Acer TravelMate C200 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 C200 service guide.

Date	Chapter	Updates

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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 processor 725/730/740/750/760/770 (2MB L2 cache, 1.60/1.73/1.86/2/2.13 GHz, 533 MHz FSB)
- Intel® Celeron® M processor 350/360/370/380 (1MB L2 cache, 1.30/1.40/1.50/1.60 GHz, 400 Mhz FSB)
- Intel® 915PM/915GM/910GML+ICH6-M (north bridge+south bridge)
- Wireless solution: integrated Intel PRO/Wireless 2915ABG network connection (dual-band tri-mode 802.11a/b/g) Wi-Fi CERTIFIED™ solution, supporting Acer SignalUp™ wireless technology
- DVD/CD-RW combo or DVD-dual drive
- High-capacity Enhanced-IDE hard disk
- Advanced Configuration Power Interface (ACPI) power management system

Display

- 12.1” XGA Thin-Film Transistor (TFT) liquid-crystal display (LCD) supporting pen-based input, with 16.7 million color at 1024X768 resolution
- LCD slides to convert from notebook to tablet mode
- Graphic controller: NVIDIA® NV44M-V (NVIDIA® GeForce™ Go 6200) with 32MB of VRAM, supporting NVIDIA® TurboCache™ technology up to 128 MB, PCI Express™ and Microsoft® DirectX® 9.0
- DualView™ support

Communication

- Modem: 56K ITU V.92 with PTT approval; Wake-on-Ring ready
- LAN: gigabit Ethernet; Wake-on-LAN ready
- WLAN: Intel® PRO/Wireless 2915ABG network connection (802.11b/g or 802.11a/b/g) Wi-Fi CERTIFIED™ solution, supporting Acer SignalUp™ wireless technology
- WPAN: integrated Bluetooth®

Input devices

- 84-/85-key keyboard with inverted “T” cursor layout
- Built-in trackpoint with two buttons
- 12 function keys, four cursor keys, two Windows® key, hotkey controls, embedded numeric keypad, international language support
- Four easy-launch buttons: Internet, email, Empowering Key, user-programmable button
- Four tablet-mode buttons: Windows Security, Screen Rotate, Function, Escape
- 3-way scroll wheel (up/down/enter)
- Electromagnetic Resonance (EMR) pen with eraser

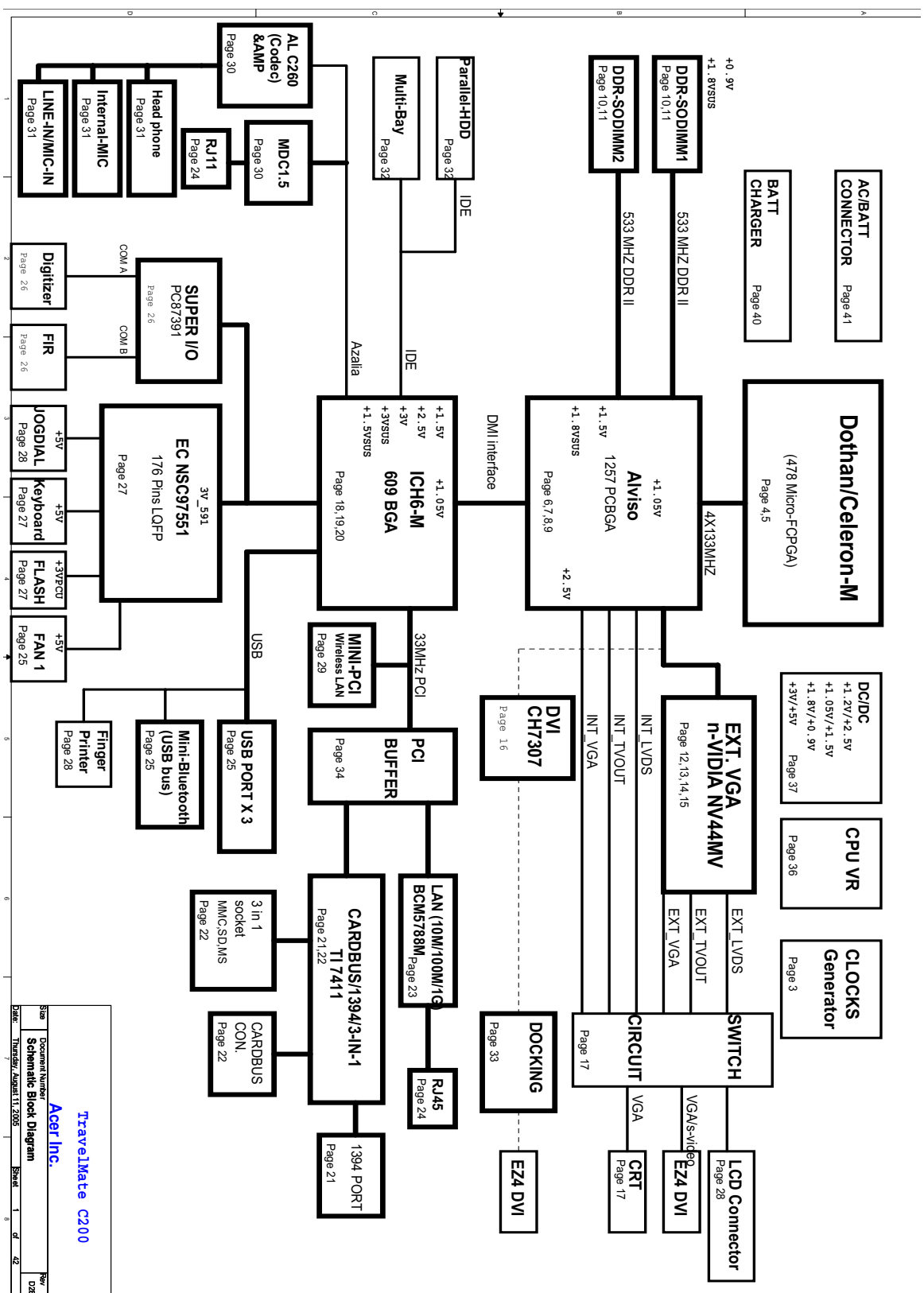
Audio

- Audio system with one built-in speaker and microphone
- Sound Blaster Pro™ and MS-Sound compatible

I/O interface

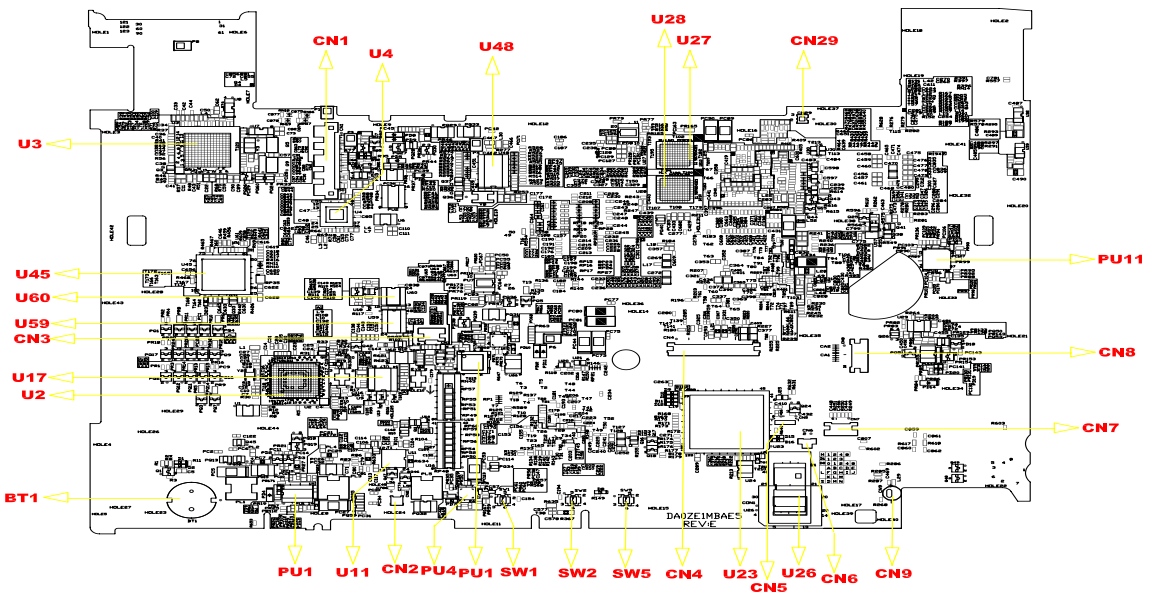
- 124-pin Acer ezDock connector
- Three USB 2.0 ports
- 4-in-1 card reader (MS/MS PRo/MMC/SD)
- PC Card slot (Type II)
- IEEE 1394 port
- Fast infrared (FIR) port
- External display (VGA) port
- Ethernet (RJ-45) port
- Modem (RJ-11) port
- Microphone/line-in jack
- Headphones/speaker/line-out jack
- DC-in jack for AC adapter

System Block Diagram



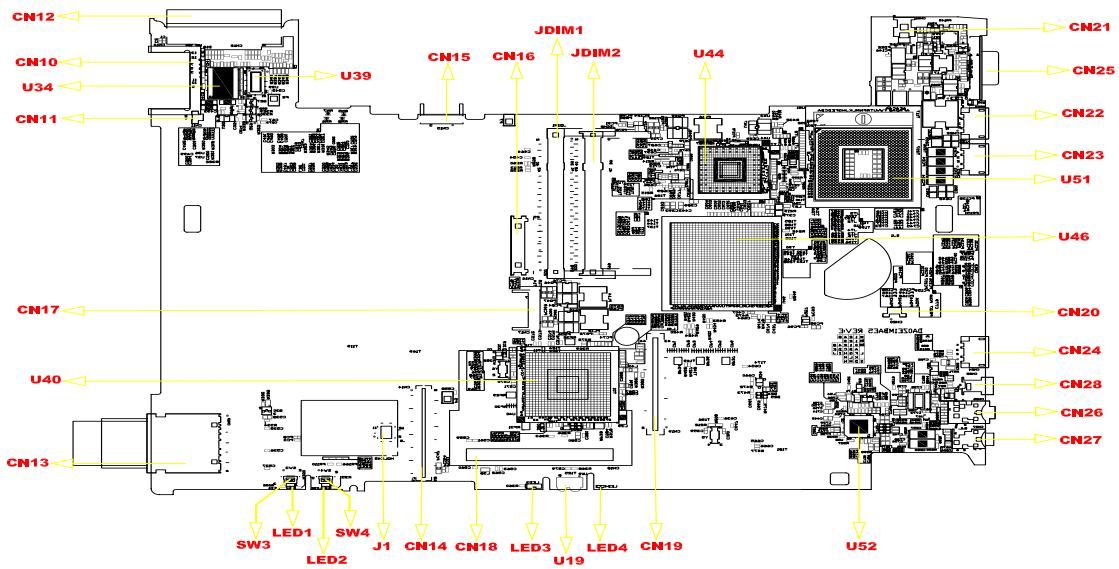
Board Layout

Top View



CN1	LCD connector	SW2	Touchpad Switch
U4	DVI Transfer IC	SW1	Touchpad Switch
U48	Clock Generator IC	PU1	System PWR IC
U28	Video RAM	PU4	
U27	Video RAM	CN2	Speaker Connector
CN29	Lid-Switch	U11	CardBus PWR IC
PU11	CPU PWR IC	PU1	System PWR IC
CN8	Quick Board Connector	BT1	RTC Battery Connector
CN7	Jogdial Connector	U2	CardBus IC
CN9	Microphone Connector	U17	Track Point IC
CN6	Pen-Sensor	CN3	Track Point Connector
U26	BIOS	U59	ODD Switch IC
CN5	Bluetooth Connector	U60	ODD Switch IC
U23	Keyboard Control IC	U45	Super I/O IC
CN4	Keyboard Connector	U3	GigaLAN IC
SW5	Power-On Switch		

