# **TravelMate Victoria Series Service Guide**

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

PRINTED IN TAIWAN

# **Revision History**

Please refer to the table below for the updates made on TravelMate Victoria 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**

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

| Operatin  | g sys | stem   |
|-----------|-------|--|
|           |       | Genuine Windows® Vista <sup>TM</sup> Capable   |
|           |       | Genuine Windows <sup>®</sup> Vista <sup>TM</sup> Home Basic / Home Premium / Ultimate / Business Edition   |
|           |       | Genuine Windows® XP Home / Professional Edition (Service Pack 2)   |
|           |       | Genuine Windows® XP Media Center / Tablet Edition  |
|           |       | Genuine Windows® 2000 (Service Pack 4)   |
| NOT       | Win   | ndows <sup>®</sup> Vista <sup>TM</sup> Capable PCs come with Windows <sup>®</sup> XP installed, and can be upgraded to dows <sup>®</sup> Vista <sup>TM</sup> . For more information on Windows <sup>®</sup> Vista <sup>TM</sup> and how to upgrade, go to: rosoft.com/windowsvista.                |
| Platform  | and   | memory   |
|           |       | Intel <sup>®</sup> Centrino <sup>®</sup> Merom mobile technology, featuring:   |
|           |       | ▶ Intel <sup>®</sup> Core <sup>TM</sup> Duo processor T7300 (2 MB L2 cache, 1.66/1.83/2/2.16 GHz, 667/800 MHz FSB) or higher   |
|           |       | ▶ Intel® 965GM Express chipset   |
|           |       | Integrated Intel® PRO/Wireless 4965ABGN network connection (dual-band tri-mode 802.11a/b/g/n) Wi-Fi CERTIFIED <sup>TM</sup> solution, supporting Acer SignalUp <sup>TM</sup> wireless technology   |
|           |       | Core logic: Intel® 965GM+ICH8M (north bridge+ south bridge)  |
|           |       | Up to 2GB of DDR2 677 MHz memory, upgradeable to 4GB using two soDIMM modules (dual-channel support)   |
| Display a | and g | raphics  |
|           |       | 12.1" WXGA+ high-brightness Acer CrystalBrite <sup>TM</sup> TFT LCD, 1680 x 1050 pixel resolution, 6 lamps   |
|           |       | 16 ms typical of/off and 8 ms average gray-to-gray response time   |
|           |       | Simultaneous multi-window viewing via Acer Vista <sup>TM</sup> supported   |
|           |       | Supporting NVIDIA® PureVideo <sup>TM</sup> technology (WMV HD, High-Definition MPEG-2 Hardware Acceleration, integrated HDTV encoder) dual-link DVI, Microsoft® DirectX® 9.0, Shader Model 3.0, OpenEXR High Dynamic Range (HDR) technology, NVIDIA® PowerMizer <sup>TM</sup> 6.0 and PCI Express® |
|           |       | Dual independent display   |
|           |       | 16.7 million colors (20.1" LCD model)  |
|           |       | 16.2 million colors (19" LCD model)  |
|           |       | MPEG-2/DVD hardware-assisted capability  |
|           |       | S-video/TV-out (NTSC/PAL) support  |
|           |       | Acer Arcade <sup>™</sup> featuring Acer CinemaVision <sup>™</sup> and Acer ClearVision technologies  |
| Audio     |       |  |
|           |       | Intel <sup>®</sup> High Definition audio support   |
|           |       | Two built-in Acer 3DSonic stereo speakers (1W)   |

|        |         | Dolby <sup>®</sup> Digital Live and DTS Neo: PC support  |
|--------|---------|--|
|        |         | Sound Blaster Pro <sup>™</sup> and MS Sound compatible   |
|        |         | Built-in microphone  |
| Stora  | ge subs | system   |
|        |         | One or two 80/100/120 GB Serial ATA hard disk drive, supporting software RAID 0/1  |
|        |         | Optical drive options: DVD-Super Multi double-layer drive (slot-load)  |
|        |         | 5-in-1 card reader, supporting Secure Digital (SD), MultiMediaCard (MMC), Memory Stick <sup>®</sup> (MS), Memory Stick PRO <sup>TM</sup> (MS PRO), xD-Picture Card <sup>TM</sup> (xD)                                |
| Input  | device  | s  |
|        |         | 88/89-key Acer FineTouch™ keyboard with 5-degree curve   |
|        |         | Touchpad with 4-way scroll button  |
|        |         | Four easy-launch buttons   |
|        |         | Two side-access switches: WLAN LED and Bluetooth <sup>®</sup> LED-switches   |
| Comn   | nunicat | ion  |
|        |         | Acer Video Conference, featuring Voice and Video over Internet Protocol (VVoIP) support via Acer OrbiCam <sup>™</sup> and optional Acer Bluetooth <sup>®</sup> VoIP phone  |
|        |         | Acer OrbiCam <sup>™</sup> 0.3 megapixel CMOS camera, featuring:  |
|        |         | ◆ 30 degree ergonomic rotation   |
|        |         | Acer VisageOn <sup>™</sup> technology  |
|        |         | ► Acer PrimaLite <sup>TM</sup> technology  |
|        |         | Modem: 56K ITU V.92 modem with PTT approval; wake-on ring ready  |
|        |         | LAN: gigabit Ethernet; wake-on-LAN ready   |
|        |         | WPAN: Bluetooth® 2.0+EDR (Enhanced Data Rate)  |
|        |         | WLAN: Intel <sup>®</sup> PRO/Wireless 4965ABGN network connection (dual-band tri-mode 802.11a/b/g/n) Wi-Fi <sup>®</sup> CERTIFIED <sup>TM</sup> solution, supporting Acer SignalUp <sup>TM</sup> wireless technology |
| I/O Po | orts    |  |
| •      |         | PC Card slot (one Type II)   |
|        |         | 5-in-1 card reader (SD/MMC/MS/MS PRO/xD)   |
|        |         | Three USB 2.0 ports  |
|        |         | IEEE 1394 port   |
|        |         | Fast infrared (FIR) port   |
|        |         | External display (VGA) port  |
|        |         | S-video/TV-out (NTSC/PAL) port   |
|        |         | Headphones/speaker/line-out port with S/PDIF support   |
|        |         | Microphone-in jack   |
|        |         | Line-in jack   |
|        |         | Ethernet (RJ-45) port  |
|        |         | Modem (RJ-11) port   |
|        |         | DC-in jack for AC adaptor  |

#### **Environment**

☐ Temperature:

➤ Operating: 5°C to 35°C

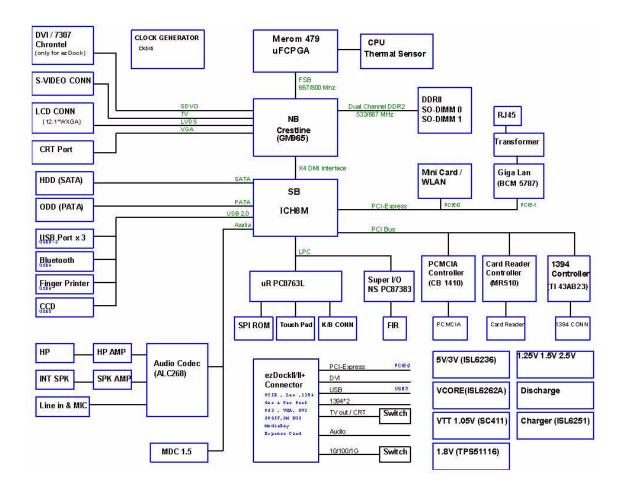
➤ Non-operating: -20°C to 65°C

☐ Humidity (non-condensing):

➤ Operating: 20%~80%

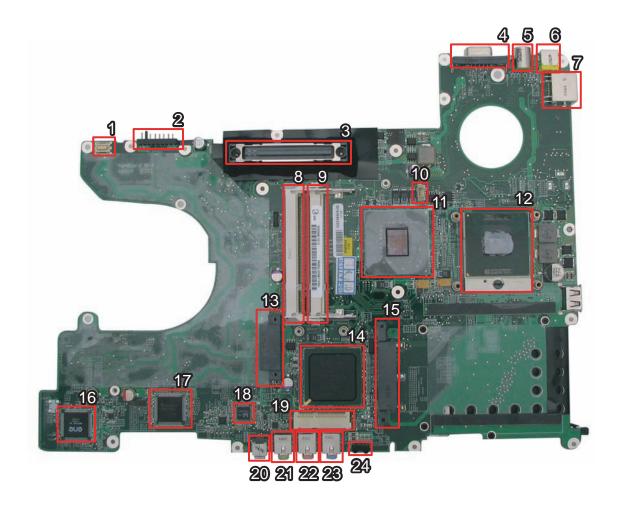
➤ Non-operating: 20%~80%

# **System Block Diagram**



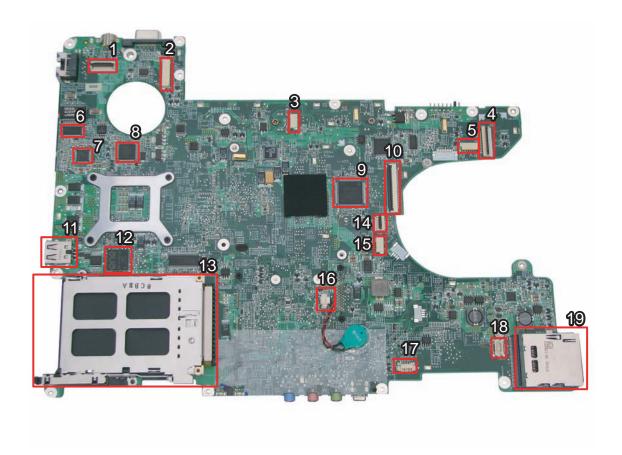
# **Board Layout**

# **Top View**



| 1  | CN21 | USB Board to Main Board<br>Connector | 13 | CN26 | Optical Disk Drive Connector     |
|----|------|--------------------------------------|----|------|----------------------------------|
| 2  | CN20 |                                      | 14 | U32  | South Bridge                     |
| 3  | U26  |                                      | 15 | CN27 | SATA HDD Connector               |
| 4  | CN18 |                                      | 16 | U39  |                                  |
| 5  | CN17 | S-Video Connector                    | 17 | U33  |                                  |
| 6  | PJ1  | DC-in Jack                           | 18 | U34  | Audio Codec                      |
| 7  | CN19 | Ethernet Controller                  | 19 | CN28 | Wireless LAN Card Connector      |
| 8  | CN24 | DIMM Socket                          | 20 | CN23 | Line-in Jack                     |
| 9  | CN25 | DIMM Socket                          | 21 | CN29 | Microphone-in Jack               |
| 10 | CN23 | Fan Connector                        | 22 | CN31 | Headphones/Speaker/Line-out Jack |
| 11 | U29  | North Bridge                         | 23 | CN30 | BIOS Flash Memory                |
| 12 | U30  | CPU Socket                           | 24 | J40  | Infrad Sensor                    |

# **Bottom View**



| 1  | CN1 | Power Board Connector                | 11 | CN11 | USB Connector                                    |
|----|-----|--------------------------------------|----|------|--|
| 2  | CN2 | LCD Connector                        | 12 | U17  |  |
| 3  | CN3 | USB Board to Main Board<br>Connector | 13 |      | Card Bus Socket                                  |
| 4  | CN4 | Function Board Connector             | 14 | CN8  | Touchpad Connector (Fingerprinter to Main Board) |
| 5  | CN5 | Bluetooth Connector                  | 15 | CN9  | Fingerprinter Connector                          |
| 6  | U3  |                                      | 16 | PU6  |  |
| 7  | PU3 |                                      | 17 | CN16 | Speaker Connector                                |
| 8  | U10 |                                      | 18 | CN14 | Modem Card to Main Board Connector               |
| 9  | U14 |                                      | 19 | CN15 | 5-in-1 Card Reader                               |
| 10 | CN7 | Keyboard Connector                   |    |      |  |

# **Your Acer Notebook tour**

After knowing your computer features, let us show you around your new TravelMate computer.

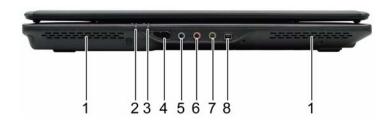
### **Front View**



| # | lcon | Item              | Description   |
|---|------|-------------------|---|
| 1 |      | Built-in camera   | 0.3 megapixel web camera for video communication.   |
| 2 |      | Microphone        | Internal microphone for sound recording.  |
| 3 |      | Status indicators | Light-Emitting Diodes (LEDs) that light up to show the status of the computer's functions and components. |
| 4 | Ф    | Power button      | Turns the computer on and off.  |
| 5 | e    | Empowering button | Launches the Empowering Technology toolbar.   |
| 6 |      | Keyboard          | For entering data into your computer.   |
| 7 |      | Touchpad          | Touch-sensitive pointing device which functions like a computer mouse.                                    |

|    | Ī | Ī  | T  |
|----|---|--|--|
| 8  |   | Fingerprinter                              | Enrolls the computer with a registered fingerprint.  |
| 9  |   | Click buttons (left and right)             | The left and right buttons function like the left and right mouse buttons.                             |
| 10 |   | Display screen                             | Also called Liquid-Crystal Display (LCD), displays computer output.                                    |
| 11 | Ö | Wireless communication button/indicator    | Enables/disables the wireless function. Indicates the status of wireless LAN communication.            |
| 12 | * | Bluetooth® communication button/ indicator | Enables/disables the Bluetooth <sup>®</sup> function. Indicates the status of Bluetooth communication. |
| 13 |   | Easy-launch buttons                        | Buttons for launching frequently used programs.  |
| 14 |   | Palmrest                                   | Comfortable support area for your hands when you use the computer.                                     |

# **Closed Front View**



| # | lcon                     | Item  | Description   |
|---|--------------------------|---|---|
| 1 |                          | Speaker   | Left and right speakers deliver stereo audio output.                            |
| 2 | Ÿ                        | Power indicator   | Indicates the computer's power status.  |
| 3 | ₫                        | Battery indicator   | Indicates the computer's battery status.  |
| 4 | <                        | Infrared port   | Interfaces with infrared devices (e.g, infrared printer and IR-aware computer). |
| 5 | (+ <del>+)</del>         | Line-in jack  | Accepts audio line-in devices (e.g., audio CD player, stereo walkman).          |
| 6 | <b>∕</b> e <sub>th</sub> | Microphone-in jack  | Accepts input from external microphones.  |
| 7 | SPDF                     | Headphones/speaker/<br>line-out jack with S/PDIF<br>support | Connects to audio line-out devices (e.g., speakers, headphones).                |
| 8 | 1394                     | 4-pin IEEE 1394 port  | Connects to IEEE 1394 devices.  |

# **Left View**



| # | lcon         | Item                      | Description  |
|---|--------------|---------------------------|--|
| 1 | 器            | Ethernet (RJ-45)          | Connects to an Ethernet 10/100/1000-based network (for selected models). |
| 2 |              | Ventilation slots         | Enable the computer to stay cool, even after prolonged use.              |
| 3 | <b>●</b> ✓•+ | USB 2.0 port              | Connect to USB 2.0 devices (e.g., USB mouse, USB camera).                |
| 4 |              | PC Card slot              | Accepts one Type II PC Card.   |
| 5 |              | PC Card slot eject button | Ejects the PC Card from the slot.  |

# **Right View**



| # | lcon            | Item                          | Description   |
|---|-----------------|-------------------------------|---|
| 1 | SZ<br>XD<br>PRO | 5-in-1 card reader            | Accepts Secure Digital (SD), MultiMediaCard (MMC), Memory Stick (MS), Memory Stick PRO (MS PRO), xD- Picture Card (xD). |
| 2 |                 | Optical drive                 | Internal optical drive; accepts CDs or DVDs (slot-load or tray-load depending on model).                                |
| 3 |                 | Optical disk access indicator | Lights up when the optical drive is active.   |
| 4 |                 | Optical drive eject button    | Ejects the optical disk from the drive.   |

| 5 |              | Emergency eject hole | Ejects the optical drive tray when the computer is turned off. |
|---|--------------|----------------------|--|
| 6 | <b>●</b> ✓•÷ | 2 USB 2.0 ports      | Connect to USB 2.0 devices (e.g., USB mouse, USB camera).      |
| 7 |              | Modem (RJ-11) port   | Connects to a phone line.                                      |
| 8 | R            | Kensington lock slot | Connects to a Kensington-compatible computer security lock.    |

# **Rear view**



| # | lcon       | ltem                              | Description   |
|---|------------|-----------------------------------|---|
| 1 |            | External display<br>(VGA) port    | Connects to a display device (e.g., external monitor, LCD projector). |
| 2 | <b>S</b> → | S-video/TV-out<br>(NTSC/PAL) port | Connects to a television or display device with S-video input.        |
| 3 |            | DC-in jack                        | Connects to an AC adapter.  |

### **Base view**



| # | Item                              | Description   |
|---|-----------------------------------|---|
| 1 | Battery bay                       | Houses the computer's battery pack.   |
| 2 | Battery lock                      | Locks the battery in position.  |
| 3 | Battery release latch             | Releases the battery for removal.   |
| 4 | Ventilation slots and cooling fan | Enable the computer to stay cool, even after prolonged use.  Note: Do not cover or obstruct the opening of the fan. |
| 5 | Memory compartment                | Houses the computer's main memory.  |
| 6 | Hard disk bay                     | Houses the computer's hard disk (secured with screws)   |

# **Indicators**

The computer has several easy-to-read status indicators.



