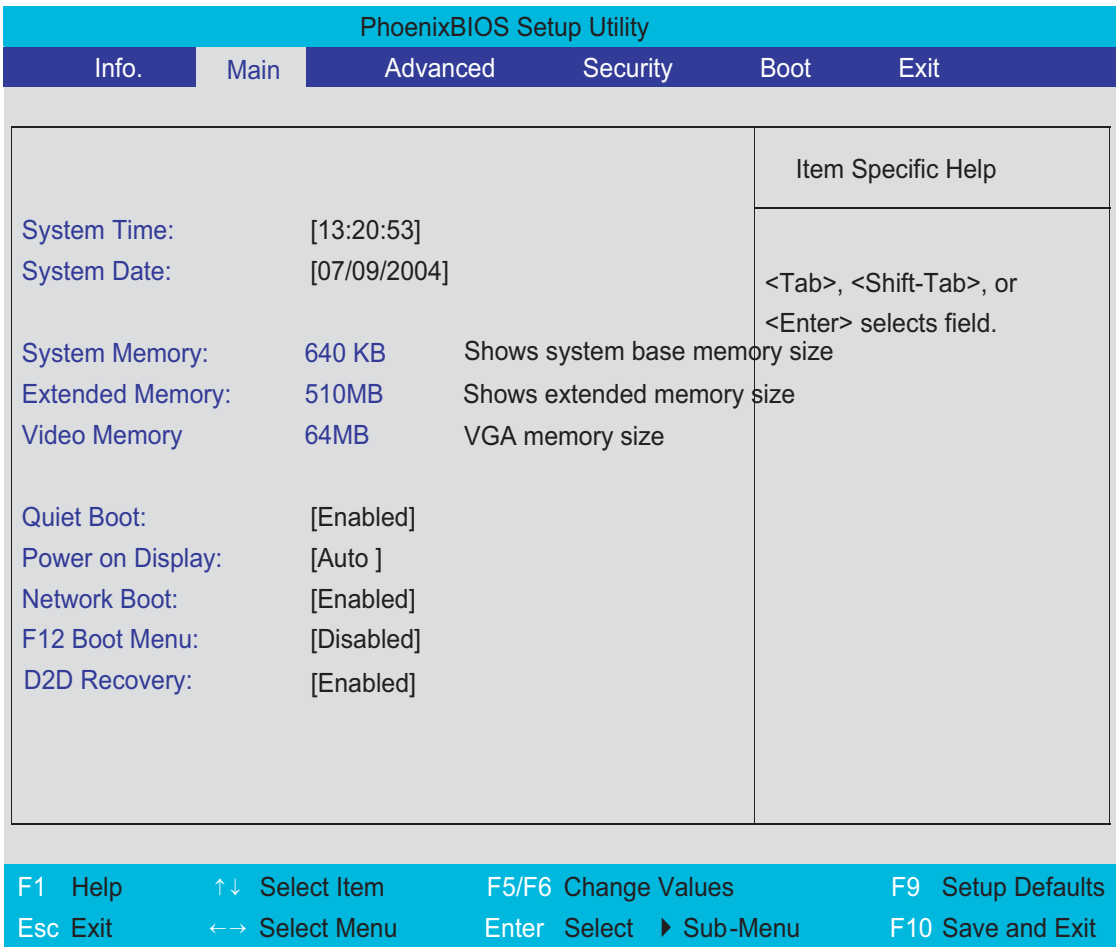
Information



Parameter	Description
IDE1 Model Name	This field displays the model name of HDD installed on Primary IDE master. The system can automatically detect the hard disc model name. If there is no hard disc drive or unknown type, this field would display “None”.
IDE1 Serial Number	This field shows the serial number of HDD installed on Primary IDE master. If no hard disc drive or other devices are installed, this field would display a blank line.
IDE2 Model Name	This field displays the model name of HDD installed on Secondary IDE master. The system can automatically detect the hard disc model name. If there is no hard disc drive or unknown type, this field would display “None”.
Serial Number	This field shows the serial number of HDD installed on Secondary IDE master. If no hard disc drive or other devices are installed, this field would display a blank line.
UUID	This will be visible only when there is an internal LAN device present.

Main

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



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

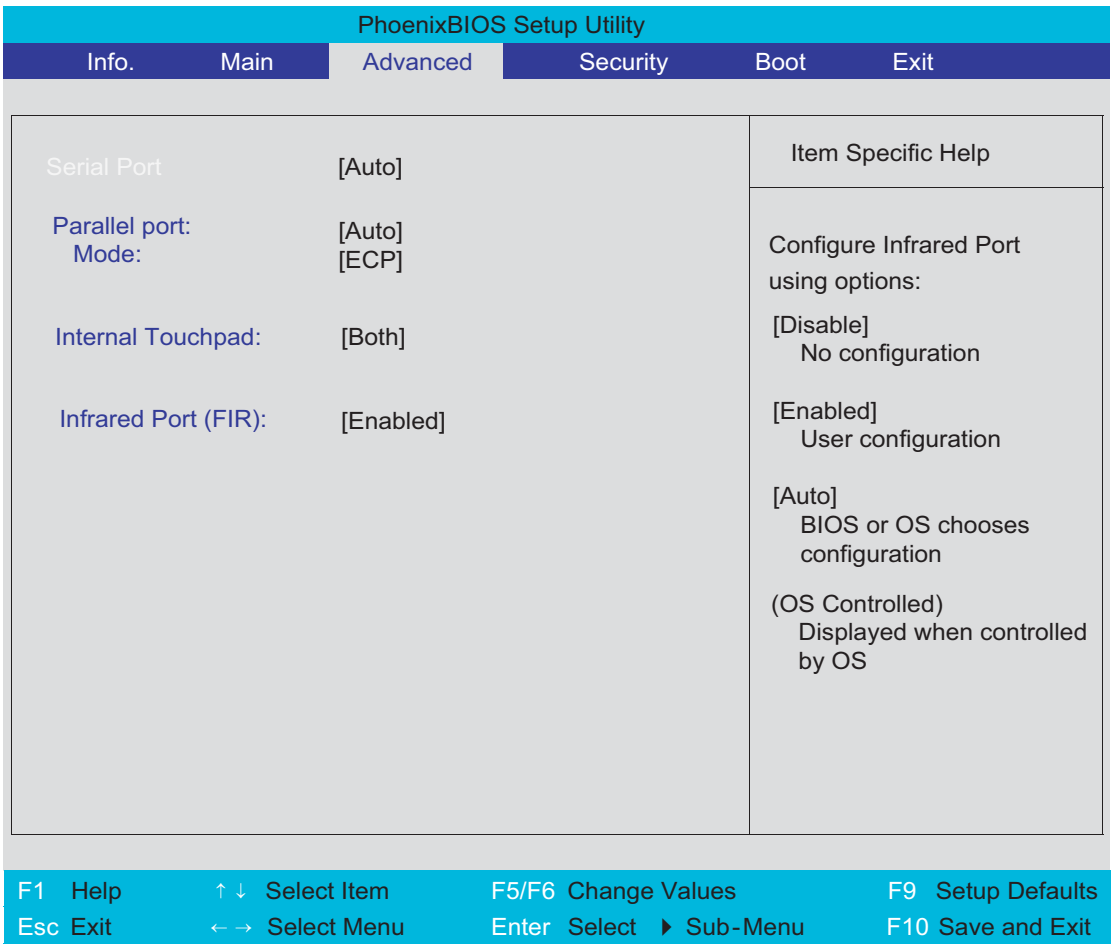
The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Format/Option
System Time	Sets the system time.	Format: HH:MM:SS (hour:minute:second) System Time
System Date	Sets the system date.	Format MM/DD/YYYY (month/day/ year) System Date
System Memory	This field reports the memory size of the system. Memory size is fixed to 640KB	
Extended Memory	This field reports the memory size of the extended memory in the system. Extended Memory size=Total memory size-2MB	
Video Memory	Shows the VGA memory size. The default value is set to 64MB	
Quiet Boot	Determines if Customer Logo will be displayed or not; shows Summary Screen is disabled or enabled. Enabled: Customer Logo is displayed, and Summary Screen is disabled. Disabled: Customer Logo is not displayed, and Summary Screen is enabled.	Option: **Enabled** or Disabled
Power on display	Auto: During power process, the system will detect if any display device is connected on external video port. If any external display device is connected, the power on display will be in CRT (or projector) only mode. Otherwise it will be in LCD only mode. Both: Simultaneously enable both the integrated LCD screen and the system's external video port (for an external CRT or projector).	Option: **Auto** or Both
LCD Auto Dim	Determines if the system will automatically dim the LCD brightness in order to save power when AC is not present.	Option: **Enabled** or Disabled
D2D Recovery	Enables, disables D2D Recovery function. The function allows the user to create a hidden partition on hard disc drive to store operation system and restore the system to factory defaults.	Option: **Enabled** or Disabled