Bottom View



CN15	Battery Connector	LED4	HDD LED (Green)
CN16	ODD Connector	U19	FIR
JDIM1	9.2H DDR2	LED3	Power LED (Green/Amber)
JDIM2	5.2H DDR2	CN18	Mini PCI Connector
U44	Graphic Chip	CN14	PCMCIA Slot (Main Board Side)
CN21	DC-in Jack	J1	MDC Connector
CN25	CRT	SW4	Wireless Switch
CN22	USB Port	LED2	Wireless LED (Amber)
CN23	USB Port	LED1	Bluetooth LED (Blue)
U51	CPU Socket	SW3	Bluetooth Switch
U46	North Bridge	CN13	3-in-1 Card Reader Slot
CN20	FAN Connector	U40	South Bridge
CN24	USB Port	CN17	2nd-Battery Connector
CN28	1394 Connector	CN11	Modem
CN26	Audio Jack (Blue)	U34	LAN Transfermer
CN27	Audio Jack (Green)	CN10	RJ45-RJ11
U52	Audio Codec	CN12	Docking Port
CN19	HDD Connector	U39	LAN Switch IC

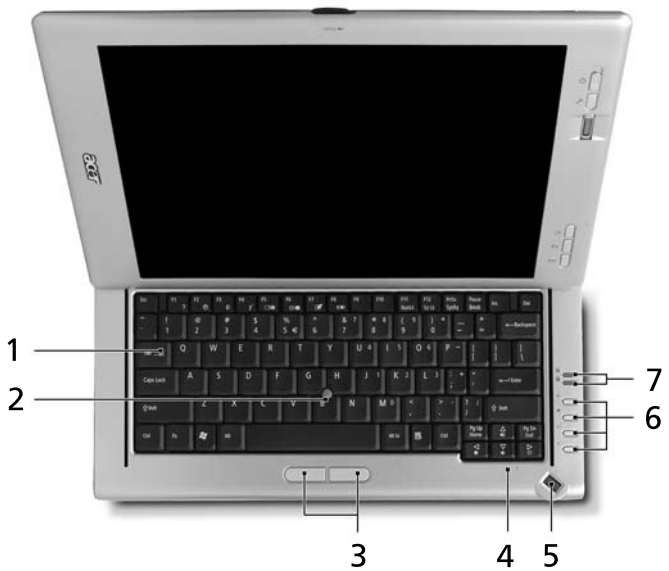
A TravelMate Tour

Now let us show you around the new TravelMate computer.

Top View

#	Item	Description
1	Display screen	Also called LCD (liquid-crystal display), displays computer output. 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	Tablet-mode button	Escape button for use in tablet PC mode.
3	Tablet-mode button	Function button for use in tablet PC mode.
4	Tablet-mode button	Screen rotate button for use in tablet PC mode.
5	Biometric fingerprint reader	Provides fingerprint-verified access to operating system applications.
6	Windows Security lock button	A tablet-mode button, it functions like **CLT-ALT-DEL** to lock the access to the operating system.
7	Power switch	Turns the computer on and off.

Open front view



#	Item	Description
1	Keyboard	For entering data in notebook PC mode.
2	Built-in trackpoint	Touch-sensitive pointing device which functions likea computer mouse when used together with the click buttons.
3	Click buttons (left and right)	Function like the left and right mouse buttons when used together with the center-keyboard trackpoint.
4	Built-in microphone	Internal microphone for sound recording.
5	Scroll wheel	For up, down and one-touch accelerated scrolling.
6	Easy-launch buttons	Buttons for launching frequently used programs.
7	Indicator lights	Light up when Caps Lock or Num Lock are activated.

Closed front view

#	Icon	Item	Description
1		Wireless communication button/ indicator	Press to enable/disable the wireless function. Lights to indicated the status of wireless LAN communication.
2		Bluetooth communication button/ indicator	Press to enable/disable Bluetooth functions. Lights to indicated the status of Bluetooth communications.
3		Speaker	Provides sound.
4		Battery indicator	Lights up when battery is being charged.
5		Fast infrared (FIR) port	Interfaces with infrared printers, computers and other FIR-aware devices.
6		HDD indicator	Indicates when the hard disk drive is active.
7		Electromagnetic resonance (EMR) pen with eraser	For entering data in tablet PC mode.

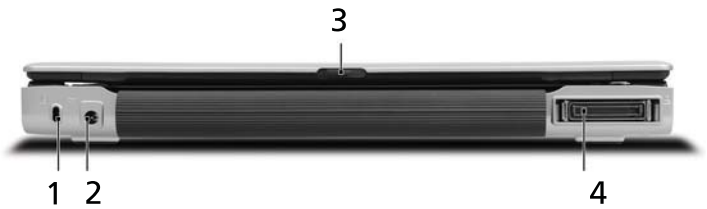
Left view

#	Icon	Item	Description
1		Ethernet (RJ-45) port	Connects to a gigabit Ethernet network.
2		Modem (RJ-11) port	Connects to a phone line.
3		Opticla drive	Accepts recordable DVDs and CDs, depending on teh drive type.
4		LED indicator	Lights up when the optical drive is active.
5		Optical drive eject button	Ejects the optical drive tray.
6		Emergency eject hole	Ejects the optical drive tray when the computer is turned off.Lights up when computer is off.
7		PC Card slot	Accepts one Type II PC Card.
8		PC Card slot eject button	Eject the PC Card from the slot.
9		4-in-1 card reader	Accepts Memory Stick, Memory Stick Pro, MultiMediaCard (MMC), Secure Digital (SD). **Note: Only one card can operate at any given time.**

Right view

#	Icon	Item	Description
1		Headphone/speakers line-out jack	Connects to audio line-out devices.
2		Microphone/line-in jack	Accepts audio line-in devices (e.g. microphone or audio CD player).
3	1394	IEEE 1394 port	Connects to IEEE 1394 devices.
4		USB 2.0 port	Connects to USB 2.0 devices (e.g. USB mouse or camera).
5		Ventilation slots	Keep computer cool during use.
6		USB 2.0 port	Connects to USB 2.0 devices (e.g. USB mouse or camera).
7		External display (VGA) port	Connects to a display device (e.g. monitor or projector).

Rear view



#	Icon	Item	Description
1		Kensington lock slot	Connects to a Kensington-compatible computer security lock.
2		DC-in jack	Connects to an AC adapter.
3		Latch	Locks and release the LCD unit to convert from tablet to notebook mode.
4		Acer ezDock port	Connects to an Acer ezDock (optional).

Base view

#	Item	Description
1	Battery bay	Houses the computer's battery pack.
2	Battery lock latch	Locks the battery in place.
3	Memory compartment	Houses the computer's main memory (secured with two screws).
4	Cooling fan	Cools computer during use. Note: Do not cover or obstruct the opening of the fan.
5	Hard disk bay	Houses the computer's hard disk (secured with two screws).
6	Optical drive	Internal optical drive (hot -swappable Acer MediaBay drive moudel is optional).
7	Optical drive release latch	Release the optical drive module fo removal.
8	Battery lock latch	Locks the battery in place.

Indicators

The computer has two easy-to-read status indicators to the right of the keyboard, and four on the front panel.

The power, media, Bluetooth and wireless communication status indicators are visible even when the LCD display is closed.

Icon	Function	Description
	Caps Lock	Lights up when Caps Lock is activated.
	Num Lock	Lights up when Num Lock is activated.
	Media activity	Indicates when the hard disk or optical drive is active.
	Bluetooth	Indicates the status of Bluetooth communication.
	Wireless LAN	Indicates the status of wireless LAN communication.
	Power	Lights up when the computer is on. 1. Charging: The lights shows amber when the battery is charging. 2. Fully charged: The light shows green when in AC mode.

Easy-launch buttons

Located to the righ tof hte keyboard are four buttons. These buttons are called easy-launch buttons. They are: mail, Web browser, Acer Empowering Key <e>and one user-programmable button.

Press <e>to run the Acer Empowering Technology. The mail and Web browser buttons are pre-set to email and Internet programs, but can be reset by users. To set the Web browser, mail and programmable buttons, run the Acer Launch Manager.

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Easy-launch button	Default application
P	User-programmable
e	Acer Empowering Technology (user-programmable)
	Internet browser (user-programmable)
Mail	Email application (user-programmable)

Trackpoint and click buttons

The built-in trackpoint is a pointing device that senses movement on its surface. This means the cursor responds as you use your finger to move the trackpoint. Its central location on the 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.

Trackpoint basics

The following items show you how to use the trackpoint and click buttons:

- Using your finger, apply light, steady pressure on the trackpoint (1) to move the cursor.
- Press the left (2) and right (3) buttons located below the keyboard to perform selection and execution functions. These two buttons are similar to the left and right buttons on a mouse.

Scrolling basics

The 3-way scroll wheel is enabled for tablet-and keyboard-mode use.

- Use the job wheel (4) to scroll up or down on a page. A click on the job wheel executes the Enter function, similar to clicking the left click button or the left button of a mouse.

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Function	Left Button	Right Button	Scroll Wheel
Execute	Quickly click twice		Click on the job wheel.
Select	Click once		
Drag	Click and hold, then use finger on the trackpoint to drag the cursor.		
Access context menu		Click once	
Scroll			Use finger to roll scroll wheel lightly up or down in tablet or notebook mode.

NOTE: When using these inputs, keep them - and your fingers - dry and and clean. The scroll wheel is sensitive to finger movement; hence, the lighter the touch, the better the response. Tapping harder will not increase click button responsiveness.