The front panel indicators are visible even when the computer cover is closed up.

| Icon | Function     | Description  |
|------|--------------|--|
| •    | HDD          | Indicates when the hard disc or optical drive is active. |
| a    | Num lock     | Lights when Num Lock is activated.                       |
| A    | Cap lock     | Lights when Cap Lock is activated                        |
| 凉    | Power        | Lights up when the computer is on.                       |
| A    | Battery      | Lights up when the battery is being charged.             |
| 8    | Bluetooth    | Indicates the status of Bluetooth communication.         |
| S    | Wireless LAN | Indicates the status of wireless LAN communication.      |

**NOTE:** 1. **Charging:** The light shows amber when the battery is charging. 2. **Fully charged:** The light shows green when in AC mode.

### **Easy-Launch Buttons**

To the right of the keyboard there are three easy-launch buttons: Web browser, mail, and one user-programmable button. You can also find an Empowering Key " ${\cal C}$  located above the keyboard.

Press "C" 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.



| Launch key                                       | Default application                   |  |
|--|---------------------------------------|--|
| e Acer Empowering Technology (user-programmable) |                                       |  |
| Web browser                                      | Internet browser (user-programmable)  |  |
| Mail   | Email application (user-programmable) |  |
| Р  | User-programmable                     |  |

# **Touchpad Basics**

The following teaches you how to use the touchpad:



- ☐ Move your finger across the touchpad (2) to move the cursor.
- Press the left (1) and right (4) buttons located beneath the touchpad to perform selection and execution functions. These two buttons are similar to the left and right buttons on a mouse. Tapping on the touchpad is the same as clicking the left button.
- Use the fingerprinter (3) to enroll the computer with registered fingerprint. This recognition device helps prevent unauthorized access by others.

| Function                           | Left Button (1)   | Right Button (4) | Main touchpad (2)  | Fingerprinter (3)                         |
|------------------------------------|---|------------------|--|---|
| Execute                            | Click twice quickly   |                  | Tap twice (at the same speed as double-clicking the mouse button)  |   |
| Select                             | Click once  |                  | Tap once   |   |
| Drag                               | Click and hold, then use finger on the touchpad to drag the cursor. |                  | Tap twice (at the same speed as double-clicking a mouse button); rest your finger on the touchpad on the second tap and drag the cursor. |   |
| Access context menu                |   | Click once       |  |   |
| Log in with authorized fingerprint |   |                  |  | Swipe your finger over the fingerprinter. |

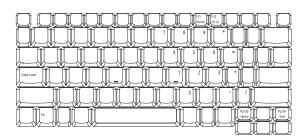
**NOTE:** When using the touchpad, keep it - and your fingers - dry and clean. The touchpad is sensitive to finger movements; hence, the lighter the touch, the better the response. Tapping too hard will not increase the touchpad's responsiveness.

# **Using the Keyboard**

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

### Lock Keys and embedded numeric keypad

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



| Lock Key                             | Description  |  |  |
|--------------------------------------|--|--|--|
| Caps Lock                            | When Caps Lock is on, all alphabetic characters typed are in uppercase.  |  |  |
| Num lock<br><fn>+<f11></f11></fn>    | When Num Lock is on, the embedded keypad is in numeric mode. The keys function as a calculator (complete with the arithmetic operators +, -, *, and /). Use this mode when you need to do a lot of numeric data entry. A better solution would be to connect an external keypad. |  |  |
| Scroll lock<br><fn>+<f12></f12></fn> | When Scroll Lock is on, the screen moves one line up or down when you press the up or down arrow keys respectively. Scroll Lock does not work with some applications.  |  |  |

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

| Desired Access                            | Num Lock On   | Num Lock Off                                    |
|---|---|---|
| Number keys on embedded keypad            | Type numbers in a normal manner.                        |   |
| Cursor-control keys on<br>embedded keypad | Hold <shift> while using cursor-control keys.</shift>   | Hold <fn> while using cursor-control keys.</fn> |
| Main keyboard keys                        | Hold <fn> while typing letters on embedded keypad.</fn> | Type the letters in a normal manner.            |

#### Windows Keys

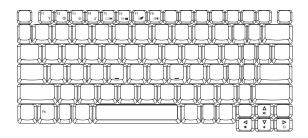
The keyboard has one key that performs Windows-specific functions.

| Key             | Icon   | Description   |  |
|-----------------|--|---|--|
| Windows key     | Pressed alone, this key has the same effect as clicking on the Windows Start button; it launches the Start menu. It can also be used with other keys to provide a variety of function: |   |  |
|                 |  | + <tab> Activates next taskbar button.</tab>  |  |
|                 |  | + <e> Opens the My Computer window</e>  |  |
|                 |  | + <f1> Opens Help and Support.</f1>   |  |
|                 |  | + <f> Opens the Search: All Files dialog box.</f>   |  |
|                 |  | + <r> Opens the Run dialog box.</r>   |  |
|                 |  | + <m> Minimizes all windows.</m>  |  |
|                 |  | <shift>+ # + <m> Undoes the minimize all windows action.</m></shift>                                      |  |
| 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 most of the computer's controls like screen brightness, volume output, and the BIOS utility.

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



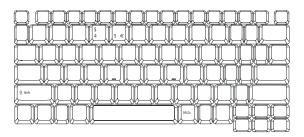
| Hot Key             | lcon           | Function                  | Description   |
|---------------------|----------------|---------------------------|---|
| <fn>+<f1></f1></fn> | ?              | Hot key help              | Displays help on hot keys.  |
| <fn>+<f2></f2></fn> | <b>®</b>       | Acer eSettings            | Launches the Acer eSettings in Acer eManager.   |
| <fn>+<f3></f3></fn> | <b>⊗</b>       | Acer ePower<br>Management | Launches the Acer ePower Management in Acer Empowering Technology. See "Acer Empowering Technology" on page 17. |
| <fn>+<f4></f4></fn> | Z <sup>z</sup> | Sleep                     | Puts the computer in Sleep mode.  |

| Hot Key                 | Icon                  | Function        | Description   |
|-------------------------|-----------------------|-----------------|---|
| <fn>+<f5></f5></fn>     |                       | Display toggle  | Switches display output between the display screen, external monitor (if connected) and both. |
| <fn>+<f6></f6></fn>     | *                     | Screen blank    | Turns the display screen backlight off to save power. Press any key to return.                |
| <fn>+<f7></f7></fn>     |                       | Touchpad toggle | Turns the internal touchpad on and off.   |
| <fn>+<f8></f8></fn>     | <b>□</b> / <b>□</b> » | Speaker toggle  | Turns the speakers on and off.  |
| <fn>+&lt;1&gt;</fn>     | <b>(</b> )            | Volume up       | Increases the speaker volume.   |
| <fn>+&lt;√&gt;&gt;</fn> | <b>(</b> )            | Volume down     | Decreases the speaker volume.   |
| <fn>+&lt;-→&gt;</fn>    | ÷                     | Brightness up   | Increases the screen brightness.  |
| <fn>+&lt;단&gt;</fn>     | <b></b>               | Brightness down | Decreases the screen brightness   |

# **Special Key**

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

To type:



#### The Euro symbol

- 1. Open a text editor or word processor.
- 2. Hold **<Alt Gr>** and then press the **<5>** symbol at the upper-center of the keyboard.

**NOTE:** Some fonts and software do not support the Euro symbol. Please refer to <a href="https://www.microsoft.com/typography/faq/faq12.htm">www.microsoft.com/typography/faq/faq12.htm</a> for more information.

#### The US dollar sign

- 1. Open a text editor or word processor.
- 2. Hold **<Shift>** and then press the **<4>** key at the upper-center of the keyboard.

**NOTE:** This function varies by the operating system version.

### **Acer Empowering Technology**

Acer's innovative Empowering Technology makes it easy for you to access frequently used functions and manage your new Acer notebook. It features the following handy utilities:

|  | Acer eNet | Management | hooks up to | location-based | networks | intelligently |
|--|-----------|------------|-------------|----------------|----------|---------------|
|--|-----------|------------|-------------|----------------|----------|---------------|

- Acer ePower Management extends battery power via versatile usage profiles.
- Acer ePresentation Management connects to a projector and adjusts display settings conveniently.
- Acer eDataSecurity Management protects data with passwords and advanced encryption algorithms.
- Acer eLock Management limits access to external storage media.
- Acer eRecovery Management backs up and recovers data flexibly, reliably and completely.
- ☐ Acer eSettings Management accesses system information and adjusts settings easily.
- □ Acer ePerformance Management improves system performance by optimizing disk space, memory and registry settings.



For more information, press the < < < < key to launch the Empowering Technology toolbar, then click on the appropriate utility and select the Help or Tutorial function.

#### **Empowering Technology password**

Before using Acer eLock Management and Acer eRecovery Management, you must initialize the Empowering Technology password. Right-click on the Empowering Technology toolbar and select "Password Setup" to do so. If you do not initialize the Empowering Technology password, you will be prompted to do so when running Acer eLock Management or Acer eRecovery Management for the first time.

## Acer eNet Management



Acer eNet Management helps you to quickly and easily connect to both wired and wireless networks in a variety of locations. To access this utility, either click on the "**Acer eNet Management**" icon on your notebook, or start the program from the Start menu. You also have the option to set Acer eNet Management to start automatically when you boot up your PC.

Acer eNet Management automatically detects the best settings for a new location, while offering you the freedom to manually adjust the settings to match your needs.



Acer eNet Management can save network settings for a location to a profile, and automatically switch to the appropriate profile when you move from one location to another. Settings stored include network connection settings (IP and DNS settings, wireless AP details, etc.), as well as default printer settings.

Security and safety concerns mean that Acer eNet Management does not store username and password information.



# **Acer ePower Management**



Acer ePower Management features a straightforward user interface. To launch it, select Acer ePower Management from the Empowering Technology interface.

#### AC Mode (Adapter mode)

The default setting is "Maximum Performance." You can adjust CPU speed, LCD brightness and other settings, or click on buttons to turn the following functions on/off: Wireless LAN, Bluetooth, CardBus, FireWire (1394), Wired LAN and Optical Device if supported.

#### DC Mode (Battery mode)

There are three pre-defined profiles - Balanced, Power Saver, and High Performance. You can also define the power plan optimized for your needs.

#### To create new power plan

- 1. Select a predefined power plan and click the " icon shown on the lower left-hand side.
- 2. Enter the name for the newly created power plan.
- 3. Select one of the predefined power plan that is closest to what you want.
- 4. Change the display and sleep settings as desired.
- **5.** Click "OK" to apply the setting.
- 6. A new power plan is created.

#### **Battery status**

For real-time battery life estimates based on current usage, refer to the time shown in the "Remaining Battery Life" field.



For additional power options, click "More Power option".

# Acer ePresentation Management 🔤

Acer ePresentation Management lets you project your computer's display to an external device or project using the hot key: Fn + F5. If auto-detection hardware is implemented in the system, your system display will be automatically switched out when an external display is connected to the system.



# Acer eDataSecurity Management



Acer eDataSecurity Management is handy file encryption utility that protects your files from being accessed by unauthorized persons. It is conveniently integrated with Windows explorer as a shell extension for quick and easy data encryption/decryption and also supports on-the-fly file encryption for MSN Messenger and Microsoft Outlook.

The Acer eDataSecurity Management setup wizard will prompt you for a supervisor password and default encryption. This encryption will be used to encrypt files by default, or you can choose to enter your won filespecific password when encrypting a file.

**NOTE:** The password used encrypt a file is the unique key that the system needs to decrypt it. If you lose the password, the supervisor password is the only other key capable of decrypting the file. If you lose both passwords, there will be no way to decrypt your encrypted file! Be sure to safeguard all related passwords!







# Acer eLock Management 🛅

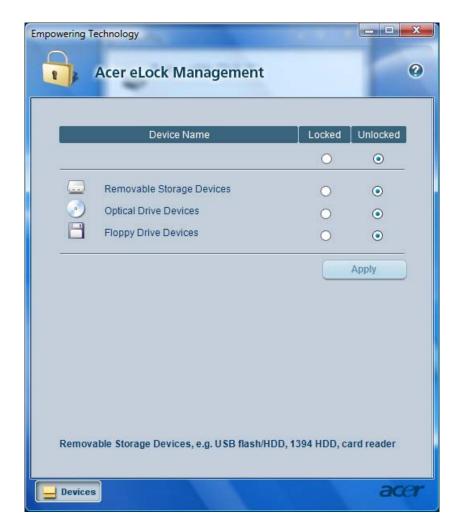


Acer eLock Management is a security utility that allows you to lock your removable data, optical and floppy drives to ensure that data cannot be stolen while your notebook is unattended.

- Removable data devices includes USB disk drives, USB pen drives, USB flash drives, USB MP3 drives, USB memory card readers, IEEE 1394 disk drives and any other removable disk drives that can be mounted as a file system when plugged into the system.
- Optical drive devices includes any kind of CD-ROM or DVD-ROM drives.
- ☐ Floppy disk drives 3.5-inch disks only.
- Interfaces includes serial ports, parallel port, infrared (IR), and Bluetooth.

To activate Acer eLock Management, a password must be set first. Once set, you can apply locks to any of the devices. Lock(s) will immediately be set without any reboot necessary, and will remain locked after rebooting, until unlocked.

NOTE: If you lose your password, there is no method to reset it except by reformatting your notebook or taking your notebook to an Acer Customer Service Center. Be sure to remember or write down your password.

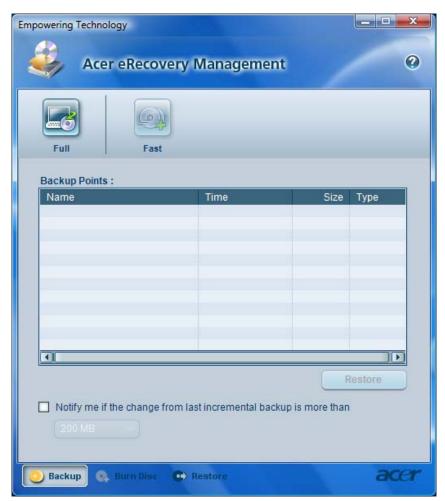


# Acer eRecovery Management

Acer eRecovery Management is a powerful utility that does away with the need for recovery disks provided by the manufacturer. The Acer eRecovery Management utility occupies space in a hidden partition on your system's HDD. User-created backups are stored on D:\ drive. Acer eRecovery Management provides you with:

|  | Password | protection. |
|--|----------|-------------|
|--|----------|-------------|

- Recovery of applications and drivers.
- Image/data backup:
  - Back up to HDD (set recovery point).
  - Back up to CD/DVD.
- ☐ Image/data recovery tools:
  - ☐ Recover from a hidden partition (factory defaults).
  - Recover from the HDD (most recent user-defined recovery point).
  - □ Recover from CD/DVD.