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

Advanced

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

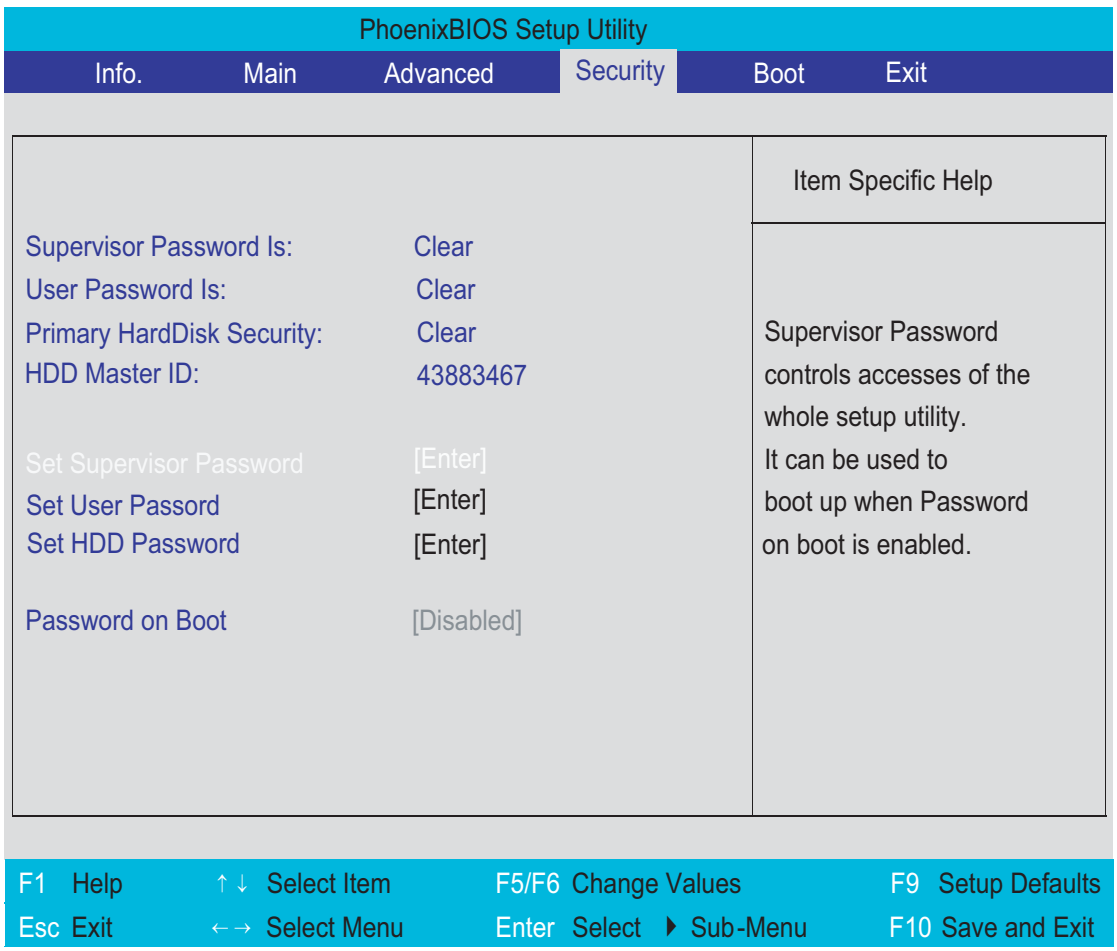


The table below describes the parameters in the screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Options
Parallel Port	Enables, disables or auto detects the parallel port.	**Enabled**/Disabled/Auto
Mode	Sets the operation mode of the parallel port.	**ECP**, EPP, Normal or Bi-directional
Base I/O address	Sets the I/O address of the parallel port. This parameter is enabled only if Mode is set to ECP or Bi-directional. This parameter is enabled only if Mode is set to ECP.	**378h**/278h/3BCH
Interrupt	Sets the interrupt request of the parallel port.	**IRQ7**/IRQ5
DMA channel	Sets a DMA channel for the printer to operate in ECP mode. This parameter is enabled only if Mode is set to ECP.	**DMA3**/DMA1
Internal Touchpad	Determines whether or not to disable the internal pointing device as the PS/2 mouse is connected.	**Both** or Auto
Infrared Port (FIR)	Enables, disables or auto detects the infrared port.	**Disabled**/EnabledDisabled/Auto

Security

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



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

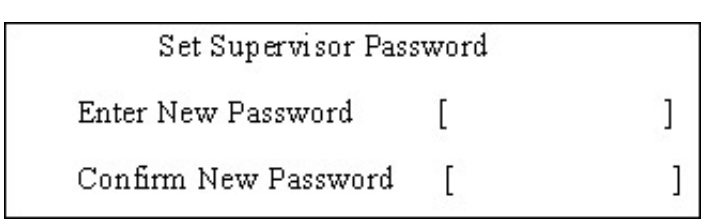
Parameter	Description	Option
Supervisor Password is	Shows the setting of the supervisor password.	**Clear** or Set
User Password is	Shows the setting of the uer password.	**Clear** or Set
Set Supervisor Password	Press Enter to set the supervisor password. When set, this password protects the BIOS Setup Utility from unauthorized access. The user can not either enter the Setup menu nor change the value of parameters.	
Set User Password	Press Enter to set the user password. When user password is set, this password protects the BIOS Setup Utility from unauthorized access. The user can enter Setup menu only and does not have right to change the value of parameters.	
Primary Harddisk Security	This feature is available to user when Supervisor password is set. Password can be written on HDD only when Supervisor password or user password is set and password on HDD is set to enabled. Supervisor Password is written to HDD only when Supervisor password is being set. User password is written to HDD when both passwords are set. When both Supervisor and user password are present, both passwords can unlock the HDD.	
Password on Boot	Defines whether a password is required or not while the events defined in this group happened. The following sub-options are all requires the Supervisor password for changes and should be grayed out if the user password was used to enter setup.	**Disabled** or Enabled

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

Setting a Password

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

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



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

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

3. Press ENTER.

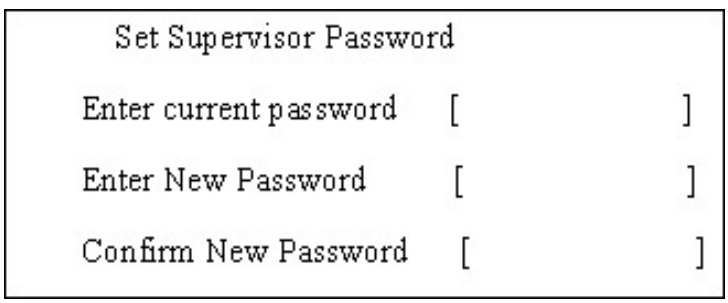
After setting the password, the computer sets the User Password parameter to “Set”.

4. If desired, you can opt to enable the Password on boot parameter.
5. When you are done, press F10 to save the changes and exit the BIOS Setup Utility.

Removing a Password

Follow these steps:

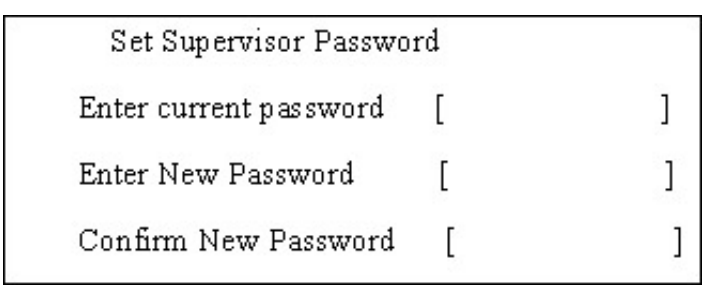
1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the ENTER key. The Set Password box appears:



2. Type the current password in the Enter Current Password field and press ENTER.
3. Press ENTER 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 F10 to save the changes and exit the BIOS Setup Utility.

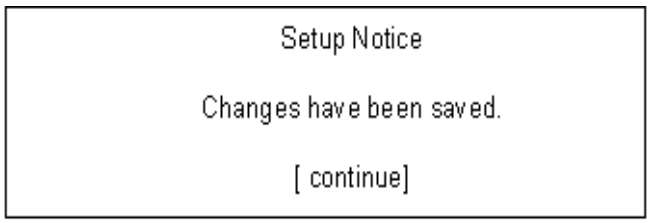
Changing a Password

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



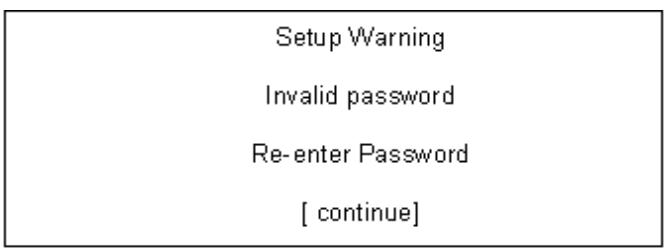
2. Type the current password in the Enter Current Password field and press ENTER.
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
4. Press ENTER. After setting the password, the computer sets the User Password parameter to “Set”.
5. If desired, you can enable the Password on boot parameter.
6. When you are done, press F10 to save the changes and exit the BIOS Setup Utility.

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

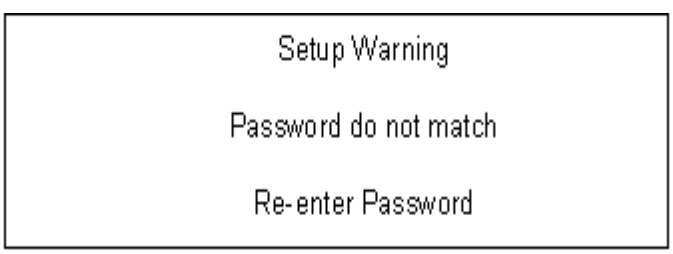


The password setting is complete after the user presses F10.