Using the keyboard

Lock keys and embedded numeric keypad

The keyboard has full-sized keys with an embedded numeric keypad, as well as separate lock, cursor and Windows keys, and hotkey controls.

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. Another solution would be connect an external keypad.
Scroll Lock <Fn> + <F12>	When Scroll Lock is on, the screen moves one line up or down when you press the up or down arrow keys respectively. Scroll Lock does not work with some applications.

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

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

Windows Keys

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

Key	Icon	Description
Windows key		Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provides a variety of functions: + <Tab>: Activates the next taskbar button + <E>: Opens the My Computer window. + <F1>: Opens Help and Support Center. + <F>: Opens the Search Results window. + <R>: Opens the Run dialog box. + <M>: Minimizes all windows. <Shift> + + <M>: Undoes the minimize all windows action.
Application key		This key has the same effect as clicking the right mouse button; it opens the application's context menu.

Hot Keys

The computer employs hotkeys or key combinations to access many computer controls, including screen brightness, volume output and the BIOS utility.

To activate hotkeys, press and hold the **<Fn>** key before pressing the other key in the hotkey combination.

Hot Key	Icon	Function	Description
<Fn> + <F1>	?	Hotkey help	Displays help on hotkeys.
<Fn> + <F2>		Acer eSettings	Launches Acer eSettings in Acer Empowering Technology.

Hot Key	Icon	Function	Description
<Fn> + <F3>		Acer ePower Management or Power management	Display the Power Options Properties used by the computer (function available if supported by operating system). See “Power management” on page 25.
<Fn> + <F4>		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.
<Fn>+< ↓ >		Volume down	Decreases the speaker volume.
<Fn>+< → >		Brightness up	Increases the screen brightness.
<Fn>+< ← >		Brightness down	Decreases the screen brightness

Special keys

You can locate the Euro symbol and the US dollar sign at the upper-center and/or bottom-right of your keyboard.

The Euro symbol

1. Open a text editor or word processor.
2. Either press < € > at the bottom-right of the keyboard, or hold **<Alt Gr>** and then press the **<5>** key at the upper-center of the keyboard.

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

3.

The US dollar sign

1. Open a text editor or word processor.
2. Either press < $ > at the bottom-right of the keyboard, or hold **<shift>** and then press the **<4>** key at the upper-center of the keyboard.

NOTE: This function varies according to the language settings.

Hardware Specifications and Configurations

Processor

Item	Specification
CPU type	Intel® Pentium® M processor 725/730/740/750/760/770 (2MB L2 cache, 1.60/1.73/1.86/2/2.13 GHz, 533 MHz FSB) Intel® Celeron® M processor 350/360/370/380 (1MB L2 cache, 1.30/1.40/ 1.50/1.60 GHz, 400 Mhz FSB)
CPU package	Intel 479-ball Mcro-FCBGA
CPU core voltage	1.340V (highest frequency mode) to 0.988V (low frequency mode)

BIOS

Item	Specification
BIOS vendor	Phoenix
BIOS Version	V1.00
BIOS ROM type	Flash ROM (SST SST39VF080)
BIOS ROM size	1Mbytes
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	2MB for Intel® Pentium® M processor 1MB for Intel® Celeron® M processor
1st level cache control	Always enabled
2st level cache control	Always enabled
Cache scheme control	Fixed in write-back

System Memory

Item	Specification
Memory controller	Intel 915GM/915PM/910GML+ 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	soSODIMM
Supports DIMM Speed	400/533 MHz
Supports DIMM voltage	1.8V and 0.9V
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
Data modem data baud rate (bps)	56K
Supports modem protocol	V92 MDC
Modem connector type	RJ11
Modem connector location	Right panel

LAN Interface

Item	Specification
Chipset	BroadCom BCM5788M
Supports LAN protocol	10/100/1000 Mbps
LAN connector type	RJ45
LAN connector location	Right panel

Bluetooth-MODEM Interface

Item	Specification
Chipset	CSR BC02/Agere Scorpio solution
Data throughput	200k bps (Blue-tooth)/56K bps (MODEM)
Protocol	Blue-tooth 1.1
Interface	USB 1.1+MDC
Connector type	RJ11 (MODEM)

Wireless Module 802.11b

Item	Specification
Chipset	Intel Claxico

Wireless Module 802.11b

Item	Specification
Data throughput	up to 11M bps
Protocol	802.11b
Interface	Mini-PCI type II
Connector interface	124-pin connector

Four-in-One Card Reader

Item	Specification
Chipset	Intetrated on TI PC7411
Data throughput	USB 1.1
Protocol	Memory Stick (MS), MS PRO, MultiMediaCard, Secure Digital (SD)

Hard Disk Drive Interface

Item	Specification			
Vendor & Model Name	HGST IC25N030ATMR04 TOSHIBA MK3021GAS	HGST IC25N040ATMR04 TOSHIBA MK4021GAS	HGST IC25N060ATMR04 HGST TS548060M9AT00 TOSHIBA MK6021GAS	HGST IC25N080ATMR04 TOSHIBA MK8025GAS KA023A
Capacity (GB)	30	40	60	80
Bytes per sector	512	512	512	512
Data heads	2	2/3	3/4 for Toshiba	4
Logical heads	16	16	16	16
Logical sectors	63	63	63	63
Drive Format				
Disks	1	1/2	2/3 for Toshiba	2
Logical cylinders	16383	16383	16383	16383
Spindle speed (RPM)	4200 RPM	4200 RPM	4200 RPM/5400 RPM for HGST TS548060M9AT00	5400 RPM/4200 RPM for Toshiba
Performance Specifications				
Buffer size	2MB	2MB	8MB/2MB for Toshiba	8MB
AT Interface	ATA/ATAPI-6 ATA-5 for Toshiba	ATA/ATAPI-6 ATA-5 for Toshiba	ATA/ATAPI-6 ATA-5 for Toshiba	ATA/ATAPI-6
Data transfer rate (buffer to/ from media Mbytes/s)	350	350	350/450	350
Data transfer rate (host~buffer, Mbytes/s)	100 MB/Sec. Ultra DMA mode-5	100 MB/Sec. Ultra DMA mode-5	100 MB/Sec. Ultra DMA mode-5	100 MB/Sec. Ultra DMA mode-5
DC Power Requirements				
Voltage tolerance	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%	5V(DC) +/- 5%

DVD/CDRW Interface

Item	Specification	
Vendor & model name	DVD/CDRW COMBO MODULE QSI SBW-242 DVD/CDRW COMBO MODULE SONY CRX830E C	
Performance Specification	With CD Diskette	With DVD Diskette
Transfer rate (KB/sec)	Sustained: Max 3.6Mbytes/sec	Sustained: Max 10.8Mbytes/sec
Data Buffer Capacity	128 KBytes	
Interface	IDE/ATAPI (ATA/ATAPI-5)	
Applicable disc format (for SONY)	DVD: DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD+R, DVD-RW, DVD+RW, CD: CD Digital Audio and CD Extra, CD-ROM (mode 1), CD-ROM XA (Mode 2, Form 1 and Form 2) and CD-I Ready and CD-I Bridge, Photo CD, (Single and Multi session), Video CD, CD-TEXT, CD-R, CD-RW, CD Layer of Hybrid SACD	
Applicable disc format (for QSI)	DVD: DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM (optional) CD: CD-DA, CD-ROM/XA, CD-i, Karaoke CD, Video CD, Multi-session Photo CD, Enhanced CD, itrax CD, CD extra, CD Plus, CD-Text, CD-R and CD-RW discs	
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-RW Interface

Item	Specification	
Vendor & model name	DVD-RW MODULE PIONEER DVR-K12D	
Performance Specification	With CD Diskette	With DVD Diskette
Transfer rate (KB/sec)	Sustained: Max 3.6Mbytes/sec	Sustained: Max 10.8Mbytes/sec
Data Buffer Capacity	128 KBytes	
ATAPI Interface	SFF-8020i, SFF8090 Ver5	
Applicable disc format	Supports KODAK Photo CD single and Multi-session Supports CD Extra (CD PLUS) Supports Mixed CD Supports Video CD Supports to read/write CD-R discs Supports to read/write CD-RW discs Supports CD text data read/write Supports to read DVD-ROM Supports to read/write DVD-R Ver. 2.00 for General Supports to read/write DVD-RW Ver.1.0 & 1.1	
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	DVD-ROM MODULE MKE SR8177	
Performance Specification	With CD Diskette	With DVD Diskette
Transfer rate (KB/sec)	Sustained: Max 3.6Mbytes/sec	Sustained: Max 11.08Mbytes/sec
Data Buffer Capacity	256 KBytes	
ATAPI Interface	SFF8090 Ver 0.99	
Applicable disc format	DVD: DVD-ROM (DVD-5, DVD-9, DVD-10, DVD-18), DVD-R (3.95G/4.7G), DVD-RW, DVD-RAM (2.6G/4.7G) CD: CD-Audio, CD-ROM (mode 1 and mode 2), CD-ROM XA (mode 2, form 1 and form 2), CD-I (mode 2, form 1 and form 2), CD-I Ready, CD-I Bridge, CD-WO, CD-RW, Photo CD, Video CD, Enhanced Music CD (CD Plus), 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	1
Rated input	1W
Connector type	Headphone out, microphone in and line-in

Video Interface

Item	Specification
Chipset	Intel 915GM (UMA) or Nvidia NV44M-V (NVIDIA® GeForce™ Go 6200)
Interface	PCI-E
Supports ZV (Zoomed Video) port	No
Maximum resolution LCD	1600X1200 (UXGA)
Maximum resolution CRT	2048X1536@75HZ

Audio Interface

Item	Specification
Audio Codec	Realtek ALC260
Audio Amplifier	APA2030
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	HD audio interface

Audio Interface

Item	Specification
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/1
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 for UMA Upgradeable for NVIDIA® NV44M-V (NVIDIA® GeForce™ Go 6200)
Vendor	Intel/NVIDIA®
Memory size	UMA: Default 32MB (Adjust via BIOS) NVIDIA: up to 128MB
Interface	PCI-E

USB Port

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

IEEE 1394 Port

Item	Specification
Chipset	TI 7411
InterfaceUSB Compliancy Level	IEEE 1394 1.0
Number of IEEE 1394 port	1
Location	Right side

IEEE 1394 Port

Item	Specification
Connector type	IEEE 1394

PCMCIA Port

Item	Specification
PCMCIA controller	TI PC7411
Supports card type	Type-II
Number of slots	One type-II
Access location	Left panel
Supports ZV (Zoomed Video) port	No ZV support
Supports 32 bit CardBus	Yes (IRQ10)

System Board Major Chips

Item	Controller
Core logic	Intel 915GM/915PM/910GM (Sonoma-GM)+ ICH6-M
VGA	Intel 915GM/910GM (UMA) NVIDIA® NV44M-V (NVIDIA® GeForce™ Go 6200)
LAN	Broad Com 5788M
IEEE 1394	TI PC7411
USB 2.0	ICH6-M intergrated
Super I/O controller	PC 87391
MODEM	Intel Montara GM+ and ICH4-M
Blue tooth	CSR BC02/Agere Scorpio solution
Wireless 802.11 b	Intel Claxico
PCMCIA	TI PC7411
Audio	Intel ICH6-M intergrated/Audio Codec: Realtek ALC260
Four-in-one card reader	TI PC7411
Trackpoint	ALPS 3DA3DT362A or Sentech SH1202

Keyboard

Item	Specification
Keyboard controller	NS 87391
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

Battery

Item	Specification
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 19V 65W (3 PIN)

AC Adaptor

Item	Specification
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

I/O Address Map

I/O Address	Function
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
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  during POST (when "Press <F2> to enter Setup" message is prompted on the bottom of screen).

