Acer TravelMate C310 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 C310 service guide.

Date	Chapter	Updates
2005/5/11		First Released Version

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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.

System Specifications

Features

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

Performance

- Intel® Pentium® M / Celeron-M processors
- Intel® 915/ICH6 GM chipset
- CD ROM, DVD, DVD/CD-RW combo, DVD or DVD-dual drive
- DDR II 400/533 SDRAM memory interface up to 2GB
- PCI Bus Master Enhanced-IDE hard disk (PATA only)
- Advanced Configuration Power Interface (ACPI) power management system

Display

- 14.1" Thin-Film Transistor (TFT) liquid-crystal display (LCD) supporting pen-based input, with 16M color at 1024X768 XGA (eXtended Graphics Array) resolution
- UMA or Nvidia NV44 with 64MB frame buffer
- 3D capabilities
- Simultaneous LCD and CRT display support
- Dual display capability
- Supports other output display devices such as LCD projection panels for large-audience presentations
- Light Sensing background luminance detection - panel automatically adjusts screen brightness
- S-video for output to a television or display device that supports S-video input
- "Automatic LCD dim" feature that automatically decides the best settings for your display and conserves power

Multimedia

- 16-bit high-fidelity AC'97 stereo audio with 3D sound and wavetable synthesizer
- Built-in stereo speakers
- Swappaple type for CD-ROM, DVD, 8X DVD ROM, DVD combo, DVD super multi or DVD dual drive

Connectivity

- V.90/V.92, 56 Kbps MDC 1.5
- 10/100/1000 t-based Ethernet port
- USB (Universal Serial Bus) 2.0 ports
- IEEE 1394 port
- 802.11b+g, 802.11a+b+g wireless LAN options
- Mini USB Bluetooth module
- IrDA 1.1

Keyboard and Pointing Device

- Sleek, smooth and stylish design
- Full-sized keyboard
- Ergonomically-centered touchpad pointing device
- Rotating/folding screen for Tablet PC functionality

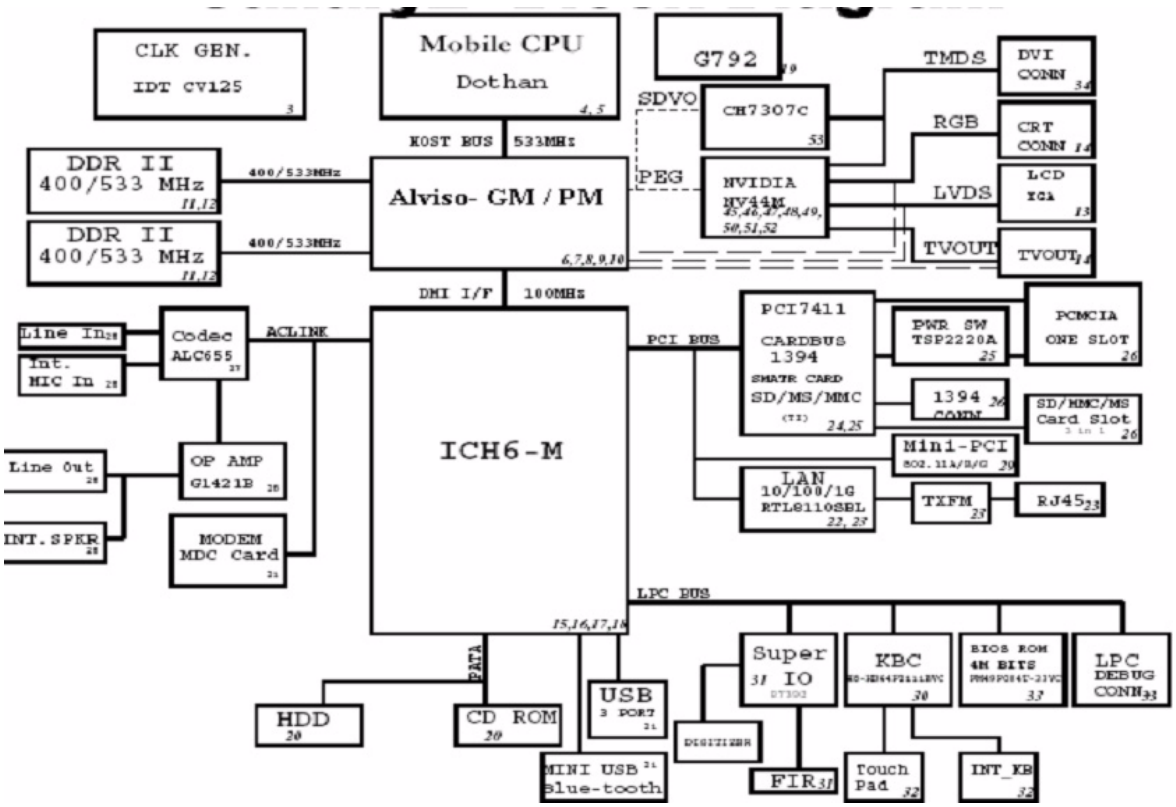
Expansion

- One Type II PCMCIA slot(No PCI-Express card)
- Upgradeable memory
- AcerMedia bay
- Acer EasyPort II

I/O Ports

- One Card bus type II card slot
- One smart-card slot
- One RJ-11 phone jack (V.90/92, 56Kbps modem)
- One RJ-45 jack (Gigabit Ethernet)
- One DC-in jack for AC adapter
- One external monitor (VGA) port
- One S-video TV out port
- One 100-pin port replicator connector
- One line-out (headphone) jack (3.5mm mini jack)
- One line-in (microphone) jack (3.5mm mini jack)
- One microphone-in jack
- Two USB 2.0 ports
- One 4-pin IEEE 1394 port
- One FIR port (IrDA)

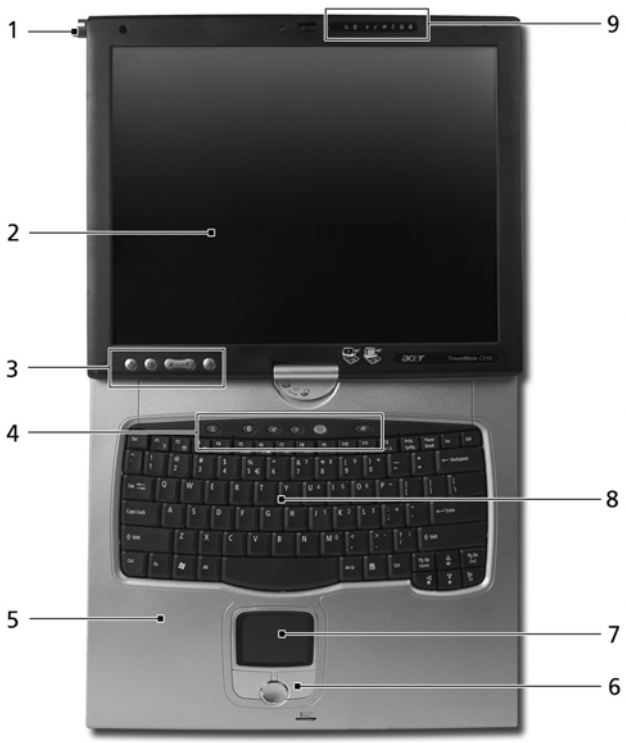
System Block Diagram



Outlook View

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

Front View



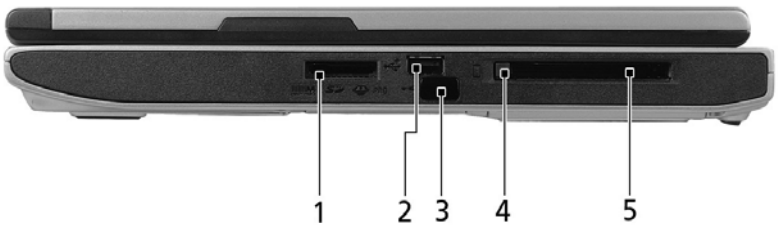
#	Icon	Item	Description
1		EMR stylus	Electromagnetic resonate (EMR) stylus is used to input data in tablet mode. Use only an EMR-compatible stylus to input data on the screeen.
2		Display screen	Also called LCD (liquid-crystal display), displays computer output.
3		Tablet Keys	Add enhanced functionality when operating in Tablet mode.
4		Launch Keys	Buttons for launching frequently used programs.
5		Palmrest	Comfortable support area for your hands when you use the computer.
6		Click buttons (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.
8		Keyboard	Inputs data into your computer.

9		Status indicator	LEDs (light-emitting diodes) that turn on and off to show the status of the computer, its functions and component.

Left view

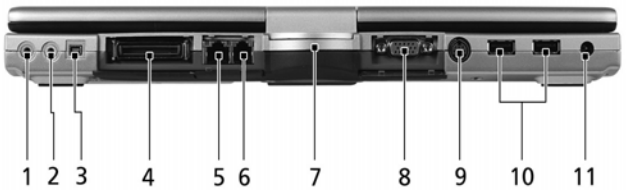
#	Icon	Item	Description
1		Security keylock	Connects to a Kensington-compatible computer security lock.
2		Power switch	Turns on the computer power.
3		Ventilation slot	Allows air to circulate through the computer chassis.
4		AcerMedia Bay	For hot-swappable modules including DVD-ROM, DVD/CD-RW combo or DVD dual drive.
5		Optical drive eject button	Ejects the optical drive tray from the drive.
6		LED indicator	Lights up when the optical drive is active.
7		Emergency eject slot	Ejects the optical drive tray when the computer is turned off.
8		Pen slot	Keeps the stylus handy when not in use.

Right view



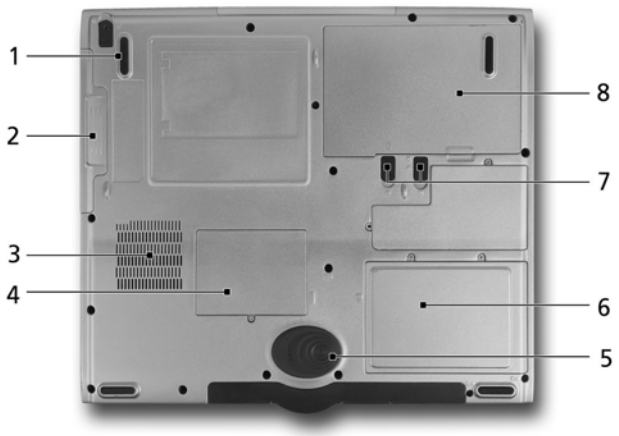
#	Icon	Item	Description
1		4 in 1 card reader	Accepts an MS, MS PRO, MMC or SD card. **NOTE:** Only one card can operate at any given time.
2		USB 2.0 port	Connects to USB 2.0 devices(e.g. USB mouse, USB camera).
3		Infrared port	Interfaces with infrared devices (e.g., infrared printer, IR-aware computer).
4		PC Card eject button	Ejects the PC Card from the slot.
5		PC Card slot	Accepts one Type II 16-bit PC Card or 32-bit CardBus PC Card.

Rear Panel



#	Icon	Item	Description
1		Line-in/Mic-in jack	Accepts audio line-in devices (e.g., audio CD player, stereo walkman).
2		Speaker/Line-out Headphone jack	Connects to audio line-out devices (e.g., speakers, headphones).
3	1394	IEEE 1394 port	Connects to IEEE 1394 devices.
4		124-pin Acer ezDock connector	Connects to Acer ezDock
5		Network jack (RJ-45)	Connects to a 10/100/1000 based network.
6		Modem jack (Rj-11)	Connects to phone line.
7		Convertible hinge	Hinges the LCD screen in place when switching from PC mode to tablet mode and vice versa.
8		External display	Connects to a display device (e.g., external monitor, LCD projector).
9	S	S-video	Connects to a television or display device with S-video input.
10		USB 2.0 ports (2)	Connects to Universal Serial Bus (USB) 2.0 devices (e.g., USB mouse, USB camera).
11		Power jack	Connects to an AC adapter.

Bottom Panel



#	Icon	Item	Description
1		AcerMedia Bay release latch	Unlatches the AcerMedia drive for removing or swapping.
2		AcerMedia Bay	Houses an AcerMedia drive module.
3		Cooling fans	Help keep the computer cool. **Note**: Don't cover or obstruct the opening of the fans.
4		Memory compartment	Houses the computer's main memory.
5		Hard disk protector	Protects the hard disk from accidental dumps and vibration.
6		Hard disk bay	Houses the computers Hard disk drive.
7		Battery Lock & release latch	Unlock and unlatches the battery to remove the battery pack.
8		Battery bay	Houses the computer's battery pack.

Indicators

The computer has seven easy-to-read status icons below the display screen.

The status LCD displays icons that show the status of the computer and its components.

Icon	Function	Description
	Wireless communication	Lights orange when the Wireless LAN capabilities are enabled.
	Bluetooth	Lights when the Bluetooth is enabled or a Bluetooth enabled device is within range.
	Power	Lights when the computer is on.
	Sleep	Lights when the computer enters Standby mode and blinks when it enters into or resumes from hibernation mode.
	Media Activity	Lights when the floppy drive, hard disk or optical drive is active.
	Battery Charge	Lights when the battery is being charged.
	Caps lock	Lights when Caps Lock is activated.

Icon	Function	Description
	Num loc	Lights when Num Lock is activated.

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 the up or down arrow keys 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.

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

Windows Keys

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

Key	Icon	Description
Windows logo key		Start button. Combinations with this key perform shortcut functions. Below are a few examples: + Tab (Activates next taskbar button) + E (Explores My Computer) + F (Finds Document) + M (Minimizes All) Shift + + M (Undoes Minimize All) + R (Displays the Run... dialog box)
Application key		Opens a context menu (same as a right-click).

Hot Keys

The computer uses hotkey or key combinations to access most of the computer's controls like sreen brightness, volume output.

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		System Property	Displays the System Property.
Fn-F3		Power Options	Display the Power Options Properties used by the computer (function available if supported by operating system). See "Power management" on page 25.
Fn-F4	z^z	Sleep	Puts the computer in Sleep mode. See "Power management" on page 25.
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
Fn-PgUp		Home	Functions as the “Home” key.
Fn-PgDn		End	Functions as the “End” key.
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:

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 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 top of keyboard are five buttons. These buttons are called launch keys. They are designated as the mail button, the web browser button and two programmable buttons (P1 and P2).

No.	Launch Key	Default application
1	Wireless LAN (optional)	Activate wirelss LAN for wireless communication
2	Bluetooth (optional)	Activate Bluetooth for wireless communication.
3	P1	User-programmable
4	P2	User-programmable
5	Email	Email application
6	Web browser	Internet browser application

CAUTION: It's important that Wireless LAN and Bluetooth is turned off before boarding an airplane.

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 to scroll up or down and move left or right a page. This button mimics your cursor pressing on the right scroll bar of Windows applications.

