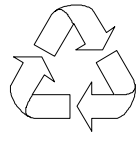
# TravelMate 340
## Service Guide

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



100% Recycled Paper

PART NO.: 49.40F02.001
DOC. NO.: SG322-9910A

PRINTED IN TAIWAN

## Copyright

Copyright © 1999 by Acer Incorporated. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of Acer Incorporated.

## Disclaimer

The information in this guide is subject to change without notice.

Acer Incorporated makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties of merchantability or fitness for any particular purpose. Any Acer Incorporated software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not Acer Incorporated, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software.

Acer is a registered trademark of Acer Corporation.
Intel is a registered trademark of Intel Corporation.
Pentium and Pentium II/III are trademarks of Intel Corporation.
Other brand and product names are trademarks and/or registered trademarks of their respective holders.

## 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.

# Table of Contents


**Chapter 1 System Specifications 1**

Features . . . . . 1
System Block Diagram . . . . . 3
Board Layout . . . . . 4
Panel . . . . . 6
Left Panel . . . . . 6
Rear Panel . . . . . 6
Right Panel . . . . . 8
Indicators . . . . . 11
Keyboard . . . . . 12
Hardware Configuration and Specification . . . . . 14

**Chapter 2 System Utilities 25**

BIOS Setup Utility . . . . . 25
Navigating the BIOS Utility . . . . . 25
System Information . . . . . 26
Basic System Settings . . . . . 27
Startup Configuration . . . . . 27
Onboard Devices Configuration . . . . . 29
System Security . . . . . 30
Power Management . . . . . 32
Load Default Settings . . . . . 33
Flash Utility . . . . . 34
Executing Flash Program . . . . . 34
System Utility Diskette . . . . . 35
Panel ID Utility . . . . . 35
Thermal and Fan Utility . . . . . 35
Main Board Data Utility . . . . . 35
System Diagnostic Diskette . . . . . 36
Running PQA Diagnostics Program . . . . . 37

**Chapter 3 Machine Disassembly and Replacement 39**

General Information . . . . . 40
Before You Begin . . . . . 40
Disassembly Procedure Flowchart . . . . . 41
Removing the Battery Pack . . . . . 43
Removing the Hard Disk Drive Module . . . . . 44
Disassembling the Hard Disk Drive Module . . . . . 44
Removing the External DIMM Module . . . . . 45
Removing the LCD Module . . . . . 46
Removing the Middle Cover . . . . . 46
Removing the Speaker . . . . . 46
Disassembling the LCD module . . . . . 46
Disassembling the Main Unit . . . . . 49
Removing the Keyboard . . . . . 49
Removing the DIMM Module . . . . . 49
Removing the Modem Combo Board . . . . . 49
Removing the RTC . . . . . 50
Removing the Lower Case . . . . . 50
Removing the Main Board . . . . . 51
Removing the Touchpad Board . . . . . 52

# Table of Contents

**Chapter 4 Troubleshooting 53**

System Check Procedures . . . . . 54
External Diskette Drive Check . . . . . 54
External CD-ROM Drive Check . . . . . 54
Keyboard or Auxiliary Input Device Check . . . . . 54
Memory Check . . . . . 55
Power System Check . . . . . 55
Touchpad Check . . . . . 56
Power-On Self-Test (POST) Error Message . . . . . 57
Index of Error Messages . . . . . 58
Index of Symptom-to-FRU Error Message . . . . . 60
Intermittent Problems . . . . . 63
Undetermined Problems . . . . . 63
Index of AFlash BIOS Error Message . . . . . 64
Index of PQA Diagnostic Error Code, Message . . . . . 64

**Chapter 5 Jumper and Connector Information 65**

Top View . . . . . 65
Bottom View . . . . . 66

**Chapter 6 FRU (Field Replaceable Unit) List 67**

**Appendix A Model Number and Configurations 77**

**Appendix B Test Compatible Components 79**

Windows 95 Environment Test . . . . . 80
Windows 98 Environment Test . . . . . 81
Windows 2000 Environment Test . . . . . 82
Windows NT 4.0 Environment Test . . . . . 83

**Appendix C Online Support Information 85**

**Index 87**

# System Specifications

## Features

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

### Performance

- Intel Pentium® III 450/500 processor with integrated L2 cache memory
- 64-bit main memory
- Large and vibrant Thin-Film-Transistor (TFT) SVGA Liquid Crystal Display (LCD)
- 64-bit graphics acceleration with 2.5MB graphics memory and Accelerated Graphics Port (AGP)
- High-capacity, Enhanced-IDE removable hard disk
- External EasyLink™ Combo Drive (floppy drive + CD-ROM or DVD-ROM drive “combo”)
- Lithium-Ion battery pack
- Power management system with ACPI (Advanced Configuration and Power Interface) or APM (Advanced Power Management) support

### Multimedia

- 16-bit high-fidelity PCI stereo audio with 3D sound and wavetable synthesizer
- Built-in speaker
- EasyLink™ Combo Drive (CD-ROM or DVD-ROM)
- Dual view capability
- DVD playback capability (with DVD-equipped EasyLink™ DVD Combo Drive option)
- USB video capture kit

### Connectivity

- High-speed fax/data PCI modem
- Built-in network feature for Ethernet 10/1000 LAN --- optional
- Fast infrared (FIR) wireless communication
- Universal Serial Bus (USB) port

### Human-centric Design and Ergonomics

- Ultra-slim, sleek, smooth and stylish design
- Full-sized keyboard
- Wide and curved palm rest
- Ergonomically-centered touchpad pointing device with scroll function
- Stylish cover accessory

### Expansion

- CardBus PC Card (formerly PCMCIA) slot (one type II/I) with Zoomed Video (ZV) support
- Upgradeable memory and hard disk

## Display

The large graphics display offers excellent viewing, display quality and desktop performance graphics. The computer supports a Thin-Film Transistor (TFT) liquid crystal display (LCD) displaying 32-bit true-color at 800x600 Super Video Graphics Array (SVGA) resolution.

### Video Performance

PCI local bus video with 64-bit graphics acceleration and 2.5MB high-speed Synchronous Graphics Random Access Memory (SGRAM) boost video performance. The video also includes 3D capabilities such as Goraud shading, and Z-buffering, as well as DVD playback support.

### Simultaneous Display

The computer's large display and multimedia capabilities are great for giving presentations. If you prefer, you can also connect an external monitor when giving presentations. This computer supports simultaneous LCD and CRT display. Simultaneous display allows you to control the presentation from your computer and at the same time face your audience. You can also connect other output display devices such as LCD projection panels for large-audience presentations.

### Power Management

The power management system incorporates an "automatic LCD dim" feature that automatically decides the best settings for your display and at the same time conserves power. See “” on page 24 for more information on power management features.

### Dualview

The computer's video chip takes advantage of Windows 98 multi-display capability, allowing you to extend your desktop to an external display device, such as an external monitor or projector. With this feature enabled, you can move program windows to and from the computer LCD and external display device.

### Opening and Closing the Display

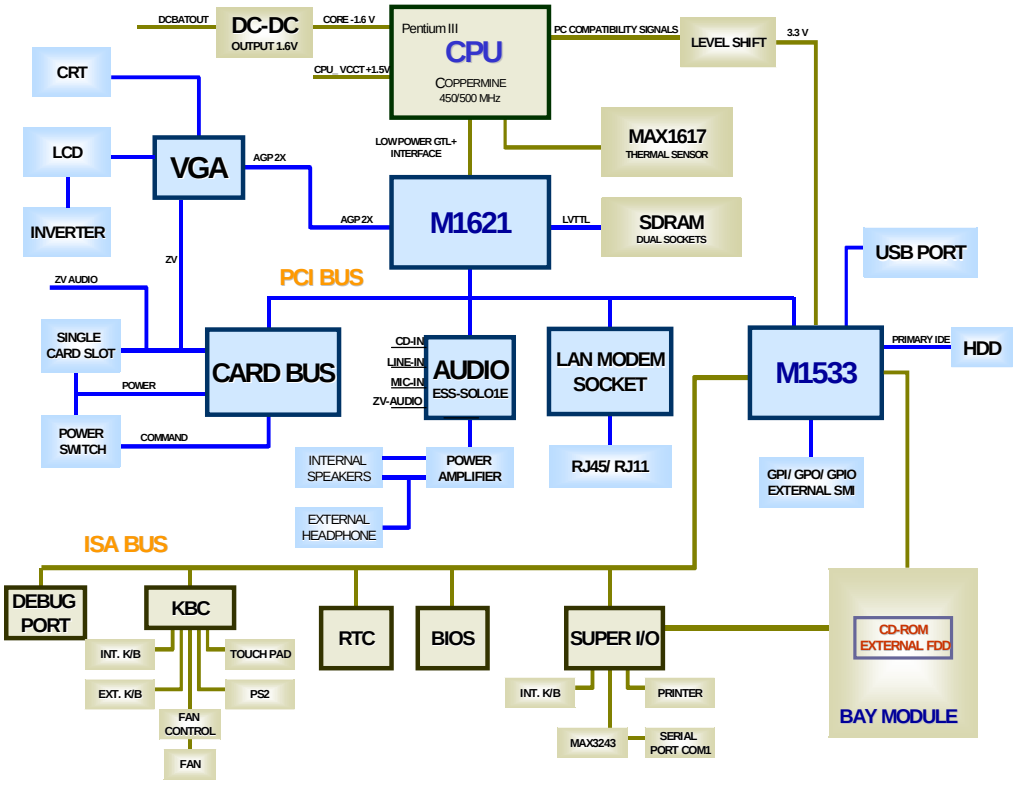
To open the display, slide the display cover latch to the left and lift up the cover. Then tilt it to a comfortable viewing position. The computer employs a microswitch that turns off the display (and enters Standby mode) to conserve power when you close the display cover, and turns it back on when you open the display cover.