For more information, please refer to "Acer eRecovery Management"

NOTE: If your computer did not come with a Recovery CD or System CD, please use Acer eRecovery Management's "System backup to optical disk" feature to burn a backup image to CD or DVD. To ensure the best results when recovering your system using a CD or Acer eRecovery Management, detach all peripherals (except the external Acer ODD, if your computer has one), including your Acer ezDock.

# Acer eSettings Management



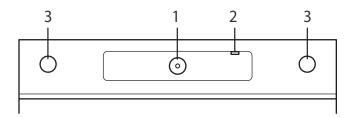
Acer eSettings Management allows you to inspect hardware specifications and to monitor the system health status. Furthermore, Acer eSettings Management enables you to optimize your Windows operating system, so your computer runs faster, smoother and better.

Acer eSettings Management also:

- Provides a simple graphical user interface for navigating.
- Displays general system status and advanced monitoring for power users.



#### Getting to know your Acer OrbiCam



| No. | Item                               |  |
|-----|------------------------------------|--|
| 1   | Lens                               |  |
| 2   | Power indicator                    |  |
| 3   | Rubber grip (selected models only) |  |

#### Launching the Acer OrbiCam

To launch the Acer OrbiCam, double click on the Acer OrbiCam icon on the screen.

OR

Click Start > All programs > Acer > Acer OrbiCam. The Acer OrbiCam capture window appears.



#### Changing the Acer OrbiCam resolution

To change the capture resolution, click the displayed resolution button to select the desired resolution.

#### Using the Acer OrbiCam as webcam

The Acer OrbiCam is automatically selected as the capture device of any instant messenger (IM) application. To use the Acer OrbiCam as a webcam, open the IM service, then select the video/webcam feature. You can now broadcast from your location to an IM partner anywhere in the world.

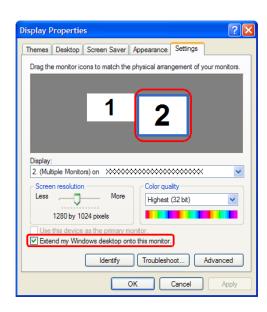
### **Using the System Utilities**

NOTE: The system utilities work under Microsoft Windows XP only.

#### Acer GridVista (dual-display compatible)

NOTE: This feature is only available on certain models.

To enable the dual monitor feature of the notebook, first ensure that the second monitor is connected, then select **Start, Control Panel, Display** and click on **Settings**. Select the secondary monitor **(2)** icon in the display box and then click the check box **Extend my windows desktop onto this monitor**. Finally, click **Apply** to confirm the new settings and click **OK** to complete the process.



Acer GridVista is a handy utility that offers four pre-defined display settings so you can view multiple windows on the same screen. To access this function, please go to **Start > All Programs** and click on **Acer GridVista**. You may choose any one of the four display settings indicated below:

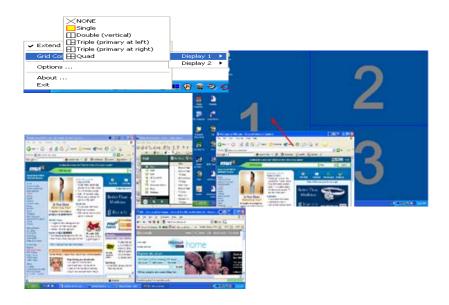


Double (vertical), Triple (primary at left), Triple (primary at right), or Quad Acer Gridvista is dual-display compatible, allowing two displays to be partitioned independently.

Acer Gridvista is dual-display compatible, allowing two displays to be partitioned independently.

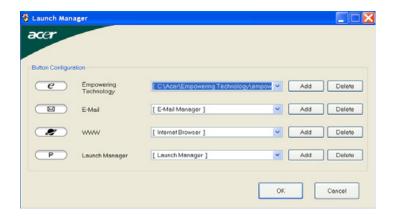
AcerGridVista is simple to set up:

- 1. Run Acer GridVista and select your preferred screen configuration for each display from the task bar.
- Drag and drop each window into the appropriate grid.
- 3. Enjoy the convenience of a well-organized desktop.



**NOTE:** Please ensure that the resolution setting of the second monitor is set to the manufacturer's recommended value.

### Launch Manager



Launch Manager allows you to set the four easy-launch buttons (see their locations mentioned in "Easy-Launch Buttons"). You can access the Launch Manager by clicking Start > All Programs > Launch Manager to start the application.

# **Hardware Specifications and Configurations**

#### **Processor**

| Item             | Specification  |  |
|------------------|--|--|
| CPU type         | Intel <sup>®</sup> Core <sup>TM</sup> Duo processor T7300 (2 MB L2 cache, 1.66/1.83/2/2.16 GHz, 667/800 MHz FSB) or higher |  |
| Core logic       | Intel® 965GM Express chipset+ICH8M   |  |
| CPU package      | Intel socket 1299pin FCBGA   |  |
| CPU core voltage | 0.944~1.3V   |  |

#### **CPU Fan True Value Table**

| TEST Condition: 35W@Ambient 35 degree C |        |           |                |  |  |
|---|--------|-----------|----------------|--|--|
| CPU Temperature                         |        | Fan Speed | Acoustic Level |  |  |
| Core 0                                  | Core 1 | (rpm)     | (dBA)          |  |  |
| 86                                      | 86     | 3700      | 39             |  |  |
| 88                                      | 88     | 3450      | 36.5           |  |  |
| 91                                      | 91     | 3150      | 34.5           |  |  |
| 95                                      | 95     | 2800      | 31             |  |  |

#### **BIOS**

| Item                  | Specification   |
|-----------------------|---|
| BIOS vendor           | Phoenix   |
| BIOS Version          |   |
| BIOS ROM type         | Flash ROM   |
| BIOS ROM size         | 512KB   |
| BIOS package          | 32-pin PLCC   |
| Supported protocols   | ACPI 1.0b/2.0/3.0, PCI 2.2, System/HDD Password Security Control, INT 13h Extensions, PnP BIOS 1.0a, SMBIOS 2.4, Simple Boot Flag 1.0, Boot Block, PCI Bus Power Management Interface Specification, USB1.1/2.0, IEEE 1394 1.0, USB/1394 CD-ROM Boot Up support, PC Card 95 (PCMCIA 3.0 Compliant Device), IrDA 1.0, Intel AC97 CNR Specification, WfM 2.0, PXE (Preboot Execution Environment), BIS 1.0 (Boot Integrity Service Application Program Interface), PC99a and Mobile PC2001 Compliant, Intel Enhanced SpeedStep Technology |
| BIOS password control | Set by setup manual   |

**NOTE:** If you need to check PXE version, press F2 to enter BIOS then enable boot from LAN function. After that, power off the system and remove the HDD. Last, reboot the laptop. Then you will see PXE version displaying on the screen.

#### **Second Level Cache**

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

#### **System Memory**

| Item                            | Specification  |
|---------------------------------|--|
| Memory controller               | Built-in Intel® 965GM  |
| Memory size                     | 0MB (no on-board memory)   |
| DIMM socket number              | 2 sockets  |
| Supports memory size per socket | 2GB  |
| Supports maximum memory size    | 4GB (by two SO-DIMM modules)   |
| Supports DIMM type              | DDR 2 Synchronous DRAM   |
| Supports DIMM Speed             | 667 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    | 128MB  | 128MB        |
| 0MB    | 256MB  | 256MB        |
| 0MB    | 512MB  | 512MB        |
| 0MB    | 1024MB | 1024MB       |
| 0MB    | 2048MB | 2048MB       |
| 128MB  | 128MB  | 256MB        |
| 128MB  | 256MB  | 384MB        |
| 128MB  | 512MB  | 640MB        |
| 128MB  | 1024MB | 1152MB       |
| 128MB  | 2048MB | 2176MB       |
| 256MB  | 128MB  | 384MB        |
| 256MB  | 256MB  | 512MB        |
| 256MB  | 512MB  | 768MB        |
| 256MB  | 1024MB | 1280MB       |
| 256MB  | 2048MB | 2304MB       |
| 512MB  | 128MB  | 640MB        |
| 512MB  | 256MB  | 768MB        |
| 512MB  | 512MB  | 1024MB       |
| 512MB  | 1024MB | 1536MB       |
| 512MB  | 2048MB | 2560MB       |
| 1024MB | 0MB    | 1024MB       |
| 1024MB | 128MB  | 1152MB       |
| 1024MB | 256MB  | 1280MB       |
| 1024MB | 512MB  | 1536MB       |
| 1024MB | 1024MB | 2048MB       |
| 1024MB | 2048MB | 3072MB       |

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

#### **LAN Interface**

| Item                   | Specification  |  |
|------------------------|--|--|
| Chipset                | Broadcom 5787  |  |
| Supports LAN protocol  | 10/100/1000 Ethernet<br>Giga LAN   |  |
| LAN connector type     | RJ45   |  |
| LAN connector location | Left side  |  |
| Features               | Integrated 10/100/1000 BASE-T transceiver Wake on LAN support compliant with ACPI 2.0 PCI v2.2 |  |

#### **Modem Interface**

| Item                            | Specification |
|---------------------------------|---------------|
| Data modem data baud rate (bps) | 56K           |
| Supports modem protocol         | V.92          |
| Modem connector type            | RJ11          |
| Modem connector location        | Right side    |

#### **Bluetooth Interface**

| Item            | Specification  |
|-----------------|--|
| Chipset         | Built-in ICH7-M  |
| Data throughput | 723 bps (full speed data rate)   |
| Protocol        | Bluetooth 1.1 (Upgradeable to Bluetooth 1.2 when SIG specification is ratified). |
| Interface       | USB 1.1  |
| Connector type  | USB  |

# Wireless Module 802.11a/b/g/n

| Item            | Specification |
|-----------------|---------------|
| Chipset         | Intel 4965    |
| Data throughput | 11~54 Mbps    |
| Protocol        | 802.11a+b+g+n |
| Interface       | PCI           |

#### **Hard Disk Drive Interface**

| Item                   |   |   |  |
|------------------------|---|---|--|
| Vendor &<br>Model Name | Seagate 40G ST9402112A<br>Toshiba MK4025GAS<br>Hitachi HTS421240H9AT00<br>WD WD400UE-22HCT0<br>Samsung M40MP0402H | Seagate ST96812A<br>Seagate ST960821A<br>Toshiba MK6025GAS<br>HGST HTS541260H9AT00<br>WD WD600UE-22HCT0 | TOSHIBA MK8025GAS HITACHI HTS421280H9AT00 SEAGATE ST9808210A SEAGATE ST98823A TOSHIBA MK8026GAX HGST HTS541280H9AT00 WD WD800UE-22HCT0 |
| Capacity (MB)          | 40000   | 60000   | 80000  |
| Bytes per<br>sector    | 512   | 512   | 512  |
| Data heads             | 2   | 3 (for Hitachi and Seagate)<br>4 (for Toshiba)  | 4 (for Hitachi)<br>3 (for Seagate)   |
| Drive Format           |   |   |  |

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#### **Hard Disk Drive Interface**

| Item  |                                 |                                 |                                 |
|---|---------------------------------|---------------------------------|---------------------------------|
| Disks   | 1                               | 2                               | 2                               |
| Spindle speed (RPM)                                       | 4200 RPM                        | 4200 RPM                        | 4200 RPM                        |
| Performance Sp  | pecifications                   |                                 |                                 |
| Buffer size   | 2048KB                          | 8192KB                          | 8192KB                          |
| Interface   | ATA/ATAPI-6; ATA-6              | ATA/ATAPI-6; ATA-6              | ATA/ATA-6; ATA-6                |
| Max. media<br>transfer rate<br>(disk-buffer,<br>Mbytes/s) | 372                             | 350                             | 350                             |
| Data transfer rate (host~buffer, Mbytes/s)                | 100 MB/Sec.<br>Ultra DMA mode-5 | 100 MB/Sec.<br>Ultra DMA mode-5 | 100 MB/Sec.<br>Ultra DMA mode-5 |
| DC Power Requirements                                     |                                 |                                 |                                 |
| Voltage<br>tolerance                                      | 5V(DC) +/- 5%                   | 5V(DC) +/- 5%                   | 5V(DC) +/- 5%                   |

#### **DVD-Dual Interface**

| Item                      | Specifi  | cation                           |
|---------------------------|--|----------------------------------|
| Vendor & model name       | LITEON SOSW-833S<br>PIONEER DVR-K16RA  |                                  |
| Performance Specification | With CD Diskette   | With DVD Diskette                |
| Transfer rate (KB/sec)    | Sustained:<br>Max 3.6Mbytes/sec  | Sustained:<br>Max 10.8Mbytes/sec |
| Buffer Memory             | 2MB  |                                  |
| Interface                 | Enhanced IDE(ATAPI) compatible   |                                  |
| Applicable disc format    | Support disc formats  1. Reads data in each CD-ROM, CD-ROM XA, CD-1, Video CD, CD-Extra and CD-Text  2. Reads data in Photo CD (single and Multi-session)  3. Reads standard CD-DA  4. Reads and writes CD-R discs  5. Reads and writes CD-RW discs  6. Reads and writes in each DVD+R/RW (Ver. 1.1)  7. Reads data in each DVD-ROM and DVD-R (Ver. 2.0 for Authoring)  8. Reads and writes in each DVD-R (Ver. 2.0 for general), DVD-RW and DVD+R/RW (Ver1.1) |                                  |
| 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)  |                                  |

#### **Audio Interface**

| Item                      | Specification  |
|---------------------------|----------------|
| Audio Controller          | Realtek ALC268 |
| Audio onboard or optional | Built-in       |
| Mono or Stereo            | Stereo         |

#### **Audio Interface**

| Item                        | Specification   |
|-----------------------------|---|
| Resolution                  | 18 bit stereo full duplex                                 |
| Compatibility               | HD audio Interface; S/PDIF output for PCM or AC-3 content |
| Sampling rate               | 1Hz resolution VSR (Variable Sampling Rate)               |
| Internal microphone         | Yes   |
| Internal speaker / Quantity | Yes/2(1.5W speakers)                                      |
| Supports PnP DMA channel    | DMA channel 0   |
|                             | DMA channel 1   |
| Supports PnP IRQ            | IRQ10, IRQ11  |

## **USB Port**

| Item                         | Specification                                |
|------------------------------|--|
| Chipset                      | Built-in ICH8M                               |
| USB Compliancy Level         | 2.0  |
| OHCI                         | USB 1.1 and USB 2.0 Host controller          |
| Number of USB port           | 4  |
| Location                     | One on the left side; three on the rear side |
| Serial port function control | Enable/Disable by BIOS Setup                 |

#### **PCMCIA Port**

| Item                            | Specification |
|---------------------------------|---------------|
| PCMCIA controller               | TI PCI 7412   |
| Supports card type              | Type-II       |
| Number of slots                 | One type-II   |
| Access location                 | Left side     |
| Supports ZV (Zoomed Video) port | No ZV support |
| Supports 32 bit CardBus         | Yes           |

# **System Board Major Chips**

| Item                    | Controller         |
|-------------------------|--------------------|
| Core logic              | Intel® 965GM+ICH8M |
| LAN                     | Broadcom 5787      |
| USB 2.0                 | Built in ICH8M     |
| Super I/O controller    | NS 87383           |
| MODEM                   | Built-in ICH7-M    |
| Bluetooth               | Built-in ICH7-M    |
| Wireless 802.11 a+b+g+n | Intel 4965         |
| PCMCIA                  | TI PCI 7412        |
| Audio                   | Realtek ALC268     |

# Keyboard

| Item                    | Specification |
|-------------------------|---------------|
| Keyboard controller     | KBC1122       |
| Total number of keypads | 88-/89-key    |