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

Function	Left Button	Right Button	Scroll Button	Tap
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		
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 ® Celeron ® M at 1.4Ghz ~1.7Ghz or higher for UMA Intel ® Pentium ® M at 1.6Ghz~2.26 or higher for Descrete
CPU package	/μ -FCPGA package
CPU core voltage	0.95V - 1.42V

BIOS

Item	Specification
BIOS vendor	Phoenix
BIOS Version	V1.01
BIOS ROM type	Flash ROM
BIOS ROM size	512KB
BIOS package	TSOP
Supported protocols	ACPI 1.0b,PC Card 95, SM BIOS 2.3, EPP/IEEE 1284, ECP/IEEE 1284 1.7 & 1.9, 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	1MB
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	Alviso 915GM+ and ICH6-M
Memory size	0MB (no on-board memory)
DIMM socket number	2 sockets
Supports memory size per socket	256MB, 512MB and 1024MB
Supports maximum memory size	2048MB (by two 1024MB DDR RAM module)
Supports DIMM type	DDRII RAM
Supports DIMM Speed	400/533 MHz
Supports DIMM voltage	2.5V
Supports DIMM package	200-pin soDIMM
Memory module combinations	You can install memory modules in any combinations as long as they match the above specifications.

Memory Combinations

Slot 1	Slot 2	Total Memory
0MB	256MB	256MB
0MB	512MB	512MB
0MB	1024MB	1024MB
256MB	0MB	256MB
256MB	256MB	512MB
256MB	512MB	768MB
256MB	1024MB	1280MB
512MB	0MB	512MB
512MB	256MB	768MB
512MB	512MB	1024MB
512MB	1024MB	1536MB
1024MB	0MB	1024MB
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.

Modem Interface

Item	Specification
Controller	ICH6-M
Data modem data baud rate (bps)	56K
Supports modem protocol	V90/V92 WWDAA MDC 1.5
Modem connector type	RJ11
Modem connector location	Rear panel

LAN Interface

Item	Specification
Chipset	RealTek 8100SBL
Supports LAN protocol	10/100/1000 Mbps
LAN connector type	RJ45
LAN connector location	Rear panel

Bluetooth Interface

Item	Specification
Controller	ICH6-M
Data throughput	200k bps (Blue-tooth)
Protocol	Blue-tooth 1.1
Interface	USB 2.0
Connector type	RJ11 (MODEM)

Wireless Module 802.11

Item	Specification
Chipset	Intel CLX2 2195 ABG(802.11 a/b/g) Intel 2200BG/Broadcom (802.11 b/g)
Data throughput	up to 54M bps
Protocol	802.11b
Interface	Mini-PCI type II
Connector interface	124-pin SO-DIMM edge connector

Four-in-One Card Reader

Item	Specification
Controller	PCI7411
Interface	PCI bus
Protocol	Secure Digital (SD) , MultiMediaCard, Memory Stick, MS Pro

Hard Disk Drive Interface

Item	Specification		
Vendor & Model Name	HGST HTS424040M9AT00/ TOSHIBA MK4025GAS	HGST IC25N060ATMR04/ TOSHIBA MK6025GAS	HGST IC25N080ATMR04 HTS541090G9AT00/ TOSHIBA MK8025GAS MK8026GAS
Capacity (GB)	40	60	80
Bytes per sector	512	512	512
Data heads	2	3/4	4
Logical heads	16	16	16
Logical sectors	63	63	63
Drive Format			
Disks	1	2	2
Logical cylinders	16383	16383	16383
Spindle speed (RPM)	4200 RPM	4200 RPM	HGST: 4200/5400 TOSHIBA: 4200/5400
Performance Specifications			
Buffer size	2MB/8MB	8MB	8MB 16MB for MK8026GAS
AT Interface	ATA-6/ ATA-2/3/4/5	ATA/ATAPI-6/ ATA-2/3/4/5/6	ATA-6/ ATA-2/3/4/5/6
Data transfer rate (buffer to/ from media Mbits/s)	350/ 153~341	350/ 201~307	HGST: 350/493 TOSHIBA: 175~341/233~466
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
DC Power Requirements			

Hard Disk Drive Interface

Item	Specification		
Voltage tolerance	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%

Hard Disk Drive Interface

Item	Specification			
Vendor & Model Name	SEAGATE ST 94019A	SEAGATE N2ST960821A	SEAGATE ST98823A ST9808210A	SEAGATE NST9100825A
Capacity (GB)	40	60	80	100
Bytes per sector	512	512	512	512
Data heads	2	3	3	4
Logical heads	16	16	16	16
Logical sectors	63	63	63	63
Drive Format				
Disks	1	2	2	2
Logical cylinders	16383	16383	16383	16383
Spindle speed (RPM)	4200 RPM	4200 RPM	5400/4200 RPM	4200 RPM
Performance Specifications				
Buffer size	2MB	8MB	8MB	8MB
AT Interface	Ultra ATA/100	Ultra ATA/100	Ultra ATA/100	Ultra ATA/100
Data transfer rate (buffer to/ from media Mbytes/s)	48.25	48.25	57.6/48.25	57.6
Data transfer rate (host~buffer, Mbytes/s)	100 MB/Sec;	100 MB/Sec;	100 MB/Sec;	100 MB/Sec;
DC Power Requirements				
Voltage tolerance	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%

DVD-RW Interface

Item	Specification
Vendor & model name	8X DVD DUAL QSI SDW-082 8X DVD DUAL QSI SDW-082K
Performance Specification	
Transfer rate (KB/sec)	CD ROM:Max 3.6MB/sec DVD ROM: Max 10.56 MB/s CD Write Speed: 3.6MB/s DVD Write Speed:10.56 MB/s
Data Buffer Capacity	2MB
ATAPI Interface	Compliant to ATA/ATAPI-5
Applicable disc format	DVD(Read): DVD-ROM,DVD-VIDEO,DVD-AUDIO,DVD-R,DVD-R 3.95 GB, DVD-R MULTI-BORDER, DVD-RW, DVD+R, DVD+R DL, DVD+R MULTI-SESSION, DVD+RW CD(Read): CD-DA, CD-ROM MODE-1, CD-ROM/XA MODE-2 FROM-1 AND MODE-2 FORM-2,CD-i, CD-i BRIDGE, VIDEO-CD(MPEG-1),KARAOKE CD,PHOTO-CD,ENHANCED CD, CD PLUS, CD EXTRA, I-TRAX CD, CD-TEXT, CE-R, CD-RW DVD(Write):DVD DATA&VIDEO CD(Write): CD-DA, CD-ROM MODE-1, CD-ROM/XA MODE-2 FORM-1 AND MODE-2 FORM-2, CE-i, VIDEO-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)

DVD Interface

Item	Specification	
Vendor & model name	24X COMBO, QSI SBW-243	24X COMBO, QSI SBW-242C
Performance Specification		
Transfer rate (KB/sec)	CD ROM:Max 3.6MB/sec DVD ROM:Max 10.56MB/s	CD ROM:Max 3.6MB/sec DVD ROM:Max 10.56MB/s
Data Buffer Capacity	2MB	
ATAPI Interface	Compliant to ATA/ATAPI-5	
Applicable disc format	DVD(Read): DVD-ROM, MULTI-BORDER DVD-R/DVD-RW, MULTI SESSION DVD+R, DVD+RW AND DVD-RAM CD(Read): CD-DA, CD-ROM MODE-1, CD-ROM/XA MODE-2 FORM-1 AND MODE-2 FORM-2, CD-i READY, VIDEO-CD(MPEG1), KARAOKE CD, PHOTO-CD, ENHANCED CD, CD PLUS, CD EXTRA, I-TRAX CD, CD-TEXT, CE-R, CD-RW CD(Write): CD-DA, CD-ROM MODE-1, CD-ROM/XA MODE-2 FORM-1 AND MODE-2 FORM-2, CD-i, VIDEO-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)	

Speaker

Item	Specification
Number of speaker	2
Rating	1W, max; 4 ohm
Connector type	Headphone out, microphone in and line-in

Video Interface

Item	Specification
Chipset	Intel 915GM embedded(UMA) / Nvidia NV44M
Interface	Integration / PEG
Supports TV-out	Yes

Audio Interface

Item	Specification
Audio Controller	Intel ICH6-M
Audio Codec	ALC655
Audio onboard or optional	Built-in
Mono or Stereo	Stereo
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
Supports PnP IRQ	IRQ10

Video Resolutions Mode (for both LCD and CRT)

Resolution	16 bits (High color)	32 bits (True color)
480x600	Yes	Yes
800x600	Yes	Yes
1024x768	Yes	Yes
1152x864	Yes	Yes
1280x1024	Yes	Yes
1400x1050 (SXGA+panel only)	Yes	Yes

Video Memory

Item	Specification
Fixed or Upgradeable	Fixed
Vendor	Intel
Memory size	64MB(32 MB VRAM, 32 MB sys)
Interface	DDR

Parallel Port

Item	Specification
Parallel port controller	ICH6-M
Number of parallel port	1
Location	Rear side
Connector type	25-pin D-SUB
Parallel port function control	Enable/Disable/Auto (BIOS or operating system chooses configuration) by BIOS Setup **Note**: Depending on your operating system, disabling an unused device may help free system resources for other devices.
Supports ECP/EPP/Bi-directional/Output only (PS/2 compatible)	Yes (set by BIOS setup) **Note**: When Mode is selected as EPP mode, “3BCh” will not be available.
Optional ECP DMA channel (in BIOS Setup)	DMA channel 3
Optional parallel port I/O address (in BIOS Setup)	378h, 278h, 3BCH
Optional parallel port IRQ (in BIOS Setup)	IRQ7, IRQ5

USB Port

Item	Specification
Chipset	ICH6-M intergrated
USB Compliancy Level	2.0
OHCI	USB 2.0
Number of USB port	3
Location	Rear side
Serial port function control	Enable/Disable by BIOS Setup

IEEE 1394 Port

Item	Specification
Controller	**PCI7411**
InterfaceUSB Compliancy Level	IEEE 1394 1.0
Number of IEEE 1394 port	1
Location	Rear side
Connector type	IEEE 1394

PCMCIA Port

Item	Specification
PCMCIA controller	PCI CTRL PCI7411
Supports card type	Type-II
Number of slots	One type-II
Access location	Right panel
Supports ZV (Zoomed Video) port	No ZV support
Supports 32 bit CardBus	Yes (IRQ10)

System Board Major Chips

Item	Controller
Core logic	Intel915 GM+ and ICH6-M
VGA	intergrated (UMA) / Nvidia NV44M
LAN	RTL8110SBL
IEEE 1394	PCI 7411
USB 2.0	ICH6-M
Super I/O controller	PC 87392
MODEM	MODEM MDC1.5 (AC97) T60M845.01
Blue tooth	WNC BU5 (81.BU513.003)
Wireless 802.11 a+b+g	2915ABG
Wireless 802.11 b+g	2200BGRW
PCMCIA	PCI CTRL PCI7411
Audio	Intel ICH6-M intergrated/Audio Codec: ALC655
Four-in-one card reader	PCI 7411
Touchpad	HD64F2111BVTE10CV

Keyboard

Item	Specification
Keyboard controller	HD64F2111BVTE10CV
Keyboard vendor & model name	DARFON
Total number of keypads	84/85/88
Windows logo key	Yes
Internal & external keyboard work simultaneously	No **Note: Internal and external keyboard can not work simultaneously by software specification.**

Battery

Item	Specification
Vendor & model name	SANYO
Battery Type	Li-ion
Pack capacity	4400 Ah
Cell voltage	3.7V/cell
Number of battery cell	8
Package configuration	4 cells in series, 2 series in parallel
Package voltage	14.8V

LCD

Item	Specification
Vendor & model name	AU B141XG08 CHIME N141X9-L01
Mechanical Specifications	
LCD display area (diagonal, inch)	14.1
Display technology	TFT
Resolution	XGA (1024x768)
Supports colors	262K
Optical Specification	
Brightness control	keyboard hotkey
Contrast control	No
Typical White Luminance	200 (5 points average) 180 for CHIME
Contrast ratio	300 (Min.), 500 (Typ.) for CHIME
	250 (Min.), 300 (Typ.) for AU
Response time (msec)	TR: 6 (Typ.), 10 (Max.) TF: 17 (Typ.), 25 (Max.) for CHIME
	25 (Typ.) for AU
Electrical Specification	
Supply voltage for LCD display (V)	3.0 (Min.), 3.3 (Typ.), 3.6 (Max.)

LCD Inverter

Item	Specification
Vendor & model name	Ambit
Brightness conditions	Vadj=3.3V
Input voltage (V)	7 (Min.), 14 (Max.)
Input current (A)	0.6 (Min.)
Output voltage (V, rms)	650
Output current (mA, rms)	5.5~6.5
Output voltage frequency (k Hz)	40~60 Hz

AC Adaptor

Item	Specification
Model number	DELTA ADP-65DB 17V 70W (3 PIN)
AC input	90~264V, 47Hz to 63Hz
Output power	65W, 19V@3.42V

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.
Working (G0/S0)	Individual devices such as the CPU and hard disk may be power managed in this state.
Suspend to RAM (S3)	CPU set power down VGA Suspend PCMCIA Suspend

Memory Address Map

Memory Address	Size	Function
00100000h-000F0000h	512 KB	System BIOS
000CFFFFh-000C0000h		VGA BIOS
00009FFFFh-00000000h	640KB	Conventional memory

I/O Address Map

I/O Address	Function
0000-001F, 0081-008F, 0090-0091, 0093-009F, 00C0-00DF, 040B, 04D6	DMA controller
0D00-FFFF	PCI bus
0020-0021, 0024-0025, 0028-0029, 002C-002D, 0030-0031, 0034-0035, 0038-0039, 003C-003D, 00A0-00A1, 00A4-00A5, 00A8-00A9, 00AC-00AD, 00B0-00B1, 00B4-00B5, 00B8-00B9, 00BC-00BD, 00C0-00DF	Programmable interrupt controller
0040-0043, 0050-0053	System timer
0060, 0064	Acer Tablet PC Keyboard Buttons (101/102 key)
002E-002F, 004E-004F, 0061, 0063, 0065, 0067, 0080, 0092, 00B2-00B3, 0200-020F, 0600-060F, 0700-070F, 0800-080F, 1000-107F, 1180-11BF,	Main board resources
0066	Microsoft ACPI-Compliant Embedded Controller
0070-0077	System CMOS/real time clock
00F0	Numeric data processor
0170-0177, 0376	Secondary IDE Channel
01F0-01F7, 03F6	Primary IDE Channel
0274-0277, 0279, 0A79,	ISAPNP Read Data Port
0378-037F, 0778-077B	Printer Port (LPT1)
03B0-03BB, 03C0-03DF, 1800-1807,	Intel (R) 82852/82855 GM/GME Graphics Controller
06F8-06FF	Wacom Serial Pen Tablet
1810-181F	Intel (R) 82801DBM Ultra ATA Storage Controller-24CA
1820-183F	Intel (R) 82801DB/DBM USB Universal Host Controller-24C2
1840-185F	Intel (R) 82801DB/DBM USB Universal Host Controller-24C4
1860-187F	Intel (R) 82801DB/DBM USB Universal Host Controller-24C7
1880-189F	Intel (R) 82801DB/DBM SMBus Controller-24C3
18C0-18FF, 1C00-1CFF	Cystal WDM AC97 Driver for ICH4
2000-207F, 2400-24FF	Agere System AC97 Modem
FB00-FBFE	O2Micro SmartCardBus Reader
FC00-FCFF, FD00-FDFF, FE00-FEFF, FF00-FFFF	Generic Cardbus Controller