**NOTE:** If an external monitor is connected, the computer turns off the display (but does not enter standby mode) when you close the display cover.

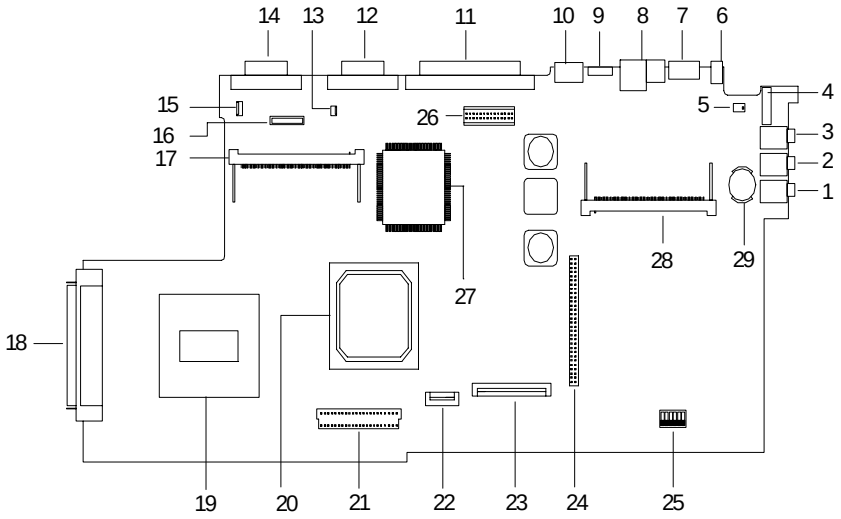
To close the display cover, fold it down gently until the display cover latch clicks into place.

**WARNING:** To avoid damaging the display, do not slam it when you close it. Also, do not place any object on top of the computer when the display is closed.

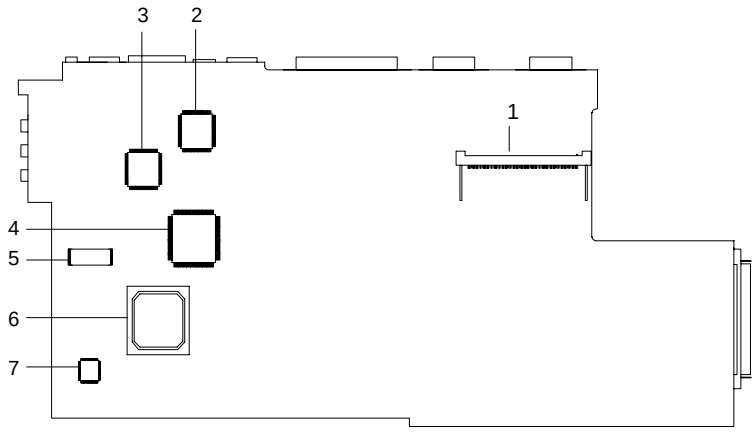
# System Block Diagram



# Board Layout




| | | | |
|---|---|---|---|
| 1 | Microphone-in Port | 16 | LCD Connector |
| 2 | Line-in port | 17 | DIMM Socket 1 |
| 3 | Line-out port | 18 | External FDD, CD/DVD-ROM Module Connector |
| 4 | Power Switch | 19 | CPU |
| 5 | LCD Cover Switch Connector | 20 | North Bridge ALI M1621 |
| 6 | AC Adapter Connector | 21 | HDD Board Connector |
| 7 | USB Port | 22 | Touchpad Connector |
| 8 | LAN/Modem Connector | 23 | Internal Keyboard Connector |
| 9 | FIR Port | 24 | PCMCIA Socket |
| 10 | PS/2 Port | 25 | Jumper Setting |
| 11 | Parallel Port | 26 | LED/Inverter Board Connector |
| 12 | Serial Port | 27 | VGA Controller Cyber 9525 DVD |
| 13 | Speaker | 28 | Mini PCI Card Connector |
| 14 | Video Port | 29 | RTC Battery |
| 15 | FAN Connector | | |

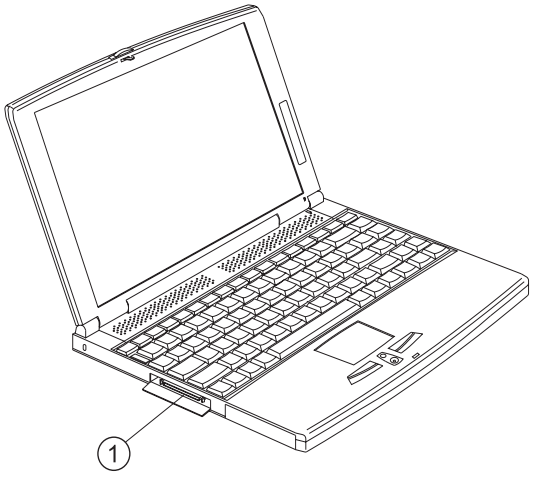



| | | | |
|---|---|---|---|
| 1 | DIMM Socket 2 | 5 | BIOS Flash ROM |
| 2 | Super I/O Controller NS PC97338 | 6 | South Bridge ALI M1533 |
| 3 | PCI Audio Controller ESS ES1946 | 7 | Keyboard Controller M38867 |
| 4 | PCI CardBus Controller OZ6812 | | |

# Panel

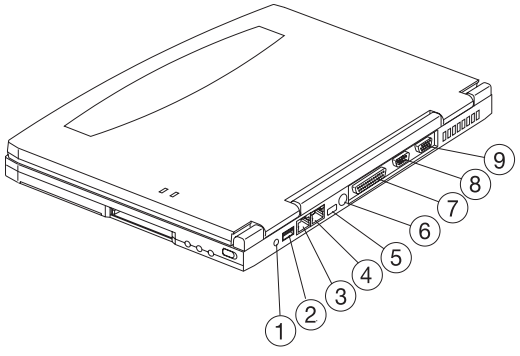
Ports allow you to connect peripheral devices to your computer as you would with a desktop PC.

## Left Panel




| # | Port | Connects to... |
|---|---|---|
| 1 | EasyLink™ Combo Drive connector | EasyLink™ Combo Drive. |

## Rear Panel




| # | Icon | Port | Connects to... |
|---|---|---|---|
| 1 | | Power jack | AC adapter and power outlet |
| 2 | | USB jack | Universal Serial Bus device (e.g., USB mouse, USB camera) |

| # | Icon | Port | Connects to... |
|---|---|---|---|
| 3 | | Modem jack | Phone line |
| 4 | | Network jack | Ethernet 10/100-based network |
| 5 | | Infrared port | Infrared device (e.g., infrared printer, IR-aware computers) |
| 6 | | PS/2 port | PS/2-compatible device (e.g., PS/2 keyboard/mouse/ keypad) |
| 7 | | Parallel port | Parallel device (e.g., parallel printer) |
| 8 | | Serial port | Serial device (e.g., serial mouse) |
| 9 | | External display port | Display device (e.g., external monitor, LCD projector) up to 1280x1024 resolution at 64K-colors |

## Universal Serial Bus

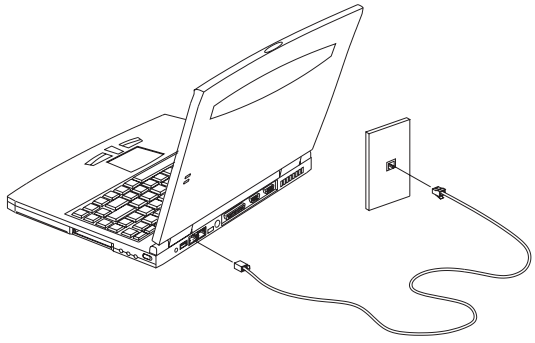
The Universal Serial Bus (USB) port is a high-speed serial bus which allows you to connect and daisy-chain USB peripherals without taking up precious system resources.

## Fax/data modem

Some models have a built-in V.90 56Kbps PCI fax/data modem.

**WARNING:**This modem port is not compatible with digital phone lines. Plugging this modem into a digital phone line will damage the modem.

To use the fax/data modem port, connect a phone cable from the modem port to a telephone jack.



Start your communications software program. See your communications manual for instructions.

## Built-in network feature (optional)

Available on selected models, the built-in network feature allows you to connect your computer to an Ethernet-based (10BaseT and 100BaseT) network.

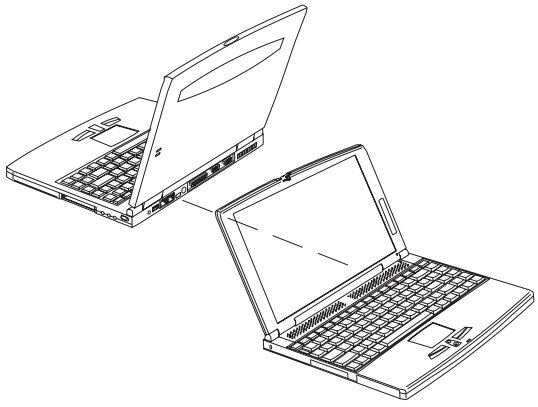
To use the network feature, connect an Ethernet cable from the network jack on the rear of the computer to a network jack or hub on your network. Then configure network settings for your computer.

**NOTE:** Contact your network or system administrator for information on how to configure your computer to work in your network environment.

### Fast infrared

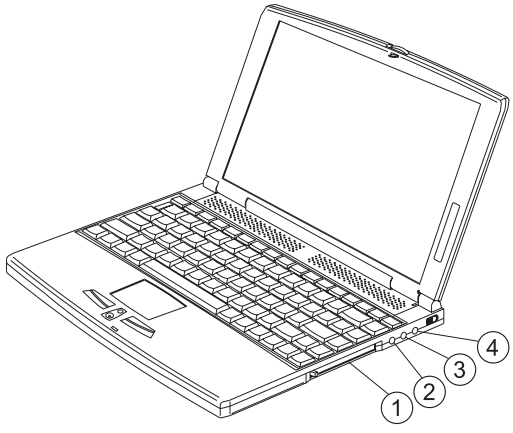
The computer's fast infrared (FIR) port allows you to do wireless data transfer with other IR-aware computers and peripherals such as infrared printers. The infrared port can transfer data at speeds of up to four megabits per second (Mbps) at a distance of up to one meter.