Press  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.

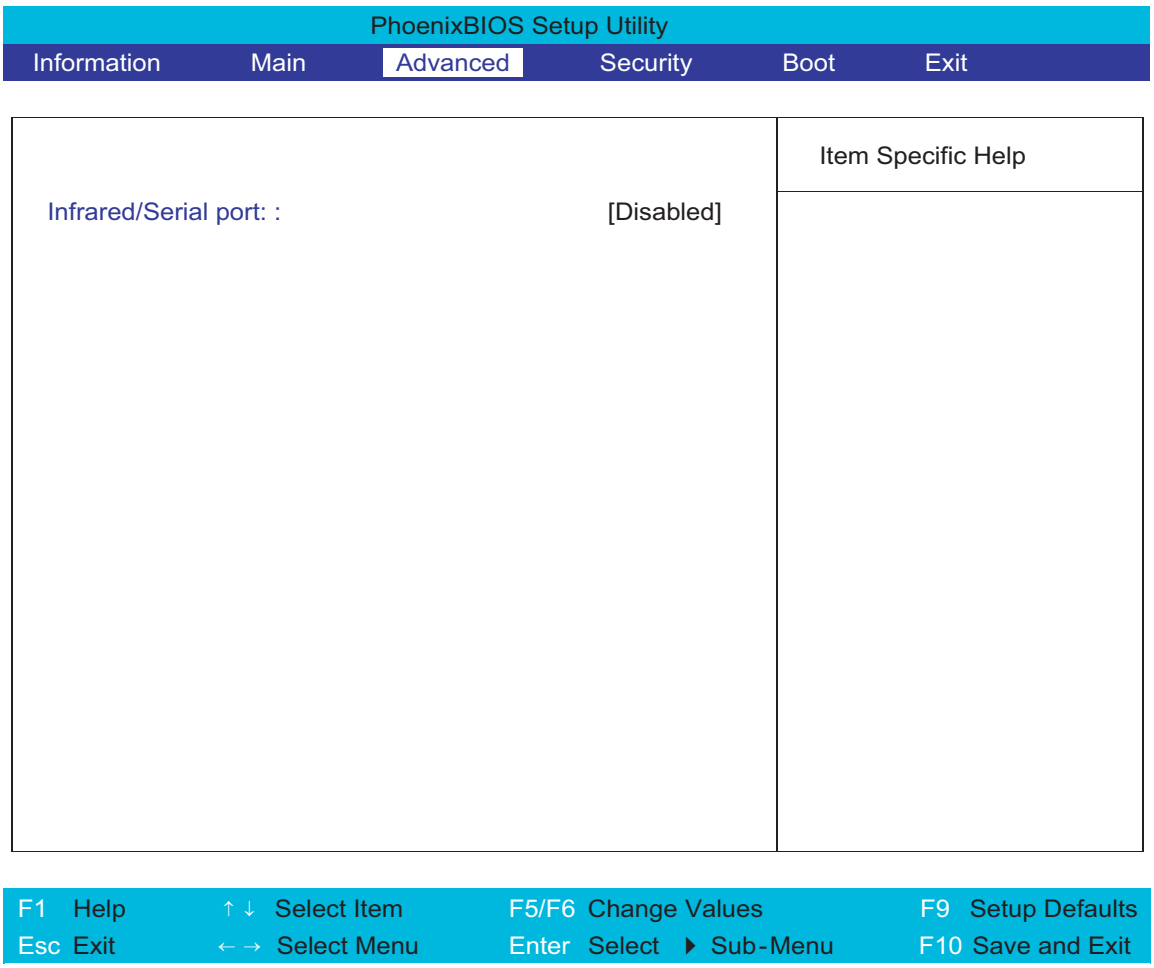
The table below describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

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
LCD Auto Dim	Determines if the system will automatically dim the LCD brightness in order to save power when AC is not present.	Option: **Enabled** or **Disabled**
PXE (Preboot Execution Environment) Boot From LAN	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**

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.

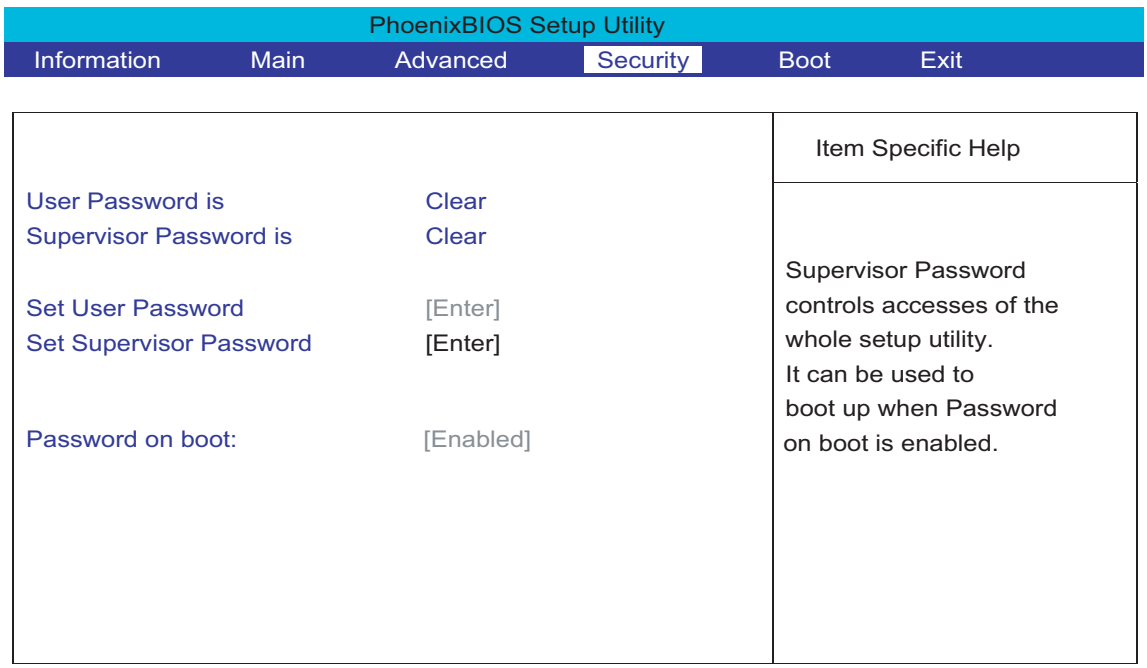


The table below describes the parameters in the screen. Settings in **boldface** are the default and suggested parameter settings.

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.

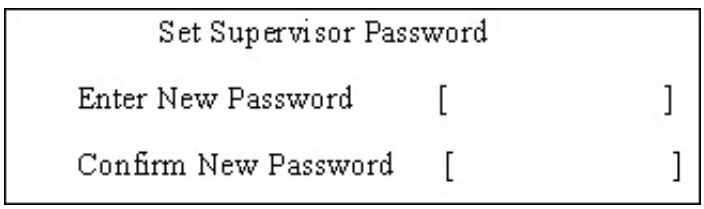
Parameter	Description	Option
User Password is	Shows the setting of the uer password.	**Clear** or Set
Supervisor Password is	Shows the setting of the Supervisor password	**Clear** or Set
Set User Password	Press Enter to set the user password. When set, this password protects the BIOS Setup Utility from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

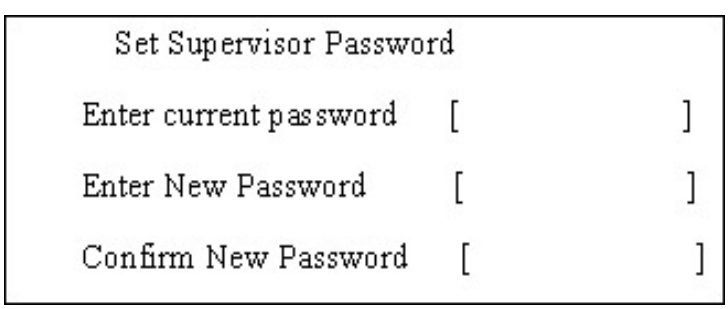
IMPORTANT: Be very careful when typing your password because the characters do not appear on the screen.

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:

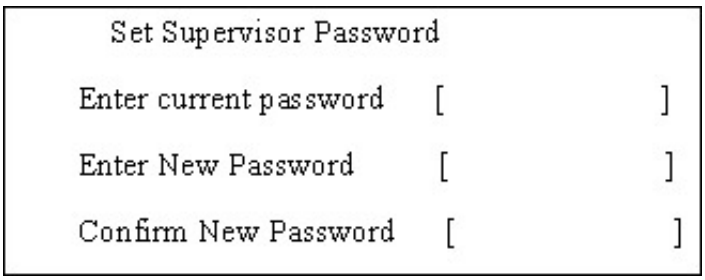
1. Use the ↑ and ↓ keys to highlight the Set Supervisor Password parameter and press the ENTER key. The Set Password box appears:



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.