IRQ Assignment Map

Interrupt Channel	System timer
IRQ00	System time
IRQ01	Keyboard
IRQ02	Progammable Interrupt Controller
IRQ03	FIR
IRQ04	Communications Port (COM1)
IRQ05	Free
IRQ06	Wacom Serial Pen Tablet/Standard Floppy Disk Controller
IRQ07	ECP Printer Port (LPT1)/O2Micro Smart CardBus Reader

IRQ Assignment Map

Interrupt Channel	System timer
IRQ08	Real Time Clock
IRQ09	SCI
IRQ10	PCI Device (LAN, Audio, Modem...)
IRQ11	USB 1.1, USB 2.0, VGA
IRQ12	PS/2 Mouse
IRQ13	Numeric data processor
IRQ14	1st EIDE device (hard disk)
IRQ15	2nd EIDE device (optical drive)

DMA Channel Assignment

Item	Specification
00	PnP Audio System CODEC
01	Free
02	Standard Floppy Disck Controller
03	ECP Printer Port

System Utilities

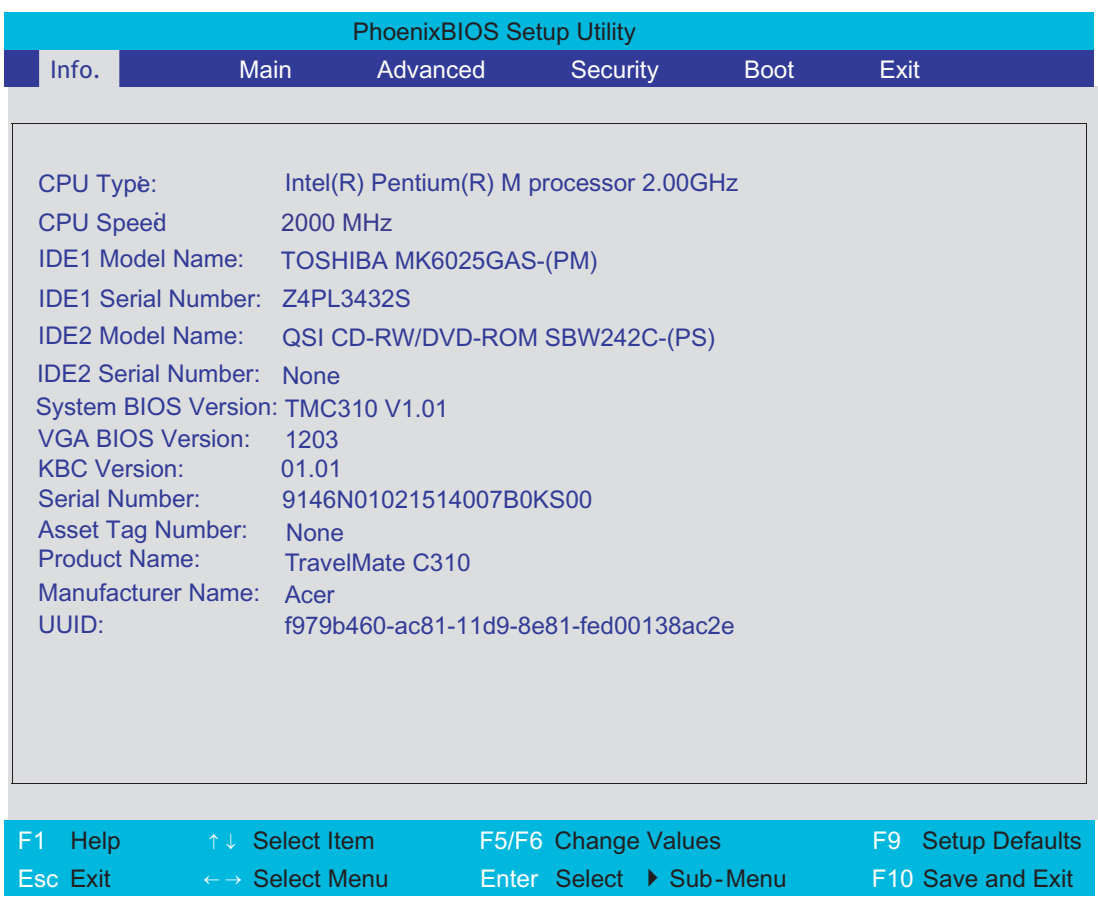
BIOS Setup Utility

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: Information, Main, Advanced, Security, Boot, and Exit.

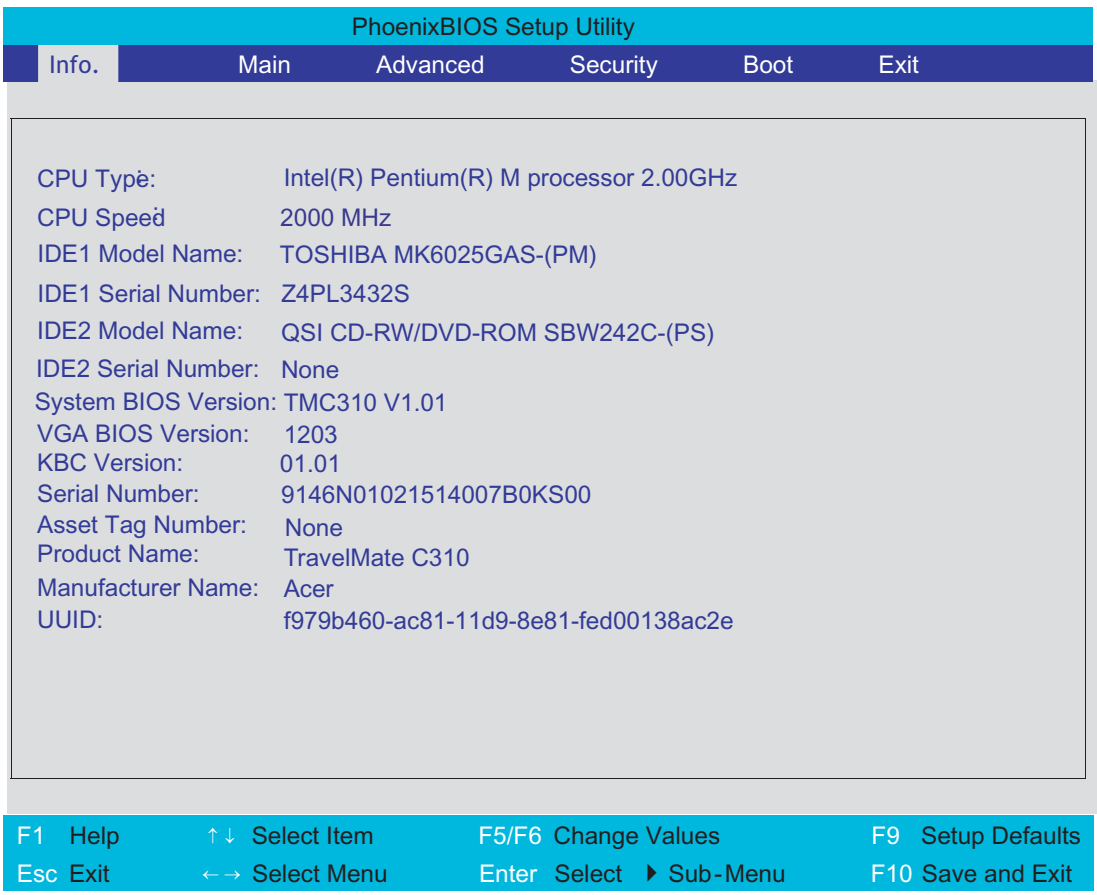
Follow these instructions:

- To choose a menu, use the cursor left/right keys (← →).
- To choose a parameter, use the cursor up/down keys (↑ ↓).
- To change the value of a parameter, press F5 or F6.
- 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.

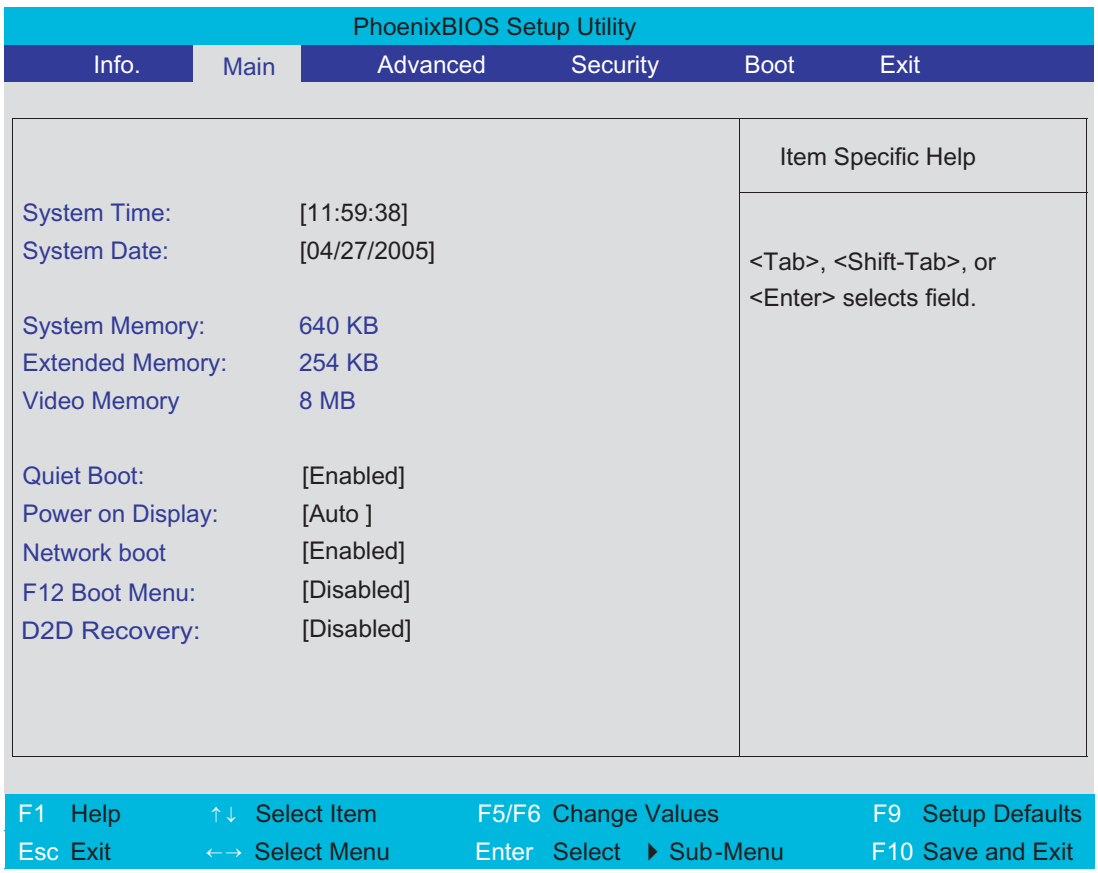
Information



Parameter	Description
IDE1 Model Name	Shows the Model name of HDD installed on Primary IDE master. The hard disk model name is automatically detected by the system. If there is no hard disk present or unknown type, "**None**" should be shown on this field.
IDE1 Serial #	This field display the Serial number of HDD installed on Primary IDE master. If no Hard disk or other devices are installed on Primary IDE master, then it will display a blank line.
IDE2 Model Name	This item will show the Model name of device installed on Secondary IDE master. The hard disk or CD-ROM model name is automatically detected by the system. If there is no hard disk or CD-ROM present or unknown type, "**None**" should be shown on this field.
IDE2 Serial #	This item will show the Serial number of HDD installed on Secondary IDE master. If no hard disk or other devices are installed on Primary IDE master, then it will display a blank line.
Serial Number	This field displays the serial number of this unit.
UUID Number	UUID=32bytes

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.

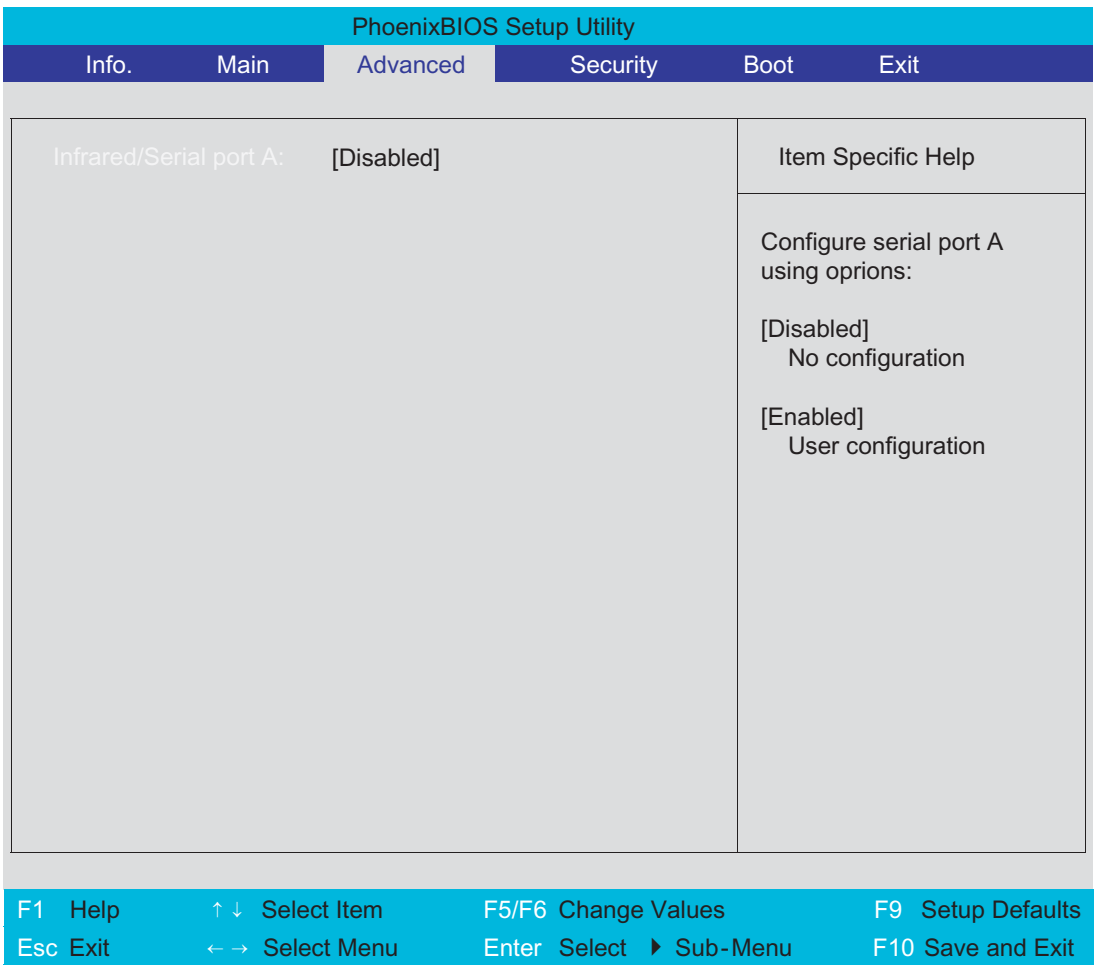
The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

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 640MB	
Extended Memory	This field reports the memory size of the extended memory in the system. Extended Memory size=Total memory size-1MB	
VGA Memory	Shows the VGA memory size. The default value is set to 8MB. Note: 8MB is VGA memory size under DOS mode. Dynamic video memory allocation up to 64MB in Windows mode.	
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
Network Boot	Indicates that whether the notebook can boot from LAN or not.	Option: **Enabled** or **Disabled**
F12 Boot Menu	Determines if the OEM POST screen will have "Press <F12> Change Boot Device" or not during user's quite boot.	Option: **Enabled** or **Disabled**
D2D Recovery	Enable, disable D2D recovery function.The function allows the user to create a hidden partition on hard disk 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.