To use FIR, position two IR-aware devices such that their IR ports are no more than one meter apart and offset no more than 15 degrees.



When the two computers are in position, simply begin the data transfer as you normally would. See your file transfer software for details.

## Right Panel




| # | Icon | Port | Connects to... |
|---|---|---|---|
| 1 | | PC Card slot | One 16-bit PC Card or 32-bit CardBus PC Card (Zoomed Video supported) |
| 2 | | Microphone-in jack | Mono condenser microphone |

| # | Icon | Port | Connects to... |
|---|---|---|---|
| 3 | | Line-in jack | Audio line-in device (e.g., audio CD player, stereo walkman) |
| 4 | | Line-out jack | Audio line-out device (e.g., speakers, headphones) |

## PC Card slot

There is a type II/I CardBus PC Card slot found on the right panel of the computer. This slot accepts a credit-card-sized card that enhances the usability and expandability of the computer.

PC Cards (formerly PCMCIA) are add-on cards for portable computers, giving you expansion possibilities long afforded by desktop PCs. Popular type II cards include flash memory, SRAM, fax/data modem, LAN and SCSI cards. CardBus improves on the 16-bit PC card technology by expanding the bandwidth to 32 bits.

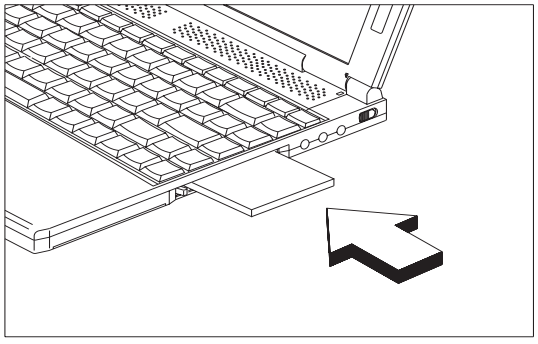
ZV (Zoomed Video) support allows your computer to support hardware MPEG in the form of a ZV PC card.

**NOTE:** Refer to your card's manual for details on how to install and use the card and its functions.

### Inserting a PC Card

**NOTE:** A slot protector card is installed in the PC Card slot. Remove it before you insert your PC Card.

Insert the card into the desired slot and make the proper connections (e.g., network cable), if necessary. See your card manual for details.

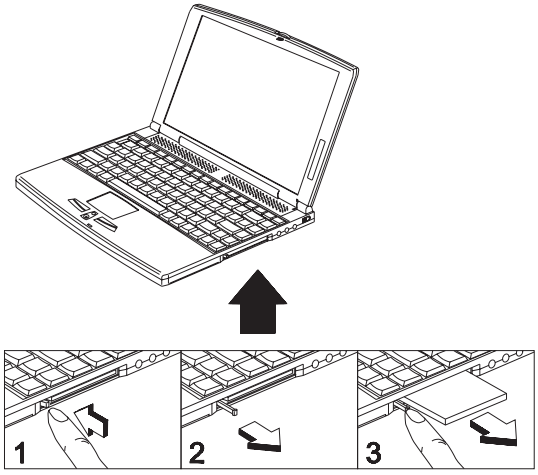


### Ejecting a PC Card

Before ejecting a PC Card:

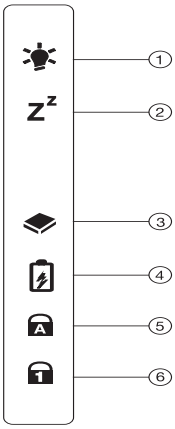
1. Exit the application using the card.
2. Left-click on the PC Card icon on the taskbar and stop the card operation.

**3.** Press the slot eject button (1) to pop out the eject button (2); then press it again to eject the card (3).



# Indicators

The computer has six easy-to-read status icons on the right of the display screen.




The Power and Standby status icons are visible even when you close the display cover so you can see the status of the computer while the cover is closed.

| # | Icon | Function | Description |
|---|---|---|---|
| 1 | | Power | Lights when the computer is on. |
| 2 | | Sleep | Lights when the computer enters Sleep mode. |
| 3 | | Media Activity | Lights when the floppy drive, hard disk or EasyLink™ Combo Drive is active. |
| 4 | | Battery Charge | Lights when the battery is being charged. |
| 5 | | Caps Lock | Lights when Caps Lock is activated. |
| 6 | | Num Lock | Lights when Num Lock is activated. |

# Keyboard

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

## Hot Keys

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

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

| Hot Key | Icon | Function | Description |
|---|---|---|---|
| Fn-F1 | ? | Hot Key Help | Displays help on hot keys. |
| Fn-F2 | | Setup | Accesses the computer's configuration utility. |
| Fn-F3 | | Power Management Scheme Toggle | Switches the power management scheme used by the computer (function available if supported by operating system). |
| Fn-F4 | Z$^z$ | Sleep (ACPI) or Standby (APM) | Puts the computer in Sleep mode or Standby mode. |
| Fn-F5 | | Display Toggle | Switches display output between the display screen, external monitor (if connected) and both the display screen and external monitor. |
| Fn-F6 | | Screen Blank | Turns the display screen backlight off to save power. Press any key to return. |
| Fn-F7 | | Touchpad Toggle | Turns the internal touchpad on and off. |
| Fn-F8 | | Speaker Toggle | Turns the speakers on and off. |
| Fn-← | | Brightness Down | Decreases the screen brightness. |
| Fn-→ | | Brightness Up | Increases the screen brightness. |
| Fn-↑ | | Volume Up | Increases the volume. |

| Hot Key | Icon | Function | Description |
|---|---|---|---|
| Fn-↓ | | Volume Down | Decreases the volume. |
| Alt Gr-Euro | | Euro | Types the euro symbol. |

### The euro symbol

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

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

To verify the keyboard type:

1. Click on **Start**, **Settings**, **Control Panel**.
2. Double-click on **Keyboard**.
3. Click on the **Language** tab.
4. Verify that the keyboard layout used for "English (United States)" is set to United States-International.

If not, select and click on **Properties**; then select **United States-International** and click on **OK**.

5. Click on **OK**.

To type the Euro symbol:

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

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

# Hardware Configuration and Specification

### System Board Major Chips

| Item | Controller |
|---|---|
| System core logic | ALI M1621/M1533 |
| Super I/O controller | NS PC97338VJG |
| Audio controller | KB 9525 |
| Hard disk drive controller | M5229 |
| Keyboard controller | M38867 |
| RTC | BQ3285LD |

### Processor

| Item | Specification |
|---|---|
| CPU type | Intel Pentium III 450/500 MHz processor with 256KB L2 on-die Cache |
| CPU package | BGA package |
| CPU core voltage | 1.60V |
| CPU I/O voltage | 1.50V |

### BIOS

| Item | Specification |
|---|---|
| BIOS vendor | Acer |
| BIOS Version | V 3.0 |
| BIOS ROM type | Flash ROM |
| BIOS ROM size | 256KB |
| BIOS package | 32-pin PLCC |
| Supported protocols | ACPI 1.0a, APM 1.2, PC Card 95, SM BIOS 2.1, EPP/IEEE 1284, ECP/ IEEE 1284 1.7 & 1.9, IrDA, PCI 2.1, PnP 1.0a, PS/2 keyboard and mouse, USB, VESA VGA BIOS, DDC-2B, CD-ROM bootable, Windows keyboard Microsoft Simple Boot Flag |
| BIOS password control | Set by switch, see SW3 (switch 6) settings |

### Second Level Cache

| Item | Specification |
|---|---|
| Cache controller | Build in ALI 1621 |
| Cache size | 256 KB |
| 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 | ALI M1621 |
| Onboard memory size | 0MB |
| DIMM socket number | 2 sockets (2 banks) |
| Supports memory size per socket | 32/64/128 MB |
| Supports maximum memory size | 256MB (128MB x 2) |
| Supports DIMM type | Synchronous DRAM |

### System Memory

| Item | Specification |
|---|---|
| Supports DIMM Speed | 100MHz |
| Supports DIMM voltage | 3.3V |
| Supports DIMM package | 144-pin DIMM |
| 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 |
|---|---|---|
| 32MB | 0 | 32MB |
| 0 | 32MB | 32MB |
| 64MB | 0 | 64MB |
| 0 | 64MB | 64MB |
| 32MB | 32MB | 64MB |
| 64MB | 32MB | 96MB |
| 32MB | 64MB | 96MB |
| 128MB | 0 | 128MB |
| 0 | 128MB | 128MB |
| 64MB | 64MB | 128MB |
| 128MB | 32MB | 160MB |
| 32MB | 128MB | 160MB |
| 128MB | 64MB | 192MB |
| 64MB | 128MB | 192MB |
| 128MB | 128MB | 256MB |

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

**NOTE:** The shipping specification for DIMM combination is 64MB in slot 1.

### LAN/Modem Combo Interface

| Item | Specification |
|---|---|
| Chipset | Ambit T60.082.C.00 |
| Fax modem data baud rate (bps) | 14.4K |
| Data modem data baud rate (bps) | 56K |
| Supports modem protocol | V.90 data modem 56K, V.90 fax modem 14.4K and digital line protection operation |
| Supports LAN protocol | 10/100 Mbps |
| Modem/LAN connector type | RJ11/RJ45 |
| Modem/LAN connector location | Rear side |

### Modem Interface

| Item | Specification |
|---|---|
| Chipset | Ambit J07.M039.00 |
| Fax modem data baud rate (bps) | 14.4K |
| Data modem data baud rate (bps) | 56K |