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

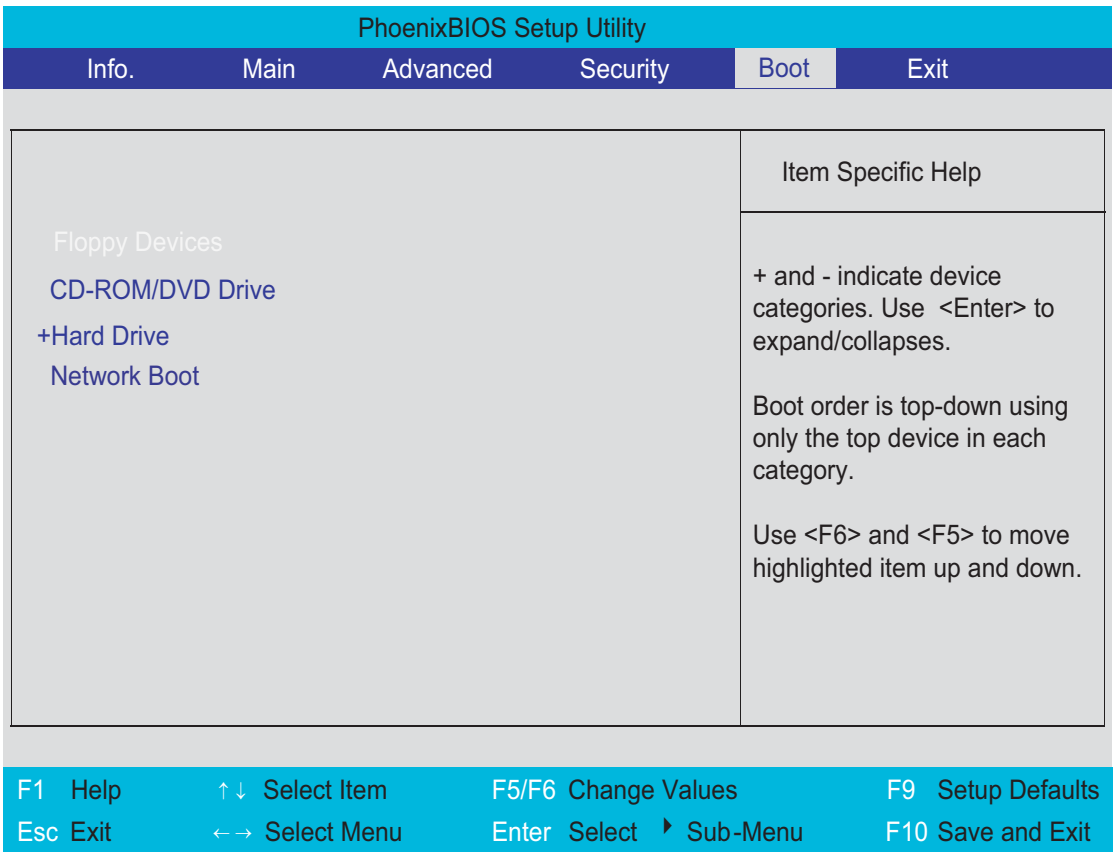


If the new password and confirm new password strings do not match, the screen will display the following message.



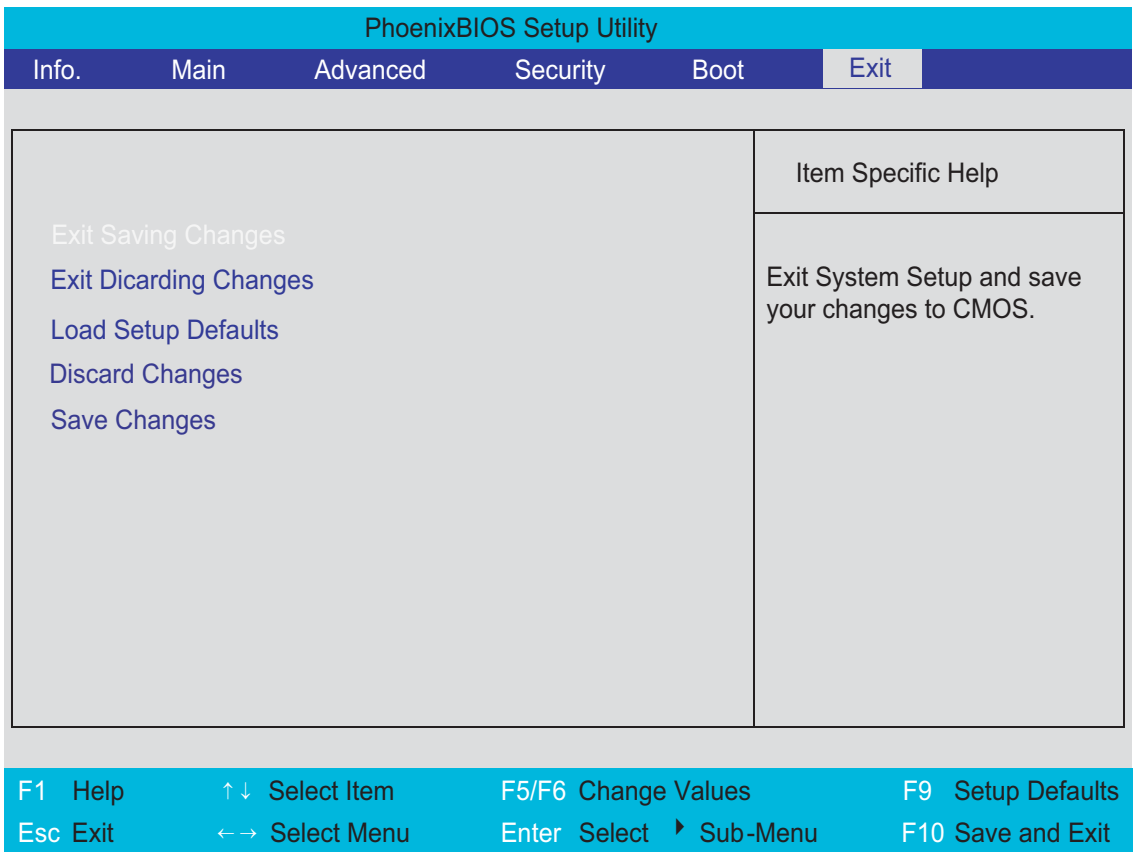
Boot

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



Exit

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



The table below describes the parameters in this screen.

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

BIOS Flash Utility

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

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

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

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

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

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

Fellow the steps below to run the Phlash.

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

Machine Disassembly and Replacement

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

To disassemble the computer, you need the following tools:

- Wrist grounding strap and conductive mat for preventing electrostatic discharge
- Small Philips screw driver
- Philips screwdriver
- Plastic flat head screw driver
- 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:

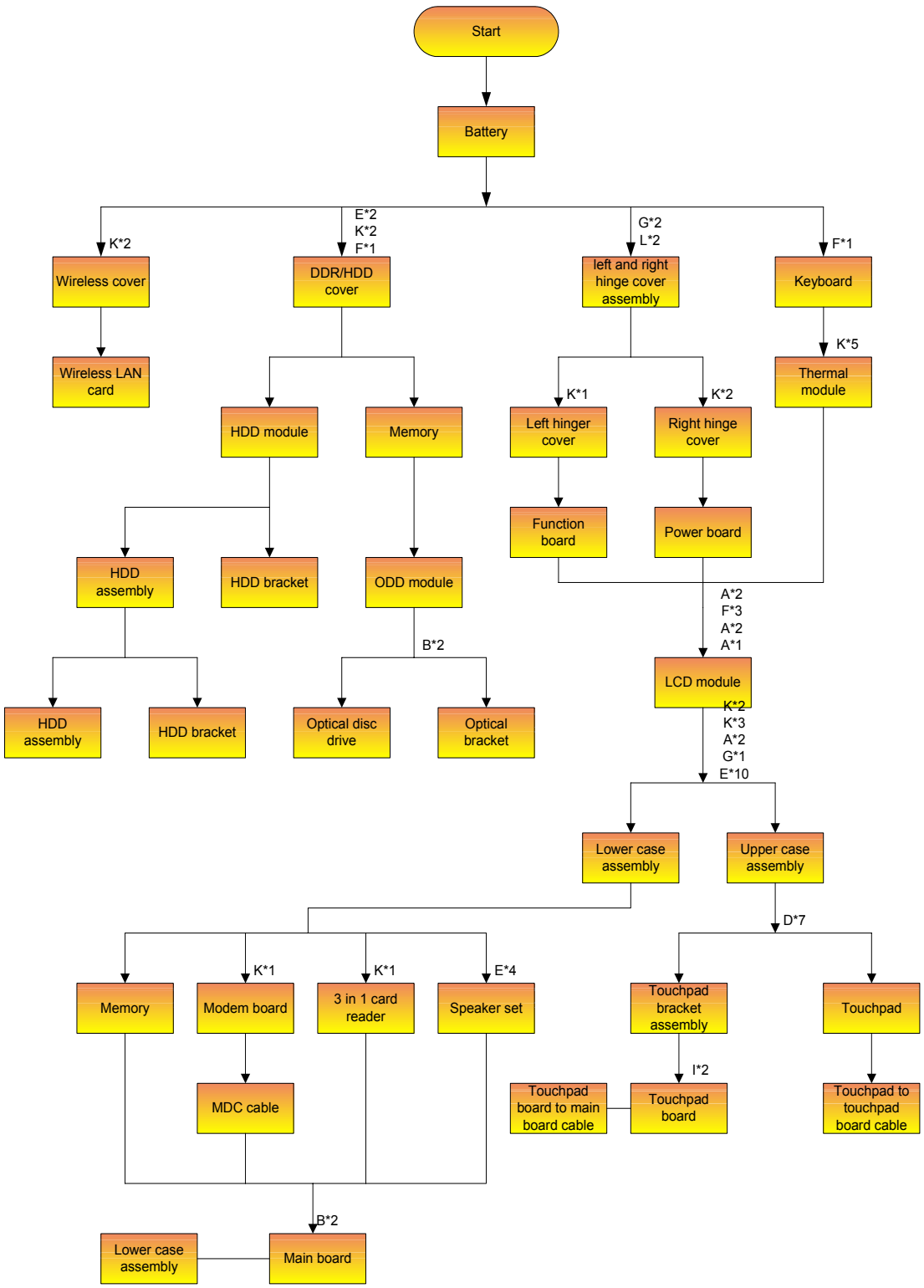
1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.
3. Remove the battery pack.