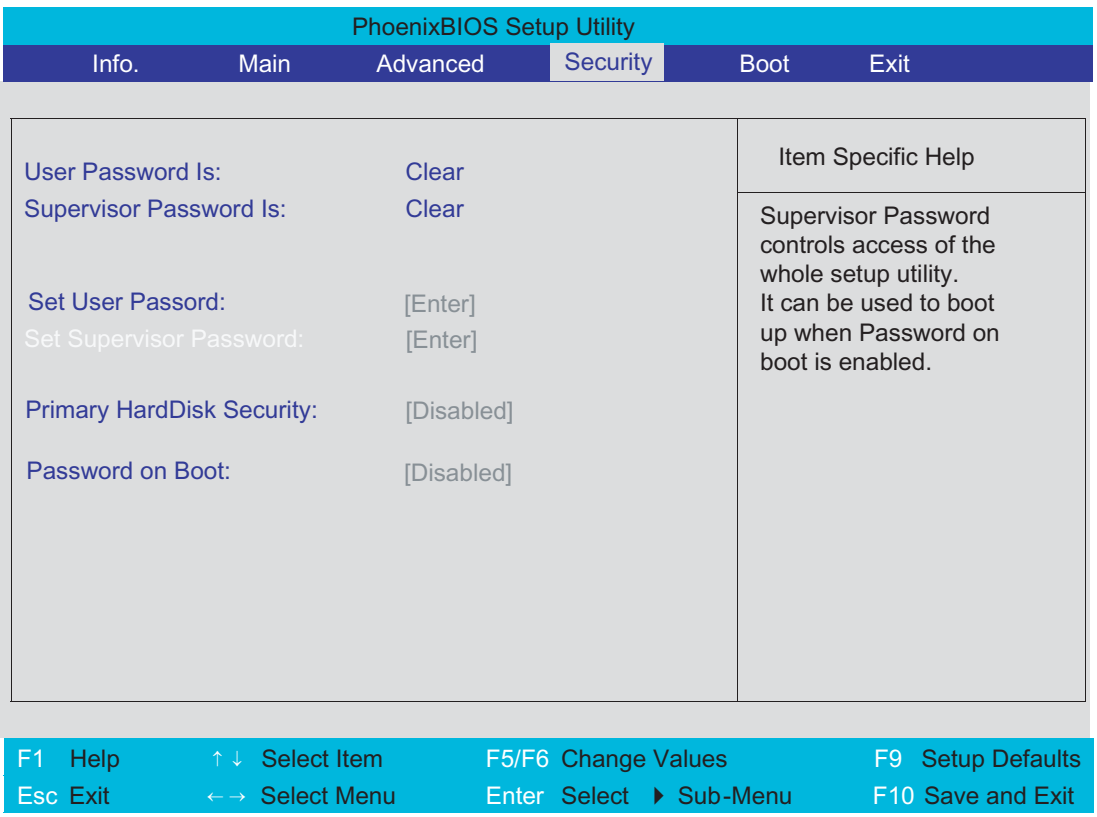


The table below describes the parameters in the screen. Settings in **boldface** are the default and suggested parameter settings.

Parameter	Description	Options
Infrared/Serial port	Enables, disables the infrared/serial port.	**Enabled**/Disabled

Security

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



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

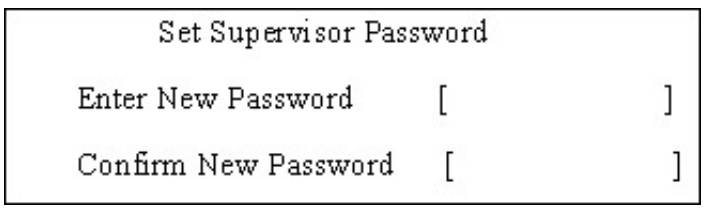
Parameter	Description	Option
User Password is	Shows the setting of the uer password.	**Clear** or Set
Supervisor Password is	Shows the setting of the Supervisor password	**Clear** or Set
Set User Password	Press Enter to set the user password. When set, this password protects the BIOS Setup Utility from unauthorized access.	[Enter]
Set Supervisor Password	Press Enter to set the supervisor password. When set, this password protects the BIOS Setup Utility from unauthorized access.	[Enter]
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.

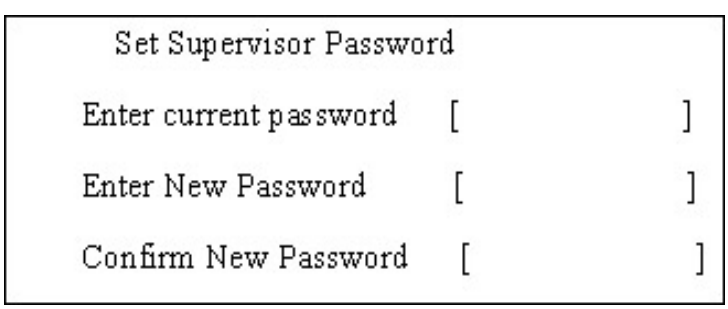
IMPORTANT: Be very careful when typing your password because the characters do not appear on the screen.

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:

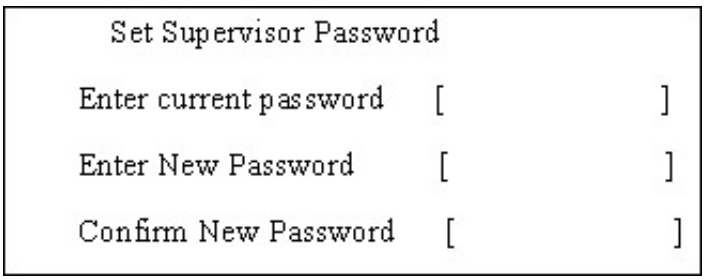
1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the ENTER key. The Set Password box appears:



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.

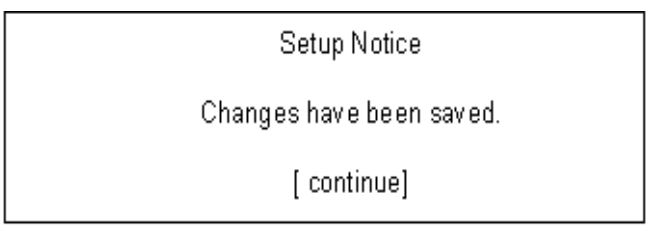
Changing a Password

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



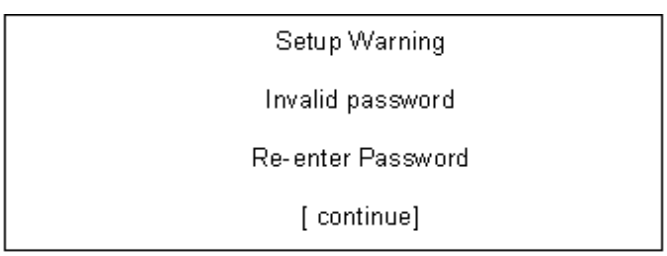
2. Type the current password in the Enter Current Password field and press ENTER.
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
4. Press ENTER. After setting the password, the computer sets the User Password parameter to “Set”.
5. If desired, 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.

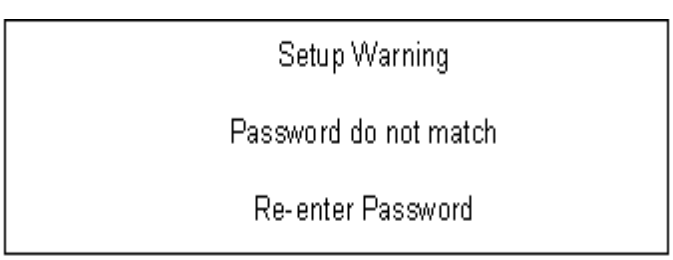


The password setting is complete after the user presses F10.

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

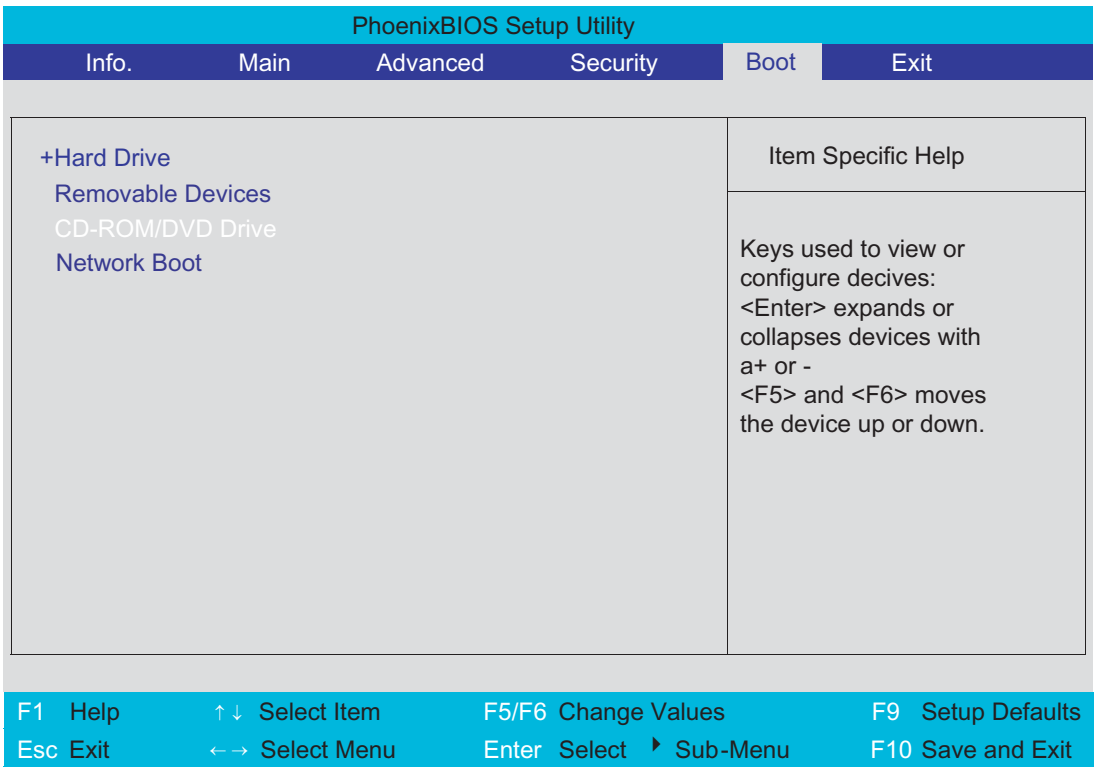


If the new password and confirm new password strings do not match, the screen will display the following message.



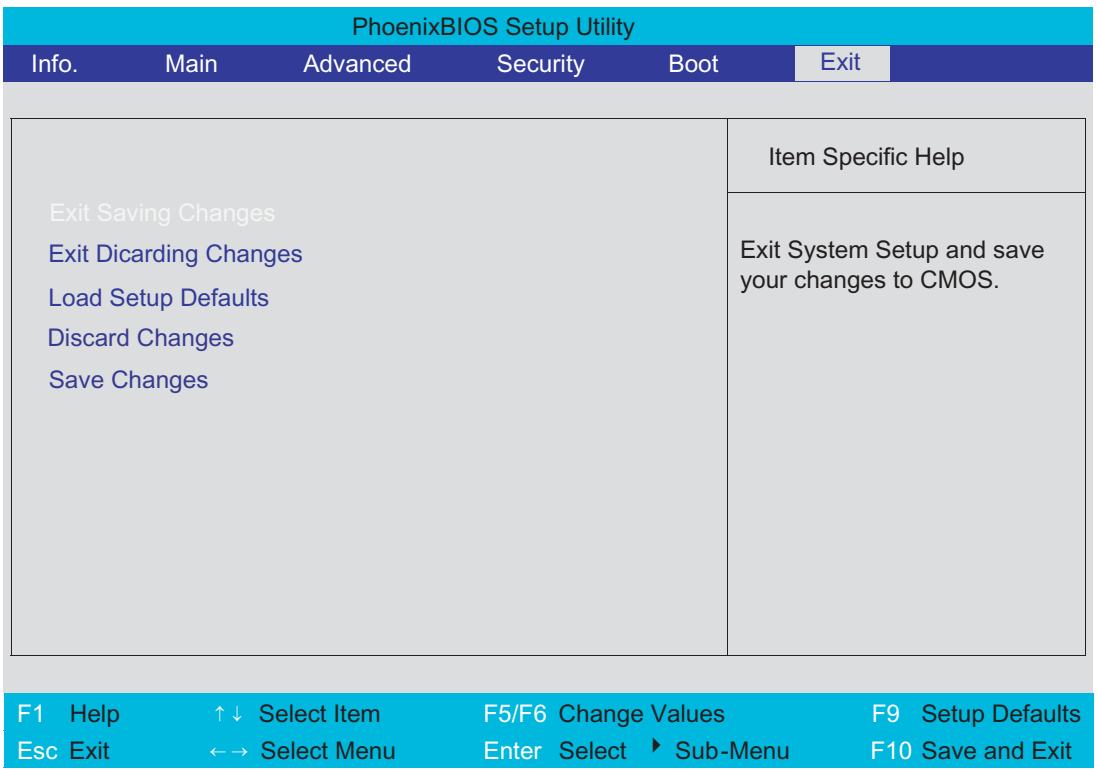
Boot

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
- Philips screw drivers
- Flat head screwdriver

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 middle 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:

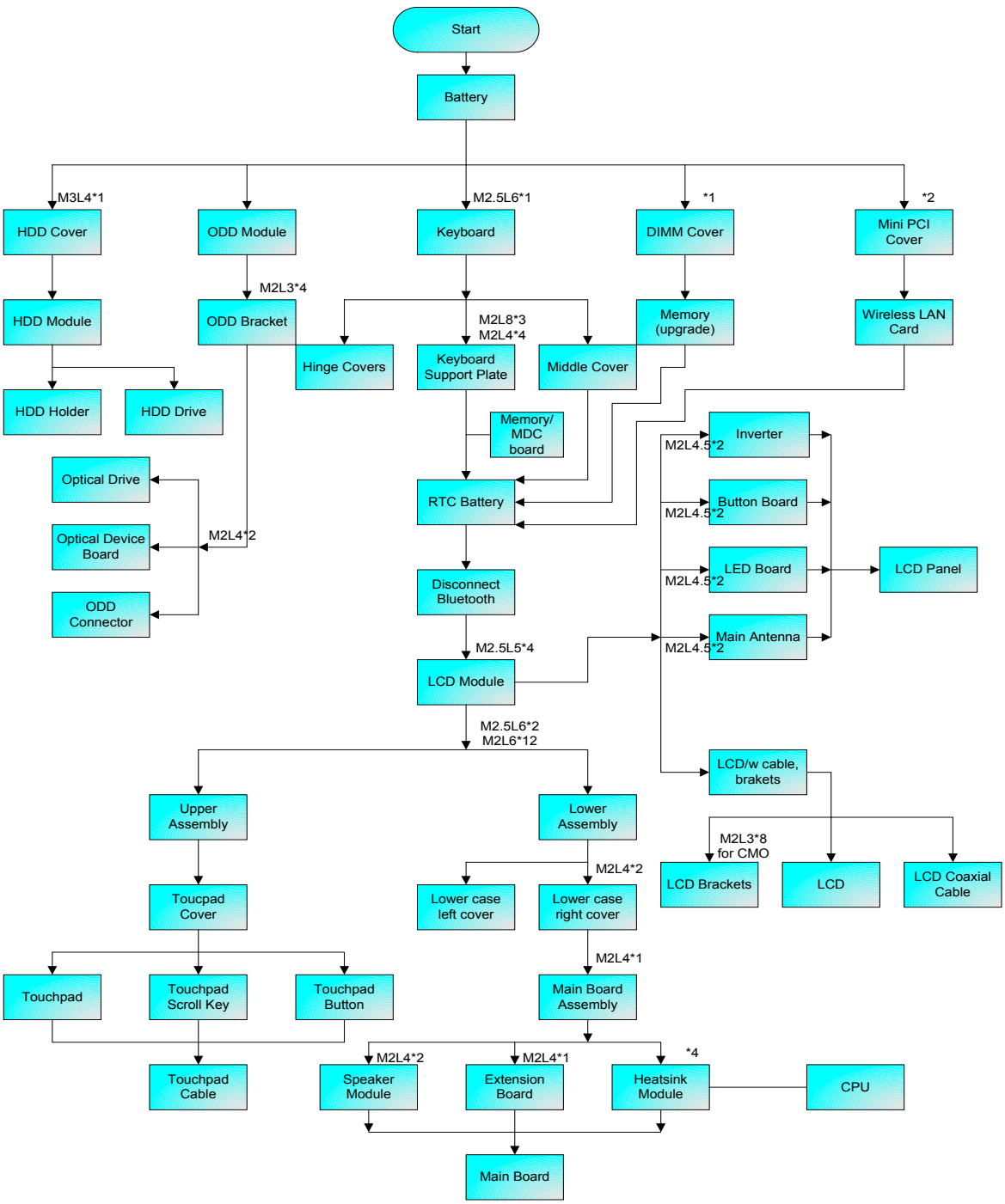
1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.
3. Remove the battery pack.

NOTE: TravelMate C310 series product uses tape to fasten the antenna/cable, you may need to tear the tape before you remove the antenna.

NOTE: The disassembly is based on an engineering sample, therefore, the number of the screws may differ from what you would actually get.

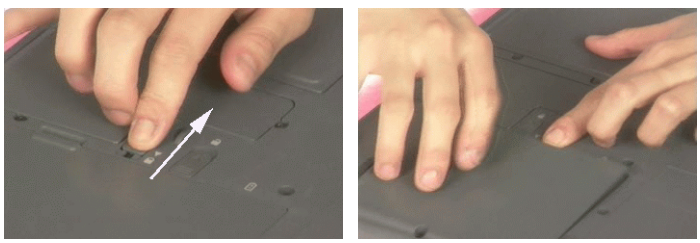
Disassembly Procedure Flowchart

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 then disassemble the inside assembly frame in that order.



Removing the Battery Pack

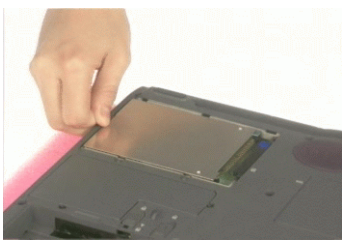
1. Release the battery lock.
2. Slide the battery latch then remove the battery.



Removing the HDD Module/Optical Module/Wireless LAN Card/Keyboard and LCD Module

Removing the HDD Module

1. Remove the two screws holding the HDD cover.
2. Pull out the hard disk drive then detach it from the main unit.

Removing the Optical Disc Drive Module

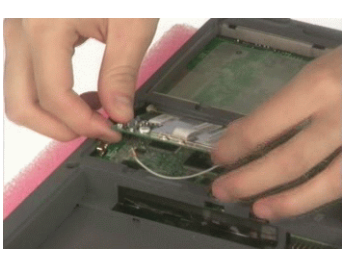
1. Slide the ODD latch then remove the ODD module from the main unit carefully.

.

Removing the Wireless LAN Card

1. Remove the two screws that fasten the Mini PCI cover.
2. Disconnect the main and the auxiliary antenna.
3. Pop out the wireless LAN card then remove it.





Removing the Memory

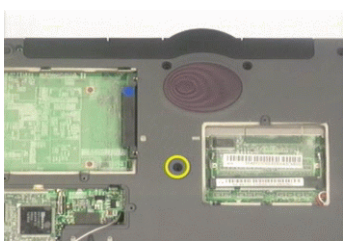
1. Remove the screw securing the RAM door and remove the RAM door.

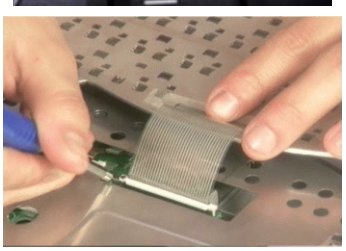
2. You can remove the optional memory here.

NOTE: The main memory is located on the top of the mainboard.

Removing the Keyboard

1. Remove the screw holding the keyboard.
2. Release the keyboard locks（x3）.
3. Turn the keyboard over and disconnect the keyboard cable then remove the keyboard.





Removing the LCD Module

1. See “Removing the Keyboard” on page 50.
2. Rotate the LCD module clockwise 135 degree.
3. Press down the LCD module as picture shows.
4. Detach the front hinge cap carefully.

NOTE: Hinge caps disassembling SOP (step2-step7) is different from what you will see on the mepg files. You can disassemble either the front or the back hinge cap first as you like. Both methods are workable.

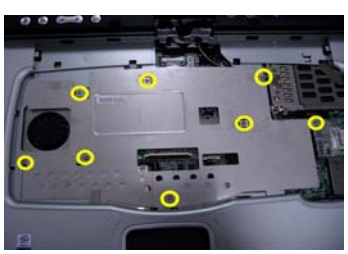
5. After detach the front hinge cap, erecat the LCD module as picture shows.

6. Rotate the LCD module counter-clockwise 90 degree. Then press down the LCD module a little bit.
7. Remove the back hinge cap carefully.



8. Detach the middle cover carefully.

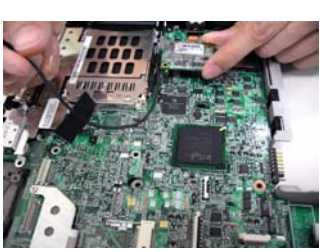
9. Remove the eight screws holding the keyboard support plate then remove the plate.



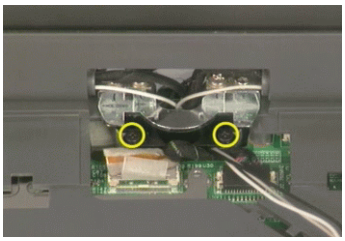

NOTE: This is an engineering sample. The number of screws holding the keyboard support plate maybe vary from the mass production units.

10. Disconnect the modem board cable from the mainboard.
11. Remove the modem board and cable.

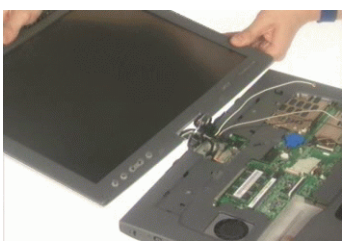


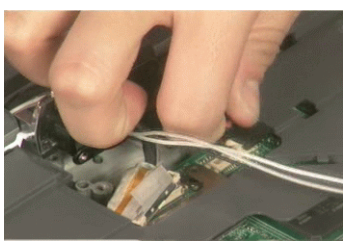


12. Remove the four screws fastening the LCD module; two on the front and another two on the back.



13. Place the LCD module as the picture shows carefully.
14. Disconnect the LCD coaxial cable and inverter cable respectively.



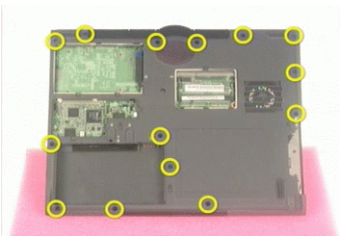


Disassembling the Main Unit

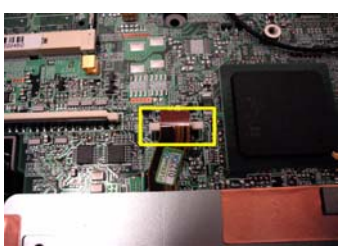
Separate the main unit into the logic upper and the logic lower assembly

1. Pop out the memory then remove it from the DIMM socket.
2. Remove the 14 screws holding the upper case assembly and the lower case assembly.



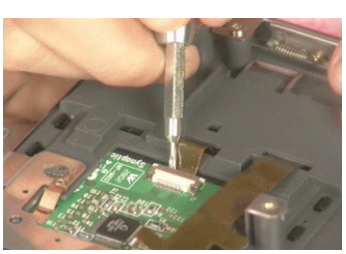
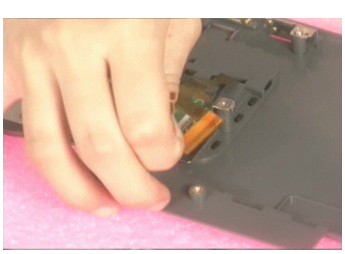


3. Disconnect touchpad cable connecting to the main board.
4. Separate the main unit into the upper case assembly and the lower case assembly.



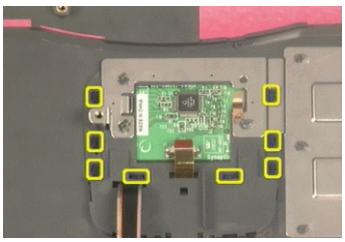
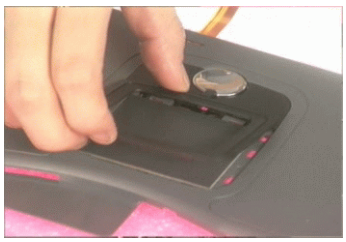

Disassembling the logic upper assembly

1. Disconnect the touchpad cable.
2. Tear off the touchpad cable.

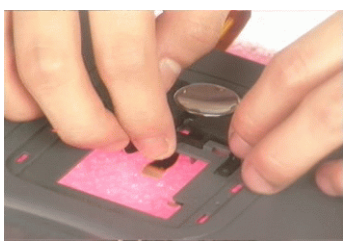
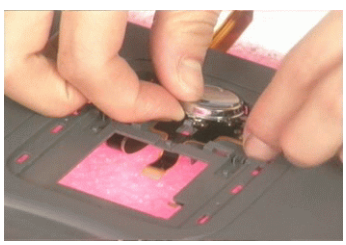



NOTE: The touchpad cable has been fastened very tight to the upper case by black tape. It is easy tear the touchpad cable when removing the black tape.

3. Release the touchpad cover latches.
4. Detach the touchpad holder.

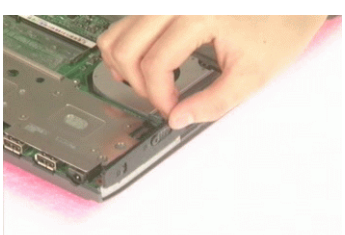
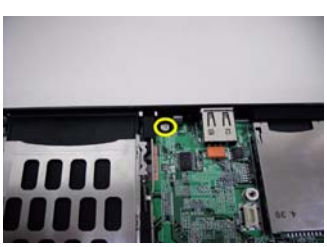



5. Remove the touchpad.
6. Detach the touchpad button.
7. Then detach touchpad scroll key.

Disassembling the logic lower assembly

1. Remove the lower case left cover.
2. Remove the screw holding the lower case right cover.
3. Then remove the lower case right cover.

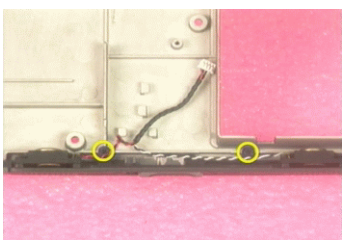
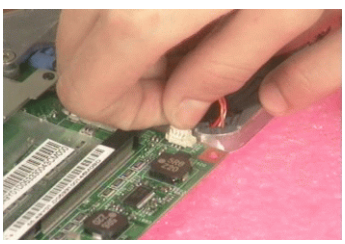




4. Disconnect the cable from mainboard to CD ROM board.
5. Disconnect the speaker cable.

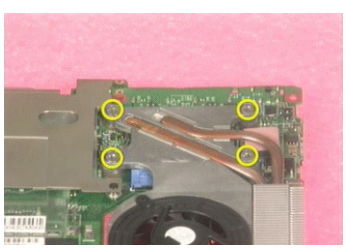
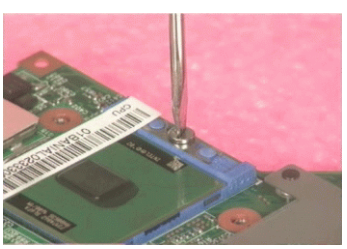
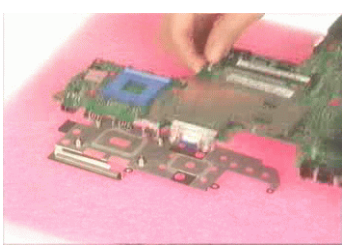

6. Take out the main board from the lower case.
7. Remove the screw securing the CD ROM board.
8. Take out the CD ROM board from the lower case.



9. Remove the two screws that fasten the speaker module.
10. Disconnect the fan cable.

11. Remove the four screws that fasten the heatsink module then remove the heatsink module.
12. Release the CPU lock with a flat-head screwdriver then remove the CPU from the socket.
13. Take the main board off the thermal plate.

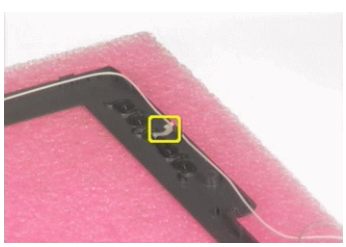
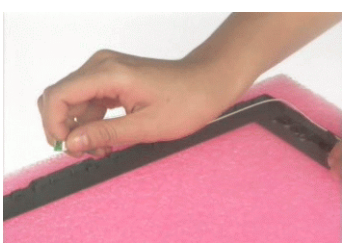
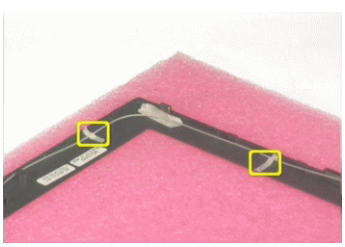




Disassembling the LCD Module

1. Remove the four LCD screw caps.
2. Then remove the four screws that secure the LCD bezel.
3. Detach the LCD bezel carefully.