### Modem Interface

| Item | Specification |
|---|---|
| Supports modem protocol | V.90 data modem 56K, V.90 fax modem 14.4K and digital line protection operation |
| Modem connector type | RJ11 |
| Modem connector location | Rear side |

### Hard Disk Drive Interface

| Item | Specification | |
|---|---|---|
| Vendor & Model Name | IBM DARA-206000 | IBM DARA-209000 |
| Drive Format | | |
| Capacity (MB) | 6000 | 9000 |
| Bytes per sector | 512 | 512 |
| Logical heads | 15 | 16 |
| Logical sectors | 63 | 63 |
| Drive Format | | |
| Logical cylinders | 12416 | 16383 |
| Physical read/write heads | 2 | 3 |
| Disks | 1 | 2 |
| Spindle speed (RPM) | 4200 | 4200 |
| Performance Specifications | | |
| Buffer size | 418 | 418 |
| Interface | IDE(ATA-4) | IDE(ATA-4) |
| Data transfer rate (disk-buffer, Mbytes/s) | 10.69~20.2 | 10.69~20.2 |
| Data transfer, rate (host~buffer, Mbytes/s) | 16.6 (PIO mode 4)<br>66.6 (Ultra DMA mode 4) | |
| DC Power Requirements | | |
| Voltage tolerance | 5+-5% | 5+-5% |

### CD-ROM/Floppy Diskette Combo Drive Interface

| Item | Specification |
|---|---|
| Vendor & model name | TEAC CF240500 |
| **CD-ROM** | |
| Performance Specification | |
| Transfer rate (KB/sec) | 1,545KB/sec ~ 3,600KB/sec. (FULL - CAV) |
| Access time (typ.) | 130 ms |
| Rotation speed | 5136 rpm (typ.) |
| Buffer memory | 128 KB |
| Interface | ATAPI |
| Applicable disc format | CD-DA, CD-ROM (Mode-1, Mode-2), CD-ROM XA MODE-2 (FORM-1, FORM-2), Multi-Session Photo CD, CD-I, Video CD, Enhanced CD & CD PLUS Compatible, CD-R/W |
| Loading mechanism | Drawer with soft eject and emergency eject hole |
| Power Requirement | |
| Input Voltage | 5 V |
| **Diskette Drive** | |

### CD-ROM/Floppy Diskette Combo Drive Interface

| Item | Specification | | |
|---|---|---|---|
| Floppy Disk Specifications | | | |
| Media recognition | 2DD (720KB) | 2HD (1.2MB, 3-mode) | 2HD (1.44MB) |
| Sectors / track | 9 | 15 | 18 |
| Tracks | 80 | 80 | 80 |
| Data transfer rate (Kbit/s) | 250 | 500 | 500 |
| Rotational speed (RPM) | 300 | 360 | 300 |
| Read/write heads | 2 | | |
| Encoding method | MFM | | |
| Power Requirement | | | |
| Input Voltage (V) | +5V +-10% | | |

### DVD-ROM/Floppy Diskette Combo Drive Interface

| Item | Specification | | |
|---|---|---|---|
| Vendor & model name | TEAC DF220500 | | |
| **DVD-ROM** | | | |
| Performance Specification | With CD Diskette | With DVD Diskette | |
| Transfer rate (KB/sec) | 1,290KB/sec ~ 3,000KB/sec. (FULL - CAV) | 2,769 KB/sec. (FULL - CAV) | |
| Access time (typ.) | 130 ms | 170 ms | |
| Rotation speed | 4280 rpm (typ.) | 1148~2776 rpm (typ.) | |
| Buffer memory | 512 KB | 512 KB | |
| Interface | ATAPI | | |
| Applicable disc format | DVD-ROM, DVD-Video, CD-DA, CD-ROM (Mode-1, Mode-2), CD-ROM XA MODE-2 (FORM-1, FORM-2), Multi-Session Photo CD, CD-I, Video CD, Enhanced CD & CD PLUS Compatible, CD-R/W | | |
| Loading mechanism | Drawer with soft eject and emergency eject hole | | |
| Power Requirement | | | |
| Input Voltage | 5 V | | |
| **Diskette Drive** | | | |
| Floppy Disk Specifications | | | |
| Media recognition | 2DD (720KB) | 2HD (1.2MB, 3-mode) | 2HD (1.44MB) |
| Sectors / track | 9 | 15 | 18 |
| Tracks | 80 | 80 | 80 |
| Data transfer rate (Kbit/s) | 250 | 500 | 500 |
| Rotational speed (RPM) | 300 | 360 | 300 |
| Read/write heads | 2 | | |
| Encoding method | MFM | | |
| Power Requirement | | | |
| Input Voltage (V) | +5V +-10% | | |

### Audio Interface

| Item | Specification |
|---|---|
| Audio Controller | ESS ES1946 Solo-1E |
| Audio onboard or optional | Built-in |
| Mono or Stereo | Stereo |

### Audio Interface

| Item | Specification |
|---|---|
| Resolution | 16-bit |
| Compatibility | SB-Pro, Windows Sound System (WSS), MPU-401, OPL3, OPL3-SA3<br>Microsoft PC97/PC98/PC99, WHQL audio requirement |
| Mixed sound source | Voice, Synthesizer, Line-in, Microphone, CD |
| Voice channel | 8/16-bit, mono/stereo |
| Sampling rate | 44.1 KHz |
| Internal microphone | No |
| Internal speaker / Quantity | Yes / 1 piece |
| Supports PnP DMA channel | DMA channel 0<br>DMA channel 1 |
| Supports PnP IRQ | IRQ3, IRQ5, IRQ7, IRQ9, IRQ10, IRQ11 |

### Video Interface

| Item | Specification |
|---|---|
| Chip vendor | Trident |
| Chip name | Cyber 9525 DVD |
| Chip voltage | 3.3 Volts |
| Supports ZV (Zoomed Video) port | Yes |
| Graph interface | AGP 1X or 2X (Accelerated Graphics Port) bus |
| Maximum resolution (LCD) | 1024x768 (16 bit colors) |
| Maximum resolution (CRT) | 1600x1280 (256 colors) |

### Video Memory

| Item | Specification |
|---|---|
| Fixed or upgradeable | Fixed, built-in video controller |
| Video memory size | 2.5MB |

### Video Resolutions Mode

| Resolution | Refresh Rate | |
|---|---|---|
| | CRT Only | LCD/CRT Simultaneous |
| 640x480x256 | 85 | 60 |
| 640x480x64K | 85 | 60 |
| 640x480x16M | 85 | 60 |
| 800x600x256 | 85 | 60 |
| 800X600X64K | 85 | 60 |
| 1024x768x256 | 60, 75 | 60 |

### Parallel Port

| Item | Specification |
|---|---|
| Parallel port controller | NS PC97338VJG |
| Number of parallel port | 1 |
| Location | Rear side |
| Connector type | 25-pin D-type connector, in female type |
| Parallel port function control | Enable/Disable by BIOS Setup |

### Parallel Port

| Item | Specification |
|---|---|
| Supports ECP/EPP | Yes (set by BIOS setup) |
| Optional ECP DMA channel (in BIOS Setup) | DMA channel 1 and 3 |
| Optional parallel port I/O address (in BIOS Setup) | 3BCh, 378h, 278h |
| Optional parallel port IRQ (in BIOS Setup) | IRQ5, IRQ7 |

### Serial Port

| Item | Specification |
|---|---|
| Serial port controller | NS PC97338VJG |
| Number of serial port | 1 |
| Supports 16550 UART | Yes |
| Connector type | 9-pin D-type connector, in male type |
| Location | Rear side |
| Serial port function control | Enable/Disable by BIOS Setup |
| Optional serial port (in BIOS Setup) | 3F8h, 3E8h, 2E8h |
| Optional serial port IRQ (in BIOS Setup) | IRQ4, IRQ11 |

### USB Port

| Item | Specification |
|---|---|
| OHCI | USB 1.0 |
| Number of USB port | 1 |
| Location | Rear side |
| Serial port function control | Enable/Disable by BIOS Setup |

### IrDA Port

| Item | Specification |
|---|---|
| IrDA FIR port controller | NS PC97338VJG |
| Number of IrDA FIR port | 1 |
| Location | Rear side |
| IrDA FIR port function control | Enable/disable by BIOS Setup |
| Optional IrDA FIR port (in BIOS Setup) | 2F8h, 3F8h, 3E8h, 2E8h |
| Optional IrDA FIR port IRQ (in BIOS Setup) | IRQ3, IRQ4, IRQ10, IRQ11 |
| Optional IrDA FIR port DRQ (in BIOS Setup) | DRQ3, DRQ1, DRQ0 |

### PCMCIA Port

| Item | Specification |
|---|---|
| PCMCIA controller | O2 OZ6812 |
| Supports card type | Type-II/I |
| Number of slots | One type-II/I |
| Access location | Right side |
| Supports ZV (Zoomed Video) port | Yes |
| Supports 32 bit CardBus | Yes (IRQ9) |

### Keyboard

| Item | Specification |
|---|---|
| Keyboard controller | Mitsubishi M38867 |
| Keyboard vendor & model name | JME K9811 |
| Total number of keypads | 85/89-key |
| Windows 95 keys | Yes |
| Internal & external keyboard work simultaneously | Yes |

### Battery

| Item | Specification |
|---|---|
| Vendor & model name | Panasonic CGP-E/618AE |
| Battery Type | Li-ion |
| Pack capacity | 2800 mAH |
| Cell voltage | 3.6V/cell |
| Number of battery cell | 6 |
| Package configuration | 3 cells in series, 2 series in parallel |
| Package voltage | 10.8 V |

### DC-AC LCD Inverter

| Item | Specification | | | | |
|---|---|---|---|---|---|
| Vendor & model name | Ambit T62.123.C.01<br>Sumida IV12149 | | | | |
| Input voltage (V) | 7.3 (min.) | | - | | 21 (max.) |
| Input current (mA) | - | | - | | 900 (max.) |
| Output voltage (Vrms, no load) | - | | 565 (typ.) | | - |
| Output voltage frequency (kHz) | 40 (min.) | | - | | 65 (max.) |
| Output Current/ Lamp | Iout(Min) | 0.7mA | 1.0mA | 1.3mA | Vadj=0V |
| | Iout(Max) | 5.4mA | 6.0mA | 6.6mA | Vadj=3.2V |

**NOTE:** DC-AC inverter is used to generate very high AC voltage, then support to LCD CCFT backlight user, and is also responsible for the control of LCD brightness. Avoid touching the DC-AC inverter area while the system unit is turned on.