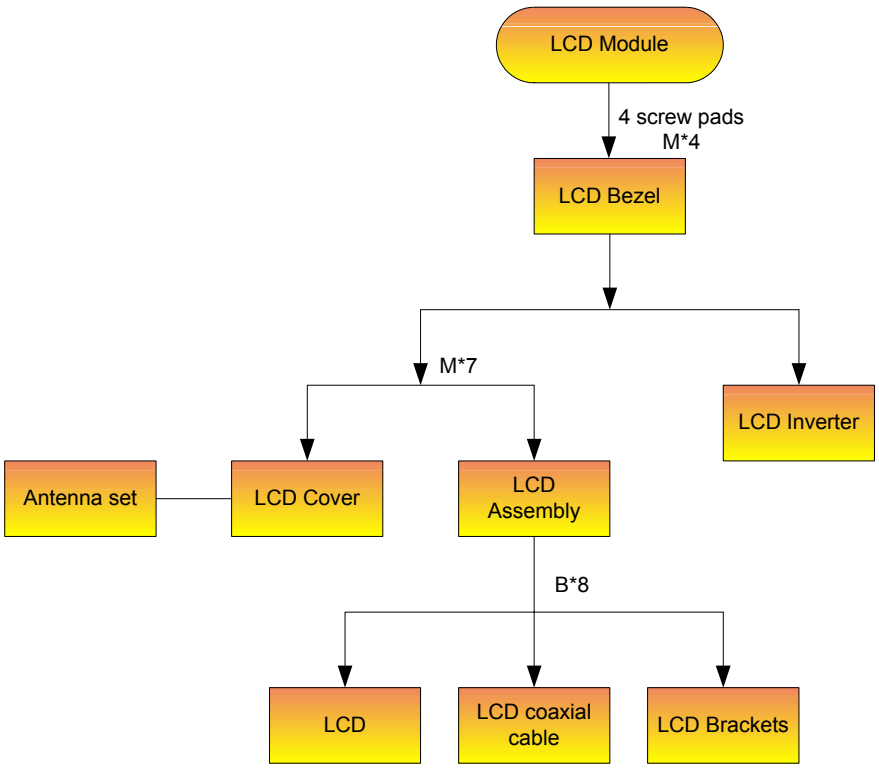
NOTE: TravelMate 3200 series product uses mylar or tape to fasten the FFC/FPC/connectors/cable, you may need to tear the tape or mylar before you disconnect different FFC/FPC/connectors.

NOTE: There are several types of screws used to secure bottom case and upper case assembly. The screws vary in length. Please refer the picture below, group the same type of screws together during service disassembling. Please also remember the screw location for each screw type. If you fasten the screw to the wrong location, the screw may be too long to damage the main board.

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.



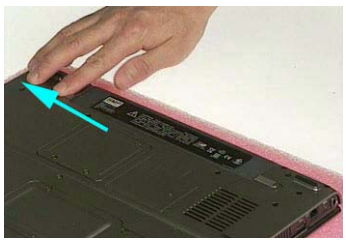
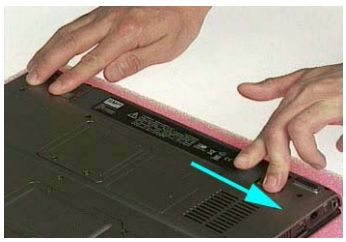
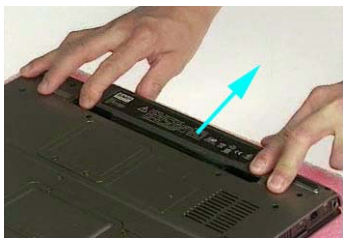


Screw List

Item	Description	Acer part No.
A	SCREW M2.5X4-I-NYLOK	86.T23V7.009
B	SCREW MM20030ICI3	86.A08V7.005
C	SCREW MM20060ICI7	86.A03V7.013
D	SCREW MM25025ICI0	86.T25V7.010
E	SCREW MM25060IL69	86.A03V7.019
F	SCREW MM25080IL68	86.T48V7.001
G	SCREW MS25120IDJ4	86.T48V7.002
H	SCREW M3.0*3.0-I NI	86.T48V7.003
I	SCREW MS25030IJ81	86.A10V7.007
J	SCREW MM30035I354	86.A03V7.011
K	SCREW MM25030IL65	
L	SCREW MM25040I243	
M	SCREW MM25050IL64	

Removing the Battery Pack

1. Release the battery lock.
2. Slide the battery latch.
3. Remove the battery pack.

Removing the Wireless LAN Card/the HDD Module/the ODD Module/and the LCD module

Removing the Wireless LAN Card

1. Remove the two screws then remove the mini PCI cover.
2. Disconnect the wireless antennae.
3. Pop up the wireless LAN card then remove it.



Removing the HDD Module

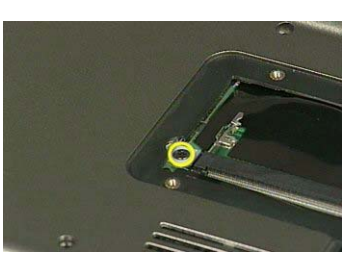
1. Remove the five screws holding the DDR/HDD cover then remove the cover.
2. Pop up the memory then remove it.
3. Disconnect the HDD cable then remove the HDD module.

.



Removing the ODD Module

1. See “Removing the HDD Module” on page 54.
2. Remove one screw tightening the ODD module.
3. Use a plastic flat-headed screwdriver to push the ODD module outwards then remove it.




Removing the LCD Module

1. Remove the two screws holding the right hinge cover.
2. Remove the two screws tightening the left hinge cover.
3. Detach the right and the left hinge cover form the main unit.

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1. Disconnect the lid switch cable.
2. Remove the two screws tightening the function board then remove it.
3. Remove one screw holding the power board then remove it.

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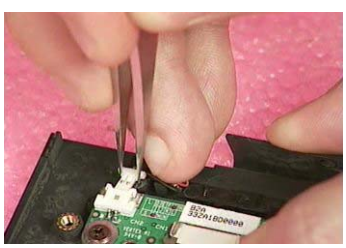
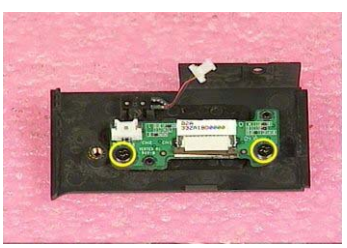
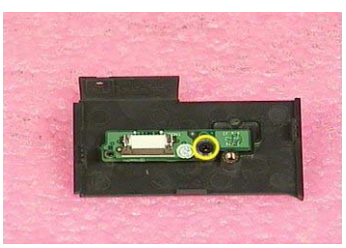
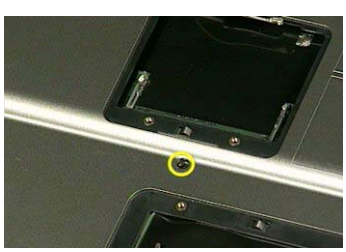
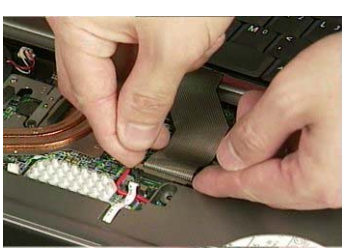
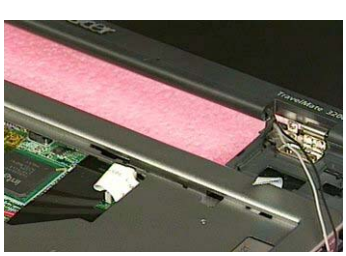




4. Remove one screw tightening the keyboard on the bottom.
5. Release the keyboard lock as shown.
6. Disconnect the keyboard cable then remove it.





7. Take out the wireless antennae from the main unit carefully.
8. Disconnect the LCD coaxial cable.
9. Disconnect the microphone cable.



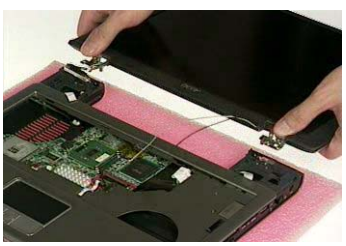
10. Remove the two screws as shown.

11. Remove the three screws as shown.

12. Remove the two screws holding the right hinge.

13. Remove one screw tightening the left hinge.

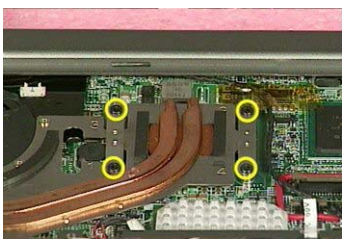
14. Then remove the entire LCD module.