4. Tear off the tape fastening the bluetooth antenna.
5. Then remove the bluetooth antenna from the LCD bezel.
6. Then disconnect the LCD inverter cable.

7. Remove the auxiliary wireless antenna.
8. Pull out the main wireless antenna, LCD coaxial cable and inverter cable.
9. Remove the two screws holding the inverter.

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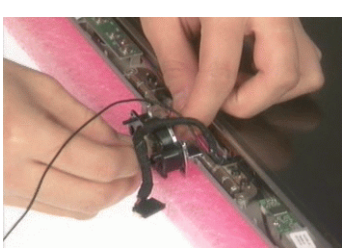
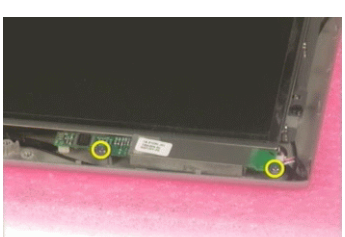
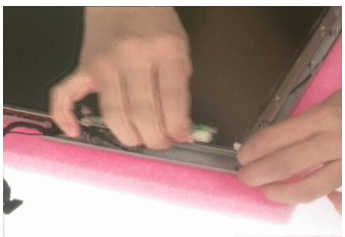
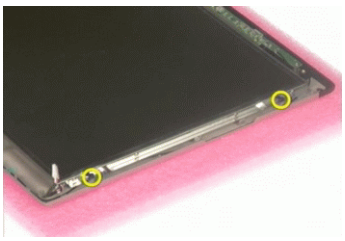
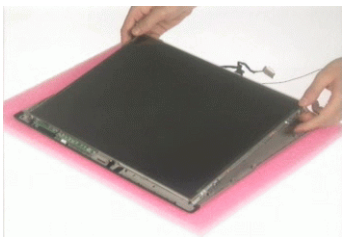
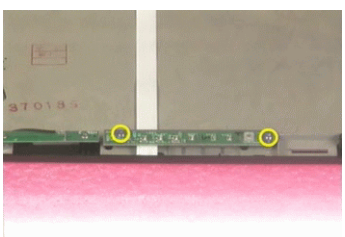
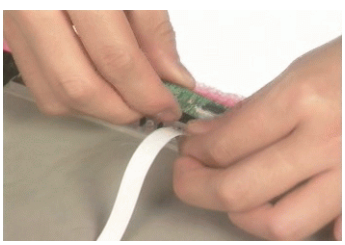
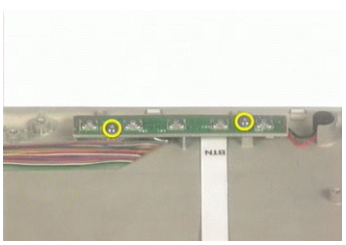



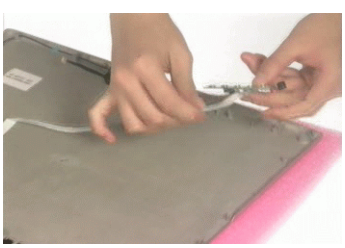
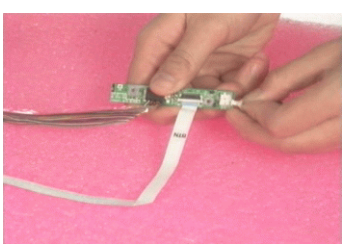
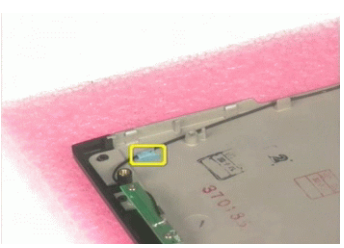
10. Disconnect the inverter cable then remove the inverter.
11. Remove the four screws that secure the LCD to the LCD panel; two on each side.
12. Take out the LCD from the LCD panel.

13. Remove the two screws holding the LED board.
14. Disconnect the LED board cable.
15. Remove the two screws that secure the button board.

16. Take out the microphone, detach the button board assembly.
17. Disconnect the microphone, the LCD coaxial cable and the button board to LED board cable.
18. Tear off the tape fastening the main wireless antenna.

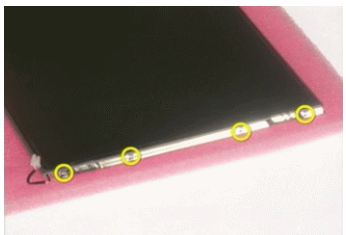




19. Remove the two screws holding the main wireless antenna.
20. Remove the main wireless antenna from the LCD panel.
21. Disconnect the LCD coaxial cable and detach the cable from the LCD.

.



22. Remove the eight screws fastening the LCD brackets; four on each side.
23. Remove the right and the left LCD brackets.



Disassembling the External Modules

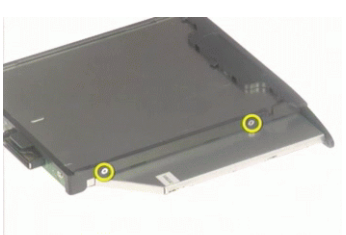
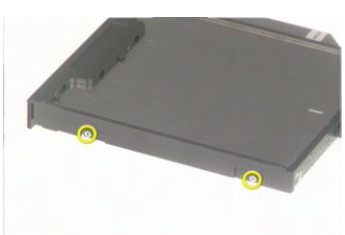
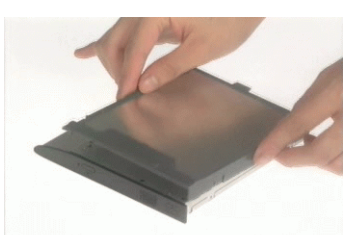
Disassembling and Reassembling the HDD Module

1. Remove the screw holding the HDD holder.
2. Take out the hard disc drive from the HDD holder carefully.

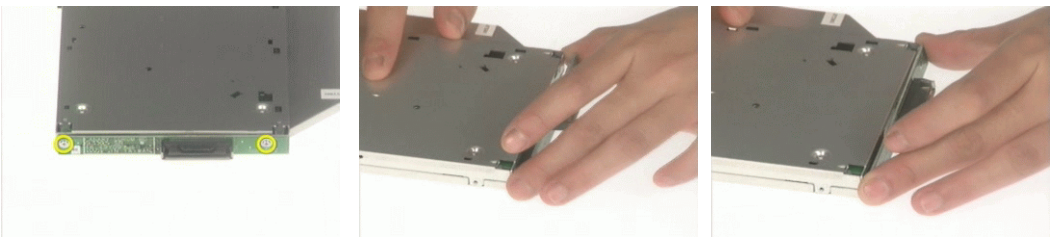

3. Place the hard disc drive back to the HDD holder.
4. Secure the hard disc drive to the HDD holder witht the screw as shown.


Disassembling and Reassembling the Optical Disc Drive Module

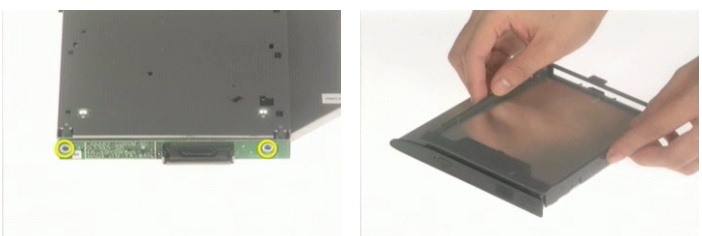
1. Remove the two screws holding the optical bracket.
2. Remove another two screws as shown.
3. Then remove the optical bracket.

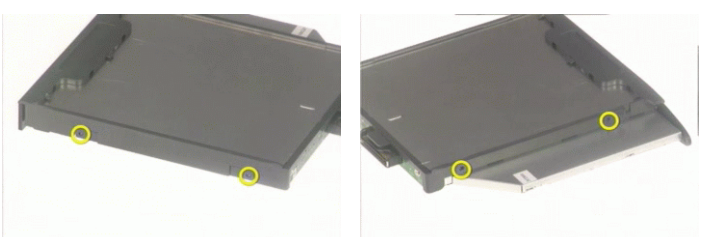
4. Remove the two screws holding the optical board.
5. Remove the optical device board.
6. Reattach the optical device board to the optical disc drive.



7. Secure the optical device board with two screws as shown.
8. Attach the optical bracket back to the ODD.



9. Secure the optical bracket with the two screws as shown.
10. Then fasten the optical braket with another two screws as shown.



Assemble the Hinge Caps

1. Rotate the LCD module clockwise 135 degree. Press down the LCD module as picture shows.
2. Place the front hinge cap back to its original position.
3. Press the front hinge cap until you hear a click.



4. After attach the front hinge cap, erecat the LCD module as picture shows.
5. Rotate the LCD module counter-clockwise 90 degree. Then press down the LCD module a little bit.
6. Place the back hinge cap back the unit as picture shows.



7. Press down the back hinge cap until you hear a click.

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 64.
POST does not complete. No beep or error codes are indicated.	"Power-On Self-Test (POST) Error Message" on page 66 "Undetermined Problems" on page 78
POST detects an error and displayed messages on screen.	"Error Message List" on page 67
Other symptoms (i.e. LCD display problems or others).	"Power-On Self-Test (POST) Error Message" on page 66
Symptoms cannot be re-created (intermittent problems).	Use the customer-reported symptoms and go to "Power-On Self-Test (POST) Error Message" on page 66 "Intermittent Problems" on page 77 "Undetermined Problems" on page 78

System Check Procedures

External Diskette Drive Check

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

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

Do the following to select the test device.

1. Boot from the diagnostics diskette and start the diagnostics program.
2. See if FDD Test is passed as the program runs to FDD Test.
3. Follow the instructions in the message window.

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 65

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 78.

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 63
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 batter 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 64 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 64 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

POST 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	For Boot Block in Flash ROM
E0h		Initialize the chipset
E1h		Initialize the bridge
E2h		Initialize the CPU
E3h		Initialize the system timer
E4h		Initialize system I/O
E5h		Check force recovery boot
E6h		Checksum BIOS ROM
E7h		Go to BIOS
E8h		Set Huge Segment
E9h		Initialize Multi Processor
EAh		Initialize OEM special code
EBh		Initialize PIC and DMA
ECh		Initialize Memory type
EDh		Initialize Memory size
EEh		Shadow Boot Block
EFh		System memory test
F0h		Initialize interrupt vectors
F1h		Initialize Run Time Clock
F2h		Initialize video
F3h		Initialize System Management Mode
F4h	1	Output one beep before boot
F5h		Boot to Mini DOS
F6h		Clear Huge Segment
F7h		Boot to Full DOS

Index of Symptom-to-FRU Error Message

LCD-Related Symptoms

Symptom / Error	Action in Sequence
LCD backlight doesn't work	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 64. 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 64. 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 65. 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 78.

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).

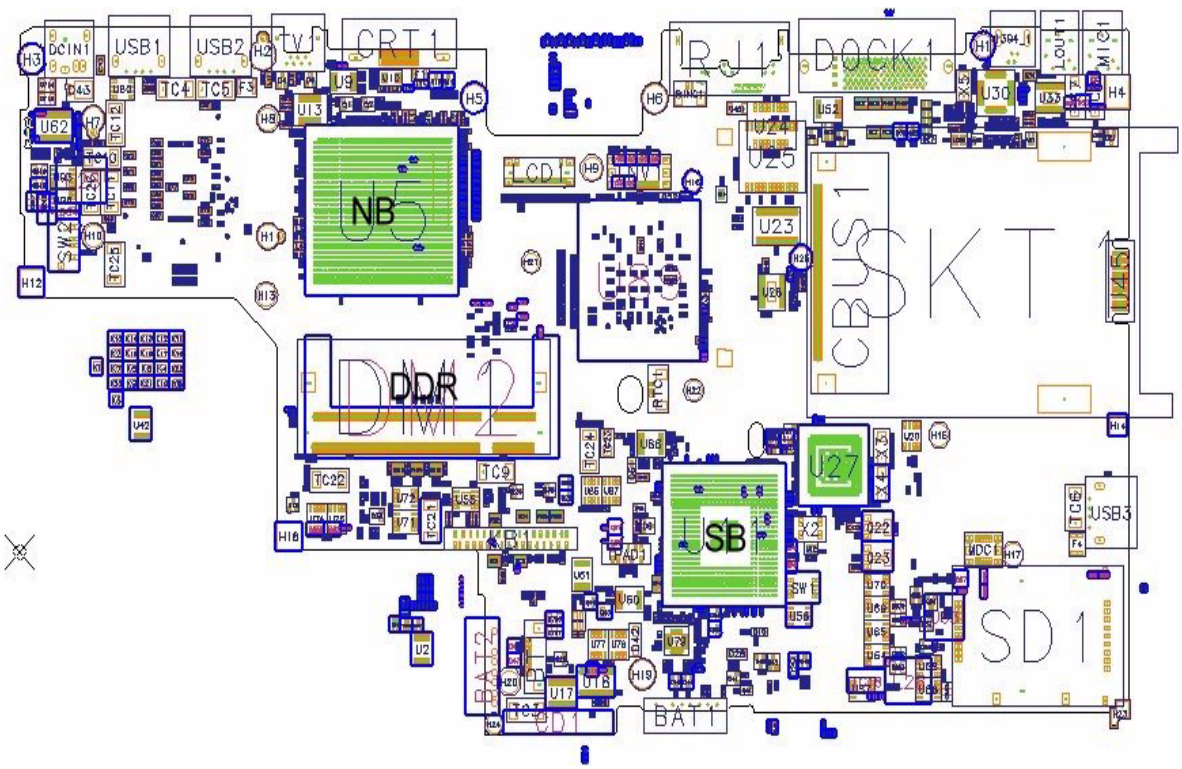
NOTE: Verify that all attached devices are supported by the computer.