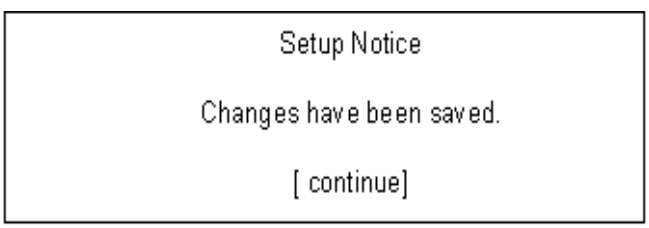
Changing a Password

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



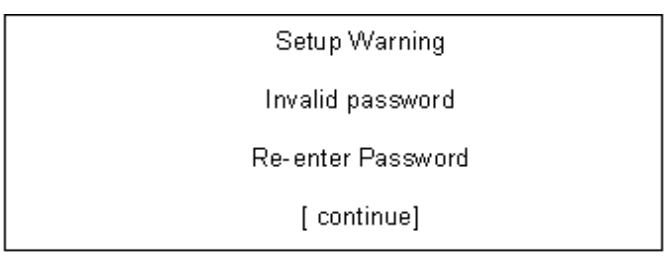
2. Type the current password in the Enter Current Password field and press ENTER.
3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field.
4. Press ENTER. After setting the password, the computer sets the User Password parameter to “Set”.
5. If desired,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

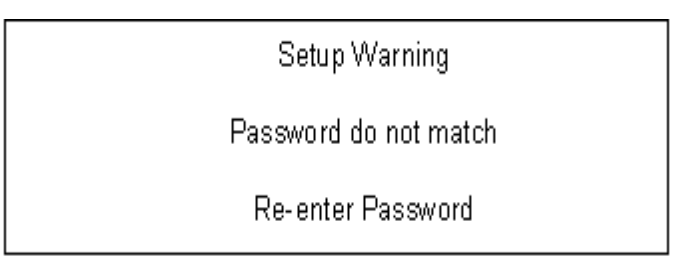


The password setting is complete after the user presses F10.

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

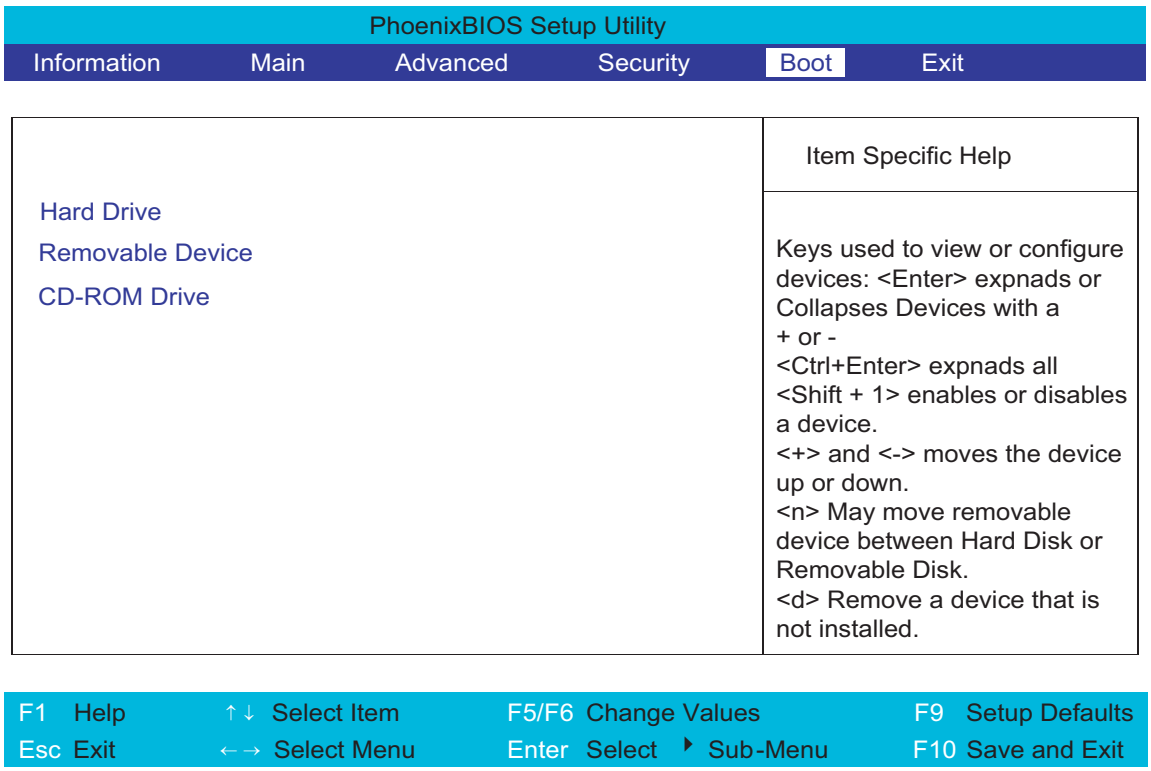


If the new password and confirm new password strings do not match, the screen will display the following message.



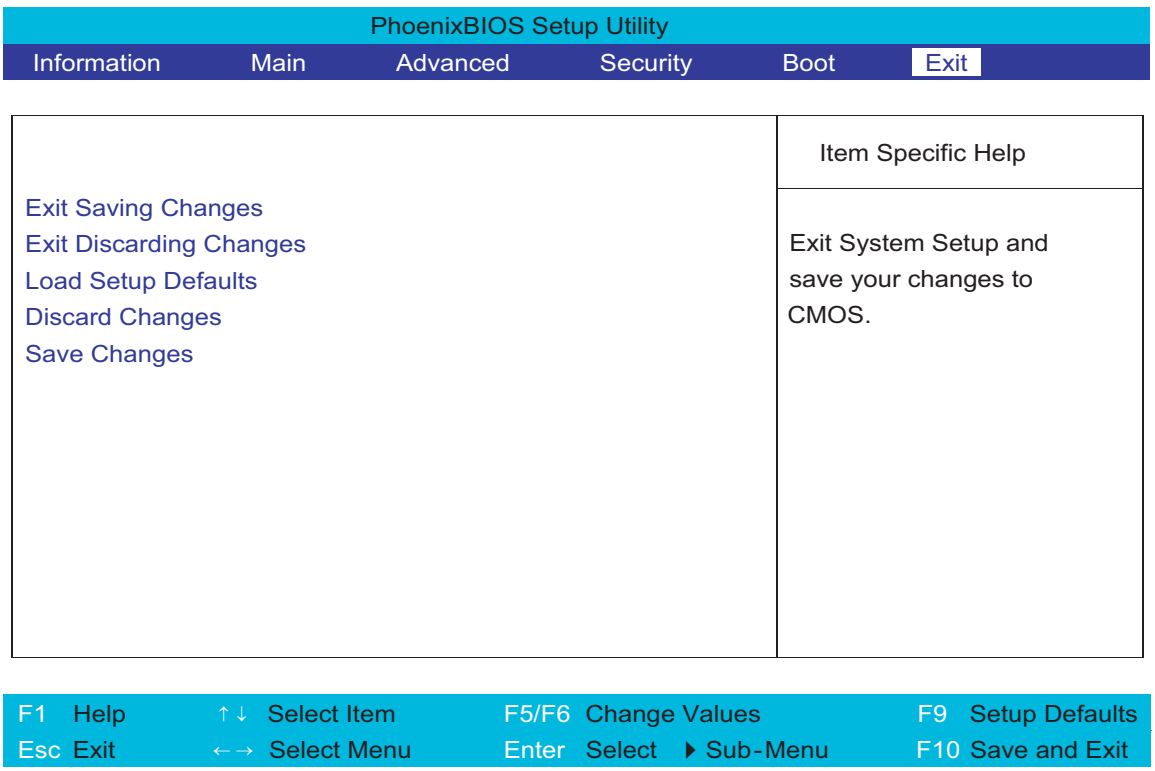
Boot

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:

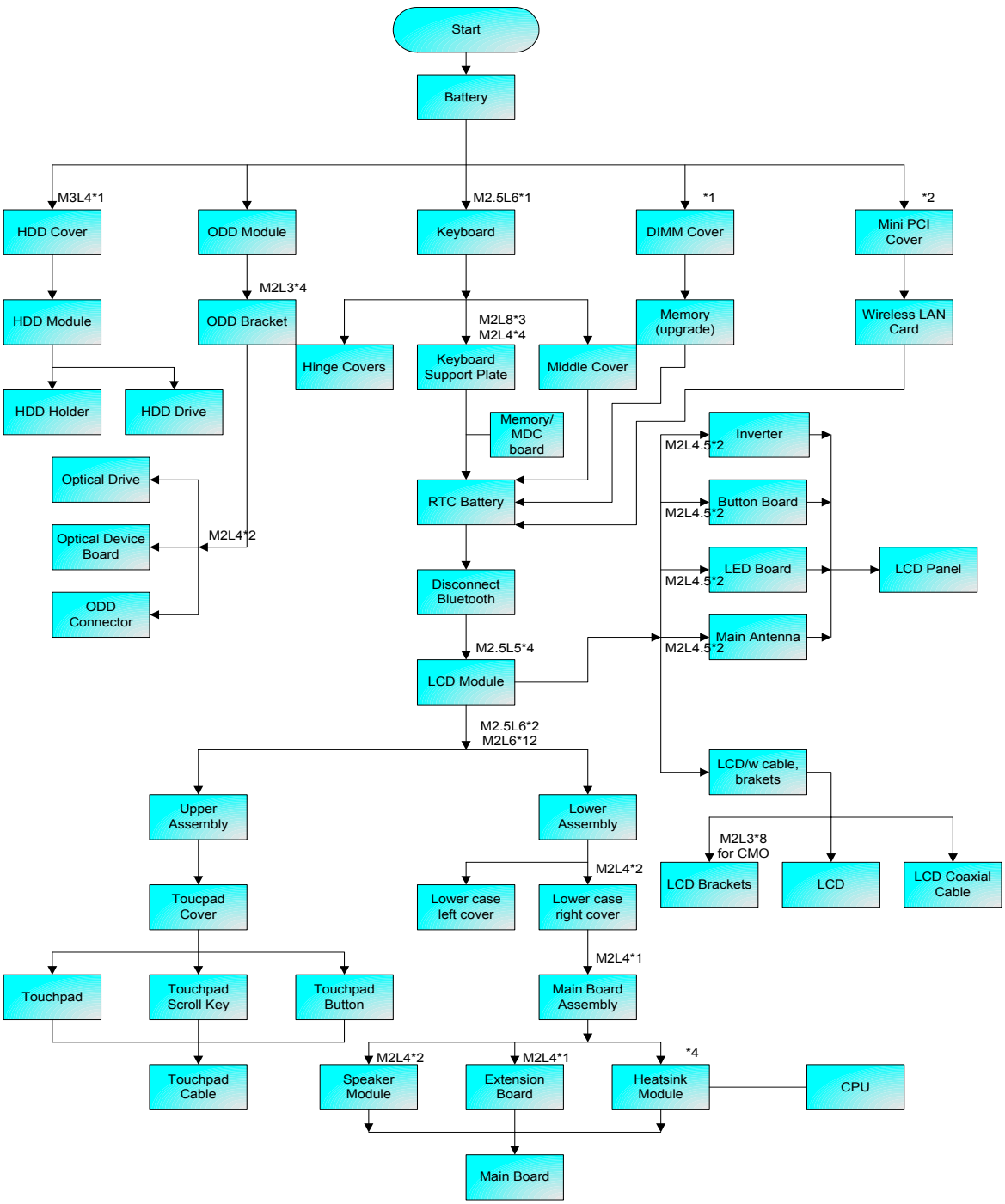
1. Turn off the power to the system and all peripherals.
2. Unplug the AC adapter and all power and signal cables from the system.
3. Remove the battery pack.