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# Keyboard

| Item   | Specification                                   |
|--|---|
| Windows logo key                                 | Yes   |
| Internal & external keyboard work simultaneously | Plug USB keyboard to the USB port directly: Yes |

#### **Battery**

| Item                   | Specification   |
|------------------------|---|
| Vendor & model name    | BATTERY PACK SANYO LI-ION 8<br>CELL2.4, 4800MAH<br>BATTRY PACK SONY LI-ION<br>8CELL2.4, 4800MAH |
| Battery Type           | Li-ion  |
| Pack capacity          | 4800 mAH  |
| Number of battery cell | 8   |
| Package configuration  | 4 cells in series, 2 series in parallel   |
| Normal voltage         | 14.8V   |
| Charge voltage         | 16.8+-0.2v  |

#### LCD 12.1" inch

| Item   | Specification                              |                                  |  |                                  |
|--|--|----------------------------------|--|----------------------------------|
| Vendor & model name                                    | SAMSUNG<br>LTN190-M2-<br>000 NON-<br>GLARE | CMO M190A1-<br>L01 NON-<br>GLARE | SAMSUNG<br>LTM190-M2-<br>L01-G GLARE<br>TYPE | CMO M190A1-<br>L03 GLARE<br>TYPE |
| Screen Diagonal (mm)                                   | 19.1 inches                                | 19.1 inches                      | 19.1 inches                                  | 19.1 inches                      |
| Active Area (mm)                                       | 304.1x228.1                                | 304.1x228.1                      | 304.1x228.1                                  |                                  |
| Display resolution (pixels)                            | 1440x900<br>WXGA+                          | 1440x900<br>WXGA+                | 1440x900<br>WXGA+                            | 1440x900<br>WXGA+                |
| Pixel Pitch  | 0.297x0.297                                | 0.099x0.297                      | 0.297x0.297                                  |                                  |
| Pixel Arrangement                                      | R.G.B. Vertical<br>Stripe                  | R.G.B. Vertical<br>Stripe        | R.G.B. Vertical<br>Stripe                    | R.G.B. Vertical<br>Stripe        |
| Display Mode   | Normally White                             | Normally White                   | Normally White                               | Normally White                   |
| Typical White Luminance (cd/m²) also called Brightness | 300  | 300                              | 300  | 300                              |
| Luminance Uniformity                                   | N/A  | N/A                              | 70   | 70                               |
| Contrast Ratio   | 300  | 300                              | 250  | 250                              |
| Response Time (Optical Rise Time/Fall Time)msec        | 8  | 8                                | 8  | 8                                |
| Nominal Input Voltage VDD                              | +3.3V Typ.                                 | +3.3V                            | 3.3V   | 3.3V                             |
| Typical Power Consumption (watt)                       | 5.6/5.7                                    | 3.96                             | N/A  | N/A                              |
| Weight   | 550  | 570                              | 600  | 600                              |
| Physical Size(mm)                                      | 317.3x242.0x6.<br>0                        | 317.3x242.0x5.<br>9              | 317.3x242.0x6.<br>5                          | 317.3x242.0x6.<br>5              |
| Electrical Interface                                   | 1 channel LVDS                             | 1 channel LVDS                   | 1 channel LVDS                               | 1 channel LVDS                   |
| Support Color  | 262K colors<br>(RGB 6-bit data<br>driver)  | 262,144                          | 262,144                                      | 262,144                          |

## LCD 12.1" inch

| Item                   | Specification |            |            |            |
|------------------------|---------------|------------|------------|------------|
| Viewing Angle (degree) |               |            |            |            |
| Horizontal: Right/Left | 40/40         | 45/45      | 40/40      | 40/40      |
| Vertical: Upper/Lower  | 10/30         | 15/35      | 20/40      | 20/40      |
| Temperature Range(°C)  |               |            |            |            |
| Operating              | 0 to +50      | 0 to +50   | 0 to +50   | 0 to +50   |
| Storage (shipping)     | -20 to +60    | -25 to +60 | -20 to +60 | -20 to +60 |

#### **LCD Inverter**

| Item                            | Specification             |
|---------------------------------|---------------------------|
| Vendor & model name             | Darfon/V189-301GP         |
| Brightness conditions           | N/A                       |
| Input voltage (V)               | 9~21                      |
| Input current (mA)              | 2.56 (max)                |
| Output voltage (V, rms)         | 780V (2000V for kick off) |
| Output current (mA, rms)        | 6.5 (max)                 |
| Output voltage frequency (k Hz) | 65K Hz (max)              |

# **AC Adaptor**

| Item                     | Specification                    |
|--------------------------|----------------------------------|
| Input rating             | 90V AC to 264V AC, 47Hz to 63Hz  |
| Maximum input AC current | 1.7A                             |
| Inrush current           | 220A@115VAC<br>220A@230VAC       |
| Efficiency               | 82% min. @115VAC input full load |

## **System Power Management**

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

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

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

|   | Phoenix Tru                            | stedCore(tm                              | ) Setup Utility |                      |
|---|--|--|-----------------|----------------------|
| Information Mai   |  | Security                                 |                 | Exit                 |
|   |  |  |                 |                      |
| CPU Type: CPU Speed:  IDE1 Model Name: IDE1 Serial Number: ATAPI Model Name: System BIOS Version: VGA BIOS Version: Serial Number: Asset Tag Number: Produce Name: Manufacturer Name: UUID: | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | 2J9SA00<br>xxxxxx<br>M GSA-T20<br>xxxxxx | N               | @ 2.00GHz            |
| ' ·   |  | F5/F6 Chan                               |                 | F9 Setup Defaults    |
| Esc Exit ←→ S   | elect Menu                             | Enter Selec                              | t ▶ Sub-Mer     | nu F10 Save and Exit |

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# **Navigating the BIOS Utility**

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

Follow these instructions:

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

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

# **Information**

Phoenix TrustedCore(tm) Setup Utility

Information Main Advanced Security Boot Exit

CPU Type: Intel (R) Core(TM)2 Duo CPU T7300 @ 2.00GHz

CPU Speed: 2000 MHz

ATAPI Model Name: HL-DT-ST DVDRAM GSA-T20N

System BIOS Version: v0.3101

VGA BIOS Version: SentaRosa 1436

Asset Tag Number: Produce Name:

Manufacturer Name: Acer

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

**NOTE:** The system information is subject to different models.

| Parameter            | Description   |
|----------------------|---|
| CPU Type / CPU Speed | This field shows the CPU type and speed of the system.                            |
| IDE1 Model Name      | This field shows the model name of HDD installed on primary IDE master.           |
| IDE1 Serial Number   | This field displays the serial number of HDD installed on primary IDE master.     |
| System BIOS Version  | Displays system BIOS version.   |
| VGA BIOS Version     | This field displays the VGA firmware version of the system.                       |
| Serial Number        | This field displays the serial number of this unit.                               |
| Asset Tag Number     | This field displays the asset tag number of the system.                           |
| Product Name         | This field shows product name of the system.                                      |
| Manufacturer Name    | This field displays the manufacturer of this system.                              |
| UUID Number          | This will be visible only when an internal LAN device is presenting. UUID=32bytes |

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#### 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 your reference only. Actual values may differ.

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

| Parameter Description   |  | Format/Option  |
|---|--|--|
| System Time   | Sets the system time. The hours are displayed with 24-hour format.   | Format: HH:MM:SS<br>(hour:minute:second) System Time |
| System Date   | Sets the system date.  | Format MM/DD/YYYY (month/day/<br>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   |  |
| Video Memory  | Shows the Video memory size.   |  |
| Quiet Boot  | Determines if Customer Logo will be displayed or not; shows Summary Screen is disabled or enabled.   | Option: <b>Enabled</b> or Disabled                   |
|   | Enabled: Customer Logo is displayed, and Summary Screen is disabled.   |  |
|   | Disabled: Customer Logo is not displayed, and Summary Screen is enabled.   |  |
| 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: <b>Auto</b> or Both                          |
| Network Boot  | Enables, disables the system boot from LAN (remote server).  | Option: <b>Enabled</b> or Disabled                   |
| F12 Boot Menu   | Enables, disables Boot Menu during POST.   | Option: <b>Disabled</b> or Enabled                   |
| D2D Recovery  Enables, disables D2D Recovery function. The function allows the user to create a hidden partition on hard disc drive to store operation system and restore the system to factory defaults. |  | Option: <b>Enabled</b> 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.

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# **Advanced**

The Advanced screen displays advanced settings in BIOS.

| Phoenix TrustedCore(tm) Setup Utility    |                 |  |   |
|--|-----------------|--|---|
| Information Main                         | Advanced        | Security                                   | Boot Exit                                       |
|  | •               |  |   |
| Serial Port :                            | [Auto]          |  | Item Specific Help                              |
| Parallel Port :<br>Mode :                | [Auto]<br>[ECP] |  | Configure serial port A using options:          |
| Infrared Port(FIR) :                     | [Auto]          |  | [Disabled] No configuration                     |
| ► ASF Configuration                      |                 |  | [Enabled]<br>User configuration                 |
|  |                 |  | [Auto] BIOS or OS chooses configuration         |
|  |                 |  | (OS Controlled) Displayed when controlled by OS |
|  |                 |  |   |
| F1 Help   ↑↓ Select  Esc Exit   → Select |                 | F5/F6 Change Values<br>Enter Select ► Sub- |   |

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

| Parameter     | Description                               | Option                     |
|---------------|---|----------------------------|
| Serial port   | Displays the settings of the serial port. | Auto, Enabled, or Disabled |
| Parallel port | Shows the settings of the parallel port.  | Auto, Enabled, or Disabled |
| IrDA Device   | Shows the setting of the infrared port.   | Auto, Enabled, or Disabled |

# Security

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

| Phoenix TrustedCore(tm) Setup Utility                                 |               |                |          |  |
|---|---------------|----------------|----------|--|
| Information Ma  | in Advanced   | Security       | Boot     | Exit                                   |
|   |               |                |          |  |
|   |               |                | Item     | Specific Help                          |
| Supervisor Password Is<br>User Password Is:<br>Hard Disk Password St  | Clear         |                | 0        | D                                      |
| Set Supervisor Password<br>Set User Password<br>Set Hard Disk Passwor | [Enter]       |                |          | sor Password s accesses to the tility. |
| Password on boot :  | [Disabled     |                |          |  |
| F1 Help ↑↓ S  | Select Item F | 5/F6 Change Va | alues    | F9 Setup Defaults                      |
| Esc Exit ←→ S   | elect Menu E  | nter Select ▶  | Sub-Menu | F10 Save and Exit                      |

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

| Parameter                 | Description  | Option                     |
|---------------------------|--|----------------------------|
| Supervisor Password is    | Shows the setting of the Supervisor password   | Clear or Set               |
| User Password is          | Shows the setting of the user password.  | Clear or Set               |
| Hard Disk Password Status | Shows the setting of the hard disk password.   | Clear or Set               |
| Set Supervisor Password   | Press Enter to set the supervisor password. When set, this password protects the BIOS Setup Utility from unauthorized access. The user can not either enter the Setup menu nor change the value of parameters.                                       |                            |
| Set User Password         | Press Enter to set the user password. When user password is set, this password protects the BIOS Setup Utility from unauthorized access. The user can enter Setup menu only and does not have right to change the value of parameters.               |                            |
| Set Hard Disk Password    | Press Enter to set the hard disk password. When set, this password protects the BIOS Setup Utility from unauthorized access. The user can not either enter the Setup menu nor change the value of parameters.  |                            |
| Primary HardDisk Security | Enables or disables primary hard disk security function.   |                            |
| Password on Boot          | Defines whether a password is required or not while the events defined in this group happened. The following sub-options are all requires the Supervisor password for changes and should be grayed out if the user password was used to enter setup. | <b>Disabled</b> or Enabled |

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

#### **Setting a Password**

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

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

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

2. Type a password in the "Enter New Password" field. The password length can not exceed 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.

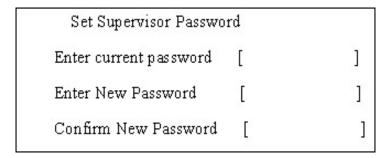
- 3. Press [see ]. After setting the password, the computer sets the Supervisor Password parameter to "Set".
- 4. If desired, you can opt to enable the Password on boot parameter.

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

#### **Removing a Password**

Follow these steps:

1. Use the ₁ and ₃ keys to highlight the Set Supervisor Password parameter and press the key. The Set Supervisor Password box appears:



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

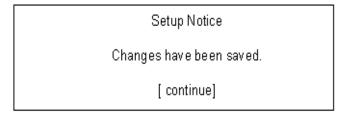
#### **Changing a Password**

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

| Set Supervisor Passwo  | rd | 3 |
|------------------------|----|---|
| Enter current password | [  | ] |
| Enter New Password     | ]  | ] |
| Confirm New Password   | [  | ] |

- 2. Type the current password in the Enter Current Password field and press [see ].
- 3. Type a password in the Enter New Password field. Retype the password in the Confirm New Password field
- 4. Press . After setting the password, the computer sets the Supervisor Password parameter to "Set".
- 5. If desired, you can enable the Password on boot parameter.
- **6.** When you are done, press **■** to save the changes and exit the BIOS Setup Utility.

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



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The password setting is complete after the user presses <a>[</a></a>.

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

Setup Warning

Invalid password

Re-enter Password

[continue]

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

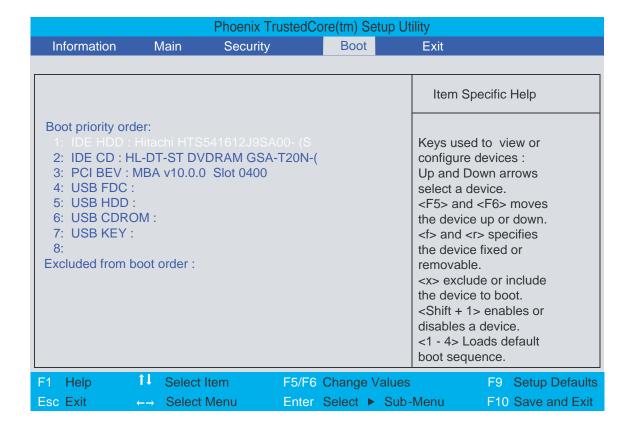
Setup Warning

Password do not match

Re-enter Password

#### **Boot**

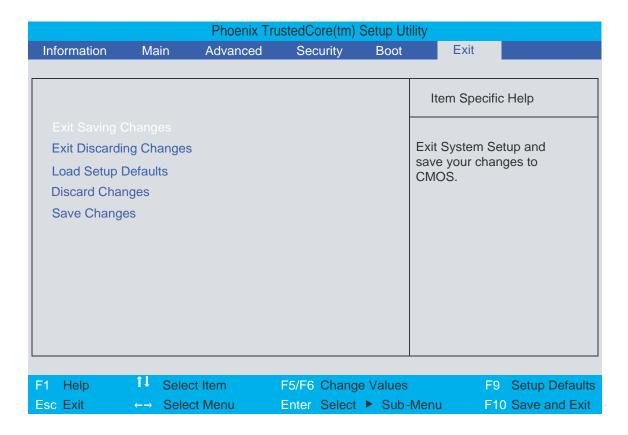
This menu allows the user to decide the order of boot devices to load the operating system. Bootable devices includes the diskette drive in module bay, the onboard hard disk drive, and the CD-ROM in module bay.



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#### **Exit**

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



The table below describes the parameters in this screen.

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

# **BIOS Flash Utility**

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

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

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

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

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

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

Follow the steps below to run the Phlash.