NOTE: Verify that the power supply being used at the time of the failure is operating correctly. (See “Power System Check” on page 64):

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

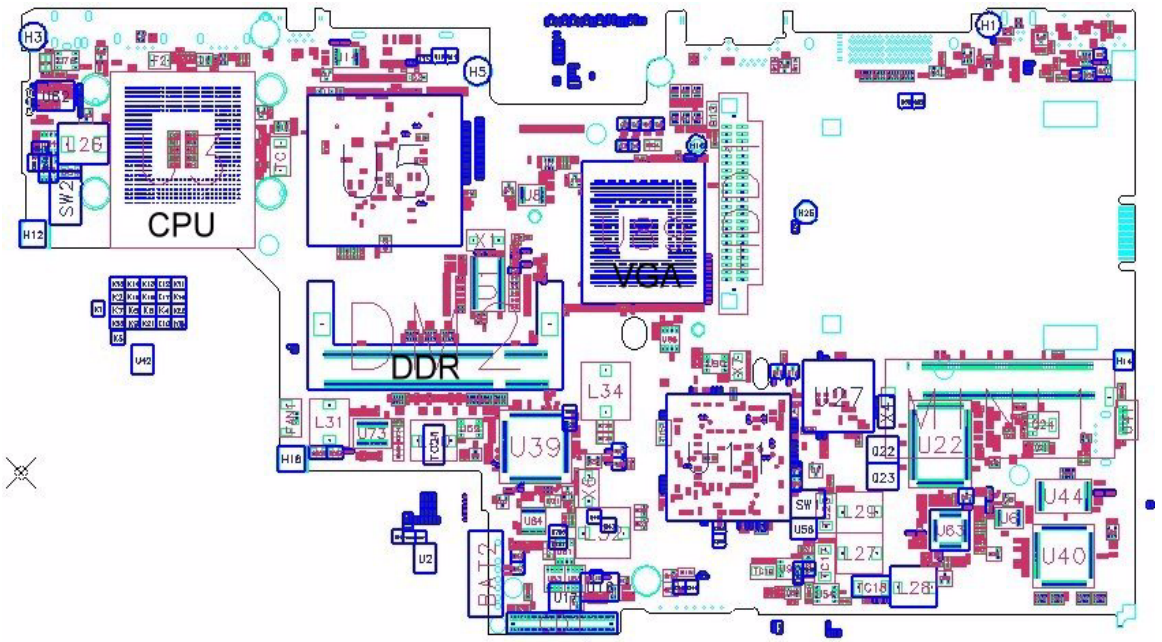
Jumper and Connector Locations

Top View



Item	Description	Item	Description
DCIN1	DC-In Jack	1394_1	IEEE 1394 Port
USB2	USB Port	LOUT	Line-Out Jack
USB1	USB Port	MIC1	Mic-In Jack
TV1	S-Vedio Port	USB3	USB Port
CRT1	External Display Port	SD1	Card Reader
LCD1	LCD Coaxial Cable Connector	TPAD1	Touchpad Connector
NB	North Bridge	KB1	Keyboard Connecto
SB	South Bridge	DM2	DIMM Socket 2
INV1	Inverter Cable Connector	U89	VGA chip
RJ1	Modem Jack/LAN Jack		
DOCK1	Expansion Port		
CBUS1	PCMCIA Slot		

Bottom View



Item	Description	Item	Description
CPU	CPU Socket	HDD1	Mini PCI Connector
DDR	DIMM Socket 1	MINI1	HDD Connector
FAN1	FAN Connector		

Switch Setting

	SW2-1	SW2-2
CHKPW	ON	X
BOOTBLOCK ENABLE	X	ON

Clear CMOS Procedure

1. Run CLCMOSOS.COM in DOS mode to clear the CMOS values.

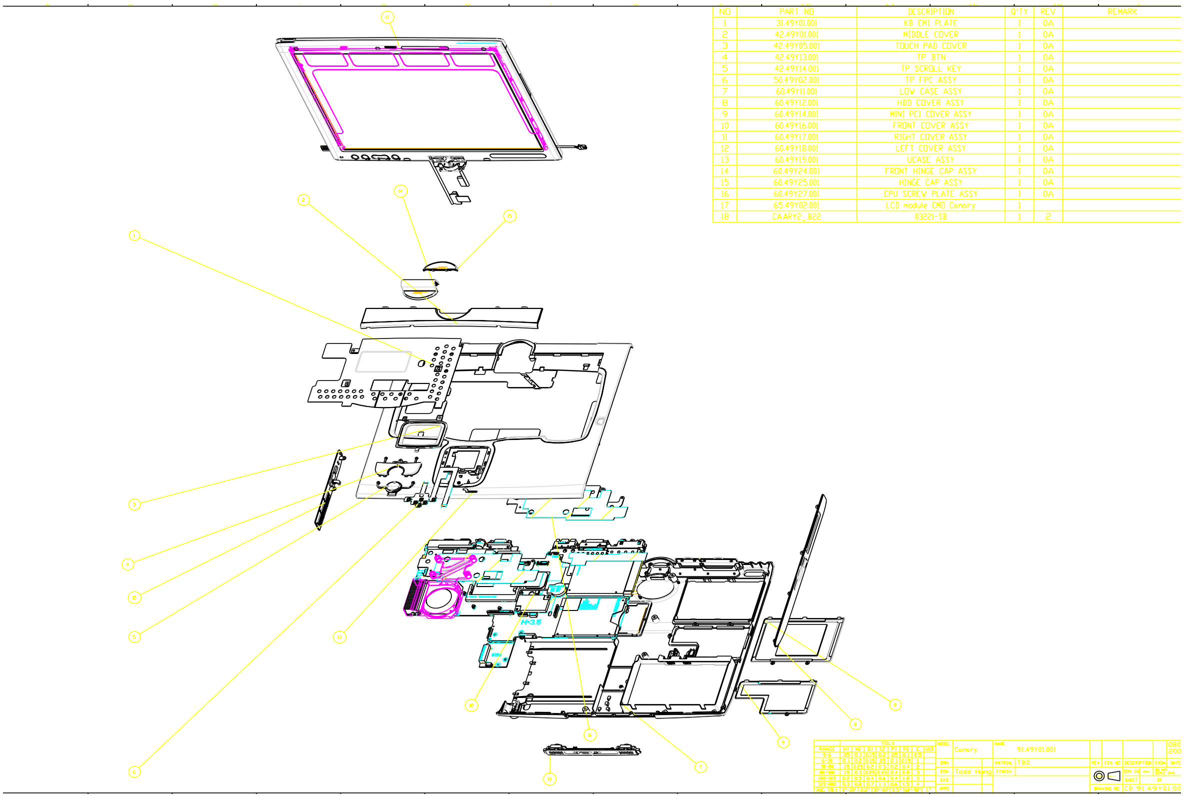
FRU (Field Replaceable Unit) List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of TravelMate C310 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.

Exploded Diagram



NO	PART NO	DESCRIPTION	Q'TY	REV	REMARK
1	31.49Y01.001	KB EMI PLATE	1	0A	
2	42.49Y01.001	MIDDLE COVER	1	0A	
3	42.49Y05.001	TOUCH PAD COVER	1	0A	
4	42.49Y13.001	TP BTN	1	0A	
5	42.49Y14.001	TP SCROLL KEY	1	0A	
6	50.49Y02.001	TP FPC ASSY	1	0A	
7	60.49Y11.001	LOW CASE ASSY	1	0A	
8	60.49Y12.001	HDD COVER ASSY	1	0A	
9	60.49Y14.001	MINI PCI COVER ASSY	1	0A	
10	60.49Y16.001	FRONT COVER ASSY	1	0A	
11	60.49Y17.001	RIGHT COVER ASSY	1	0A	
12	60.49Y18.001	LEFT COVER ASSY	1	0A	
13	60.49Y19.001	UCASE ASSY	1	0A	
14	60.49Y24.001	FRONT HINGE CAP ASSY	1	0A	
15	60.49Y25.001	HINGE CAP ASSY	1	0A	
16	60.49Y27.001	CPU SCREW PLATE ASSY	1	0A	
17	65.49Y02.001	LCD module CMO Canary	1		
18	CA.ARY2_.B22	03221-SB	1	2	

Parts

Picture	Partname And Description	Part Number
Adapter		
	ADAPTER 70W 3PIN DELTA ADP-65DB	AP.T2101.001
Battery		
	BATTERY PACK LI 8CELL 2.2AH SANYO	BT.T8603.001
	BATTERY PACK LI 6CELL 2.2AH SMP	BT.T8607.001
	RTC BATTERY	23.T28V1.001
Boards		
	TOUCHPAD BOARD SYNAPTICS/TM41P-341	56.T39V1.001
	WIRELESS LAN BOARD 802.11BG INTEL 2200BGMW2	KI.CAX01.008
	WLAN 802.11ABG INTEL NA ANNIE	KI.CAX01.009
	WLAN 802.11ABG INTEL EU ANNIE	KI.CAX01.010
	WLAN 802.11ABG INTEL861738 ANN	KI.CAX01.011
	BLUE TOOTH WNC BC92035	54.T86V1.001
Cables		
	CORD 10A125VUS K01081B1183BC-L	27.T30V1.001
	CORD 10A 250V 1830MM CHINA BK	27.T30V1.002
	CORD CHINA 10A 250V 3P	27.01518.591
	CORD UK 3A 250V 3PIN BK	27.T30V1.003
	CODE UK 3A 250V 3P BK	27.01518.541
	CORD EUR 220V 3P BK	27.T30V1.004
	CORD 10A 250V 2PIN EUROPEP BK	27.T30V1.004
	CORD 10A 250V K16081H6183BE-00	27.T30V1.005
	CODE SOUTH AFRICA 10A 250V BK	27.01518.571
	CORD 10A 250V K51081H5183BE-00	27.T30V1.006
	CODE SWISS POWER 10A 250V BK	27.01518.581
	CORD 10A K56081H5183BE DEMARK	27.T30V1.007
	CODE DENMARK 10A 3P BK	27.01518.561
	CORD 10A 250V K50081H5183BE(I)	27.T30V1.008
	CORD ITALY 10A 250V 3P BK	27.01518.611
	C.A. LED BTN FFC CANARY(LED CABLE)	50.T28V1.009
	C.A. TOUCH PAD FPC CANARY(TOUCHPAD CABLE)	50.T28V1.001
	C.A.FPC TOUCH PAD CAREER(TOUCHPAD CABLE)	50.T28V1.011

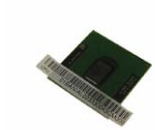
Parts

Picture	Partname And Description	Part Number
	C.A. B/T ANTENNA CANARY3(BLUETOOTH CABLE)	50.T86V1.001
Case/Cover/Bracket Assembly		
	PCMCIA DUMMY CARD	42.T39V1.003
	MIDDLE COVER	60.T86V1.006
	TOUCHPAD HOLDER	42.T28V1.006
	LOWER CASE W/DIMM COVER & RUBBER FOOT	60.T86V1.001
	DIMM COVER W/SCREW	42.T28V1.007
	HDD COVER W/SCREW	42.T86V1.001
	MINI PCI COVER W/SCREW	42.T86V1.002
	LOWER CASE FRONT COVER W/SPEAKER PACK	60.T86V1.002

Parts

Picture	Partname And Description	Part Number
	LOWER CASE RIGHT COVER SMART CARD/ PCMCIA SIDE	60.T86V1.003
	LOWER CASE LEFT COVER POWER SWITCH SIDE	60.T86V1.004
	UPPER CASE W/LATCH MODULE	60.T86V1.005
	HINGE CAP FRONT	42.T28V1.003
	HINGE CAP BACK	42.T28V1.002
	KEYBOARD SUPPORT PLATE	60.T86V1.007
Communication Module		
	WIRELESS LAN ANTENNA AUX	50.T28V1.004
	WIRELESS LAN ANTENNA MAIN	50.T28V1.005

Parts

Picture	Partname And Description	Part Number
CPU		
	CPU CEL-M360 1.4GMHZ INTEL	KC.N0001.360
	CPU CEL-M370 1.5GMHZ INTEL	KC.N0001.370
	CPU DOTHAN715A 1.5GMHZ INTEL	KC.NA001.715
	CPU DOTHAN730 1.6GMHZ INTEL	KC.N0001.730
	CPU DOTHAN740 1.73GMHZ INTEL	KC.N0001.740
	CPU DOTHAN750 1.87GMHZ INTEL	KC.N0001.750
	CPU DOTHAN760 2GMHZ INTEL	KC.N0001.760
	CPU DOTHAN770 2.13GMHZ NTEL	KC.N0001.770
HDD/ Hard Disk Drive		
	HDD 40G HITACHI HTS424040M9AT00	KH.04007.012
	HDD 40G TOSHIBA MK4025GAS	KH.04004.005
	HDD 40G 4200PRM SEAGATE ST94019A	KH.04001.010
	HDD 60G HITACHI C25N060ATMR04	KH.06007.006
	HDD 60GB TOSHIBA MK6025GAS	KH.06004.004
	HDD 60G SEAGATE ST960821A	KH.06001.002
	HDD 80G HITACHI IC25N080ATMR04	KH.08007.007
	HDD 80G TOSHIBA MK8025GAS	KH.08004.003
	HDD 80G SEAGATE ST9808210A	KH.08001.012
	HDD HOLDER	33.T28V1.001
Keyboard		

Parts

Picture	Partname And Description	Part Number
	KEYBOARD DARFON NSK-A4300 SWISS	KB.T8607.001
	KEYBOARD DARFON NSK-A4302 T-CHINESE	KB.T8607.003
	KEYBOARD DARFON NSK-A4303 THAI	KB.T8607.004
	KEYBOARD DARFON NSK-A4306 PORTUGUESE	KB.T8607.005
	KEYBOARD DARFON NSK-A430A ARABIC	KB.T8607.006
	KEYBOARD DARFON NSK-A430D DANISH	KB.T8607.007
	KEYBOARD DARFON NSK-A430E ITALIAN	KB.T8607.008
	KEYBOARD DARFON NSK-A430F FRENCH	KB.T8607.009
	KEYBOARD DARFON NSK-A430G GERMAN	KB.T8607.010
	KEYBOARD DARFON NSK-A430H HEBREW	KB.T8607.011
	KEYBOARD DARFON NSK-A431A BELGIAN	KB.T8607.012
	KEYBOARD DARFON NSK-A430K KOREAN	KB.T8607.013
	KEYBOARD DARFON NSK-A430M CF 85KEYS	KB.T8607.014
	KEYBOARD DARFON NSK-A430N NORWEGIAN	KB.T8607.015
	KEYBOARD DARFON NSK-A431D US-INT	KB.T8607.016
	KEYBOARD DARFON NSK-A430R RUSSIAN	KB.T8607.017
	KEYBOARD DARFON NSK-A430S SPANISH	KB.T8607.018
	KEYBOARD DARFON NSK-A430T TURKISH	KB.T8607.019
	KEYBOARD DARFON NSK-A430U UK 85 KEYS	KB.T8607.020
	KEYBOARD DARFON NSK-A430W SWEDISH	KB.T8607.021
LCD		
	LCD MODULE 14.1" TFT XGA W/ANTENNA & PROTECT COVER (ASSY LCD MODULE 14"AU CANARY)	6M.T86V1.012
	LCD MODULE 14.1" TFT XGA W/ANTENNA & PROTECT COVER (ASSY LCD MODULE 14"COM CANARY2)	6M.T86V1.011
	LCD MODULE 14.1" TFT XGA AUO W/ PROTECT COVER(ASSY 14.1 AU LCD W/ COVER)	60.T33V1.004
	LCD 14.1" CMO W/COVER	60.T28V1.110
	INEVRTER BOARD 14" FOXCONN T62I224.01	19.T86V1.001
	BUTTON BOARD	55.T28V1.003
	LED BOARD	55.T86V1.002

Parts

Picture	Partname And Description	Part Number
	LCD COAXIAL CABLE 14.1"	50.T86V1.004
	LCD COAXIAL CABLE 14.1"	50.T86V1.003
	INVERTER CABLE	50.T86V1.002
	TOUCHPNL 14" WACOM SU-035-X01(AU)002E	56.T28V1.004
	TOUCHPNL 14.1" WACOM SU-035-X01 0026	56.T28V1.003
	LCD PANEL W/HINGE & LOGO	60.T86V1.011
	HINGE ASSEMBLY	33.T28V1.005
	LCD BEZEL 14.1" W/ICON LABEL & NAME PLATE	60.T86V1.012
	BRKT 14"LCD PANEL R FOR CMO	33.T28V1.004
	BRKT 14"LCD PANEL L FOR CMO	33.T28V1.003
	WIRELESS LAN ANTENNA AUX	50.T28V1.004
	WIRELESS ANTENNA 802.11B MAIN	50.T28V1.005
Main Board		
UMA		
	MAINBOARD CANARY2 MB-1 UMA W/O CPU W/EXTENTION BOARD & MODEM & MODEM CABLE & PCMCIA SLOT	LB.T8601.001
	MODEM BOARD FOXCONN T60M845.01	54.A56V1.001