NOTE: TravelMate C200 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 and the color of the system may differ from a finish-good unit.

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/ODD Module/Memory/Wireless LAN Card/ LCD Module and the Keyboard

Removing the Hard Disk Drive Module

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

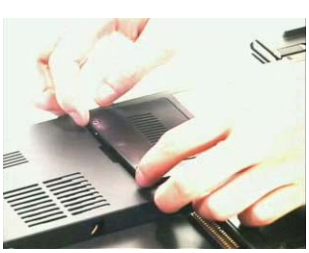
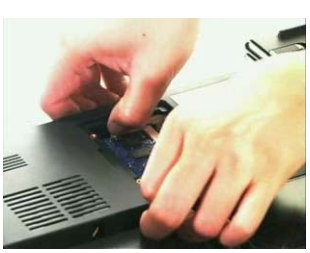


Removing the Optical Disk Drive Module

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

Removing the Memory

1. Remove the two screws that fasten the DIMM door.
2. Detach the DIMM door.
3. Pop out the memory then remove it.

Removing the Wireless LAN Card

1. Remove the two screws holding the wireless LAN cover.
2. Detach the wirless cover.


3. Disconnect wireless main and auxiliary antenna.
4. Pop out the wireless LAN card then remove it.


Removing the LCD Module

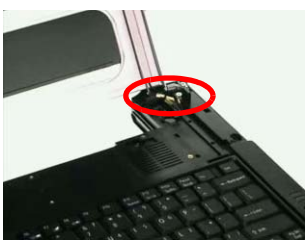
1. Remove two screws holding the left and the right hinge cover.
2. Remove the right hinge cover.


3. Remove the left hinge cover.
4. Turn over the entire LCD module as shown.
5. Disconnect the six screws fastening the middle cover.



6. Detach the middle cover carefully.
7. Then disconnect the LCD cable.


8. Disconnect the wireless LAN antenna.
9. Remove the four screws fastening the LCD module to the main unit.
10. Detach the LCD module from the main unit.



Removing the Keyboard

1. Remove the screw fastening the keyboard on the bottom.
2. Disconnect the trackpoint cable.
3. Disconnect the keyboard cable then remove the keyobar.



Disassembling the Main Unit

Separating the Main Unit into the Upper Case And the Lower Case Assembly

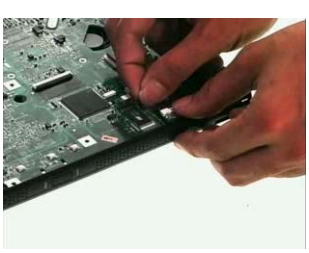
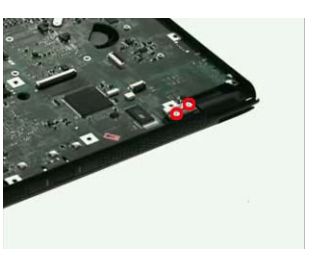
1. Remove the 11 screws fastening the upper case and the lower case assembly.
2. Then remove the 10 screws holding the upper case and the lower case assembly on bottom side.
3. Disconnect the launch board FFC.



4. Disconnect the joystick board FFC as shown.
5. Disconnect the bluetooth cable from the main board as shown.
6. Tear off the capton fastening the wireless LAN antenna set then pull out the wireless LAN antenna set.



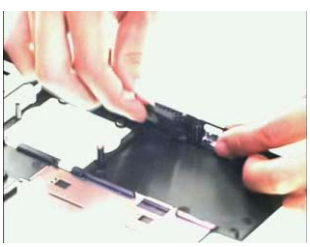
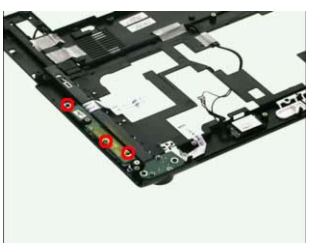
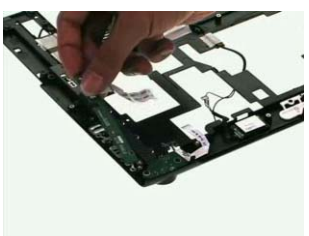
7. Detach the upper case assembly carefully.
8. Disconnect the dynamic board cable from the main board then remove it.
9. Remove the two screws fastening the dynamic board then detach the dynamic board from the main board.

10. Disconnect the speaker cable from the main board.
11. Detach the main board assembly from the lower case carefully.


Disassembling the Upper Case, the Lower Case and the Main Board Assembly

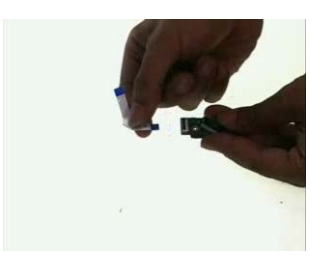
1. Remove the speaker from the lower case.
2. Remove the three screws fastening the launch board.
3. Then detach the launch board from the lower case.

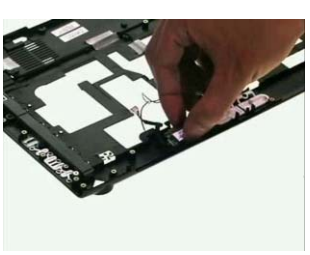




4. Disconnect the launch board FFC.
5. Remove the two screws fastening the joystick board.
6. Remove the joystick board assembly from the lower case.



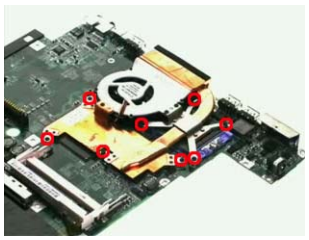
7. Disconnect the joystick board FFC.
8. Remove the two screws fastening the Bluetooth module.
9. Remove the Bluetooth module from the lower case carefully.



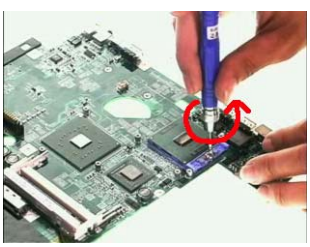


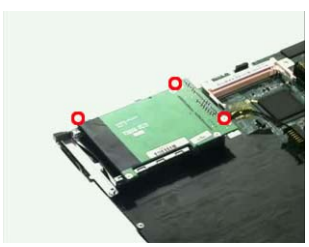
10. Disconnect the Bluetooth cable from the Bluetooth module.
11. Remove the eight screws fastening the thermal module.

12. Detach the thermal module from the main board and disconnect the fan cable then remove the thermal module.

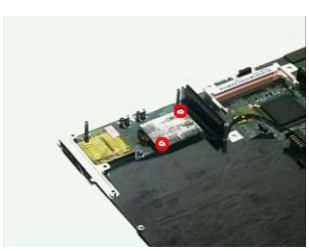
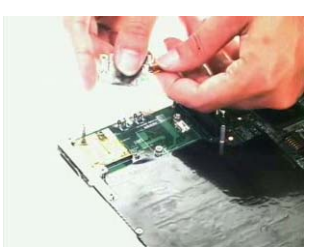




13. Use a flat-headed screwdriver to release the CPU lock.
14. Remove the CPU from the socket carefully.
15. Remove the three screws fastening the PCMCIA slot.



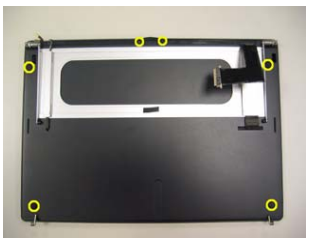
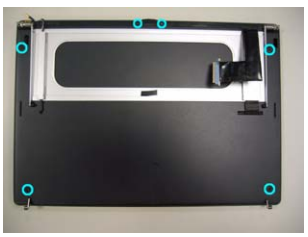


16. Detach the PCMCIA slot from the main board.
17. Remove the two screws fastening the modem board.
18. Disconnect the modem board from then main board and disconnect the modem board cable then remove the board.

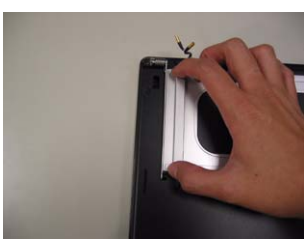
Disassembling the LCD Module

1. Remove the four LCD screw caps.
2. Then remove the six screws fastening the LCD bezel.
3. Remove one screw holding the LCD support on one side.

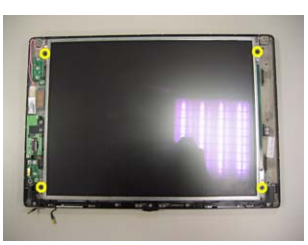
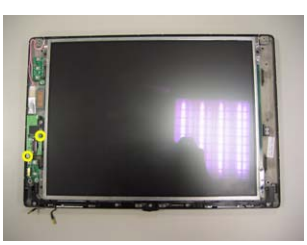




4. Remove another screw holding the LCD support on the other side as shown.
5. Open the cover as shown.
6. Open the other cover protecting antenna set as shown then remove the LCD support.





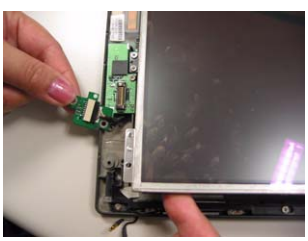
7. Detach the LCD bezel from the LCD module carefully.
8. Remove the four screws fastening the LCD assembly.
9. Remove the two screws fastening the finger board.

10. Turn over the finger board and disconnect the cable then remove the finger board.
11. Remove the two screws fastening the power board.
12. Lift the LCD as shown to take out the power board.



13. Turn over the power board and disconnect the cable then remove the board.
14. Remove the two screws fastening the launch board.
15. Disconnect the launch board cable then remove the launch board.



16. Disconnect the inverter cable then remove the inverter.
17. Take out LCD assembly from the LCD panel (The LCD support has been removed in step 3 to step 6).
18. Disconnect the LCD cable from the LCD then remove the cable.



19. Remove the three screws fastening the digitizer.
20. Then detach the digitizer as shown.


Disassembling the External Modules

Disassembling the HDD Module

1. Remove two screws fastening the HDD bracket on one side.
2. Remove another two screws holding the HDD bracket on another side.
3. Then remove the last screws fastening the HDD bracket.



4. Detach the HDD from the HDD bracket carefully.
5. Disconnect the HDD connector as shown.


Disassembling the Optical Disc Drive Module

1. Remove two screws fastening the ODD holder on one side.
2. Remove another two screws holding the ODD holder on its rear side.
3. Then remove the last screws fastening the ODD holder.