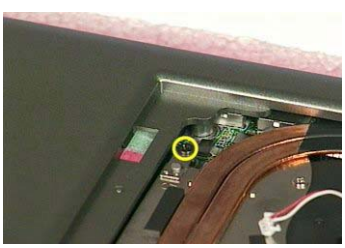
Disassembling the Main Unit

Remove the Thermal Module

1. Disconnect the fan cable.
2. Remove the four screws tightening the thermal module.

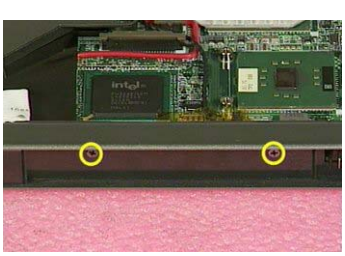
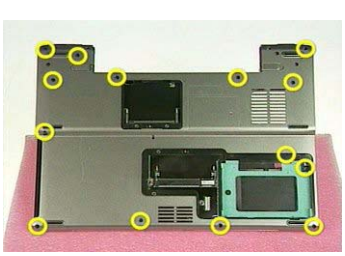
3. Remove the two screws as shown.
4. Detach the thermal module from the main unit.




Separate the Main Unit Into the Upper and the Lower Case Assembly

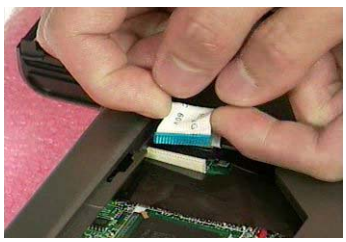
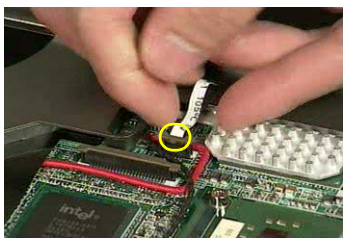
1. Remove two screws as shown.
2. Remove one screw tightening the main board.


3. Remove the two screws as shown.
4. Remove the eightenteen screws on the bottom.

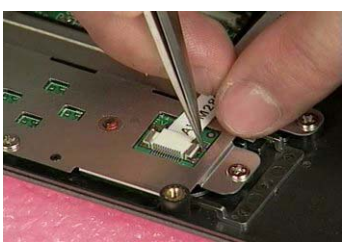
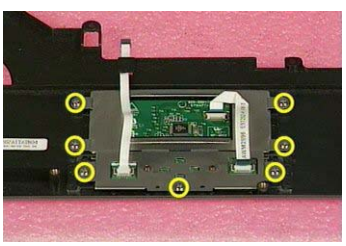
5. Disconnect the cable as shown.

6. Disconnect the touchpad cable.
7. Then detach the upper case assembly from the main unit.

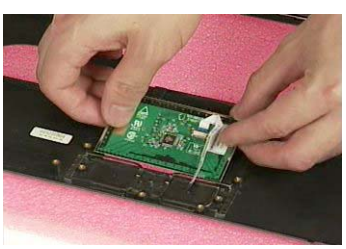




Disassembling the Upper Case Assembly

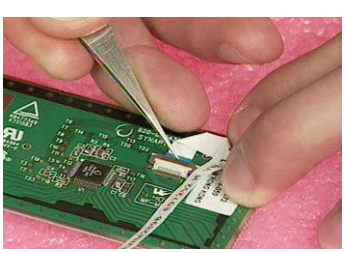
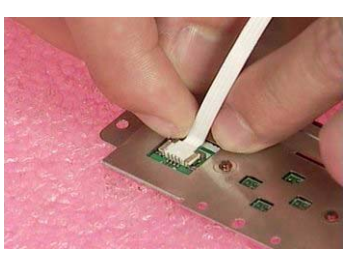
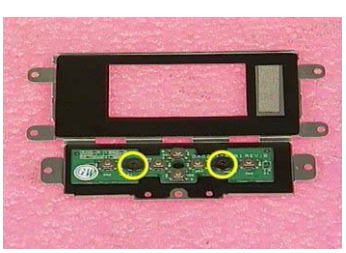
1. Disconnect touchpad touchpad to touchpad board cable.
2. Remove the seven screws tightening the touchpad bracket.

3. Remove the touchpad bracket assembly.
4. Then remove the touchpad assembly.

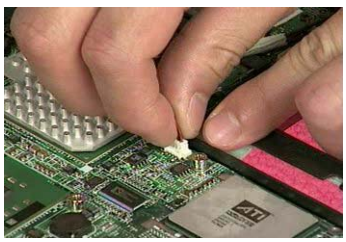



5. Disconnect the touchpad to touchpad board cable.
6. Disconnect the touchpad board to main cable.
7. Remove the two screws tightening the touchpad board then remove it.

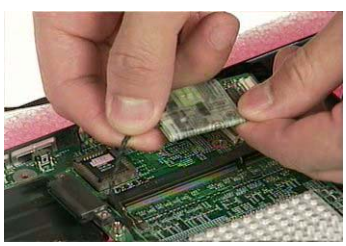
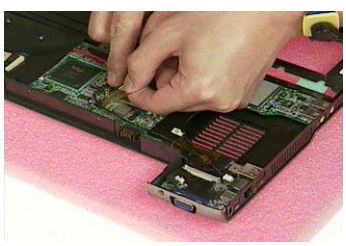
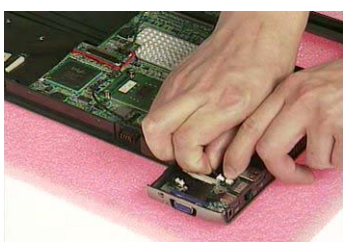




Disassembling the Lower Case Assembly

1. Disconnect the modem cable from the main board.
2. Pop up the memory then remove it from the main board.
3. Remove one screw that seucres the modem board.



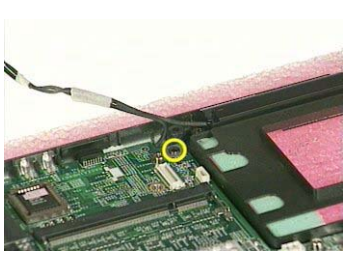
4. Disconnect the modem cable from the modem board then remove the modem board.
5. Tear off the type fastening the modem cable on the main board.
6. Disconnect the modem cable from the main board then remove it.

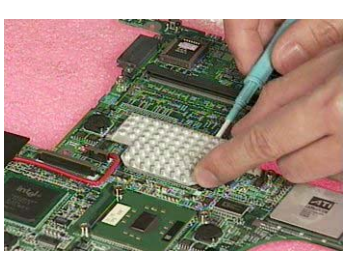




7. Remove one screw that secures the three in one card reader.
8. Detach the three in one card reader from the lower case assembly.
9. Remove one screw holding the main board to the lower case.



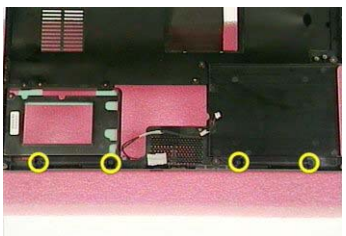
10. Remove one screw tightening the main board as shown.
11. Detach the main board from the lower case carefully.
12. Use a plastic flat screwdriver to detach the VGA heatsink from the main board.





13. Remove the four screws tightening the speaker set.

14. Tear off the type fastening the speaker set.
15. Remove the speaker set from the lower case.



Disassembling the LCD Module

1. Remove the four screw caps as shown.
2. Then remove the four screws tightening the LCD bezel.


3. Detach the LCD bezel from the LCD module.
4. Then turn the LCD bezel over and remove the microphone.


5. Tear off the type fastening the inverter cable then disconnect the inverter cable then remove the inverter.
6. Remove the six screws holding the LCD to the LCD cover.
7. Then remove the LCD from the LCD cover.

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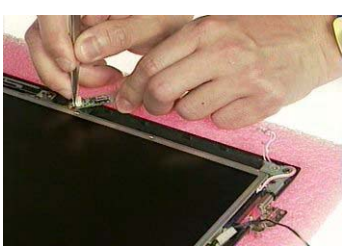
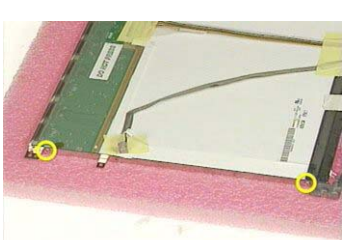
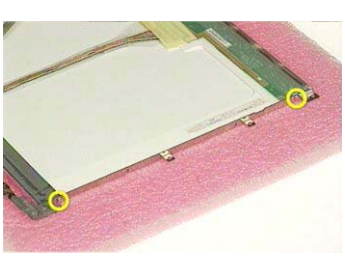
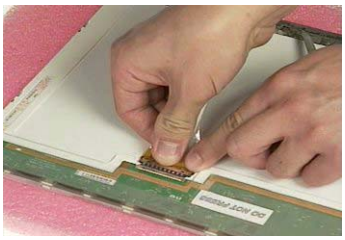
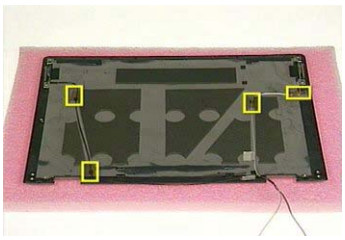
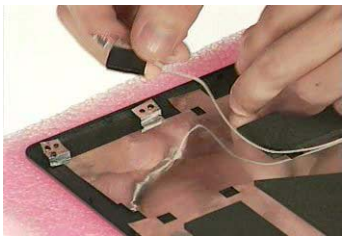


8. Remove the two screws holding the right bracket then remove the bracket.
9. Remove the two screws holding the left bracket then remove the bracket.
10. Tear off the tape that fastens the LCD cable.