Parts

Picture	Partname And Description	Part Number
	EXTENSION BOARD	55.T86V1.003
	MODEM CABLE(MODEM TO MAINBOARD)	50.T86V1.005
	PCMCIA SLOT 4PIN	22.T28V1.001
Descrete		
	MAINBOARD CANARY2 MB-1 DISCRETE GIGA W/O CPU W/EXTENTION BOARD & MODEM & MODEM CABLE & PCMCIA SLOT	LB.T8701.001
	MODEM BOARD FOXCONN T60M845.01	54.A56V1.001
	EXTENSION BOARD	55.T86V1.003
	MODEM CABLE(MODEM TO MAINBOARD)	50.T86V1.005
	PCMCIA SLOT 4PIN	22.T28V1.001
Memory		
	SDIMM 256M MICRON MT8HTF3264HDY-40EB3	KN.25604.022
	SDIMM 256M HYNIX HYMP532S64P6-C4	KN.2560G.006
	SDIMM 256M HYNIX HYMP532S64P6-C4	KN.5120G.005
	SDIMM 256M MICRON MT8HTF3264HDY-53EB3	KN.25604.023
	SDIMM 256M SAMSUNG M470T3354BZ0-CD5	KN.2560B.011
	SDIMM 256M ELPIDA U33256AGEPQ662A	KN.25609.003
	SDIMM 256M HYNIX HYMP532S64P6-E3	KN.2560G.007
	SDIMM 512M SAMSUNG M470T6554BZ0-CD5	KN.5120B.008
	SDIMM 512M ELPIDA U33512AGEPQ672A	KN.51209.004
	SDIMM 512M MICRON MT8HTF6464HDY-40EA3	KN.51204.014
	SDIMM 512M HYNIX HYMP564S64P6-E3	KN.5120G.007
Optical Drive/Combo Module		
	CDRW/DVD COMBO MODULE 24X (ASSY COMBO QSI/SBW-242 CANARY2)	6M.T86V1.001
	CDRW/DVD COMBO MODULE 24X (ASSY QSI SBW-243 CANARY3)	6M.T86V1.002
	DVD-RW MODULE 8X DUAL(ASSY QSI DVD DUAL SDW-082 CANA)	6M.T86V1.003
	DVD-RW MODULE 8X DUAL(ASSY QSI DVD DUAL W/BZL CANA)	6M.T86V1.004
	DVD-RW MODULE 8X SUPER MULTI	6M.T86V1.005

Parts

Picture	Partname And Description	Part Number
	CDRW/DVD COMBO MODULE 24X QSI SBW-242C	KO.02407.026
	CDRW/DVD COMBO MODULE 24X QSI SBW-243	KO.02407.025
	DVD-RW DRIVE 8X QSI SDW082 DUAL	KU.00803.003
	DVD-RW DRIVE 8X QSI SDW-082G DUAL	KU.00803.006
	DVD-RW DRIVE 8X TOSHIBA TS-L632B SUPER MULTI	KU.00801.006
	OPTICAL BRACKET	33.T28V1.002
	OPTICAL DEVICE BOARD	55.T86V1.001
Heatsink/FAN		
	CPU FANSINK W/FAN	60.T86V1.008
	CPU FAN 5V	23.T28V1.002
	CPU HEATSINK	34.T86V1.001
Microphone		
	MICROPHONE W/O RUBER	23.T28V1.003
Miscellaneous		
	PLATE ACER LOGO MG-AL PANEL	31.48R18.001
	NAME PLATE	40.T86V1.001
	ICON PLATE	40.T86V1.002
	TOUCHPAD BUTTON	42.T28V1.009
	TOUCHPAD SCROLL KEY	42.T28V1.008
	RUBBER FOOT	47.T28V1.103
	LCD SCREW MYLAR UPPER	47.T28V1.002

Parts

Picture	Partname And Description	Part Number
	LCD SCREW MYLAR LOWER	47.T28V1.001
	LCD LATCH MODULE	60.T86V1.009
Screws		
	SCRW HEX NUT W/WASHER #4 NI BT(Mainboard)	34.00015.211
	SCRW MAC PAN M2*L9.3NI NYL SPR	86.T28V1.003
	SCRW M2X L3 HEAD =0.3MM	86.00B79.520
	SCREW M2X4 (HEAD 0.5) NYLOK(Heatsink)	86.00A55.320
	SCREW SPECIAL M2*L4.5(S50)(LCD/Wireless LAN)	86.00A64.220
	SCRW M1.7*5.5 TAPPING NI(Optical)	86.T28V1.007
	SCREW M2*3 NYLON 1JMCPC-420325(HDD cover/Mini PCI cover)	86.9A352.3R0
	SCREW MACH WAFER M2*6L BK-ZN	86.9A352.6R0
	SCREW M2.5X6(Keyboard)	86.9A353.6R0
	SCREW M3x4(86.9A524.4R0)(HDD)	86.9A524.4R0
	SCREW M2 X L8 (DIA 6MM)(Mainboard)	86.T28V1.005
	SCRW M2*4 WAFER NI(Combo)	86.9A552.4R0
	SCRW MACH WAFER M2*L8 NI S NOT	86.T28V1.006
	SCREW NYLOK M2.5-5(LCD)	86.9A553.5R0
	SCREW TAP FLT M1.7*3*L3 B/ZN	86.TA32M.3R0
Stylus		
	STYLUS WACOM UP-715E-43B	LC.T2801.003

Model Definition and Configuration

TravelMate C310 Series(UMA)

Model Number	CPU	LCD	Memory	HDD (GB)	ODD	Wireless LAN	BT
TMC313E XCi	CM370	N14.1XGAT	SO256MBII 5	N40GB 4.2K	NCB24X	INT2200 BG_MW	N/A
TMC311X Mi	PM730	N14.1XGAT	SO256MBII 5	N60GB 4.2K/ N80GB 4.2K	NSM8X	INT2200 BG_MW	WNC_US B_BRM
TMC313E XMi	CM370	N14.1XGAT	SO256MBII 5	N60GB 4.2K	NSM8X	INT2200 BG_MW	N/A

TravelMate C310 Series(Descrete)

Model Number	CPU	LCD	Memory	HDD (GB)	ODD	Wireless LAN	BT
TMC312X Mi	PM740	N14.1XGAT	SO256MBII 5	N60GB 4.2K	NSM 8X	INT2200 BG_MW	WNC_US B_BRM
TMC311X Mi	PM730	N14.1XGAT	SO256MBII 5	N80GB 4.2K	NSM 8X	INT2200 BG_MW	WNC_US B_BRM

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, Windows® XP Pro and Windows® 2000 environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the TravelMate C310 series Compatibility Test Report released by the Acer Mobile System Testing Department.

Microsoft® Windows® XP Home Environment Test(UMA)

Item	Specifications
CPU	Celeron M 350 (1.3G 1M) Celeron M 360 (1.4G 1M) Celeron M 370 (1.5G 1M) Pentium M 715A (1.5G 2M 400FSB) TJ85 Pentium M 730 (1.6G 2M 533FSB) Pentium M 740 (1.73G 2M 533FSB) Pentium M 750 (1.87G 2M 533FSB) Pentium M 760 (2.0G 2M 533FSB) Pentium M 770 (2.13G 2M 533FSB)
Memory	SO-DIMM DDRII400 256MB MT8HTF3264HDY-40EB3 SO-DIMM DDRII400 256MB HYMP532S64P6-E3 SO-DIMM DDRII533 256MB MT8HTF3264HDY-53EB3 SO-DIMM DDRII533 256MB U33256AGEPQ662A SO-DIMM DDRII533 256MB M470T3354BZ0-CD5 SO-DIMM DDRII 533 256MB HYMP532S64P6-C4 SO-DIMM DDRII400 512MB MT8HTF6464HDY-40EA3 SO-DIMM DDRII400 512MB HYMP564S64P6-E3 SO-DIMM DDRII533 512MB U33512AGEPQ672A SO-DIMM DDRII533 512MB M470T6554BZ0-CD5 SO-DIMM DDRII 533 512MB HYMP564S64P6-C4
HDD	100G SEAGATE 2.5" 4200RPM N2ST9100825A F/W: 40G SEAGATE 2.5 4200RPM N1 ST94019A 2M F/W 3.05 40G TOSHIBA 2.5"" 4200RPM PLUTO MK4025GAS (ROHS) F/W KA100A 40G HGST 2.5" 4.2RPM MORAGA+HTS424040M9AT00 13G1132 F/W:A71A 60G SEAGATE 2.5" 4.2RPM N2ST960821A F/W 3.01 60G TOSHIBA 2.5" 4200RPM PLUTO MK6025GAS (ROHS) F/W KA200 HGST MORAGA 60G 4200RPM IC25N020ATMR04-0 08K0634 F/W:AD4A 80G SEAGATE 2.5" 4.2RPM N2ST9808210A F/W 3.01 80G TOSHIBA 2.5" 4200RPM PLUTO MK8025GAS (ROHS) F/W KA023 HGST 80G MORAGA 4200RPM IC25N0 80ATMR04-0 08K635 FW:AD4A 80G SEAGATE 2.5" 5400RPM MERCURY 2 ST98823A F/W: 80G TOSHIBA 2.5"" 5400RPM PROTEUS MK8026GAX (ROHS) F/W PA00 80G HGST 2.5" MORAGE+ 5400RPMHTS541090G9AT00 F/W A56J
ODD	24X COMBO , QSI SBW-243 ,GBASE/LF , FOR CANARY 2 24X COMBO , QSI SBW-242C FORCANARY II 8X DVD DUAL QSI SDW-082 DOUBLELAYER W/CANARY BZL FOR CANARY 8X DVD DUAL(DL) ,QSI SDW-082K,GBASE/LF ,FOR CANARY 2 8X SUPER MULTI ,TOSHIBA TS-L632B FOR BOLSENA
LCD	14" XGA NB TABLET LCD AUO B141XG08.V2 14.1" XGA NB TABLET LCD CMON14 1X9-L01(TABLET)
Battery	LI-ION BOLSENA 4S2P 4,400MAH(SANYO PACK 2.2AHR CELL) LI-ION BOLSENA 4S2P 4,400MAH(SONY PACK 2.2AHR CELL)
2nd Battery	LI-ION PRISMATIC CANARY2 3S2P 3,800MAH (SANYO PACK 1.9AHR C
Adapter	60W(70W)CANARY2-DELTA SADP-65KB BFK,YELLOW 1.7X5.5X11
Software	WINDOWDS XP TABLET PC SP2 WINDOWS XP TABLET PC SC SP2
VGA Chip	UMA
Card Reader	4 in 1-CanaryII

Item	Specifications
Wireless LAN	INT2200BG_MW INT2200BG_RW INT2915ABG_S1 INT2915ABG_S2 INT2915ABG_S3 INT2915ABG_S4
Bluetooth	WNC_USB_BRM

Microsoft® Windows® XP Home Environment Test(Descrete)

Item	Specifications
CPU	Celeron M 350 (1.3G 1M) Celeron M 360 (1.4G 1M) Celeron M 370 (1.5G 1M) Pentium M 715A (1.5G 2M 400FSB) TJ85 Pentium M 730 (1.6G 2M 533FSB) Pentium M 740 (1.73G 2M 533FSB) Pentium M 750 (1.87G 2M 533FSB) Pentium M 760 (2.0G 2M 533FSB) Pentium M 770 (2.13G 2M 533FSB)
Memory	SO-DIMM DDRII400 256MB MT8HTF3264HDY-40EB3 SO-DIMM DDRII400 256MB HYMP532S64P6-E3 SO-DIMM DDRII533 256MB MT8HTF3264HDY-53EB3 SO-DIMM DDRII533 256MB U33256AGEPQ662A SO-DIMM DDRII533 256MB M470T3354BZ0-CD5 SO-DIMM DDRII 533 256MB HYMP532S64P6-C4 SO-DIMM DDRII400 512MB MT8HTF6464HDY-40EA3 SO-DIMM DDRII400 512MB HYMP564S64P6-E3 SO-DIMM DDRII533 512MB U33512AGEPQ672A SO-DIMM DDRII533 512MB M470T6554BZ0-CD5 SO-DIMM DDRII 533 512MB HYMP564S64P6-C4
HDD	100G SEAGATE 2.5" 4200RPM N2ST9100825A F/W: 40G SEAGATE 2.5 4200RPM N1 ST94019A 2M F/W 3.05 40G TOSHIBA 2.5"" 4200RPM PLUTO MK4025GAS (ROHS) F/W KA100A 40G HGST 2.5" 4.2RPM MORAGA+HTS424040M9AT00 13G1132 F/W:A71A 60G SEAGATE 2.5" 4.2RPM N2ST960821A F/W 3.01 60G TOSHIBA 2.5" 4200RPM PLUTO MK6025GAS (ROHS) F/W KA200 HGST MORAGA 60G 4200RPM IC25N020ATMR04-0 08K0634 F/W:AD4A 80G SEAGATE 2.5" 4.2RPM N2ST9808210A F/W 3.01 80G TOSHIBA 2.5" 4200RPM PLUTO MK8025GAS (ROHS) F/W KA023 HGST 80G MORAGA 4200RPM IC25N0 80ATMR04-0 08K635 FW:AD4A 80G SEAGATE 2.5" 5400RPM MERCURY 2 ST98823A F/W: 80G TOSHIBA 2.5"" 5400RPM PROTEUS MK8026GAX (ROHS) F/W PA00 80G HGST 2.5" MORAGE+ 5400RPMHTS541090G9AT00 F/W A56J
ODD	24X COMBO , QSI SBW-243 ,GBASE/LF , FOR CANARY 2 24X COMBO , QSI SBW-242C FORCANARY II 8X SUPER MULTI ,TOSHIBA TS-L632B FOR BOLSENA
LCD	14" XGA NB TABLET LCD AUO B141XG08.V2 14.1" XGA NB TABLET LCD CMON14 1X9-L01(TABLET)
Battery	LI-ION BOLSENA 4S2P 4,400MAH(SANYO PACK 2.2AHR CELL) LI-ION BOLSENA 4S2P 4,400MAH(SONY PACK 2.2AHR CELL)
2nd Battery	LI-ION PRISMATIC CANARY2 3S2P 3,800MAH (SANYO PACK 1.9AHR C
Adapter	60W(70W)CANARY2-DELTA SADP-65KB BFK,YELLOW 1.7X5.5X11
Software	WINDOWDS XP TABLET PC SP2 WINDOWS XP TABLET PC SC SP2
VGA Chip	NV44MV
VRAM	32M
Card Reader	4 in 1-CanaryII

Item	Specifications
Wireless LAN	INT2200BG_MW INT2200BG_RW INT2915ABG_S1 INT2915ABG_S2 INT2915ABG_S3 INT2915ABG_S4
Bluetooth	WNC_USB_BRM

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.