4. Remove the ODD holder from the ODD.
5. Disconnect the ODD connector from the ODD.

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 59.
POST does not complete. No beep or error codes are indicated.	"Power-On Self-Test (POST) Error Message" on page 61 "Undetermined Problems" on page 73
POST detects an error and displayed messages on screen.	"Error Message List" on page 62
Other symptoms (i.e. LCD display problems or others).	"Power-On Self-Test (POST) Error Message" on page 61
Symptoms cannot be re-created (intermittent problems).	Use the customer-reported symptoms and go to "Power-On Self-Test (POST) Error Message" on page 61 "Intermittent Problems" on page 72 "Undetermined Problems" on page 73

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 60

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 73.

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 58
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 59 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 59 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 59. 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 59. 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 60. 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 73.

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).

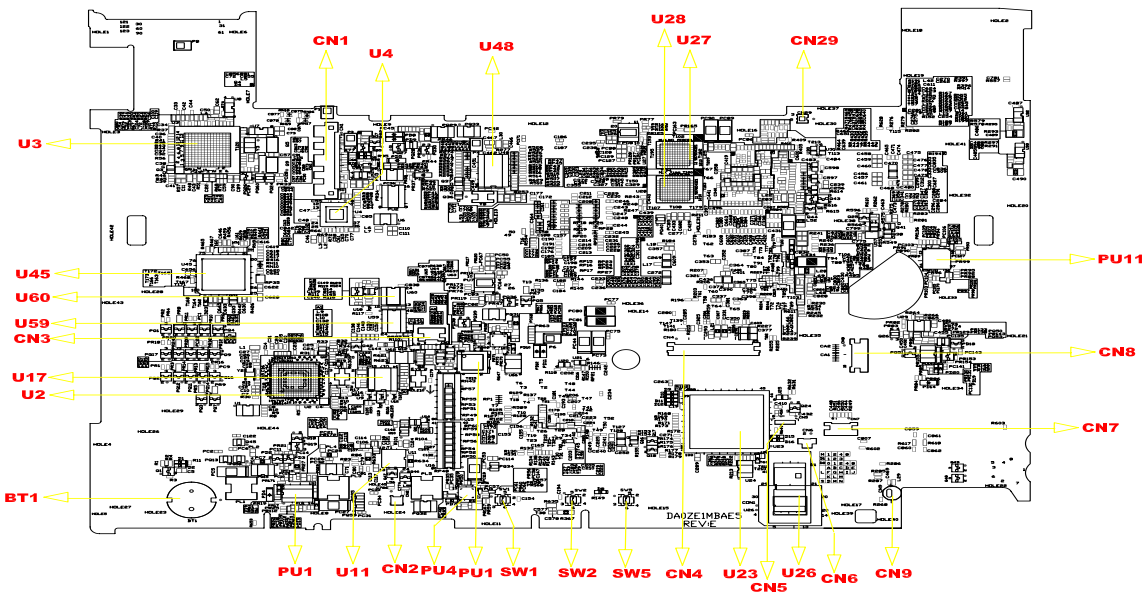
NOTE: Verify that all attached devices are supported by the computer.

NOTE: Verify that the power supply being used at the time of the failure is operating correctly. (See “Power System Check” on page 59):

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

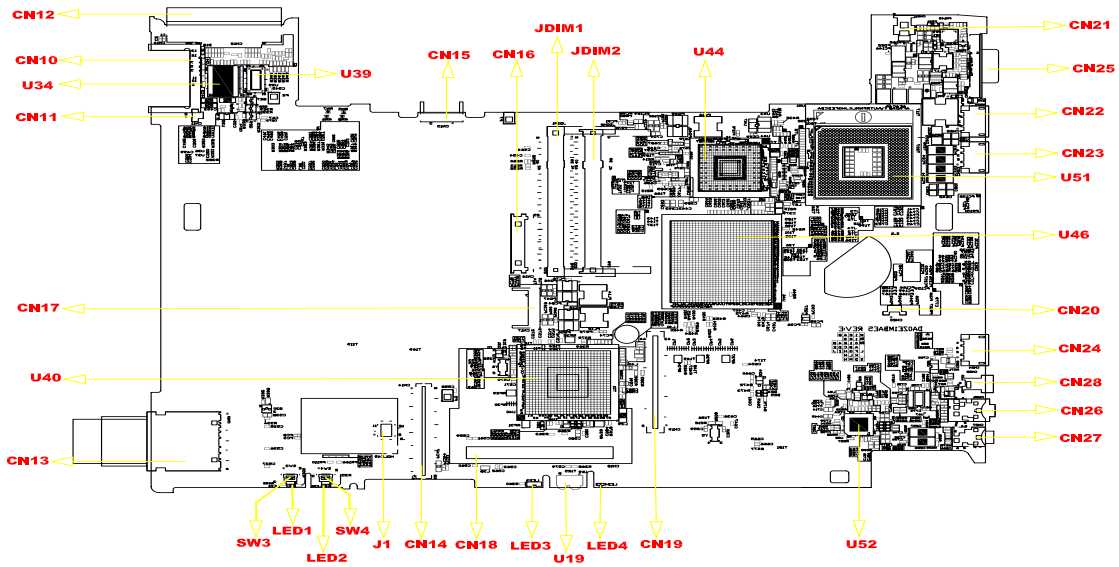
Jumper and Connector Locations

Top View



CN1	LCD connector	SW2	Touchpad Switch
U4	DVI Transfer IC	SW1	Touchpad Switch
U48	Clock Generator IC	PU1	System PWR IC
U28	Video RAM	PU4	
U27	Video RAM	CN2	Speaker Connector
CN29	Lid-Switch	U11	CardBus PWR IC
PU11	CPU PWR IC	PU1	System PWR IC
CN8	Quick Board Connector	BT1	RTC Battery Connector
CN7	Jogdial Connector	U2	CardBus IC
CN9	Microphone Connector	U17	Track Point IC
CN6	Pen-Sensor	CN3	Track Point Connector
U26	BIOS	U59	ODD Switch IC
CN5	Bluetooth Connector	U60	ODD Switch IC
U23	Keyboard Control IC	U45	Super I/O IC
CN4	Keyboard Connector	U3	GigaLAN IC
SW5	Power-On Switch		

Bottom View



CN15	Battery Connector	LED4	HDD LED (Green)
CN16	ODD Connector	U19	FIR
JDIM1	9.2H DDR2	LED3	Power LED (Green/Amber)
JDIM2	5.2H DDR2	CN18	Mini PCI Connector
U44	Graphic Chip	CN14	PCMCIA Slot (Main Board Side)
CN21	DC-in Jack	J1	MDC Connector
CN25	CRT	SW4	Wireless Switch
CN22	USB Port	LED2	Wireless LED (Amber)
CN23	USB Port	LED1	Bluetooth LED (Blue)
U51	CPU Socket	SW3	Bluetooth Switch
U46	North Bridge	CN13	3-in-1 Card Reader Slot
CN20	FAN Connector	U40	South Bridge
CN24	USB Port	CN17	2nd-Battery Connector
CN28	1394 Connector	CN11	Modem
CN26	Audio Jack (Blue)	U34	LAN Transfermer
CN27	Audio Jack (Green)	CN10	RJ45-RJ11
U52	Audio Codec	CN12	Docking Port
CN19	HDD Connector	U39	LAN Switch IC

FRU (Field Replaceable Unit) List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of TravelMate C200 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.

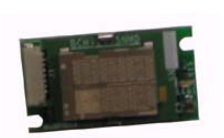
NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

Exploded Diagram

NOTE: The exploded diagram is not ready as the service guide released. We will update the section later.

NOTE: The photos below are taken from an engineering sample. The cover of the engineering sample's case is not what you would see on the finish-good shipping product.

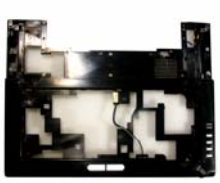
TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
Adapter			
		LITE-ON NB ADAPTER PA-1650-02QR, 19V, 3 PINS, 65W	AP.06503.010
		LSE NB ADAPTER SLS0335A19A57LF 19V 3 PINS 65W	AP.06506.002
Battery			
		LI-ION SANYO 3S1P 2.0AH high rate W/O IND (W/Z SANYO PACK CELLS)	BT.00303.003
		LI-ION SANYO 3S2P 4.8AH W/O IND (W/Z SANYO PACK CELLS)	BT.T4803.001
		LI-ION SANYO 3S3P 4.8AH W/O IND (W/Z SANYO PACK CELLS)	BT.00903.001
		MODEM BOARD	54.TAKV7.001
		BLUETOOTH MODULE W/ANTENNA	54.TADV7.001
		WIRELESS LAN BOARD (802.11b+g) INTEL	KI.CAX01.008
		WIRELESS LAN BOARD (802.11a/b/g) INTEL EU	KI.CAX01.010
		WIRELESS LAN BOARD (802.11a/b/g) INTEL NA	KI.CAX01.009
		WIRELESS LAN BOARD (802.11a/b/g) INTEL RW	KI.CAX01.011

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		JOYSTICK BOARD	55.TADV7.001
		PCMCIA SLOT MODULE	55.TADV7.002
		LAUNCH BOARD	55.TADV7.003
		PEN SENSOR BOARD	55.TADV7.004
		PEN SENSOR BOARD CABLE	50.TADV7.001
		FFC- JOYSTICK BOARD TO MB	50.TADV7.002
		FFC - LAUNCH BOARD TO MB	50.TADV7.003
		BLUETOOTH CABLE	50.TADV7.004
		MODEM CABLE LEAD FREE	50.TADV7.005

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		POWER CORD AF (3 PIN)	27.T48V7.001
		POWER CORD DANISH (3 PIN)	27.A03V7.006
		POWER CORD AU W/LABEL (3 PIN)	27.A50V7.003
		POWER CORD AF-S (INDIA)	27.A50V7.001
		POWER CORD UK (3 PIN)	27.A03V7.004
		POWER CORD PRC (3 PIN)	27.A03V7.003
		POWER CORD US (3 PIN)	27.A03V7.001
		POWER CORD KOERA (Pin)	27.T23V7.006
		POWER CORD EU (3 PIN)	27.A03V7.002
		POWER CORD ITALIAN (3 PIN)	27.A03V7.005
		POWER CORD- SWISS	27.A03V7.007
		POWER CORD ISRAEL (3 PIN)	27.A50V7.002
		MIDDLE COVER	42.TADV7.001
		HINGE COVER R	42.TADV7.002
		HINGE COVER L	42.TADV7.003
		UPPER CASE W/ ANTENNA	60.TADV7.001