**NOTE:** There is an EEPROM in the inverter, which stores its supported LCD type and ID code. If you replace a new inverter or replace the LCD with a different brand, use Inverter ID utility to update the ID information.

### LCD

| Item | Specification |
|---|---|
| Vendor & model name | Torisan<br>TM121SV-02L04 |
| Mechanical Specifications | |
| LCD display area (diagonal, inch) | 12.1 |
| Display technology | TFT |
| Resolution | SVGA (800x600) |

### LCD

| Item | Specification |
|---|---|
| Supports colors | 262,144 colors |
| Optical Specification | |
| Brightness control | keyboard hotkey |
| Contrast control | keyboard hotkey |
| Electrical Specification | |
| Supply voltage for LCD display (V) | 3.3 (typ.) |
| Supply voltage for LCD backlight (Vrms) | 630(typ.) |

### AC Adapter

| Item | Specification |
|---|---|
| Vendor & model name | Delta ADT-60XB D 3P |
| Input Requirements | |
| Maximum input current (A, @90Vac, full load) | 1.5 A @ 90Vac<br>0.9 A @ 180Vac |
| Nominal frequency (Hz) | 47 - 63 |
| Frequency variation range (Hz) | 47 - 63 |
| Nominal voltages (Vrms) | 90 - 270 |
| Inrush current | The maximum inrush current will be less than 50A and 100A when the adapter is connected to 115Vac(60Hz) and 230Vac(50Hz) respectively. |
| Efficiency | It should provide an efficiency of 83% minimum, when measured at maximum load under 115V(60Hz). |
| Output Ratings (CV mode) | |
| DC output voltage | +19.0V~20.0V |
| Noise + Ripple | 300mvp-pmax (20MHz bandwidth) |
| Load | 0 A (min.) 2.4 A (max.) |
| Output Ratings (CC mode) | |
| DC output voltage | +12V ~ +19V |
| Constant output | 2.75 ± 0.2 A |
| Dynamic Output Characteristics | |
| Turn-on delay time | 2 sec. (@115Vac) |
| Hold up time | 4 ms min. (@115 Vac input, full load) |
| Over Voltage Protection (OVP) | 24 V |
| Short circuit protection | Output can be shorted without damage |
| Electrostatic discharge (ESD) | 15kV (at air discharge)<br>8kV (at contact discharge) |
| Dielectric Withstand Voltage | |
| Primary to secondary | 1500 Vac (or 2121 Vdc), 10 mA for 1 second |
| Leakage current | 0.25 mA max. (@ 254 Vac, 60Hz) |
| Regulatory Requirements | Internal filter meets:<br>1. FCC class B requirements. (USA)<br>2. VDE 243/1991 class B requirements. (German)<br>3. CISPR 22 Class B requirements. (Scandinavia)<br>4. VCCI class II requirements. (Japan) |

### Power Management

| Power Saving Mode | Phenomenon |
|---|---|
| **Standby Mode**<br>Waiting time specified by the System Standby value or the operating system elapses without any system activity.<br>Or<br>When the computer is about to enter Hibernation mode (e.g., during a battery-low condition), but the Hibernation file is invalid or not present. | ❑ The buzzer beeps<br>❑ The Sleep indicator lights up |
| **Hibernation Mode**<br>When customized functions for power management are set to **Hibernation** and the corresponding action is taken. | ❑ All power shuts off |
| **Display Standby Mode**<br>Keyboard, built-in touchpad, and an external PS/2 pointing device are idle for a specified period. | ❑ The display shuts off |
| **Hard Disk Standby Mode**<br>Hard disk is idle within a specified period of time. | ❑ Hard disk drive is in standby mode. (spindle turned-off) |

### Environmental Requirements

| Item | Specification |
|---|---|
| Temperature | |
| Operating | +5 ~ +35 Degree C |
| Non-Operating | -20 ~ + 60 Degree C |
| Humidity | |
| Operating | 20% ~ 80% RH, Non-condensing |
| Non-Operating | 20% ~ 90% RH, Non-condensing |
| Vibration | |
| Operating (Unpacked) | 5 ~ 25.6 Hz, 0.38 mm (peak to peak) |
| | 25.6 ~ 250Hz, 0.5G |
| Non-Operating | |
| Unpacked | 5 ~ 27.1 Hz, 0.6G |
| | 27.1 ~ 50 Hz, 0.4 mm (peak to peak) |
| | 50 ~ 500 Hz, 2.0G |
| Packed | 5 ~ 62.6 Hz, 0.51 mm (peak to peak) |
| | 62.6 ~ 500 Hz, 4 G |

### Mechanical Specification

| Item | Specification |
|---|---|
| Dimensions | 289 mm (W) x 219 mm (D) x 23.5 mm (H) |
| Weight | 41 lb (including battery) |
| I/O Ports | 1 P/S2 Port, 1 Parallel Port, 1 Serial Port, 1 USB, 1 Modem Port, 1 LAN Port, 1 PCMCIA Slot, 1 VGA Port, 1 Microphone Port, 1 Line-in Port, 1 Line-out Port, 1 EasyLink $^{TM}$ Port, 1 DC-IN Port for AC adapter |
| Drive Bays | None |

### Mechanical Specification

| Item | Specification |
|---|---|
| Material | Housing: MG-AL<br>Panel : Plastic |
| Indications | Power LED, Sleep LED, Media Activity, Battery Charge, Caps Lock |
| Switch | Power |

### Memory Address Map

| Memory Address | Size | Function |
|---|---|---|
| 00000000-0009FFFF | 640 KB | Base memory |
| 000A0000-000BFFFF | 128 KB | Video memory |
| 000C0000-000C9FFF | 40 KB | Video BIOS |
| 000CA000-000CBFFF | 8 KB | I/O ROM |
| 000E0000-000FFFFF | 128 KB | System BIOS |
| 00100000-top limited<br>04301000-04301FFF<br>04302000-04302FFF<br>0430000-04300FFFF | --<br>4 KB<br>4 KB<br>64 KB | Extended (DIMM) memory<br>PCMCIA controller (slot 1)<br>PCMCIA controller (slot 2)<br>USB controller |
| FFFF0000-FFFFFFFF | 64 KB | System board extension for PnP BIOS |

### I/O Address Map

| I/O Address | Function |
|---|---|
| 000-00F | DMA controller-1 |
| 020-021 | Interrupt controller-1 |
| 040-043 | Timer 1 |
| 060, 064 | Keyboard controller 8742 chip select |
| 061 | System speaker out |
| 040B | DMA controller-1 |
| 061 | System speaker |
| 070-071 | Real-time clock and NMI mask |
| 080-08F | DMA page register |
| 0A0-0A1 | Interrupt controller-2 |
| 0C0-0DF | DMA controller-2 |
| 0F0-0FF | Numeric data processor |
| 120-13F<br>180-18F | Power management controller |
| 170-177 | 2nd EIDE device (CD-ROM) select |
| 1F0-1F7 | 1st EIDE device (hard drive) select |
| 220-22F | Audio |
| 240-24F | Audio (optional) |
| 278-27F | Parallel port 3 |
| 2E8-2EF | COM4 |
| 2F8-2FF | COM2 or FIR (optional) |
| 378, 37A | Parallel port 2 |
| 3BC-3BE | Paraller port 1 |
| 3B0-3BB<br>3C0-3DF | Video Controller |

### I/O Address Map

| I/O Address | Function |
|---|---|
| 3F0h-3F7 | Standard Floppy Disk Controller |
| 3E8-3EF | COM3 or LT Win modem (optional) |
| 3F0-3F7 | Floppy disk controller |
| 3F8-3FF | COM1 |
| 480-48F, 4D6 | DMA controller-1 |
| 4D0-4D1<br>CF8-CFF | PCI configuration register |

### IRQ Assignment Map

| Interrupt Channel | Function |
|---|---|
| NMI | System errors |
| IRQ0 | System timer |
| IRQ1 | Keyboard |
| IRQ2 | Cascade |
| IRQ3 | R2 Card |
| IRQ4 | COM1 |
| IRQ5 | Audio or LPT1 (optional) |
| IRQ6 | Floppy |
| IRQ7 | LPT1 or Audio (optional) |
| IRQ8 | Real time clock |
| IRQ9 | Card bus / ACPI / Modem |
| IRQ10 | USB |
| IRQ11 | FIR |
| IRQ12 | PS2 pointing device |
| IRQ13 | Numeric data processor |
| IRQ14 | 1st EIDE device (hard disk) |
| IRQ15 | 2nd EIDE device (CD-ROM drive) |

### DMA Channel Assignment

| DMA Channel | Function |
|---|---|
| DRQ0 | Audio or FIR (optional) |
| DRQ1 | ECP or Audio or FIR (optional) |
| DRQ2 | Floppy |
| DRQ3 | ECP or FIR (optional) |
| DRQ4 | Not Used |
| DRQ5 | Not used |
| DRQ6 | Not used |
| DRQ7 | Not used |

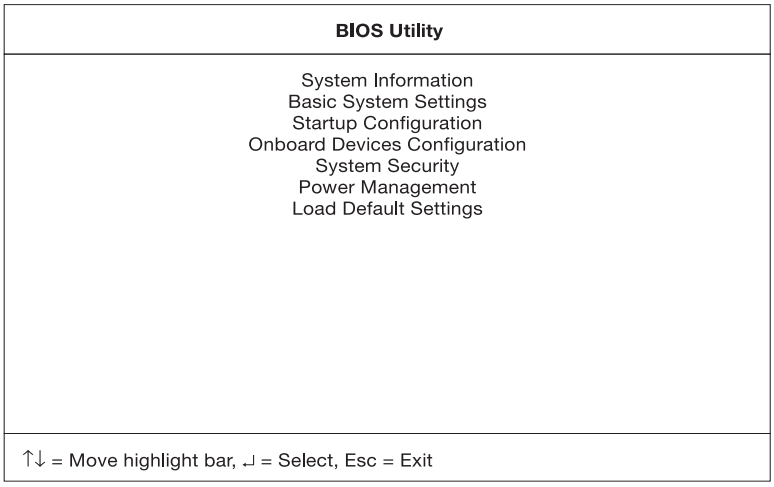
# System Utilities

## 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 a problem arises.

To activate the BIOS Utility, press **F2** during POST (while the TravelMate logo is being displayed).