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

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# **Machine Disassembly and Replacement**

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

To disassemble the computer, you need the following tools:

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

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

# **General Information**

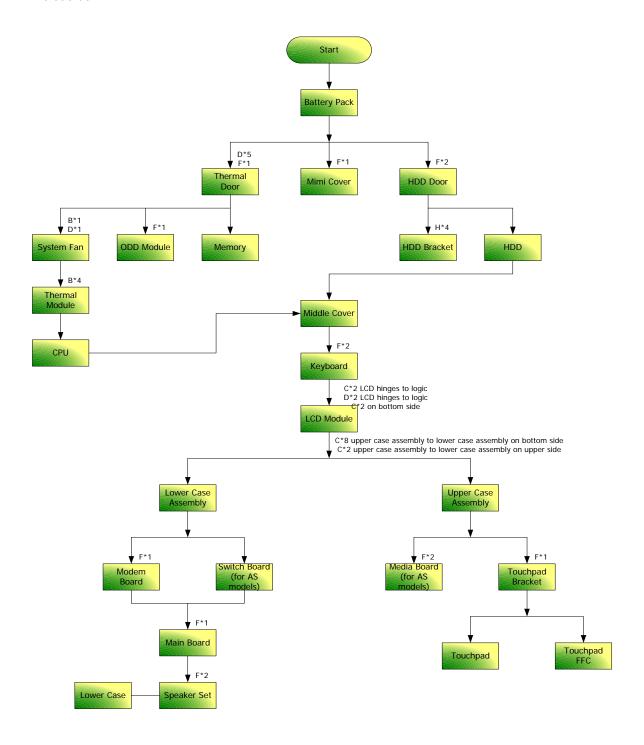
# **Before You Begin**

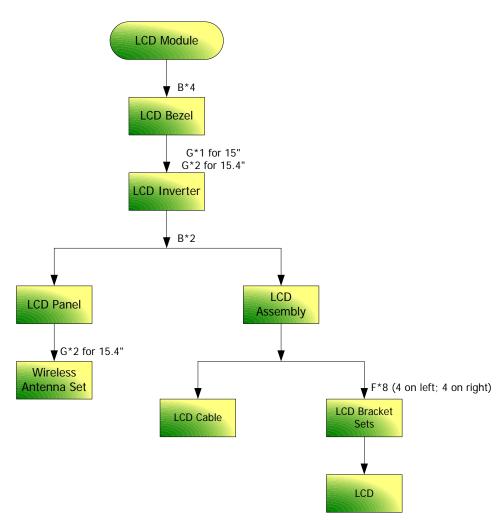
Before proceeding with the disassembly procedure, make sure that you do the following:

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

# **Disassembly Procedure Flowchart**

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





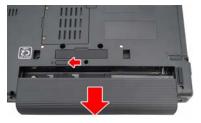
#### **Screw List**

| Item | Description                    | Part Number  |
|------|--------------------------------|--------------|
| Α    | SCREW M2.5*3(NL)               | 86.TAVV5.001 |
| В    | SCREW M2.5*6(NL)               | 86.TAVV5.002 |
| С    | SCREW M2.5*10(NL)              | 86.TAVV5.003 |
| D    | SCREW M2.5*15(NL)              | 86.TAVV5.004 |
| Е    | SCREW M2*2.2                   | 86.TAVV5.005 |
| F    | SCREW M2*3(NL)                 | 86.TAVV5.006 |
| G    | SCREW M2*4                     | 86.TAVV5.007 |
| Н    | SCREW M3*4(NL)                 | 86.TAVV5.008 |
| Ī    | SCREW D-SUB 4#X40* 1/5-NI (NL) | 86.TAVV5.009 |

# **Removing the Battery Pack**

- 1. Unlock the battery lock (move the battery lock to the right).
- 2. Slide the battery release latch then remove the battery.





# Removing the HDD Modules/Memory/Wireless LAN Card and the LCD Module

#### Removing the HDD Module

- 1. Remove the two screws fastening the HDD.
- 2. Pull out the HDD from the notebook as shown.





## Removing the Memory and Wireless LAN Card

- 3. Remove the four screws holding the RAM cover.
- 4. Detach the RAM cover from the main unit.
- 5. Pop out the memory from the DIMM socket then remove it (If the notebook has two memory, then repeat this step).







- **6.** Disconnect the main and auxiliary antenna from the wireless LAN card.
- 7. Remove the two screws fastening the wireless LAN card.
- 8. Then take out the wireless LAN card from the main unit.







# Removing the Keyboard and LCD Module

1. Release the four keyboard lock as shown.





- **2.** Turn over the keyboard as the image shows. Then disconnect the keyboard cable from the main board.
- 3. Remove the keyboard from the main unit.





- 4. Turn the notebook over.
- 5. Remove the four screws securing the middle cover. Two from the bottom, and two from the rear side.



- **6.** Use a flat screwdriver to lever the middle cover up.
- 7. Detach the middle cover from the front side as shown.
- **8.** Disconnect the power board FFC cable and remove the middle cover.







- 9. Disconnect the LCD cable from the main board.
- 10. Disconnect the Bluetooth cable from the main board.
- 11. Release and pull out the wireless LAN antennas from the cable holders as shown.







- **12.** Remove the four screws securing the hinges.
- 13. Detach the LCD module from the main unit.





# **Disassembling the Main Unit**

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

- 1. Remove the screw fastening the ODD bracket with the optical disk drive module on the bottom.
- 2. Remove the ODD bracket and push the optical disk drive module outwards.
- 3. Remove the ODD module.







- 4. Press and release the PC dummy card from the PC slot as shown.
- 5. Then press the release the memory dummy card from the 5-in-1 card reader slot as shown.







- 6. Remove the screw fastening the upper case and the lower case assembly from the rear side as shown.
- 7. Remove the two screw rubbers as shown.
- 8. Remove the seventeen screws fastening the upper case and the lower case assembly on the bottom.
- Remove the five screws fastening the upper case assembly and the lower case assembly on the front side.







- Remove the five screws fastening the upper case assembly and the lower case assembly on the front side.
- 11. Disconnect the touchpad board FFC, fingerprint FFC, and function board FFC from the main board.
- 12. Carefully detach the upper case assembly from the lower case assembly.

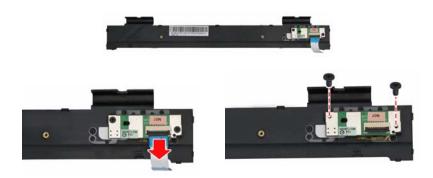






#### **Removing the Power Board**

- 13. Turn the middle cover over.
- **14.** Detach the power board cable as shown.
- **15.** Remove the two screws fastening the power board from the middle cover.



## **Disassembling the Lower Case Assembly**

- 16. Remove the screw fastening the modem board and disconnect the modem board from the main board.
- 17. Disconnect the modem cable and remove the modem board.





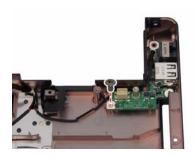
- 18. Disconnect the USB cable from the main board.
- 19. Remove the three screws fastening the main board to the lower case.
- 20. Detach the main board from the lower case assembly.







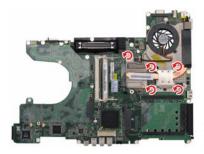
- 21. Remove the screw holding the USB board to the lower case.
- 22. Then detach the USB cable and USB board from the lower case.





# **Removing the Thermal Module and CPU**

- 23. Remove the five screws holding the thermal module.
- 24. Then detach the thermal module.





- 25. Use a flat screwdriver to release the CPU lock (Turn counter clock-wire).
- 26. Remove the CPU from the CPU socket carefully.





## **Disassembling the Upper Case Assembly**

- 1. Detach the function board FFC from the function board.
- 2. Remove the two screws fastening the function board to the upper case.
- 3. Take out the function board from the upper case.







- **4.** Detach the touchpad board FFC, fingerprinter FFC, and fingerprinter cable from the fingerprinter module.
- **5.** Remove the two screws fastening the fingerprinter bracket to the upper case.





## **Removing the Fingerprinter Module**

- 6. Remove the three screws fastening the fingerprinter module to the bracket.
- 7. Take out the fingerprinter module from the bracket.



# **Disassembling the LCD Module**

- 1. Remove the six screw rubbers as shown.
- 2. Then remove the six screws fastening the LCD bezel.
- 3. Detach the LCD bezel from the LCD module carefully.



- 4. Remove the four screws holding the LCD.
- 5. Detach the two inverter cable connectors from the inverter board.
- 6. Detach the bluetooth cable.



- 7. Disconnect the CCD cable connector from the CCD board.
- 8. Take out the LCD from the LCD panel.



- 9. Remove the two screws fastening the left LCD bracket and detach it.
- 10. Remove the two screws fastening the right LCD bracket and detach it.
- 11. Disconnect the LCD cable from the LCD.



- **12.** Remove the two screws fastening the CCD bracket to the LCD panel.
- 13. Detach the CCD cable connector from the CCD board.
- **14.** Remove the two screws fastening the CCD board to the CCD bracket.







# **Disassembling the External Modules**

## **Disassembling the HDD Module**

- 1. Remove the four screws holding the HDD (hard disk drive) case; two on each side.
- 2. Carefully take out the hard disk drive from the HDD case.



## **Disassembling the ODD Module**

- 1. Remove the two screws holding the optical bracket.
- 2. Then remove the optical bracket from the optical disk drive.



## **Troubleshooting**

Use the following procedure as a guide for computer problems.

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

- 1. Obtain the failing symptoms in as much detail as possible.
- 2. Verify the symptoms by attempting to re-create the failure by running the diagnostic test or by repeating the same operation.
- 3. Use the following table with the verified symptom to determine which page to go to.

| Symptoms (Verified)  | Go To   |
|--|---|
| Power failure (The power indicator does not go on or stay on). | "Power System Check" on page 69   |
| POST does not complete. No beep or error codes are indicated.  | "Power-On Self-Test (POST) Error Message" on page 72  |
|  | "Undetermined Problems" on page 84  |
| POST detects an error and displayed messages on screen.        | "Error Message List" on page 73   |
| Other symptoms (i.e. LCD display problems or others).          | "Power-On Self-Test (POST) Error Message" on page 72  |
| Symptoms cannot be re-created (intermittent problems).         | Use the customer-reported symptoms and go to<br>"Power-On Self-Test (POST) Error Message" on<br>page 72 |
|  | "Intermittent Problems" on page 83  |
|  | "Undetermined Problems" on page 84  |

## **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:

- Reconnect the external diskette drive/DVD-ROM module.
- 2. Replace the external diskette drive/CD-ROM module.
- 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:

- Boot from the diagnostics diskette and start the diagnostics program.
- 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:

- Reconnect the keyboard cables.
- Replace the keyboard.
- 3. Replace the main board.

The following auxiliary input devices are supported by this computer:

| _ | ,,                |
|---|-------------------|
|   | External keyboard |

Numeric keypad

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

#### **Memory check**

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

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

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

### **Power System Check**

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

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

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

- ☐ "Check the Power Adapter" on page 70
- "Check the Battery Pack" on page 71

#### **Check the Power Adapter**

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



- 1. If the voltage is not correct, replace the power adapter.
- 2. If the voltage is within the range, do the following:
  - Replace the System board.
  - ☐ If the problem is not corrected, see "Undetermined Problems" on page 84.
  - ☐ If the voltage is not correct, go to the next step.

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

- **3.** If the power-on indicator does not light up, check the power cord of the power adapter for correct continuity and installation.
- 4. If the operational charge does not work, see "Check the Battery Pack" on page 71.

#### **Check the Battery Pack**

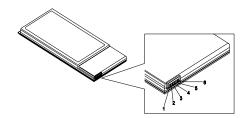
To check the battery pack, do the following:

From Software:

- 1. Check out the Power Management in Control Panel
- 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.
- 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:

- Reconnect the touchpad cables.
- 2. Replace the touchpad.
- 3. Replace the system board.

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

## Power-On Self-Test (POST) Error Message

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

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

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

If the symptom is not listed, see "Undetermined Problems" on page 84.

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

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

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

# **Index of Error Messages**

#### **Error Code List**

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

#### **Error Message List**

| Error Messages                                 | FRU/Action in Sequence   |
|--|--|
| Failure Fixed Disk                             | Reconnect hard disk drive connector.   |
|  | "Load Default Settings" in BIOS Setup Utility.   |
|  | Hard disk drive  |
|  | System board   |
| Stuck Key                                      | see "Keyboard or Auxiliary Input Device Check" on page 68.                                     |
| Keyboard error                                 | see "Keyboard or Auxiliary Input Device Check" on page 68.                                     |
| Keyboard Controller Failed                     | see "Keyboard or Auxiliary Input Device Check" on page 68.                                     |
| Keyboard locked - Unlock key switch            | Unlock external keyboard   |
| Monitor type does not match CMOS - Run Setup   | Run "Load Default Settings" in BIOS Setup Utility.   |
| Shadow RAM Failed at offset: nnnn              | BIOS ROM   |
|  | System board   |
| System RAM Failed at offset: nnnn              | DIMM   |
|  | System board   |
| Extended RAM Failed at offset: nnnn            | DIMM   |
|  | System board   |
| System battery is dead - Replace and run Setup | Replace RTC battery and Run BIOS Setup Utility to reconfigure system time, then reboot system. |
| System CMOS checksum bad - Default             | RTC battery  |
| configuration used                             | Run BIOS Setup Utility to reconfigure system time, then reboot system.                         |
| System timer error                             | RTC battery  |
|  | Run BIOS Setup Utility to reconfigure system time, then reboot system.                         |
|  | System board   |

#### **Error Message List**

| Error Messages                                   | FRU/Action in Sequence   |
|--|--|
| Real time clock error                            | RTC battery  |
|  | Run BIOS Setup Utility to reconfigure system time, then reboot system.         |
|  | System board   |
| Previous boot incomplete - Default configuration | Run "Load Default Settings" in BIOS Setup Utility.                             |
| used   | RTC battery  |
|  | System board   |
| Memory size found by POST differed from          | Run "Load Default Settings" in BIOS Setup Utility.                             |
| CMOS   | DIMM   |
|  | System board   |
| Diskette drive A error                           | Check the drive is defined with the proper diskette type in BIOS Setup Utility |
|  | See "External Diskette Drive Check" on page 68.                                |
| Incorrect Drive A type - run SETUP               | Check the drive is defined with the proper diskette type in BIOS Setup Utility |
| System cache error - Cache disabled              | System board   |
| CPU ID:  | System board   |
| DMA Test Failed                                  | DIMM   |
|  | System board   |
| Software NMI Failed                              | DIMM   |
|  | System board   |
| Fail-Safe Timer NMI Failed                       | DIMM   |
|  | System board   |
| Device Address Conflict                          | Run "Load Default Settings" in BIOS Setup Utility.                             |
|  | RTC battery  |
|  | System board   |
| Allocation Error for device                      | Run "Load Default Settings" in BIOS Setup Utility.                             |
|  | RTC battery  |
|  | System board   |
| Failing Bits: nnnn                               | DIMM   |
|  | BIOS ROM   |
|  | System board   |
| Fixed Disk n                                     | None   |
| Invalid System Configuration Data                | BIOS ROM   |
|  | System board   |
| I/O device IRQ conflict                          | Run "Load Default Settings" in BIOS Setup Utility.                             |
|  | RTC battery  |
|  | System board   |
| Operating system not found                       | Enter Setup and see if fixed disk and drive A: are properly identified.        |
|  | Diskette drive   |
|  | Hard disk drive  |
|  | System board   |

#### **Error Message List**

| No beep Error Messages                                  | FRU/Action in Sequence   |
|---|--|
| No beep, power-on indicator turns off and LCD is blank. | Power source (battery pack and power adapter). See "Power System Check" on page 69 |
|   | Ensure every connector is connected tightly and correctly.                         |
|   | Reconnect the DIMM.  |
|   | LED board.   |
|   | System board.  |
| No beep, power-on indicator turns on and LCD is blank.  | Power source (battery pack and power adapter). See "Power System Check" on page 69 |
|   | Reconnect the LCD connector  |
|   | Hard disk drive  |
|   | LCD inverter ID  |
|   | LCD cable  |
|   | LCD Inverter   |
|   | LCD  |
|   | System board   |
| No beep, power-on indicator turns on and LCD is         | Reconnect the LCD connectors.  |
| blank. But you can see POST on an external              | LCD inverter ID  |
| CRT.  | LCD cable  |
|   | LCD inverter   |
|   | LCD  |
|   | System board   |
| No beep, power-on indicator turns on and a              | Ensure every connector is connected tightly and correctly.                         |
| blinking cursor shown on LCD during POST.               | System board   |
| No beep during POST but system runs correctly.          | Speaker  |
|   | System board   |