11. Disconnect the LCD cable from the LCD.

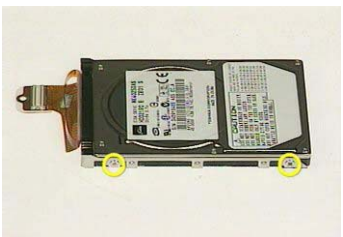
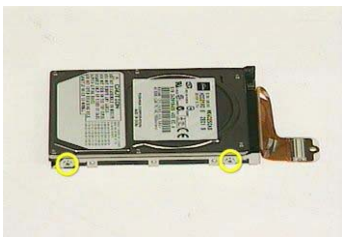
12. Tear off the tape fastening the antennae set.
13. Then detach the antennae set from the LCD cover.

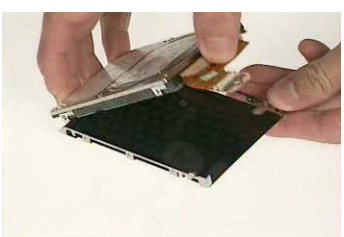
Disassembling the External Modules

Disassembling the HDD Module

1. Remove the two screws holding the HDD bracket on one side.
2. Remove the two screws holding the HDD bracket on the other side.

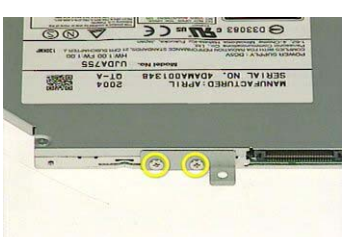



3. Detach the hard disc drive from the HDD bracket.
4. Disconnect the HDD cable then remove it.




Disassembling the Optical Drive Module

1. Remove the two screws holding the ODD bracket.
2. Detach the ODD bracket.




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 fellow 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 67.
POST does not complete. No beep or error codes are indicated.	"Power-On Self-Test (POST) Error Message" on page 69 "Undetermined Problems" on page 81
POST detects an error and displayed messages on screen.	"Error Message List" on page 70
Other symptoms (i.e. LCD display problems or others).	"Power-On Self-Test (POST) Error Message" on page 69
Symptoms cannot be re-created (intermittent problems).	Use the customer-reported symptoms and go to "Power-On Self-Test (POST) Error Message" on page 69 "Intermittent Problems" on page 80 "Undetermined Problems" on page 81

System Check Procedures

External Diskette Drive Check

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

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

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

The following auxiliary input devices are supported by this computer:

- ❑ Numeric keypad
- ❑ External keyboard

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

Memory check

Memory errors might stop system operations, show error messages on the screen, or hang the system.

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

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

Power System Check

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

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

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

- “Check the Battery Pack” on page 68

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 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 FFC on touch pad PCB connects properly, then check if LS851 JP1 Pin6=5V are pulese. 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 81.

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 66
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 Default Settings” in BIOS Setup Utility. RTC battery Main baord
Invalid System Configuration Data	“Load Default Settings” in BIOS Setup Utility. Main board
Operating system not found	Enter Setup and see if fixed disk and drive A are properly identified. Dikette 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 67 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 67 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
AEh		Clear Boot flag
B0h		Check for errors
B2h		POST done- prepare to boot operating system
B4h	1	One short beep before boot
B5h		Terminate QuietBoot (optional)
B6h		Check password (optional)
B9h		Prepare Boot
BAh		Initialize DMI parameters
BBh		Initialize PnP Option ROMs
BCh		Clear parity checkers
BDh		Display MultiBoot menu
BEh		Clear screen (optional)
BFh		Check virus and backup reminders
C0h		Try to boot with INT 19
C1h		Initialize POST Error Manager (PEM)
C2h		Initialize error logging
C3h		Initialize error display function
C4h		Initialize system error handler
C5h		PnPnd dual CMOS (optional)
C6h		Initialize notebook docking (optional)
C7h		Initialize notebook docking late
C8h		Force check (optional)
C9h		Extended checksum (optional)
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 Default Settings” 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 Default Settings”, 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 67. 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 67. 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 68. 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 Default Settings" 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 Default Settings" 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 Default Settings" 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 81.

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).

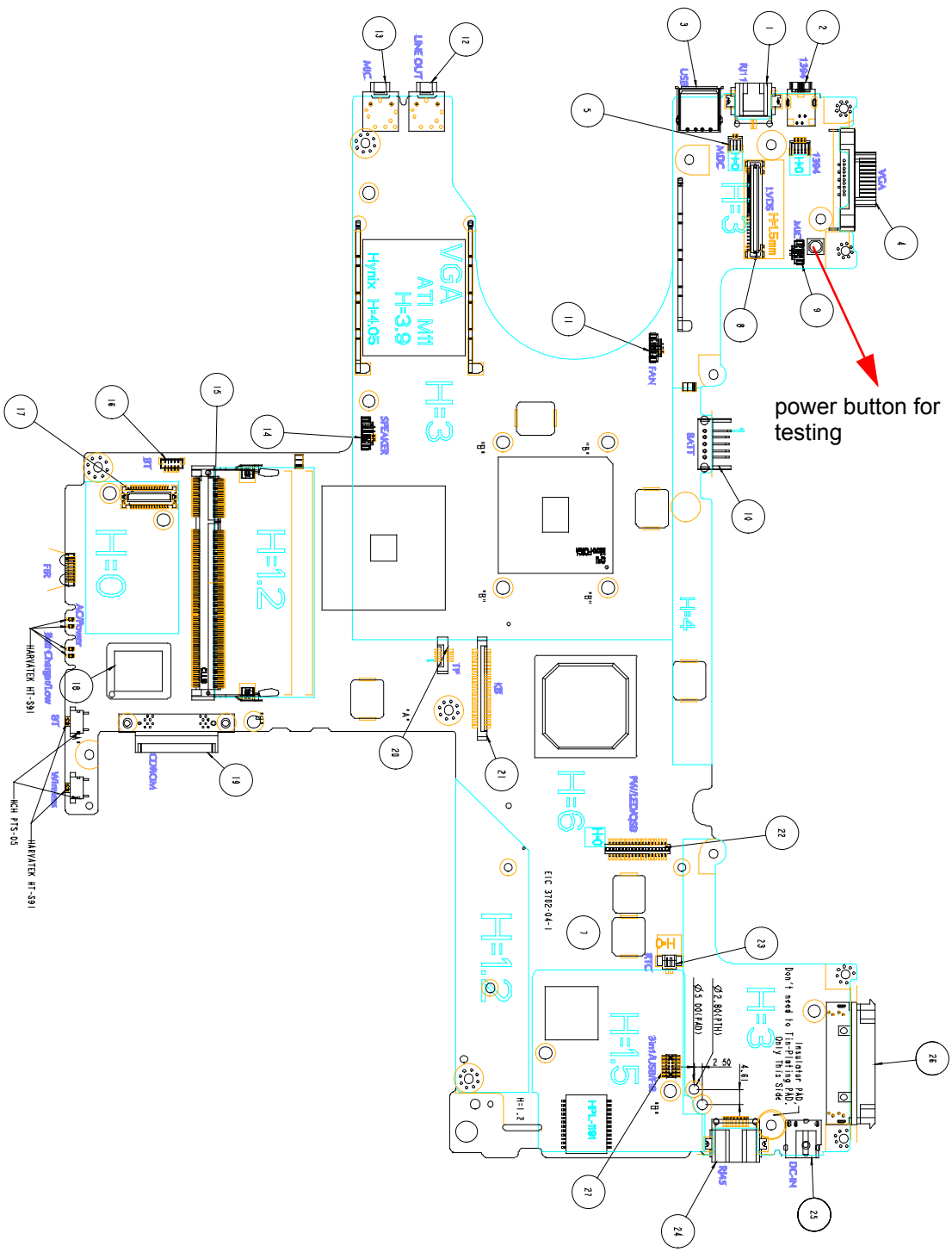
NOTE: Verify that all attached devices are supported by the computer.