### Navigating the BIOS Utility

There are seven menu options: System Information, Basic System Settings, Startup Configuration, Onboard Devices Configuration, System Security, Power Management and Load Default Settings.

Use the cursor **up/down** (↑↓) keys to select a menu item, then press **Enter**.

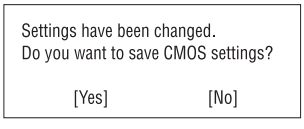
Within a menu, navigate through the BIOS Utility by following these instructions:

- Press the cursor **up/down** (↑↓) keys to move between parameters.
- Press the cursor **left/right** (→←) keys to change the value of a parameter.
- Press **Esc** while you are in any of the menu options to return to the main menu.

**NOTE:** You can change the value of a parameter if it is enclosed in square brackets.

**NOTE:** Navigation keys for a particular menu are shown on the bottom of the screen.

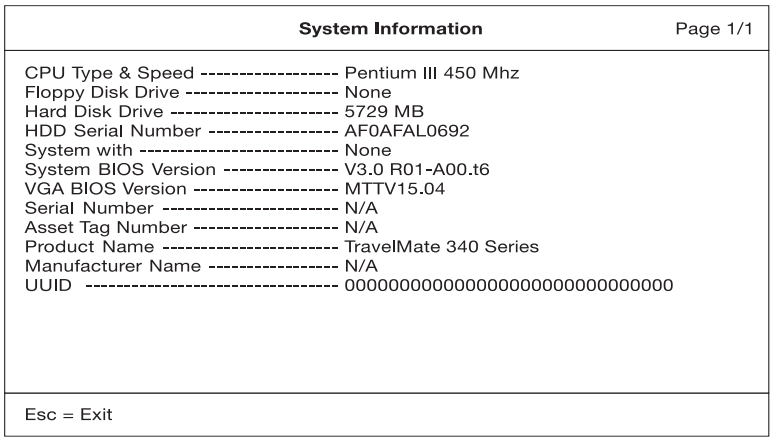
At the main menu, press **Esc** to exit the BIOS Utility. If you make any changes, the following dialog box displays:




If you would like to keep the changes you made, use the cursor **left/right** (→←) keys to select **Yes**; then press **Enter**. Choose **No** if you want to discard the changes you made.

## System Information

The System Information sub-menu displays basic and important information about your computer.




**NOTE:** The screen above is a sample and may not reflect the actual data on your computer.

The following table describes the information in this sub-menu.

**NOTE:** "x" may refer to a series of numbers and/or characters or a combination of both.

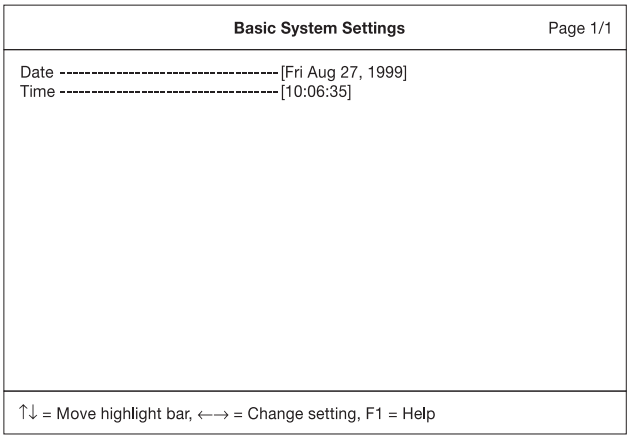
| Parameter | Description | Format |
|---|---|---|
| CPU Type & Speed | Shows the type and speed in Megahertz (MHz) of the Central Processing Unit (CPU) | |
| Floppy Disk Drive | Shows the floppy disk drive type | |
| Hard Disk Drive | Shows the size or capacity of the hard disk | |
| HDD Serial Number | Shows the serial number of the hard disk | |
| System with | Shows the EasyLink Combo Drive type, CD-ROM or DVD-ROM. | |
| System BIOS Version | Shows the version number of the BIOS. | Vx Rx (version and release numbers) |
| VGA BIOS Version | Shows the version number of the VGA display BIOS. | Vx Rx (version and release numbers) |
| Serial Number | Shows the serial number of the system. It is the number identical to the system serial number labelled at the bottom of the system unit. The default serial number is scanned while manufacturing, and stored to the LCD inverter. | |
| Asset Tag Number | Shows the asset tag number of the computer. The default setting is empty. Customers can input it from the Notebook Manager. It will be stored in LCD inverter. | |
| Product Name | Shows the official name of the product "brand name + model name". The default setting of TravelMate 340. Product name will be stored in LCD inverter. | |
| Manufacturer Name | Shows the name of the manufacturer and stored in LCD inverter. The default setting is Acer. | |

| Parameter | Description | Format |
|---|---|---|
| UUID | Shows the universally unique identifier number of the computer, also known as GUID (Globally Unique Identifier). It is the requirement specification of SMBIOS 2.1 (System Management BIOS). UUID are fixed-size 128-bit value and are unique across both space and time as well as stored in LCD inverter. UUID number can identify a person and even confidential documents user created. | |

The items in this sub-menu are important and vital information about your computer. If you experience computer problems and need to contact technical support, this data helps our service personnel know more about your computer.

## Basic System Settings

The Basic System Settings sub-menu allows you to set the system date and time.

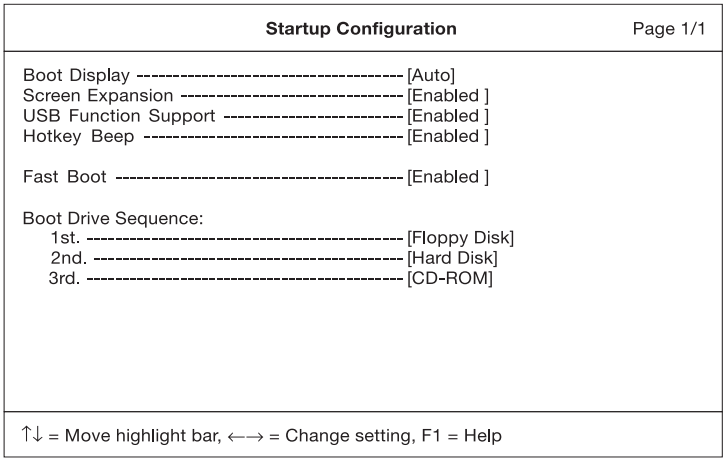



The following table describes the parameters in this sub-menu.

| Parameter | Description | Format |
|---|---|---|
| Date | Sets the system date. | DDD MMM DD, YYYY (day-of-the-week month day, year) |
| Time | Sets the system time. | HH:MM:SS (hour:minute:second) |

## Startup Configuration

The Startup Configuration sub-menu contains parameter values that define how your computer behaves on system startup.




The following table describes the parameters in this sub-menu. Settings in **boldface** are the default and suggested parameter settings.

| Parameter | Description | Options |
|---|---|---|
| Boot Display | Sets the display on boot-up.<br>When set to **Auto**, the computer automatically determines the display device when the computer starts up. If an external display device (e.g., monitor) is connected, it becomes the boot display; otherwise, the computer LCD is the boot display. When set to **Both**, the computer outputs to both the computer LCD and an external display device if one is connected. | **Auto** or Both |
| Screen Expansion | Enables or disables the screen expansion feature. When enabled, DOS screens expand to fill the LCD. | **Disabled** or Enabled |
| USB Function Support | Enables or disables the Universal Serial Bus (USB) port. | **Disabled** or Enabled |
| Hotkey Beep | Enables or disables a system beep when a hotkey or key combination is pressed. | **Enabled** or Disabled |
| Fast Boot | Fast Boot allows your computer to boot up and resume from Sleep mode (including Standby and Hibernation modes) faster. When enabled, the operating system and BIOS communicate information about Plug-and-Play resources and previous boot-ups. | **Enabled** or Disabled |
| Boot Drive Sequence | Specifies the order in which the computer starts up from. See the section below. | 1st: Floppy Disk,<br>2nd: Hard Disk,<br>3rd: CD-ROM |

## Setting the Boot Drive Sequence

The Boot Drive Sequence section lists boot priorities (1st, 2nd and 3rd) for bootable drives in your computer.