# **Phoenix BIOS Beep Codes**

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

| 46h         2-1-2-3         Check ROM copyright notice           48h         Check video configuration against CMOS           48h         Initialize PCI bus and devices           4Ah         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 GPU type and speed           51h         Initialize EISA board           52h         Test keyboard           54h         Set key click if enabled           58h         2-2-3-1           58h         2-2-3-1           59h         Initialize POST display service           5Ah         Display prompt "Press F2 to enter SETUP"           58h         Display postible CPU cache           5Ch         Test extended memory           62h         Test extended memory           62h         Test extended memory           62h         Jump to User Patcht   | Code | Beeps   | POST Routine Description                 |
|--|------|---------|--|
| 49h Initialize PCI bus and devices 4Ah Initialize all video adapters in system 4Bh QuetBoot start (optional) 4Ch Shadow video BIOS ROM 4Eh Display BIOS copyright notice 50h Display CPU type and speed 51h Initialize ELISA board 52h Test keyboard 58h Set key click if enabled 58h 2-2-3-1 Test for unexpected interrupts 59h Initialize POST display service 50h Display prompt "Press F2 to enter SETUP" 58h Display enter all transplay press enter SETUP "Press Adams and transp | 46h  | 2-1-2-3 | Check ROM copyright notice               |
| AAN QuietBoot start (optional) 4Ch Shadow video BIOS ROM OuterBoot start (optional) 4Ch Shadow video BIOS ROM Shadow video BIOS ROM Olisplay 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" 58h Display extended memory address lines 69h Configure advanced cache registers 67h Initialize Multi Processor APIC 68h Enable external and CPU caches 68h Enable external and CPU caches 68h Display external L2 cache size 68h Display external L2 cache size 68h Display external L2 cache size 68h Display possible high address for UMB recovery 70h Display error message 72h Check for configuration errors 76h Check for keyboard errors 77h Set up hardware interrupt vectors 78h Check for keyboard errors 78h Display error messages 78h Detect and install external R232 ports 68h Display enon-MCD IDE controllers 88h Display non-MCD IDE controllers 88h Detect and install external parallel ports 18h Detect and install external Parallel ports 18h Detect and install external R232 ports 68h Re-initialize conboard I/O ports 87h Configure Motherboard Configurable Devices (optional) 88h Initialize ENOn-Maskable Interrupts (NIMIs) 88h Initialize Extended BIOS Data Area                  | 48h  |         | Check video configuration against CMOS   |
| ABh 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 58h Set key click if enabled 58h 2-2-3-1 Test for unexpected interrupts 59h Initialize POST display service 58h Display prompt "Press F2 to enter SETUP" 68h Display extended memory 62h Test extended memory 62h Test extended memory address lines 64h Dump 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 68h Display external L2 cache size 68h Display shadow-area message 68h Load custom defaults (optional) 68ch Display possible high address for UMB recovery 70h Display prompt prompt processor if present 69h Check for configuration errors 75h Check for configuration errors 76h Display error messages 69h Disable onboard Super I/O ports and IRQs 81h Late POST desiral RS232 ports 83h Configure non-MCD IDE controllers 84h Detect and install external parallel ports 85h Initialize or Doornatible PPP ISA devices 86h Re-initialize composard I/O ports 87h Configure Motherboard Configurable Devices 87h Configure Motherboard Configurable Devices 88h Initialize EISO Area 89h Enable Non-Maskable Interrupts (NMIs) 8Ah  | 49h  |         | Initialize PCI bus and devices           |
| ACh Shadow video BIOS ROM Display BIOS copyright notice Display BIOS copyright notice Display CPU type and speed Display CPU type and SPA Display CPU type and SPA Display SPA Display SPA DISPLAY CPU Type SPA | 4Ah  |         | Initialize all video adapters in system  |
| Display BIOS copyright notice Display CPU type and speed Display EISA board Set key click if enabled Display prompt "Press F2 to enter SETUP" Display prompt "Press F2 to enter SETUP" Display prompt "Press F2 to enter SETUP" Display Display EISA DISPLAY  | 4Bh  |         | QuietBoot start (optional)               |
| Display CPU type and speed Initialize EISA board Test keyboard Test keyboard Set key click if enabled Set key click if enabled Set key click if enabled Test for unexpected interrupts Initialize POST display service Set initialize POST display service Display prompt "Press F2 to enter SETUP" Disable CPU cache Test RAM between 512 and 640 KB Configure advanced cache registers Test extended memory Test extended memory Display between 512 and 640 KB Test extended memory address lines Test extended memory  | 4Ch  |         | Shadow video BIOS ROM                    |
| Initialize EISA board   Test keyboard   Set key click if enabled   Set key click   Set    | 4Eh  |         | Display BIOS copyright notice            |
| Initialize EISA board   Test keyboard   Set key click if enabled   Set key click   Set    | 50h  |         | Display CPU type and speed               |
| Set key click if enabled  Set key click if enabled  Test for unexpected interrupts  Fesh  Display prompt 'Press F2 to enter SETUP'  Seth  Display prompt 'Press F2 to enter SETUP'  SET RAM between 512 and 640 KB  Test extended memory  Test extended memory  Test extended memory address lines  And  Configure advanced cache registers  Initialize Multi Processor APIC  Enable external and CPU cache  Seth  Setup System Management Mode (SMM) area  Display external L2 cache size  Beh  Configure advanced cache registers  Initialize Multi Processor APIC  Enable external and CPU caches  Seth  Setup System Management Mode (SMM) area  Display external L2 cache size  Display external L2 cache size  Display possible high address for UMB recovery  Display error messages  The Check for configuration errors  Check for keyboard errors  Check for keyboard errors  Set up hardware interrupt vectors  Initialize coprocessor if present  Both  Display enboard Super I/O ports and IRQs  Bih  Late POST device initialization  Detect and install external RS232 ports  And  Configure non-MCD IDE controllers  Beh  Configure Motherboard Configurable Devices  (optional)  Initialize BIOS Area  Beh  Initialize BIOS Area   | 51h  |         | Initialize EISA board                    |
| 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 54h Jump to User Patch1 66h Configure advanced cache registers 67h Initialize Multi Processor APIC 68h Setup System Management Mode (SMM) area 6Ah Display external L2 cache size 6Bh Load custom defaults (optional) 6Ch Display possible high address for UMB recovery 70h Display error message 72h Check for configuration errors 76h Check for keyboard errors 77ch Set up hardware interrupt vectors 77ch Disable onboard Super I/O ports and IRQs 81h Late POST device initialization 82h Detect and install external R2322 ports 84h Detect and install external R2321 ports 85h Initialize PC-compatible PnP ISA devices 86h Re-initialize enboard I/O ports 87ch Configure Motherboard Configurable Devices 86h Re-initialize PC-compatible PnP ISA devices 87ch Configure Motherboard Configurable Devices 87ch Canada Page Motherboard Confi | 52h  |         | Test keyboard                            |
| Initialize POST display service  | 54h  |         | Set key click if enabled                 |
| Display prompt "Press F2 to enter SETUP"  5Bh  Disable CPU cache  Test RAM between 512 and 640 KB  60h  Test extended memory  62h  Test extended memory address lines  64h  Configure advanced cache registers  67h  Initialize Multi Processor APIC  68h  Enable external and CPU caches  69h  Setup System Management Mode (SMM) area  Display external L2 cache size  68h  Load custom defaults (optional)  66ch  Display possible high address for UMB recovery  70h  Display error messages  72h  Check for configuration errors  76h  Check for keyboard errors  76h  Check for keyboard errors  76h  Display basible onboard Super I/O ports and IRQs  81h  Late POST device initialization  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 Extended BIOS Data Area  | 58h  | 2-2-3-1 | Test for unexpected interrupts           |
| Disable CPU cache Test RAM between 512 and 640 KB Test extended memory Test extended memory Test extended memory address lines Jump to User Patch1 Configure advanced cache registers Initialize Multi Processor APIC Enable external and CPU caches Setup System Management Mode (SMM) area Ahh Display external L2 cache size Bh Load custom defaults (optional) BCh Display shadow-area message Display possible high address for UMB recovery Display error messages Th Display error messages Check for configuration errors Check for keyboard errors Check for keyboard errors Th Disable onboard Super I/O ports and IRQs B1h Late POST device initialization Detect and install external Parallel ports Detect and install exter | 59h  |         | Initialize POST display service          |
| Disable CPU cache Test RAM between 512 and 640 KB Test extended memory Test extended memory Test extended memory address lines Jump to User Patch1 Configure advanced cache registers Initialize Multi Processor APIC Enable external and CPU caches Setup System Management Mode (SMM) area Ahh Display external L2 cache size Bh Load custom defaults (optional) BCh Display shadow-area message Display possible high address for UMB recovery Display error messages Th Display error messages Check for configuration errors Check for keyboard errors Check for keyboard errors Th Disable onboard Super I/O ports and IRQs B1h Late POST device initialization Detect and install external Parallel ports Detect and install exter | 5Ah  |         | Display prompt "Press F2 to enter SETUP" |
| Test extended memory  Test extended memory address lines  Jump to User Patch1  Configure advanced cache registers  Initialize Multi Processor APIC  Enable external and CPU caches  Setup System Management Mode (SMM) area  Display external L2 cache size  Bh  Load custom defaults (optional)  Ch  Display shadow-area message  Display possible high address for UMB recovery  Display error messages  Check for configuration errors  Check for keyboard errors  Set up hardware interrupt vectors  Initialize coprocessor if present  Disable onboard Super I/O ports and IRQs  Bh  Late POST device initialization  Detect and install external RS232 ports  Configure non-MCD IDE controllers  Ath  Detect and install external parallel ports  Initialize PC-compatible PnP ISA devices  Re-initialize onboard I/O ports  Configure advanced memory address lines  Enable Non-Maskable Interrupts (NMIs)  Initialize BIOS Area  Enable Non-Maskable Interrupts (NMIs)  Initialize Extended BIOS Data Area   | 5Bh  |         |  |
| 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 possible high address for UMB recovery  70h  Display error messages  72h  Check for configuration errors  7ch  Set up hardware interrupt vectors  Initialize coprocessor if present  80h  Display boso if present  80h  Display error messages  7ch  Check for keyboard errors  8ct up hardware interrupt vectors  Initialize coprocessor if present  80h  Display error messages  7ch  Check for keyboard errors  8ct up hardware interrupt vectors  Initialize coprocessor if present  80h  Display error messages  Configure non-MCD IDE controllers  8ah  Detect and install external RS232 ports  8ah  Detect and install external parallel ports  Initialize PC-compatible PnP ISA devices  8ch  Re-initialize onboard I/O ports  8ch  Configure Motherboard Configurable Devices  (optional)  8ah  Initialize BIOS Area  Enable Non-Maskable Interrupts (NMIs)  Initialize Extended BIOS Data Area  | 5Ch  |         | Test RAM between 512 and 640 KB          |
| Sumpto User Patch1   | 60h  |         | Test extended memory                     |
| 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 77ch Set up hardware interrupt vectors 77ch 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 noboard Configurable Devices 87h Configure Motherboard Configurable Devices 87h Configure Motherboard Configurable Devices 88h Initialize BIOS Area 89h Enable Non-Maskable Interrupts (NMIs) 88h Initialize Extended BIOS Data Area  | 62h  |         | · ·                                      |
| Initialize Multi Processor APIC  | 64h  |         | Jump to User Patch1                      |
| Initialize Multi Processor APIC  | 66h  |         | Configure advanced cache registers       |
| 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 77ch Set up hardware interrupt vectors 77ch 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 L/O ports 87h Configure Motherboard Configurable Devices (optional) 88h Initialize BIOS Area 89h Enable Non-Maskable Interrupts (NMIs) Initialize Extended BIOS Data Area   | 67h  |         |  |
| Display external L2 cache size  Load custom defaults (optional)  Display shadow-area message  Display possible high address for UMB recovery  Display error messages  Check for configuration errors  Check for keyboard errors  Check for keyboard errors  Initialize coprocessor if present  Disable onboard Super I/O ports and IRQs  Late POST device initialization  Detect and install external RS232 ports  Configure non-MCD IDE controllers  Check for linitalize PC-compatible PnP ISA devices  Re-initialize onboard I/O ports  Re-initialize onboard I/O ports  Re-initialize BIOS Area  Ph Configure Motherboard Configurable Devices (optional)  Rah Initialize Extended BIOS Data Area  | 68h  |         | Enable external and CPU caches           |
| Display external L2 cache size  Load custom defaults (optional)  Display shadow-area message  Display possible high address for UMB recovery  Display error messages  Check for configuration errors  Check for keyboard errors  Check for keyboard errors  Initialize coprocessor if present  Disable onboard Super I/O ports and IRQs  Late POST device initialization  Detect and install external RS232 ports  Configure non-MCD IDE controllers  Check for linitalize PC-compatible PnP ISA devices  Re-initialize onboard I/O ports  Re-initialize onboard I/O ports  Re-initialize BIOS Area  Ph Configure Motherboard Configurable Devices (optional)  Rah Initialize Extended BIOS Data Area  | 69h  |         | Setup System Management Mode (SMM) area  |
| Load custom defaults (optional)  | 6Ah  |         |  |
| Display possible high address for UMB recovery  70h Display error messages  72h Check for configuration errors  76h Check for keyboard errors  76h 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  | 6Bh  |         |  |
| 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  | 6Ch  |         | Display shadow-area message              |
| 70h Display error messages 72h Check for configuration errors 76h Check for keyboard errors 76h Set up hardware interrupt vectors 76h 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   | 6Eh  |         |  |
| 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   | 70h  |         | · · · · · · · · · · · · · · · · · · ·    |
| 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   | 72h  |         | Check for configuration errors           |
| TEh 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  | 76h  |         |  |
| B0h 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   | 7Ch  |         | Set up hardware interrupt vectors        |
| 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   | 7Eh  |         | Initialize coprocessor if present        |
| 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  | 80h  |         |  |
| 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  | 81h  |         | Late POST device initialization          |
| 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   | 82h  |         | Detect and install external RS232 ports  |
| 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  | 83h  |         | · '                                      |
| 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  | 84h  |         |  |
| 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  | 85h  |         | Initialize PC-compatible PnP ISA devices |
| 87h Configure Motherboard Configurable Devices (optional)  88h Initialize BIOS Area  89h Enable Non-Maskable Interrupts (NMIs)  8Ah Initialize Extended BIOS Data Area   |      |         | · · · · · · · · · · · · · · · · · · ·    |
| 89h Enable Non-Maskable Interrupts (NMIs) 8Ah Initialize Extended BIOS Data Area   | 87h  |         |  |
| 8Ah Initialize Extended BIOS Data Area   | 88h  |         |  |
| 8Ah Initialize Extended BIOS Data Area   | 89h  |         | Enable Non-Maskable Interrupts (NMIs)    |
| 8Bh Test and initialize PS/2 mouse   | 8Ah  |         |  |
|  | 8Bh  |         | Test and initialize PS/2 mouse           |

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

| Code | Beeps | POST Routine Description |
|------|-------|--------------------------|
| D2h  |       | Unknown interrupt        |

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

#### **Indicator-Related Symptoms**

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

#### **Power-Related Symptoms**

| Symptom / Error               | Action in Sequence  |
|-------------------------------|---|
| ŭ .                           | Power source (battery pack and power adapter). See "Power System Check" on page 69. |
|                               | Battery pack  |
|                               | Power adapter   |
|                               | Hard drive & battery connection board   |
|                               | System board  |
| The system doesn't power-on.  | Power source (battery pack and power adapter). See "Power System Check" on page 69. |
|                               | Battery pack  |
|                               | Power adapter   |
|                               | Hard drive & battery connection board   |
|                               | System board  |
| The system doesn't power-off. | Power source (battery pack and power adapter). See "Power System Check" on page 69. |
|                               | Hold and press the power switch for more than 4 seconds.                            |
|                               | System board  |

#### **Power-Related Symptoms**

| Symptom / Error          | Action in Sequence                       |
|--------------------------|--|
| Battery can't be charged | See "Check the Battery Pack" on page 71. |
|                          | Battery pack                             |
|                          | System board                             |

#### **PCMCIA-Related Symptoms**

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

#### **Memory-Related Symptoms**

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

#### **Speaker-Related Symptoms**

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

#### **Power Management-Related Symptoms**

| Symptom / Error  | Action in Sequence   |
|--|--|
| The system will not enter hibernation                              | See "Save to Disk (S4)" on page 45.                          |
|  | Keyboard (if control is from the keyboard)                   |
|  | Hard disk drive  |
|  | System board   |
| The system doesn't enter hibernation mode and                      | Press Fn+ 🔁 and see if the computer enters hibernation mode. |
| four short beeps every minute.                                     | Touchpad   |
|  | Keyboard   |
|  | Hard disk connection board                                   |
|  | Hard disk drive  |
|  | System board   |
| The system doesn't enter standby mode after closing the LCD        | See "Save to Disk (S4)" on page 45.                          |
|  | LCD cover switch   |
|  | System board   |
| The system doesn't resume from hibernation                         | See "Save to Disk (S4)" on page 45.                          |
| mode.  | Hard disk connection board                                   |
|  | Hard disk drive  |
|  | System board   |
| The system doesn't resume from standby mode after opening the LCD. | See "Save to Disk (S4)" on page 45.                          |
|  | LCD cover switch   |
|  | System board   |

#### **Power Management-Related Symptoms**

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

#### **Peripheral-Related Symptoms**

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

#### Keyboard/Touchpad-Related Symptoms

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

#### **Modem-Related Symptoms**

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

**NOTE:** If you cannot find a symptom or an error in this list and the problem remains, see "Undetermined Problems" on page 84.