NOTE: Verify that the power supply being used at the time of the failure is operating correctly. (See “Power System Check” on page 67):

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

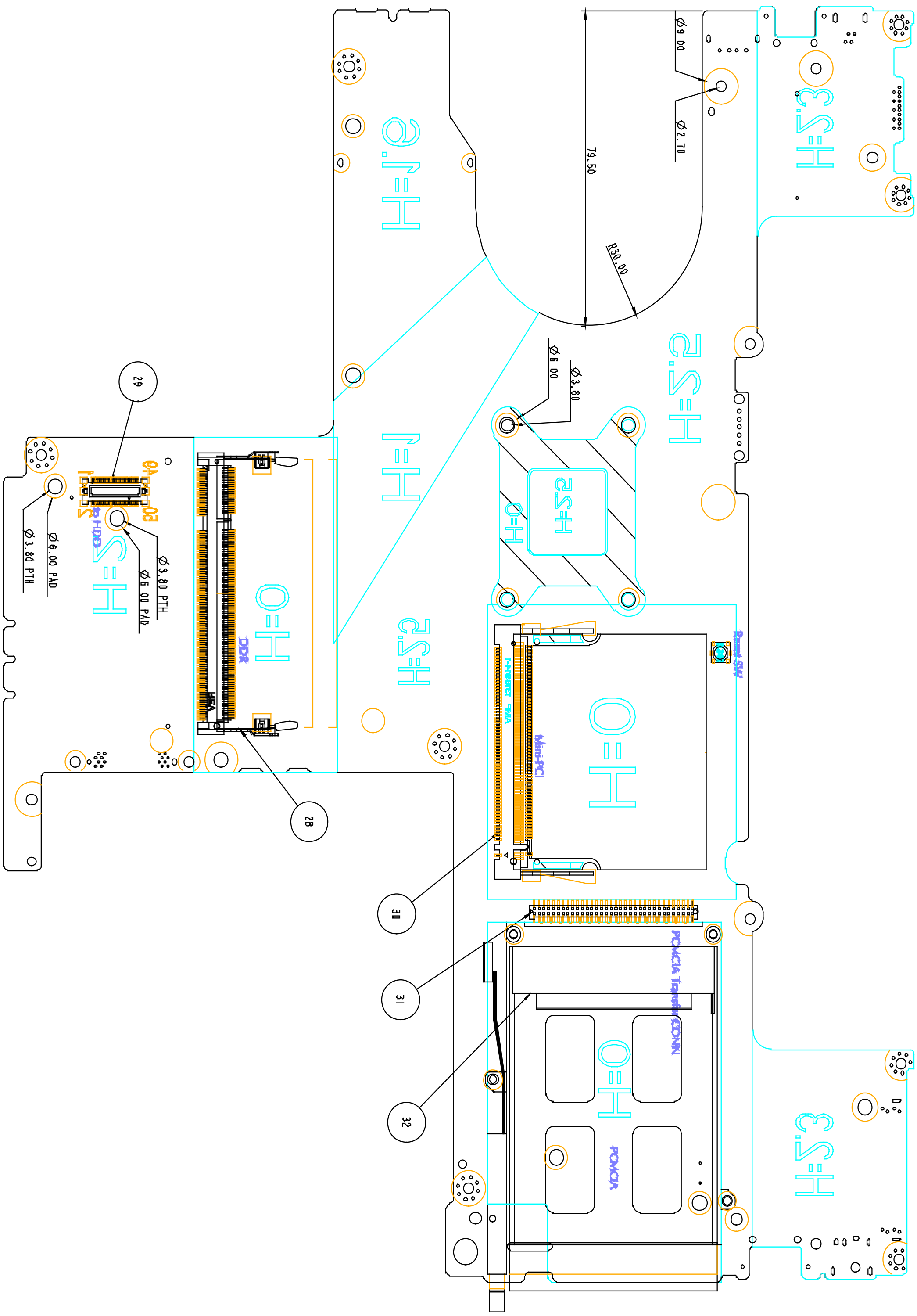
Jumper and Connector Locations

Top View



1	RJ11	CN8	16	Bluetooth Connector	CN25
2	1394 Connector	CN5	17	MDC Connector	CN26
3	USB Connector	CN12	18	BIOS Socket	U27
4	VGA Connector	CN2	19	ODD Connector	CN24
5	Modem Cable Connector	CN10	20	Touchpad Connector	CN19
8	LCD Connector	CN7	21	Keyboard Connector	CN18
9	Internal MIC Connector	CN4	22	QSB Cable Connector	CN16
10	Battery Connector	CN11	23	RTC battery Connector	CN14
11	FAN Connector	CN15	24	RJ45 Connector	CN9
12	Line-out Connector	CN20	25	Power Jack	CN3
13	MIC Connector	CN21	26	Docking	CN1
14	Speaker Connector	CN22	27	3-in-1 Module Connector	CN13
15	DDR SO-DIMM (TOP)	CN23			

Bottom View



28	DDR SO-DIMM (BOT)	CN30	31	PCMCIA Connector	CN28
29	HDD Connector	CN31	32	PCMCIA Slot	CN28
30	Mini-PCI Slot	CN29			

FRU (Field Replaceable Unit) List

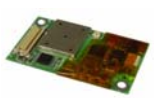
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of TravelMate 3200 series products. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

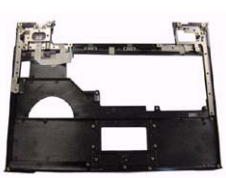
NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

NOTE: Exploded diagram is not ready as service guide released. We will update the service guide to CSD website, please download the exploded diagram from the website if you need the file.

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
Adapter			
	NS	ADAPTER 65W 3 PIN DELTA SADP-65KB BF	AP.06501.003
		ADAPTER 65W 3 PIN LITE-ON PA-1650-02 QA 19V	AP.06503.003
Battery			
	NS	BATTERY SANYO LI-ION 3S2P 6CELL 4800mAH	TBD
		BATTERY SIMPLO LI-ION 3S2P 6CELL 4800mAH	TBD
		BATTERY SANYO LI-ION 3S3P 9CELL 7200mAH	TBD
		BATTERY SIMPLO LI-ION 3S3P 9CELL 7200mAH	TBD
Boards			
		MODEM CARD , AMBIT T60M283.15	54.A10V7.001
		BLUETOOTH MODULE W/ANTENNA	54.T48V7.001
		WIRELESS LAN BOARD (802.11b+g) INTEL	KI.CAX01.005
	NS	LAUNCH BOARD	55.T48V7.001
		FUNCTION BOARD	55.T48V7.002
	NS	TOUCH PAD BOARD	55.T48V7.003
Cables			
		FFC CABLE - TP/B TO TP	50.T48V7.001

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
		FFC CABLE - TP/B TO MB	50.T48V7.002
		LID SWICTH CABLE - HINGE COVER R	50.T48V7.003
		MODEM CABLE SPARE PART	50.T48V7.004
		BLUETOOTH CABLE	50.T48V7.005
		HDD CONNECT CABLE	50.T48V7.006
		POWER CORD US (3 pin)	27.A03V7.001
		POWER CORD PRC (3 Pin)	27.A03V7.003
		POWER CORD KOERA (Pin)	27.T23V7.006
		POWER CORD EU (3 PIN)	27.A03V7.002
		POWER CORD UK (3 PIN)	27.A03V7.004
		POWER CORD ITALIAN (3 PIN)	27.A03V7.005
		POWER CORD- SWISS	27.A03V7.007
		POWER CORD AU (3 PIN)	27.A03V7.008
		POWER CORD DANISH (3 PIN)	27.A03V7.006
		POWER CORD AF (3 PIN)	27.T48V7.001
Case/Cover/Bracket Assembly			
		DIMM DOOR W/SCREW	42.T48V7.001
		MINI PCI COVER	42.T48V7.002
		UPPER CASE ASSY W/ TOUCHPAD FUNCTION CABLE	60.T48V7.001

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
		LOWER CASE ASSY W/SPEAKER HDD SPONG	60.T48V7.002
		HINGE COVER L	42.T48V7.003
		HINGE COVER R	42.T48V7.004
		TOUCHPAD BRACKET	33.T48V7.001
		HDD BRACKET	33.A10V7.007
Communication Module			
		WIRELESS LAN ANTENNA	50.T48V7.007
HDD/ Hard Disk Drive			
		HDD 40GB/2.5 IN. 4200PRM HGST MORAGA HTS424040M9AT00 13G1132 F/W:A60M	KH.04007.010
		HDD 40G 2.5 IN. 420RPM TOSHIBA PLUTO MK4025GAS	KH.04004.002
		HDD 40G 4200PRM SEAGATE ST94019A	KH.04001.010
		HDD 60GB 2.5IN. 4200RPM MORAGA 60G IC25N060ATMR04-0 08K0634 F/S:AD0A	KH.06007.006
		HDD 60G 2.5IN. 4200RPM TOSHIBA PLUTO MK6025GAS 2M F/W KA200A	KH.06004.003
		HDD 2.5 IN. 60GB 5400RPM HGST MORAGA HTS548060M9AT00 08K0638	KH.06007.003
		HDD 60GB 2.5 IN. 5400RPM TOSHIBA PROTEUS MK6025GAX F/W PA202G	KH.06004.002
		HDD 80GB 2.5IN. 4200RPM HGST MORAGA IC25N080ATMR04-0	KH.08007.007
Keyboard			

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
		KEYBOARD US INTERNATIONAL	KB.T4805.001
		KEYBOARD CHINESE	KB.T4805.002
		KEYBOARD SPANISH	KB.T4805.003
		KEYBOARD THAI	KB.T4805.004
		KEYBOARD BRAZILIAN PROTUGESE	KB.T4805.005
		KEYBOARD UK	KB.T4805.006
		KEYBOARD GERMAN	KB.T4805.007
		KEYBOARD ITALIAN	KB.T4805.008
		KEYBOARD FRENCH	KB.T4805.009
		KEYBOARD SWISS/G	TBD
		KEYBOARD PORTUGUESE	TBD
		KEYBOARD ARABIC	TBD
		KEYBOARD BELGIUM	TBD
		KEYBOARD SWEDEN	TBD
		KEYBOARD CZECH	TBD
		KEYBOARD HUNGAIAN	TBD
		KEYBOARD NORWAY	TBD
		KEYBOARD DANISH	TBD
		KEYBOARD CANADIAN FRENCH	TBD
		KEYBOARD GREEK	TBD
		KEYBOARD RUSSIAN	TBD
LCD			
		ASSY LCD MODULE 14.1 IN. AU B141XG05	6M.T48V7.004
		ASSY LCD MODULE 14.1 IN. CMO N141XB-L01	6M.T48V7.005
		LCD 14.1 IN. TFT XGA AU B141XG05	LK.14105.006
		LCD 14.1 IN. TFT XGA CMO N141XB-L01	LK.1410D.003
		LCD INVERTER BOARD	19.T48V7.001