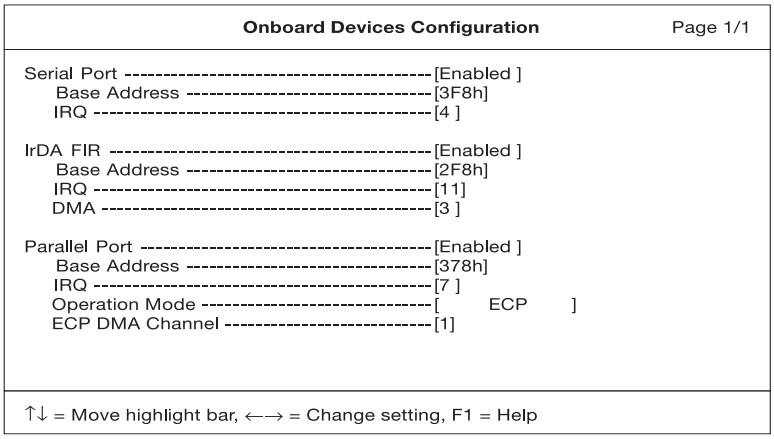
For example, the default value (1st:Floppy Disk, 2nd:Hard Disk, and 3rd:CD-ROM) tells the computer to first search for a bootable floppy disk in the floppy drive. If it finds one present, it boots up from that floppy disk. If not, the computer continues by booting up from the hard disk. If it cannot boot up from the hard disk, it continues to search for a bootable CD-ROM in the CD-ROM drive.

To set the boot drive sequence, use the cursor **up/down** (↑↓) keys to select a priority level (1st, 2nd, or 3rd); then use the cursor **left/right** (→←) keys to select the device for that priority level.

## Onboard Devices Configuration

The parameters in this screen are for advanced users only. You do not need to change the values in this screen because these values are already optimized.

The Onboard Devices Configuration sub-menu assigns resources to basic computer communication hardware.

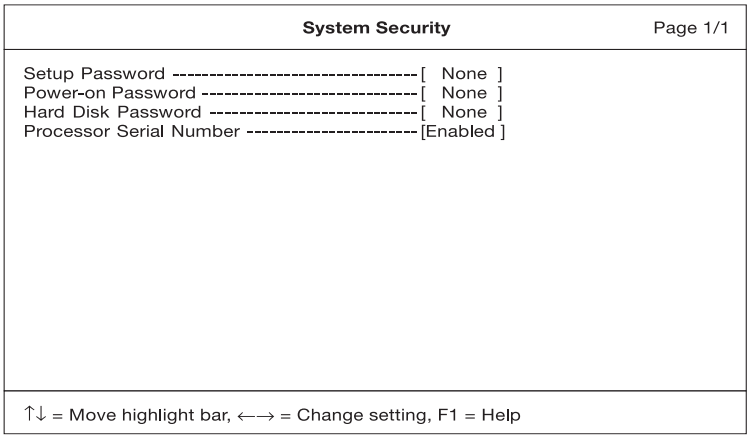



The following table describes the parameters in this sub-menu. Settings in **boldface** are the default and suggested parameter settings.

| Parameter | Description | Options |
|---|---|---|
| Serial Port | Enables or disabled the serial port.<br>When enabled, you can set the base I/O address and interrupt request (IRQ) of the serial port. | **Enabled** or Disabled<br>**3F8h**, 3E8h, 2F8h or 2E8h<br>**4** or 11 |
| IrDA Port | Enables or disables the infrared port.<br>When enabled, you can set the base I/O address, interrupt request (IRQ) and direct memory access (DMA) channel of the infrared port. | **Enabled** or Disabled<br>**2F8h**, 3E8h, 3F8h, or 2E8h<br>**3** or 10 |
| Parallel Port | Enables or disables the parallel port.<br>When enabled, you can set the base I/O address, interrupt request (IRQ) and operation mode of the parallel port.<br>If operation mode is set to ECP, the direct memory access (DMA) channel of the parallel port is set to 1. | **Enabled** or Disabled<br>**378h**, 278h, or 3BCh<br>**7** or 5<br>**ECP**, EPP, Standard, or Bi-directional |

## System Security

The System Security sub-menu allows you to safeguard your computer and data with passwords and other security measures.



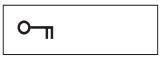

The following table describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

| Parameter | Description | Options |
|---|---|---|
| Setup Password | When set, this password protects the computer and this BIOS Utility from unauthorized entry. See the following section for instructions on how to set a password. | **Disabled** or Enabled |
| Power-on Password | When set, this password protects the computer from unauthorized entry. See the following section for instructions on how to set a password. | **Disabled** or Enabled |
| Hard Disk Password | When set, this password protects the hard disk from unauthorized access. See the following section for instructions on how to set a password. | **Disabled** or Enabled |
| Processor Serial Number | The Pentium III processor includes a unqiue serial number which allows individual CPUs to be identified. You can turn off this feature by setting this parameter to Disabled. | **Enabled** or Disabled |

### Setting a Password

Follow these steps:

- Use the cursor up/down keys to highlight a Password parameter (Setup, Power-on or Hard Disk) and press the **Enter** key. The password box appears:
- Type a password. The password may consist of up to seven characters (A-Z, a-z, 0-9).



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

- Press **Enter**. Retype the password to verify your first entry and press **Enter**.

After setting the password, the computer automatically sets the chosen password parameter to Present.

Three password types protect your computer from unauthorized access. Setting these passwords creates several different levels of protection for your computer and data:

- ❑ Setup Password prevents unauthorized entry to the BIOS Utility. Once set, you must key-in this password to gain access to the BIOS Utility.
- ❑ Power-On Password secures your computer against unauthorized use. Combine the use of this password with password checkpoints on boot-up and resume from hibernation for maximum security.
- ❑ Hard Disk Password protects your data by preventing unauthorized access to your hard disk. Even if the hard disk is removed from the computer and moved to another computer, it cannot be accessed without the Hard Disk Password.

When a password is set, a password prompt appears on the left-hand corner of the display screen.

**1.** When the Setup Password is set, the following prompt appears when you press **F2** to enter the BIOS Utility at boot-up.

Type the Setup Password and press **Enter** to access the BIOS Utility.

**2.** When the Power-on Password is set, the following prompt appears at boot-up.

Type the Power-on Password (a symbol appears for each character you type) and press **Enter** to use the computer. If you enter the password incorrectly, an **x** symbol appears. Try again and press **Enter**.

**3.** When the Hard Disk Password is set, the following prompt appears at boot-up.

Type the Hard Disk Password (a symbol appears for each character you type) and press **Enter** to use the computer. If you enter the password incorrectly, an **x** symbol appears. Try again and press **Enter**.

**IMPORTANT:** You have three chances to enter a password. If you successfully entered the password, the following symbol appears.

If you fail to enter the password correctly after three tries, the following message or symbol appears.

**Setup**

Incorrect password specified. System disabled.

**Power-on/Hard Disk**

Setting passwords

### Removing a Password

Should you decide to remove a password, do the following:

- ❑ Use the cursor **up/down** (↑↓) keys to highlight a Password parameter (Setup, Power-on or Hard Disk).
- ❑ Use the cursor **left/right** (→←) key to remove the password.

**NOTE:** When you want to remove the Hard Disk password, you are prompted for the Hard Disk password before it is removed.

**NOTE:** The jumper setting **switch 6 of SW3** on the system main board, the default setting is **"OFF: check password"**, this means that the system will always check the password that the user set in. However, if users miss their own password, the servicers can switch the jumper to **"ON: Bypass password"** and then the Setup password and Power-on password will be unlock. Therefore, users can reset their new

password. (Refer to Chapter 5 Jumper and Connector Information for more information on setting the switches.)

**IMPORTANT:** If Setup password is forgot by users, service technician may need to update computer's BIOS or set up jumper SW3 switch 6 on mainboard to bypass.

**IMPORTANT:** If Power-on password is forgot by users, service technician may set the jumper SW3 to bypass password to remove the password.

**IMPORTANT:** If Hard Disk Password is missing, service technician can solve the lock of hard disk by using master HDD password utility. For the HDD password utility, service technican can contact with local service management level.

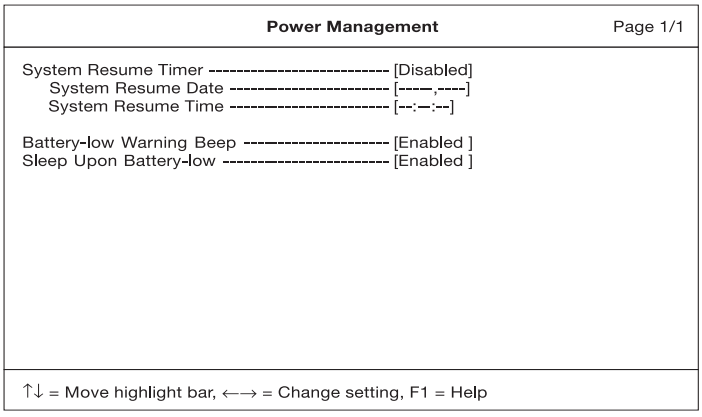
### Changing a Password

To change a password, follow these steps:

- Remove the current password. See "Removing a Password" on page 31.
- Set a new password. See "Three password types protect your computer from unauthorized access. Setting these passwords creates several different levels of protection for your computer and data:" on page 30.

## Power Management

The Power Management screen contains parameters that are related to power-saving and power management.



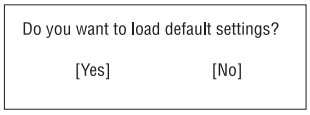

The following table describes the parameters in this screen. Settings in **boldface** are the default and suggested parameter settings.

**NOTE:** If your system has ACPI, all power management functions are taken care of by Windows.

| Parameter | Description | Options or Format |
|---|---|---|
| System Resume Timer | When enabled and the system resume date and time are valid, the computer resumes (wakes up) at the set time and date. | **Disabled** or Enabled<br>MMM DD,YYYY (day/month/year)<br>HH:MM:SS (hour:minute:second) |
| Battery-low Warning Beep | Enables or disables warning beeps during a battery-low condition. | **Enabled** or Disabled |
| Sleep Upon Battery-low | Enables or disables the Hibernation function during a battery-low condition<br>When the computer is very low on battery power, the computer will enter Hibernation mode if Sleep Manager is installed, active and the Hibernation file is valid. | **Enabled** or Disabled |

## Load Default Settings

If you want to restore all parameter settings to their default values, select this menu item and press **Enter**. The following dialog box displays.