## **Intermittent Problems**

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

When analyzing an intermittent problem, do the following:

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

### **Undetermined Problems**

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

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

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

**NOTE:** Verify that the power supply being used at the time of the failure is operating correctly. (See "Power System Check" on page 69.):

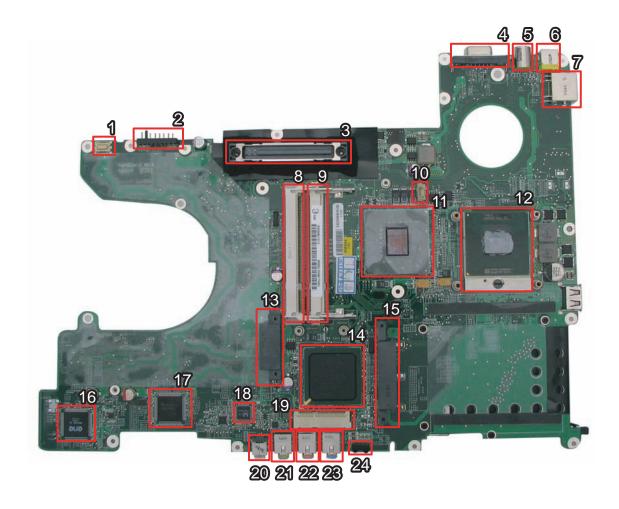
- 1. Power-off the computer.
- 2. Visually check them for damage. If any problems are found, replace the FRU.
- **3.** Remove or disconnect all of the following devices:

| Non-Acer devices                           |
|--|
| Printer, mouse, and other external devices |
| Battery pack                               |
| Hard disk drive                            |
| DIMM                                       |
| CD-ROM/Diskette drive Module               |
| PC Cards                                   |

- 4. Power-on the computer.
- 5. Determine if the problem has changed.
- 6. If the problem does not recur, reconnect the removed devices one at a time until you find the failing FRU.
- 7. If the problem remains, replace the following FRU one at a time. Do not replace a non-defective FRU:
  - System boardLCD assembly

# **Jumper and Connector Locations**

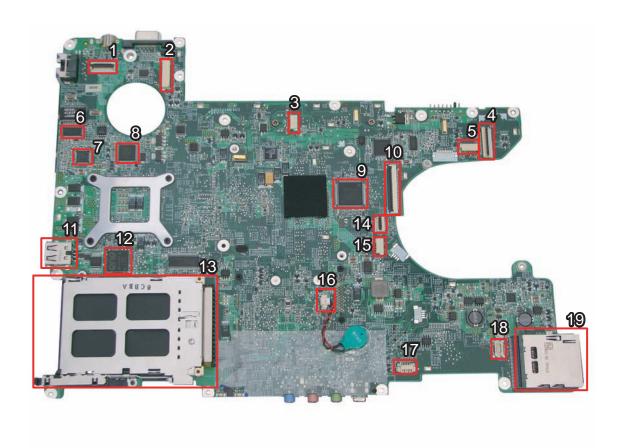
## **Top View**



| 1  | CN21 | USB Board to Main Board<br>Connector | 13 | CN26 | Optical Disk Drive Connector     |
|----|------|--------------------------------------|----|------|----------------------------------|
| 2  | CN20 |                                      | 14 | U32  | South Bridge                     |
| 3  | U26  |                                      | 15 | CN27 | SATA HDD Connector               |
| 4  | CN18 |                                      | 16 | U39  |                                  |
| 5  | CN17 | S-Video Connector                    | 17 | U33  |                                  |
| 6  | PJ1  | DC-in Jack                           | 18 | U34  | Audio Codec                      |
| 7  | CN19 | Ethernet Controller                  | 19 | CN28 | Wireless LAN Card Connector      |
| 8  | CN24 | DIMM Socket                          | 20 | CN23 | Line-in Jack                     |
| 9  | CN25 | DIMM Socket                          | 21 | CN29 | Microphone-in Jack               |
| 10 | CN23 | Fan Connector                        | 22 | CN31 | Headphones/Speaker/Line-out Jack |
| 11 | U29  | North Bridge                         | 23 | CN30 | BIOS Flash Memory                |
| 12 | U30  | CPU Socket                           | 24 | J40  | Infrad Sensor                    |

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### **Bottom View**



| 1  | CN1 | Power Board Connector             | 11 | CN11 | USB Connector                                    |
|----|-----|-----------------------------------|----|------|--|
| 2  | CN2 | LCD Connector                     | 12 | U17  |  |
| 3  | CN3 | USB Board to Main Board Connector | 13 |      | Card Bus Socket                                  |
| 4  | CN4 | Function Board Connector          | 14 | CN8  | Touchpad Connector (Fingerprinter to Main Board) |
| 5  | CN5 | Bluetooth Connector               | 15 | CN9  | Fingerprinter Connector                          |
| 6  | U3  |                                   | 16 | PU6  |  |
| 7  | PU3 |                                   | 17 | CN16 | Speaker Connector                                |
| 8  | U10 |                                   | 18 | CN14 | Modem Card to Main Board Connector               |
| 9  | U14 |                                   | 19 | CN15 | 5-in-1 Card Reader                               |
| 10 | CN7 | Keyboard Connector                |    |      |  |

## FRU (Field Replaceable Unit) List

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

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## TravelMate Victoria Exploded Diagram

| Category           | No. | Part Name and Description   | Acer Part No. |
|--------------------|-----|---|---------------|
| ADAPTER            |     |   |               |
|                    |     | ADAPTER 65W 3 PIN Delta SADP-<br>65KB DBRF LF                                     | AP.06501.010  |
|                    |     | ADAPTER LSE - 65W, SLS0335A1957<br>LF YELLOW LF                                   | AP.06506.004  |
|                    |     | ADAPTER 65W 3 PIN LITE-ON PA1650-<br>02 QY LF                                     | AP.06503.013  |
| BATTERY            |     |   |               |
|                    |     | Battery SANYO TM-2007A Li-Ion 3S2P 6 cell 4000mAh Main COMMON Y Cell, IC8030      | BT.00603.039  |
| 17-4700 management |     | Battery SONY TM-2007A Li-Ion 3S2P6 cell 4000mAh Main COMMON G4E (LIP6233ACPC SY6) | BT.00604.017  |
|                    |     | Battery SANYO TM-2007A Li-Ion 3S2P 6 cell 4800mAh Main COMMON IC8030              | BT.00603.040  |
|                    |     | Battery LI-ION MYNA 2 6CELL2.4<br>(SONYPACK 4,800MAH)                             | BT.00604.005  |
|                    |     | Battery SONY TM-2007A Li-Ion 3S3P<br>SONY 9 cell 7200mAh Main COMMON              | BT.00904.003  |
| BOARD              |     |   |               |
|                    |     | MODEM BOARD FOXCONN<br>T60M951.00   | 54.TG607.001  |
|                    |     | BLUETOOTH MODULE (T60H928.01)   | 54.TAXV7.001  |
|                    |     | MINI PCI WIRELESS BOARD 802.11 A/<br>B/G MOW1 INTEL MM872612                      | KI.GLN01.001  |
|                    |     | MINI PCI WIRELESS BOARD 802.11 A/<br>B/G MOW2 INTEL MM872659                      | KI.GLN01.002  |
|                    |     | MINI PCI WIRELESS BOARD 802.11 A/<br>B/G ROW INTEL MM874511                       | KI.GLN01.003  |
|                    |     | MINI PCI WIRELESS BOARD 802.11 A/<br>B/G JPN                                      | KI.GLN01.004  |
|                    |     | WIRELESS LAN BOARD 802.11BG<br>INTEL 3945BG                                       | KI.GLN01.005  |
|                    |     | INTEL WIRELESS WIFI LINK 4965ANG<br>MOW1 (MM#886224)                              | KI.KDN01.001  |
|                    |     | INTEL WIRELESS WIFI LINK 4965ANG<br>MOW2 (MM#886220)                              | KI.KDN01.002  |
|                    |     | INTEL WIRELESS WIFI LINK 4965ANG<br>ROW (MM#886434)                               | KI.KDN01.003  |
|                    |     | INTEL WIRELESS WIFI LINK 4965ANG<br>JP (MM#886437)                                | KI.KDN01.004  |
|                    |     | WIRELESS LAN CARD FOXCONN<br>T60h976.00 MINI                                      | 54.AZL07.001  |

| Category  | No. | Part Name and Description                   | Acer Part No. |
|---|-----|---|---------------|
|   |     | FUNCTION BOARD                              | 55.TG607.001  |
|   |     |   |               |
|   |     |   |               |
|   |     | TOUCHPAD BOARD W/FINGER PRINT               | 55.TG607.002  |
| 00 = 0  |     |   |               |
|   |     | USB BOARD                                   | 55.TG607.003  |
| FRO   |     | 000 007 1110                                | 00.10001.000  |
|   |     |   |               |
|   |     |   |               |
| Ť.  |     |   |               |
|   |     |   |               |
|   |     | LED BOARD                                   | 55.TG607.004  |
| The second second   |     |   |               |
|   |     |   |               |
| nice and the same of the same |     |   |               |
| CABLE   |     | <u>l</u>                                    | 1             |
|   |     | PWR CORD V943B30001218008                   | 27.A03V7.006  |
|   |     | DANISH 3P                                   | 07.450\/7.000 |
|   |     | PWR CORD(ISR)1.8M 3PBLK<br>FZ010008-038     | 27.A50V7.002  |
|   |     | PWR CORD V50CB3T3012180QD TW-               | 27.A99V7.002  |
|   |     | 110V,3P                                     |               |
|   |     | POWER CORD(SWI)1.8M 3PBLACK<br>FZ010008-011 | 27.A99V7.004  |
|   |     | POWER CORD(IT) 1.8M 3PBLACK<br>FZ010008-008 | 27.A99V7.005  |
|   |     | POWER CORD(S.A) 1.8M 3BLACK FZ010008-006    | 27.T48V7.001  |
|   |     | POWER CORD US 3PIN ROHS                     | 27.TAXV7.001  |
|   |     | POWER CORD(EU) 1.8M 3PBLACK<br>FM010008-010 | 27.TATV7.001  |
|   |     | POWER CORD(UK) 1.8M 3PBLACK<br>FP010008-013 | 27.TATV7.003  |
|   |     | BLUETOOTH CABLE                             | 50.TG607.001  |
|   |     | FFC CABLE - FUNCTION/B TO MB                | 50.TG607.002  |
|   |     |   |               |
|   |     | FFC CABLE - LED/B TO MB                     | 50.TG607.003  |
| IDNOH I   |     |   |               |
|   |     |   |               |
|   |     | FINGER PRINT/TP BOARD CABLE                 | 50.TG607.004  |
| MY NE DESTROY AND DIES LINE IN THE PERSON OF  |     |   |               |
| ALL SALE SALE SALES   |     |   |               |
| **  |     |   |               |
|   |     |   |               |
|   |     |   |               |

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| Category   | No. | Part Name and Description                          | Acer Part No. |
|--|-----|--|---------------|
| CASE/COVER/BRACKET ASSEMB  | LY  |  |               |
|  |     | MIDDLE COVER                                       | 42.TG607.001  |
|  |     | UPPER CASE FOR FP W/TP, TP<br>CABLE                | 60.TG607.001  |
|  |     | LOWER CASE W/ SPEAKER, MODEM CABLE                 | 60.TG607.002  |
| 9  |     | BASE ODD CAP                                       | 42.TG607.002  |
|  |     | BASE DUCK RUBBER                                   | 42.TG607.003  |
|  |     | RAM DOOR   | 42.TG607.004  |
|  |     | TP BRACKET   | 33.TG607.003  |
| acer   |     | DUMMY PCMCIA CARD                                  | 42.TDY07.003  |
|  |     | DUMMY 4 IN 1 CARD                                  | 42.TG607.005  |
| CPU/PROCESSOR  |     |  |               |
| THE STATE OF THE S |     | CPU Intel Core2Dual T7100 PGA 1.8G<br>2M 800 SLA4A | KC.71001.DTP  |
|  |     | CPU Intel Core2Dual T7300 PGA 2.0G<br>4M 800 SLA45 | KC.73001.DTP  |
|  |     | CPU Intel Core2Dual T7500 PGA 2.2G<br>4M 800 SLA44 | KC.75001.DTP  |

| Category            | No. | Part Name and Description  | Acer Part No.                |
|---------------------|-----|--|------------------------------|
|                     |     | CPU Intel Core2Dual T77500 PGA 2.4G<br>4M 800 SLA44                          | KC.77001.DTP                 |
| COMBO MODULE        |     |  | ,                            |
|                     |     | DVD/CDRW COMBO MODULE  | 6M.TG607.007                 |
|                     |     | DVD/CDRW COMBO DRIVE 24X SONY<br>CRX880A LF W/O BEZEL                        | KO.0240E.005                 |
|                     |     | DVD/CDRW COMBO DRIVE 24X HLDS<br>GCC-T10N PATA LF W/O BEZEL                  | KO.0240D.005                 |
| • •                 |     | ODD BRACKET  | 33.TG607.004                 |
| œ ·                 |     | DVD/CDRW COMBO BEZEL   | 42.TG607.006                 |
| DVD-RW DRIVE        |     |  |                              |
|                     |     | DVD/RW SUPER MULTI MODULE  DVD SUPER MULTI TRAY IN HLDS                      | 6M.TG607.008<br>KU.0080D.027 |
|                     |     | GSA-T20N LF W/O BEZEL  |                              |
|                     |     | DVD SUPER MULTI TRAY IN PANASONIC UJ-850 U LF W/O BEZEL                      | KU.00807.055                 |
|                     |     | DVD SUPER MULTI TRAY IN PHILIPS<br>DS-8A1P LF W/O BEZEL                      | KU.0080D.027                 |
| • •,-               |     | OPTICAL BRACKET  | 33.TG607.004                 |
| ·                   |     | DVD SUPER MULTI BEZEL  | 42.TG607.007                 |
| HDD/HARD DISK DRIVE |     |  |                              |
| Frankly of          |     | 80GB HGST 2.5" 5400RPM SATA<br>HTS541680J9SA00 SURUGA-B LF F/<br>W: C70P     | KH.08007.021                 |
|                     |     | 80GB TOSHIBA 2.5" 5400rpm 80GB<br>MK8037GSX Gemini BS SATA LF F/<br>W:DL230J | KH.08004.010                 |
|                     |     | 80GB WD 2.5" 5400rpm 80GB<br>WD800BEVS-22RST0 ML80 SATA LF F/<br>W:04.01G04  | KH.08008.033                 |