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
		LCD CABLE - 14 IN. XGA	50.T48V5.008
		LCD BRACKET SET(R&L) 14.1 IN. XGA	6K.T48V7.001
		LCD PANEL 14.1 IN. W/LOGO ANTENNA (The picture here is bottom view)	60.T48V7.003
		LCD BEZEL - 14.1 IN. W/ LOGO MIC	60.T48V7.004
Main Board			
		MAINBOARD CPU DOTHAN 1.5G 64MB W/ PCMCI SLOT,W/O MEMORY	TBD
		MAINBOARD CPU DOTHAN 1.6G 64MB W/ PCMCI SLOT,W/O MEMORY	TBD
		MAINBOARD CPU DOTHAN 1.7G 64MB W/ PCMCI SLOT,W/O MEMORY	TBD
		MAINBOARD CPU DOTHAN 1.8G 64MB W/ PCMCI SLOT,W/O MEMORY	TBD
		MAINBOARD CPU DOTHAN 2.0G 64MB W/ PCMCI SLOT, W/O MEMORY	TBD
	NS	PCMCIA SLOT	22.T41V7.001
Memory			

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
	NS	MEMORY DDR333 256MB NANYA NT256D64SH8BAGM-6K	KN.25603.009
		MEMORY DDR333 256MB MICRON MT4VDDT3264HG-335C2 (0.11u)	KN.25604.016
		MEMORY DDR333 256MB SAMSUNG M470L3224FT0-CB3	KN.2560B.008
		MEMORY DDR333 256MB INFINEON HYS64D32020HDL-6-C (.11u)	KN.25602.012
Optical Drive			
		DVD/CDRW COMBO MODULE 24X PANASONIC UJDA-755 FW:1.0	6M.T48V7.001
		DVD/CDRW COMBO MODULE 24X QSI UBW-241 FW:JX01	6M.T48V7.002
		DVD SUPER MULTI MODULE PANASONIC UJ-822B	6M.T48V7.003
		DVD/CDRW COMBO DRIVE 24X SLIM PANASONIC UJDA-755QT FW:1.0	KO.02406.006
		DVD/CDRW COMBO DRIVE 24X SLIM QSI UBW-241 FW:JX01	TBD
		DVD SUPER MULTI DRIVE SLIM PANASONIC UJ-822B	KU.00407.008
		DVD/CDRW BEZEL FOR PANASONIC	42.T48V7.005
		DVD/CDRW BEZEL FOR QSI	42.T48V7.006
		DVD SUPER MULTI BEZEL FOR PANASONIC	42.T48V7.007
		OPTICAL DEVICE BRACKET	33.T23V7.003
Pointing Device			
		TOUCHPAD	56.T48V7.001
Speaker			
		SPEAKER SET	23.T48V7.001
Heatsink			
		THERMAL MODULE W/ FAN	60.T48V7.006
Reader			

TravelMate 3200 FRU List

Picture	No.	Partname And Description	Part Number
		3 IN 1 CARD READER	6K.T48V7.004
Screws			
		SCREW M2.5X4-I-NYLOK	86.T23V7.009
		SCREW MM20030ICI3	86.A08V7.005
		SCREW MM20060ICI7	86.A03V7.013
		SCREW I2.5*2.5M-BNIH(4.5,0.8)	86.T25V7.010
		SCREW I2.5*6M-BNIHY(M2.5L6 I)	86.A03V7.019
		SCREW M2.5*8-I BNI NYLOK	86.T48V7.001
		SCREW M2.5*12.0-I BKAG NYLOK	86.T48V7.002
		SCREW M3.0*3.0-I NI	86.T48V7.003
		SCREW M2.5*3L-BNI-NYLOK	86.A10V7.007
		SCREW MM30035I354	86.A03V7.011

Model Definition and Configuration

TravelMate 3200 Series

Model Number	CPU	LCD	Memory	HDD (GB)	ODD	BT	Wireless LAN
3201XCii	PM 715 (1.5GHz/ 2M)	14.1" XGA	DDR333 2x256MB	80GB	24x Combo (9.5mm)	Y	802.11g
3201XMi	PM 715 (1.5GHz/ 2M)	14.1" XGA	DDR333 2x256MB	80GB	4x DVD-Smulti (9.5mm)	Y	802.11b/g
3202XCi	PM 1.6G(Dothan)	14.1" XGA	DDR333 1x512MB	60GB	24x Combo (9.5mm)	N	802.11b/g
3202XMi	PM 1.6G(Dothan)	14.1" XGA	DDR333 1x512MB	60GB	4x DVD-Smulti (9.5mm)	N	802.11g

Test Compatible Components

This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows® 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 TravelMate3200 series Compatibility Test Report released by the Acer Mobile System Testing Department.

Microsoft® Windows® XP Pro Environment Test

Item	Specifications
CRT Port	**CRT Monitor:** ViewSonic PF775 Philips Brilliance 109P 19" **LCD Monitor:** LCD Quanta ADT 20" LCD akia KX1 **Projector:** Panasonic PT-LC80U
Parallel Port	**Printer:** HP Desk Jet 840C HP Laser Jet 5M HP Deskjet 450 **Cable:** LL5 cable
1394 Port	**HDD:** IEEE 1394 (Fire Wire)/USB 1.1 Combo Hard Drive **CCD:** 1394 CCD (APLUX C102T) **1394 CardBus Card:** IEEE 1394 CardBus Card \DV Magician\UPMOST **Cable:** 1394 four to four cable
USB 2.0	**HUB:** Highspeed\4 Port UNION START UH-364 W-FORCE 4 Port USB2.0 Super Mini Hub **HDD:** USB HDD:VIPower(Smart Family Disk) **DVD/CD-RW:** Pioneer DVR-104 Ricoh MP5125A YAMAHA CD/RW-70 **Printer:** HP3425 Printer **Handy Drive:** SanDisk Cruzer USB 2.0 Handy Drive 256MB
USB Port	**USB Mouse:** BenQ M102-G80 Logitech Mouse M-BE58 Microsoft Wheel Mouse Optical USB & PS2 Compatible Acer MP0930 **USB Keyboard:** Microsoft Internet Keyboard Pro BenQ 6511-ME KILITEK **USB KeyPad:** LUNARIS TK-LU2BSV USB Keypad

Item	Specifications
USB Port	**USB CCD:** ViewQuest NB330 **USB HDD:** HD 530 Tested to comply with FCC Standards **USB FDD:** Teac USB FDD Yano USB FDD UFD-04 NEC USB FDD Mitsumi USB FDD D353FUE **USB Speaker:** J-S USB 3D Speaker /J1321 **USB Printer:** Canon BJC-3000 HD DeskJet 930C HP DeskJet 840C **USB Hub:** PCI_ USB HUB\UH-400 USB Hub /UH-9124Z **USB LAN:** BUFFALO USB-10/100M Ethernet LUX-TX **USB Handy Drive:** JMTEK USB 1.1 Handy Drive 128MB
GB LAN HUB	3COM SUPER STACK II \ 3C16611 24port
PS/2 Port	**Keyboard:** Microsoft Internet Keyboard Pro BTC Keyboard **PS/2 Keypad:** PC Keypad KB-5640 **Mouse:** Logitech M-C48
COM Port	**Mouse:** Logitech Serial Mouse M-MM43
S-Video	**TV:** SONY Trinitron 14"\PVM-14M2U
PC Card	**Modem Card:** Psion - Gold Card Glabal 56K+Fax **SyCard:** 16bit 32bit **16 bit LAN Card:** 3COM 10M LAN Card (3CCFE589ET) Xircom EtherNet 10/100+Modem56 CEM56-100 **CardBus LAN Card:** 3COM 10/100 CardBus LAN Card (3CCFE575CT) **SCSI:** Adaptec SlimSCSI APA-1460D Card Adaptec SlimSCSI 1480A CardBus UltraSCSI Card RATOC REX-CB80

Item	Specifications
PC Cards	**LAN+Modem card:** Xircom CreditCard Ethernet + Modem 56k (CEM56-100) **ATA Card:** 4 in1 WIN&MAC Card reader+Transcend 128MB Apapter CF Card Read + PNY CF CARD 128MB **Wireless LAN Card:** CISCO AIRONET 350 SERIES\AIR-PCM350 Linksys WPC11ver.4 Intel(R)PRO / Wireless 2011B LAN PC Card
Memory Card	**MMC:** SanDisk 64MB **Compact Flash Card:** PNY 128MB **Memory Stick:** SONY 256MB **SD Memory Card:** Apacer 128MB Toshiba 256MB **Smart Media:** Transcend 128 MB Fuji 128 MB
Audio Jacks	**Speaker:** J-S 3D Speaker /J-2202 **Headphone:** PHILIPS Stereo Headphone SBC HP090 Labtec Stereo Headphone Elite-840 **Earphone:** Philips Earphone **Microphone:** Condenser MIC. EM-420T Labtec deskmic 524 Microphone
Access Point	Intel 802.11B Linksys 54G
Bluetooth	HP Deskjet 450 with Ericsson bluetooth card
HDD	Toshiba 40G Toshiba 60G Toshiba 80G HITACHI 60G
ODD	MATSHITA UJDA755 DVD/CDRW

Online Support Information

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

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

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

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

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

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

Also contained on this website are:

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

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

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