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		LOWER CASE W/ SPEAKER	60.TADV7.002
		PCI DOOR	42.TADV7.004
		RAM DOOR	42.TADV7.005
		PCMCIA SUPPORT BRACKET	33.TDAV7.001
		ZE1 PCMCIA DUMMY Card	42.TADV7.006
CPU			
		Celeron M 350 (1.3G 1M) C0	KC.NC001.350
		Celeron M 360 (1.4G 1M) C0	KC.NC001.360
		Celeron M 370 (1.5G 1M) C0	KC.NC001.370
		CELERON M 380 (1.6G 1M) C0	KC.NC001.380
		Pentium M 725 (1.6G 2M 400FSB)	KC.N0001.725
		Pentium M 730 (1.6G 2M 533FSB)	KC.N0001.730
		Pentium M 740 (1.73G 2M 533FSB)	KC.N0001.740
		Pentium M 750 (1.87G 2M 533FSB)	KC.N0001.750
		Pentium M 760 (2.0G 2M 533FSB)	KC.N0001.760
		Pentium M 770 (2.13G 2M 533FSB)	KC.N0001.770
		DVD CDRW COMBO ASSY(PANASONIC)STNB/S	6M.TADV7.001

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		DVD/CDRW (COMBO) UJDA770AC-A	KO.02406.013
		ODD CONNECTOR BOARD	55.TADV7.005
		ODD HOLDER	42.TADV7.007
		DVD COMBO BEZEL ASSY	42.TADV7.008
			6M.TADV7.002
		DVD DUAL(DL), LITEON SOLW-831S, SLOT-IN, F/W:WRT9	KU.00804.016
		ODD CONNECTOR BOARD	55.TADV7.005
		ODD HOLDER	42.TADV7.007

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		DVD DUAL LITE-ON SLOT IN BEZEL ASSY	42.TADV7.009
		100G SEAGATE 2.5' 4200RPM N2.2ST9100825A F/W:3.04	KH.10001.003
		100G TOSHIBA 2.5' 4200RPM ARES MK1031GAS (ROHS) F/W AA204A	KH.10004.001
		100G HGST 2.5' 4200RPM HAKONE-A F/W:A70G	KH.10007.002
		40G TOSHIBA 2.5' 4200RPM PLUTO MK4025GAS (ROHS) F/W KA100A	KH.04004.005
		40G HGST 2.5' 4200RPM HAKONA-A F/W :A70G	KH.04007.013
		60G SEAGATE 2.5' 4200RPM N2.2ST960812A F/W:3.04	KH.06001.003
		60G HGST 2.5' 4200RPM HAKONE-A F/W :A70G	KH.06007.009
		80G SEAGATE 2.5' 4200RPM N2.2ST980829A F/W:3.04	KH.08001.013
		80G HGST 2.5' 4200RPM HAKONE-A F/W:A70G	KH.08007.011
		40G SEAGATE 2.5 IN. 4200RPM N2.1ST9402113A F/W:3.01	KH.04001.016
		60G TOSHIBA 2.5 IN. 4200RPM PLUTO MK6025GAS CZK(ROHS) F/W:KA200A	KH.06004.004
		80G TOSHIBA 2.5 IN. 4200RPM PLUTO MK8025GAS (ROHS) F/W:KA023A	KH.08004.003
		HDD CONNECTOR	55.TADV7.006
		HDD COVER	42.TADV7.010

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		HDD BRACKET	33.TADV7.002
Keyboard			
		TMC200 KEYBOARD DARFON US International	KB.TAD07.001
		TMC200 KEYBOARD DARFON Chinese	KB.TAD07.002
		TMC200 KEYBOARD DARFON Thai	KB.TAD07.004
		TMC200 KEYBOARD DARFON Czech	KB.TAD07.016
		TMC200 KEYBOARD DARFON Brazilian Protugese	KB.TAD07.005
		TMC200 KEYBOARD DARFON Russian	KB.TAD07.025
		TMC200 KEYBOARD DARFON Turkish	KB.TAD07.020
		TMC200 KEYBOARD DARFON Belgium	KB. TAD07.014
		TMC200 KEYBOARD DARFON Sweden	KB.TAD07.015
		TMC200 KEYBOARD DARFON UK	KB.TAD07.007
		TMC200 KEYBOARD DARFON French	KB.TAD07.010
		TMC200 KEYBOARD DARFON German	KB.TAD07.008
		TMC200 KEYBOARD DARFON Italian	KB.TAD07.009
		TMC200 KEYBOARD DARFON Japanese	KB.TAD07.022
		TMC200 KEYBOARD DARFON Danish	KB.TAD07.019
		TMC200 KEYBOARD DARFON Spanish	KB.TAD07.003
		TMC200 KEYBOARD DARFON Arabic	KB.TAD07.013
		TMC200 KEYBOARD DARFON Swiss/G	KB.TAD07.011
		TMC200 KEYBOARD DARFON Portuguese	KB.TAD07.012
		TMC200 KEYBOARD DARFON Norway	KB.TAD07.018
		TMC200 KEYBOARD DARFON Korea	KB.TAD07.006
		TMC200 KEYBOARD DARFON Hungaian	KB.TAD07.017
		TMC200 KEYBOARD DARFON Canadian French	KB.TAD07.021
		TMC200 KEYBOARD DARFON Hebrew	KB.TAD07.024
		TMC200 KEYBOARD DARFON Greek	KB.TAD07.023
		ZE1 LCD 12.1 IN. XGA ASSY HYDIS HT12X21	6M.TADV7.011

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		LCD(TFT) 12.1 IN. HYDIS HT12X21-220(XGA) LF W/PROTECT COVER	56.TADV7.001
		INVERTER BOARD LF	19.TADV7.001
		POWER BUTTON/B ASSY	55.TADV7.007
		TABLET BUTTON/B ASSY	55.TADV7.008
		FINGER PRINT BOARD	55.TADV7.009
		CABLE ASSY - FINGER12.1(50/55P,1A)LF	50.TADV7.006
		LCD STAND	33.TADV7.003
		LCD BEZEL	60.TADV7.003

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		LCD COVER W/ANTENNA - HYDIS	60.TADV7.004
		DIGITIZER PANEL -WACOM SU-1201E-02X	56.TADV7.002
		ZE1 LCD 12.1 IN. XGA ASSY HYDIS HT12X21 W/O FINGER	6M.TADV7.021
		LCD(TFT) 12.1 IN. HYDIS HT12X21-220(XGA) LF W/PROTECT COVER	56.TADV7.001
		INVERTER BOARD LF	19.TADV7.001
		POWER BUTTON/B ASSY	55.TADV7.007
		TABLET BUTTON/B ASSY	55.TADV7.008
		CABLE ASSY - W/O FINGER12.1(50/55P,1A)LF	50.TADV7.007
		LCD STAND	33.TADV7.003
		LCD BEZEL W/O FINGER	60.TADV7.008
		LCD COVER W/ANTENNA - HYDIS	60.TADV7.004
		DIGITIZER PANEL -WACOM SU-1201E-02X	56.TADV7.002
		ZE1 LCD 12.1 IN. XGA ASSY TOSHIBA LTD121KA0Q	6M.TADV7.012
		LCD(TFT)12.1 IN. TOSHIBA LTD121KA0Q LF W/PROTECT COVER	56.TADV7.002
		INVERTER BOARD LF	19.TADV7.001
		POWER BUTTON/B ASSY	55.TADV7.007
		TABLET BUTTON/B ASSY	55.TADV7.008
		FINGER PRINT BOARD	55.TADV7.009
		CABLE ASSY - FINGER12.1(50/55P,1A)LF	50.TADV7.006
		LCD STAND	33.TADV7.003
		LCD BEZEL	60.TADV7.003
		LCD COVER W/ANTENNA - TOSHIBA	60.TADV7.009
		DIGITIZER PANEL -WACOM SU-1201E-02X	56.TADV7.002
		ZE1 LCD 12.1 IN. XGA ASSY TOSHIBA LTD121KA0Q W/O FINGER	6M.TADV7.022
		LCD(TFT)12.1 IN. TOSHIBA LTD121KA0Q LF W/PROTECT COVER	56.TADV7.002
		INVERTER BOARD LF	19.TADV7.001
		POWER BUTTON/B ASSY	55.TADV7.007
		TABLET BUTTON/B ASSY	55.TADV7.008
		CABLE ASSY - W/O FINGER12.1(50/55P,1A)LF	50.TADV7.007

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		LCD STAND	33.TADV7.003
		LCD BEZEL W/O FINGER	60.TADV7.008
		LCD COVER W/ANTENNA - TOSHIBA	60.TADV7.009
		DIGITIZER PANEL -WACOM SU-1201E-02X	56.TADV7.002
		MAINBOARD UMA W/MODEM CABLE, 4 IN 1 W/O CPU MEMORY	LB.TAD06.001
		MAINBOARD NVIDIA NV44M64 W/MODEM CABLE, 4 IN 1 W/O CPU MEMORY	LB.TAU06.001
		RTC BATTERY - ML1220	23.T42V7.001
		MEMORY INFINEON DDRII533256M HYS64T32000HDL-3.7-A 32X64 CL4	KN.25602.023
		SO-DIMM DDRII533 256MB NT256T64UH4A0FN-37B LF	KN.25603.020
		SO-DIMM DDRII533 256MB MT8HTF3264HDY-53EB3 LF	KN.25604.023
		MEMORY DDRII 533 256MB M470T3354CZ3-CD5 (PB-FREE), SAMSUNG	KN.2560B.016
		SO-DIMM DDRII533 256MB HYMP532S64P6-C4 LF	KN.2560G.006
		MEMORY SO-DIMM DDRII 533 256MB HYMP532S64P6-C4, HYNIX	KN.51202.021
		MEMORY SO-DIMM DDRII 533 512MB NT512T64UH8A0FN-37B, NANYA	KN.51203.018
		SO-DIMM DDRII533 512MB M470T6554CZ3-CD500 LF	KN.5120B.015
		SO-DIMM DDRII533 512MB HYMP564S64P6-C4 LF	KN.5120G.005
		SPEAKER SET	23.TADV7.001
		THERMAL MODULE	60.TADV7.005
		STYLUS	60.TADV7.006

TravelMate C200 FRU List

Picture	No.	Partname And Description	Part Number
		LATCH RUBBER	47.TADV7.001
		LCD RUBBER Note: Larger one is LCD rubber.	47.TADV7.002
		LCD RUBBER MID Note: Smaller one is LCD rubber mid.	47.TADV7.003
		LOWER CASE RUBBER FOOT	47.TADV7.004
		WEIGHT SAVER	
		SCREW M2.0*2.5-I(NI)(NYLOK)	
		SCREW M2.0*5-I(NI)(NYLOK)	
		SCREW M2.5*4.0-I(NI)(NYLOK)	
		SCREW M2.0*6 I-BNI	
		SCREW M2.5*3-I(NI,NYLOK)	
		SCREW M2*5-I(BNI)(NYLOK)(D3H0.3)LF	