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| Category | No. | Part Name and Description   | Acer Part No. |
|----------|-----|---|---------------|
|          |     | 120GB HGST 2.5" 5400RPM SATA<br>HTS541612J9SA00 SURUGA-B LF F/<br>W: C70P                                   | KH.12007.010  |
|          |     | 120GB TOSHIBA 2.5" 5400rpm 120GB<br>MK1237GSX Gemini BS SATA LF F/<br>W:DL130J                              | KH.12004.006  |
|          |     | 120GB WD 2.5" 5400rpm 120GB<br>WD1200BEVS-22RST0 ML80 SATA LF<br>F/W:04.01G04                               | KH.12008.018  |
|          |     | HDD SEAGATE 2.5" 5400rpm 120GB<br>ST9120822AS(9S1133-190) Venus<br>SATA LF F/W:3.ALD                        | KH.12001.031  |
|          |     | 160GB HGST 2.5" 5400RPM SATA<br>HTS541616J9SA00 SURUGA-B LF F/<br>W: C70P                                   | KH.16007.011  |
|          |     | 160GB TOSHIBA 2.5" 5400rpm 160GB<br>MK1637GSX Gemini BS SATA LF F/W:<br>DL030J                              | KH.16004.001  |
|          |     | 160GB WD 2.5" 5400rpm 160GB<br>WD1600BEVS-22RST0 ML80 SATA LF<br>F/W:04.01G04                               | KH.16008.019  |
|          |     | HDD SEAGATE 2.5" 5400rpm 160GB<br>ST9160821AS(9S1134-190) Venus<br>SATA LF F/W:3.ALD                        | KH.16001.026  |
|          |     | HDD TOSHIBA 2.5" 4200rpm 200GB<br>MK2035GSS Gemini SATA LF F/<br>W:DK022A                                   | KH.20004.001  |
|          |     | HDD COVER ASSY  | 42.TG607.008  |
| KEYBOARD |     |   |               |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black US International<br>(change +-*/ location)       | KB.INT00.171  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black US International<br>Hebrew (change +-*/ location | KB.INT00.172  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black UK (change +-*/<br>location)                     | KB.INT00.173  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Turkish (change +-<br>*/ location)               | KB.INT00.174  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Thailand (change<br>+-*/ location)               | KB.INT00.175  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Swiss/G (change<br>+-*/ location)                | KB.INT00.176  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Swedish (change<br>+-*/ location)                | KB.INT00.177  |

| Category | No. | Part Name and Description   | Acer Part No. |
|----------|-----|---|---------------|
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Spanish (change<br>+-*/ location)              | KB.INT00.178  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Slovak (change +-<br>*/ location)              | KB.INT00.180  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black SLO/CRO (change<br>+-*/ location)              | KB.INT00.181  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Russian (change<br>+-*/ location)              | KB.INT00.182  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Portuguese<br>(change +-*/ location)           | KB.INT00.183  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Norwegian<br>(change +-*/ location)            | KB.INT00.185  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Korean (change +-<br>*/ location)              | KB.INT00.187  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 88KS Black Japanese (change<br>+-*/ location)             | KB.INT00.188  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Italian (change +-*/<br>location)              | KB.INT00.189  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Hungarian<br>(change +-*/ location)            | KB.INT00.192  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Greek (change +-<br>*/ location)               | KB.INT00.193  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black German (change<br>+-*/ location)               | KB.INT00.194  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black French (change +-<br>*/ location)              | KB.INT00.195  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Dutch (change +-*/<br>location)                | KB.INT00.197  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Danish (change +-<br>*/ location)              | KB.INT00.198  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Czech (change +-<br>*/ location)               | KB.INT00.199  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Traditional<br>Chinese (change +-*/ location)  | KB.INT00.201  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Canadian French<br>(change +-*/ location)      | KB.INT00.202  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Brazilian<br>Portuguese (change +-*/ location) | KB.INT00.202  |

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| Category | No. | Part Name and Description   | Acer Part No. |
|----------|-----|---|---------------|
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Belgium (change<br>+-*/ location)        | KB.INT00.204  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Arabic/English<br>(change +-*/ location) | KB.INT00.205  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 84KS Black Israel (change +-*/<br>location)         | KB.INT00.190  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Slovenia (change<br>+-*/ location)       | KB.INT00.179  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Polish (change +-<br>*/ location)        | KB.INT00.184  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Luxembourgish<br>(change +-*/ location)  | KB.INT00.186  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Irish (change +-*/<br>location)          | KB.INT00.191  |
|          |     | Keyboard 12KB-FV1 Victoria Internal<br>Standard 85KS Black Finnish (change +-<br>*/ location)       | KB.INT00.196  |
| LCD      |     |   |               |
|          |     | LCD MODULE 12.1 WXGA W/<br>ANTENNA 3 WIRE W/0.3M CCD  | 6M.TG607.001  |
|          |     | LCD 12.1 IN. TFT WXGA NON-GLARE<br>AU B121EW03-V5 LF 185NIT 25MS                                    | LK.12105.009  |
|          |     | LCD INVERTER BOARD  | 19.TG607.001  |
| 7        |     | LCD CABLE   | 50.TG607.006  |
|          |     | LCD COVER ASSY W/ANTENNA 3<br>WIRE W/0.3M CCD BISON   | 60.TG607.003  |
|          |     | LCD COVER ASSY W/ANTENNA 3<br>WIRE W/0.3M CCD SUYIN   | 60.TG607.004  |
| 407      |     | LCD BEZEL ASSY W/LOGO W/CCD   | 60.TG607.005  |

|   | Part Name and Description  | Acer Part No. |
|---|--|---------------|
|   | LCD BRACKET W/HINGE - L  | 33.TG607.001  |
|   |  |               |
|   |  |               |
| • |  |               |
|   | LCD BRACKET W/HINGE - R  | 33.TG607.002  |
|   |  |               |
|   |  |               |
|   |  |               |
|   | LCD MODULE 12.1 WXGA W/<br>ANTENNA 2 WIRE W/CCD                  | 6M.TG607.002  |
|   | LCD 12.1 IN. TFT WXGA NON-GLARE<br>AU B121EW03-V5 LF 185NIT 25MS | LK.12105.009  |
|   | LCD INVERTER BOARD   | 19.TG607.001  |
|   | LCD CABLE  | 50.TG607.006  |
|   | LCD COVER ASSY W/ANTENNA 2<br>WIRE W/0.3M CCD BISON              | 60.TG607.006  |
|   | LCD COVER ASSY W/ANTENNA 2<br>WIRE W/0.3M CCD SUYIN              | 60.TG607.007  |
|   | LCD BEZEL ASSY W/LOGO W/CCD                                      | 60.TG607.005  |
|   | LCD BRACKET W/HINGE - L  | 33.TG607.001  |
|   | LCD BRACKET W/HINGE - R  | 33.TG607.002  |
|   |  |               |
|   | LCD MODULE 12.1 WXGA W/O<br>ANTENNA W/0.3M CCD                   | 6M.TG607.003  |
|   | LCD 12.1 IN. TFT WXGA NON-GLARE<br>AU B121EW03-V5 LF 185NIT 25MS | LK.12105.009  |
|   | LCD INVERTER BOARD   | 19.TG607.001  |
|   | LCD CABLE  | 50.TG607.006  |
|   | LCD COVER ASSY W/O ANTENNA W/<br>0.3M CCD BISON                  | 60.TG607.008  |
|   | LCD COVER ASSY W/O ANTENNA W/<br>0.3M CCD SUYIN                  | 60.TG607.009  |
|   | LCD BEZEL ASSY W/LOGO W/CCD                                      | 60.TG607.005  |
|   | LCD BRACKET W/HINGE - L  | 33.TG607.001  |
|   | LCD BRACKET W/HINGE - R  | 33.TG607.002  |
|   |  |               |
|   | LCD 12.1 IN. TFT WXGA NON-GLARE<br>AU B121EW03-V5 LF 185NIT 25MS | LK.12105.009  |
|   | LCD INVERTER BOARD   | 19.TG607.001  |
|   | LCD CABLE  | 50.TG607.006  |
|   | LCD BRACKET W/HINGE - L  | 33.TG607.001  |
|   | LCD BRACKET W/HINGE - R  | 33.TG607.002  |
|   |  |               |
|   | LCD 12.1 IN. TFT WXGA NON-GLARE<br>AU B121EW03-V5 LF 185NIT 25MS | LK.12105.009  |
|   | LCD INVERTER BOARD   | 19.TG607.001  |
|   | LCD CABLE  | 50.TG607.006  |
|   | LCD BRACKET W/HINGE - L  | 33.TG607.001  |

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| Category | No. | Part Name and Description                                     | Acer Part No.     |
|----------|-----|---|-------------------|
|          |     | LCD BRACKET W/HINGE - R                                       | 33.TG607.002      |
|          |     |   |                   |
|          |     | LCD MODULE 12.1 WXGAG W/<br>ANTENNA 3 WIRE W/ CCD             | 6M.TG607.004      |
|          |     | LCD 12.1 IN. TFT WXGAG GLARE AU<br>B121EW03-V4 LF 185NIT 25MS | LK.12105.008      |
|          |     | LCD INVERTER BOARD  | 19.TG607.001      |
|          |     | LCD CABLE   | 50.TG607.006      |
|          |     | LCD COVER ASSY W/ANTENNA 3<br>WIRE W/0.3M CCD BISON           | 60.TG607.003      |
|          |     | LCD COVER ASSY W/ANTENNA 3<br>WIRE W/0.3M CCD SUYIN           | 60.TG607.004      |
|          |     | LCD BEZEL ASSY W/LOGO W/CCD                                   | 60.TG607.005      |
|          |     | LCD BRACKET W/HINGE - L                                       | 33.TG607.001      |
|          |     | LCD BRACKET W/HINGE - R                                       | 33.TG607.002      |
|          |     |   | ALL TO 00 T 0 T - |
|          |     | LCD MODULE 12.1 WXGAG W/<br>ANTENNA 2 WIRE W/CCD              | 6M.TG607.005      |
|          |     | LCD 12.1 IN. TFT WXGAG GLARE AU<br>B121EW03-V4 LF 185NIT 25MS | LK.12105.008      |
|          |     | LCD INVERTER BOARD  | 19.TG607.001      |
|          |     | LCD CABLE   | 50.TG607.006      |
|          |     | LCD COVER ASSY W/ANTENNA 2<br>WIRE W/0.3M CCD BISON           | 60.TG607.006      |
|          |     | LCD COVER ASSY W/ANTENNA 2<br>WIRE W/0.3M CCD SUYIN           | 60.TG607.007      |
|          |     | LCD BEZEL ASSY W/LOGO W/CCD                                   | 60.TG607.005      |
|          |     | LCD BRACKET W/HINGE - L                                       | 33.TG607.001      |
|          |     | LCD BRACKET W/HINGE - R                                       | 33.TG607.002      |
|          |     | LCD MODULE 12.1 WXGAG W/O<br>ANTENNA W/0.3M CCD               | 6M.TG607.006      |
|          |     | LCD 12.1 IN. TFT WXGAG GLARE AU<br>B121EW03-V4 LF 185NIT 25MS | LK.12105.008      |
|          |     | LCD INVERTER BOARD  | 19.TG607.001      |
|          |     | LCD CABLE   | 50.TG607.006      |
|          |     | LCD COVER ASSY W/O ANTENNA W/<br>0.3M CCD BISON               | 60.TG607.008      |
|          |     | LCD COVER ASSY W/O ANTENNA W/<br>0.3M CCD SUYIN               | 60.TG607.009      |
|          |     | LCD BEZEL ASSY W/LOGO W/CCD                                   | 60.TG607.005      |
|          |     | LCD BRACKET W/HINGE - L                                       | 33.TG607.001      |
|          |     | LCD BRACKET W/HINGE - R                                       | 33.TG607.002      |
|          |     | LCD 12.1 IN. TFT WXGAG GLARE AU<br>B121EW03-V4 LF 185NIT 25MS | LK.12105.008      |
|          |     | LCD INVERTER BOARD  | 19.TG607.001      |
|          |     | LCD CABLE   | 50.TG607.006      |
|          |     | LCD BRACKET W/HINGE - L                                       | 33.TG607.001      |
|          |     | LCD BRACKET W/HINGE - R                                       | 33.TG607.002      |

| Category      | No. | Part Name and Description                                     | Acer Part No. |
|---------------|-----|---|---------------|
|               |     |   |               |
|               |     | LCD 12.1 IN. TFT WXGAG GLARE AU<br>B121EW03-V4 LF 185NIT 25MS | LK.12105.008  |
|               |     | LCD INVERTER BOARD  | 19.TG607.001  |
|               |     | LCD CABLE   | 50.TG607.006  |
|               |     | LCD BRACKET W/HINGE - L                                       | 33.TG607.001  |
|               |     | LCD BRACKET W/HINGE - R                                       | 33.TG607.002  |
| MAINBOARD     |     |   |               |
|               |     | MAINBOARD 965GM SATA UMA W/<br>CARD READER W/O CPU MEMORY     | MB.TG606.001  |
| MEMORY        |     |   |               |
| 00:00         |     | 512MB HYNIX DDRII 667 512MB<br>HYMP564S64CP6-Y5 LF            | KN.5120G.019  |
|               |     | 512MB NANYA DDRII 667 512MB<br>NT512T64UH8B0FN-3C LF          | KN.51203.032  |
|               |     | Memory SAMSUNG SO-DIMM DDRII<br>667 512MB M470T6554EZ3-CE6 LF | KN.5120B.023  |
|               |     | 1GB HYNIX DDRII 667 1GB<br>HYMP512S64CP8-Y5 LF                | KN.1GB0G.006  |
|               |     | 1GB NANYA DDRII 667 1GB<br>NT1GT64U8HB0BN-3C (0.09U)          | KN.1GB03.014  |
|               |     | 1GB SAMSUNG DDRII 667 1GB<br>M470T2953EZ3-CE6 LF              | KN.1GB0B.011  |
| HEATSINK      |     |   |               |
|               |     | THERMAL MODULE  | 60.TG607.010  |
| MISCELLANEOUS |     |   |               |
|               |     | NAME PLATE - TM6292   | 40.TG607.001  |
| CCD           |     |   |               |
|               |     | CCD MODULE 0.3M BISON   | 57.TG607.001  |
|               |     | CCD MODULE 0.3M SUYIN   | 57.TG607.002  |
| SPEAKER       |     |   | •             |
|               |     | SPEAKER ASSY  | 23.TG607.001  |
| SCERW         |     |   | •             |
|               |     | SCREW M2.0*3.0-I-NI-NYLOK                                     | 86.A08V7.005  |
|               |     | SCREW M3*0.5+3.5I   | 86.TDY07.003  |
|               |     |   |               |

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| Category | No. | Part Name and Description        | Acer Part No. |
|----------|-----|----------------------------------|---------------|
|          |     | SCREW M1.6*4.0-I (NI)(NYLOK)     | 86.FR6V7.003  |
|          |     | SCREW M2.0*6-I-BNI(NYLOK)        | 86.TG607.001  |
|          |     | SCREW M2.0*1.8 I (NI)(NYLOK)     | 86.TG607.002  |
|          |     | SCREW M2.0*1.5-I(NI)(ANTI-LOOSE) | 86.TG607.003  |
|          |     | SCREW M2*5-I(BZN)(NYLOK)         | 86.TG607.004  |