If you would like to load default settings for all parameters, use the cursor **left/right** (→←) keys to select **Yes**; then press **Enter**. Choose **No** if otherwise.

# Flash Utility

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

- New versions of system programs
- New features or options

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

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

**NOTE:** This program contains a readme.txt file. This readme.txt file will introduct how to use AFlash utility.

## Executing Flash Program

**IMPORTANT:** If this diskette is not bootable, do the following actions before you use it:

1. Create a bootable disk.
2. Copy all AFlash files into this bootable diskette.
3. Put the bootable disk into TravelMate 340 series mobile, then re-boot.

**IMPORTANT:** Never turn off the system power while Flash BIOS is programming. This will damage your system.

4. After Flash BIOS is done, reboot the system.

**NOTE:** If there are any problems occured during BIOS updated, “Index of PQA Diagnostic Error Code, Message” on page 64 for troubleshooting.

# System Utility Diskette

This utility diskette is for the Acer TravelMate 340 notebook machine. It provides the following functions:

1. Panel ID Utility
2. Thermal & Fan Utility
3. Main Board Data Utility

To use this diskette, first boot from this diskette, then a “Microsoft Windows 98 Startup Menu” prompt you to choose the testing item. Follow the instructions on screen to proceed.

**NOTE:** This program contains a readme.txt file. This readme.txt file will introduct each test utility and its functions.

**IMPORTANT:** If this diskette is not bootable, do the following actions before you use it:

1. Do system transfers.
2. Copy HIMEM.SYS to A:\.
3. Copy EMM386.EXE to A:\.

## Panel ID Utility

There is an EEPROM in the inverter which stores its supported LCD type ID code. If you replace an LCD with one of a different brand or use a new inverter, the ID information in the inverter EEPROM should be updated.

Follow the steps below to see the LCD Panel ID:

1. Follow the instruction on screen to read current or to set new LCD Panel ID code.

**NOTE:** When you set a new LCD Panel ID and the new LCD is not yet enabled (to function), so connect an external CRT to see the program execution process.

**NOTE:** Make sure the new ID code you choose corresponds with the LCD brand and type. If you write a wrong ID into inverter, just reboot and re-execute the program and input the correct ID code.

2. Restart computer - the new LCD should work normally.

**NOTE:** If LCD cannot display after change ID code, make sure you write the correct ID code, or try reconnecting the LCD FPC cable connectors.

## Thermal and Fan Utility

The system is equipped with sensors to protect against system overheating. By setting System and processor thermal thresholds, the system can turn on the cooling fan or shut down automatically when temperatures reach the defined threshold parameters. This utility will test fan, processor thermal and system thermal.

## Main Board Data Utility

This utility will display Main Board Data (MBD) which include header informaiton, product name, manufacture name, UUID (Universally Unique IDentifiers) and serial number. This fucntion can display and create MBD data as well as store those information to LCD inverter EEPROM (not flash ROM).

# System Diagnostic Diskette

**IMPORTANT:** [1]The diagnostics program here that we used is called PQA (Product Quality Assurance) and is provided by Acer Headquarters. You can utilize it as a basic diagnostic tool. To get this program, either download it from http://csd.acer.com.tw or find it in the TravelMate 340 service CD kit.
To better fit local service requirements, your regional office MAY have other diagnostic program. Please contact your regional offices or the responsible personnel/channel to provide you with further technical details.

**NOTE:** This program contains a readme.txt file. This readme.txt file will introduct each test and its functions.

This diagnostic program divided into two diskettes is for the Acer TravelMate 340 notebook machine. It provides the following functions:

### Disk 1:

1. PQA System Diagnostics
2. Audio Resource and Speaker Out Test
3. USB Register and Connect/Disconnect Test

**NOTE:** The USB setting in BIOS Setup must be set to enable and a USB device is required when executing USB Connection/Disconnection Test, or this test fails.

4. Exit

To use this diskette, first boot from this diskette, then a “Microsoft Windows 98 Startup Menu” prompts you to choose the testing item. Follow the instructions on screen to proceed.

**IMPORTANT:** If this diskette is not bootable, do the following actions before you use it:

1. Do system transfers.
2. Copy the following files to A:\
   HIMEM.SYS
   MSCDEX.EXE
   LASTDRV.COM
   RAMDRIVE.SYS

### Disk 2:

1. Infrared Ray Test

**NOTE:** The Infrared Ray setting in BIOS Setup must be set to enable when executing the Infrared Ray Test.

2. Modem Test

**NOTE:** A phone line is required for the modem test.

To use this diskette, first boot from this diskette, then a “Microsoft Windows 98 Startup Menu” prompts you to choose the testing item. Follow the instructions on screen to proceed.

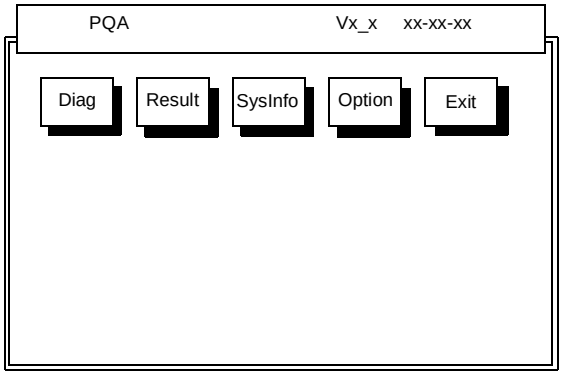
**IMPORTANT:** If this diskette is not bootable, do the following actions before you use it:

1. Do system transfers.
2. Copy the following files to A:\
   HIMEM.SYS
   EMM386.EXE
   CHOICE.COM

**NOTE:** When executing a parallel or serial port test in System Test item, a loopback tool is needed. This loopback is Acer proprietary design. You may reach the computerhwdoctor@acer.com.tw for ordering information.

[1] New added description. Please pay attention to it.

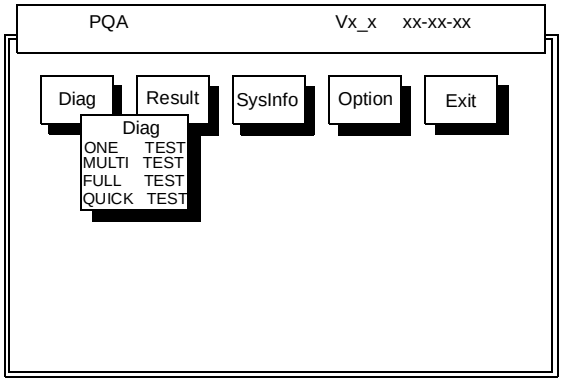
## Running PQA Diagnostics Program




Press →← to move around the main menu. Press Enter to enable the selected option. The main options are Diag, Result, SysInfo, Option and Exit.

The Diag option lets you select testing items and times.

The following screen appears when you select Diag from the main menu.



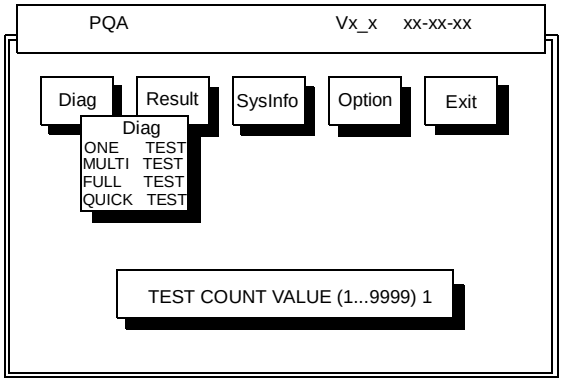

One Test performs a single test and Manual checks the selected test items in sequence.

Multi Test performs multiple tests of the selected items and check the select test items in sequence.

Full Test performs all test items detail for your system.

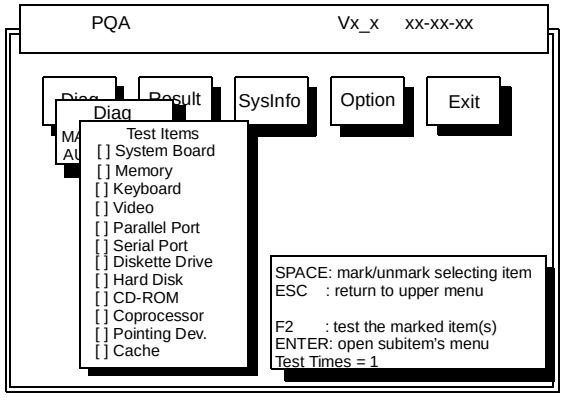
Quick Test performs all test items quickly for your system.

The screen below appears if you select Multi Test.



Specify the desired number of tests and press **Enter**.

After you specify the number of tests to perform, the screen shows a list of test items (see below).




Move the highlight bar from one item to another. Press Space to enable or disable the item. Press **Enter** to view the available options of each selected item. Press **Esc** to close the submenu.

The right corner screen information gives you the available function keys and the specified test number.

- Space: Enables/disables the item
- ESC: Exits the program
- F1: Help
- F2: Tests the selected item(s)
- Enter: Opens the available options
- Test Times: Indicates the number of tests to perform.

**NOTE:** The F1 and F2 keys function only after you finish configuring the Test option.

**NOTE:** When any errors are detected by diagnostic program, refer to “Index of PQA Diagnostic Error Code, Message” on page 64 for troubleshooting.

# 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
- Flat-bladed screwdriver
- Phillips screwdriver
- Tweezers
- Flat-bladed screwdriver or plastic stick

**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.

# General Information

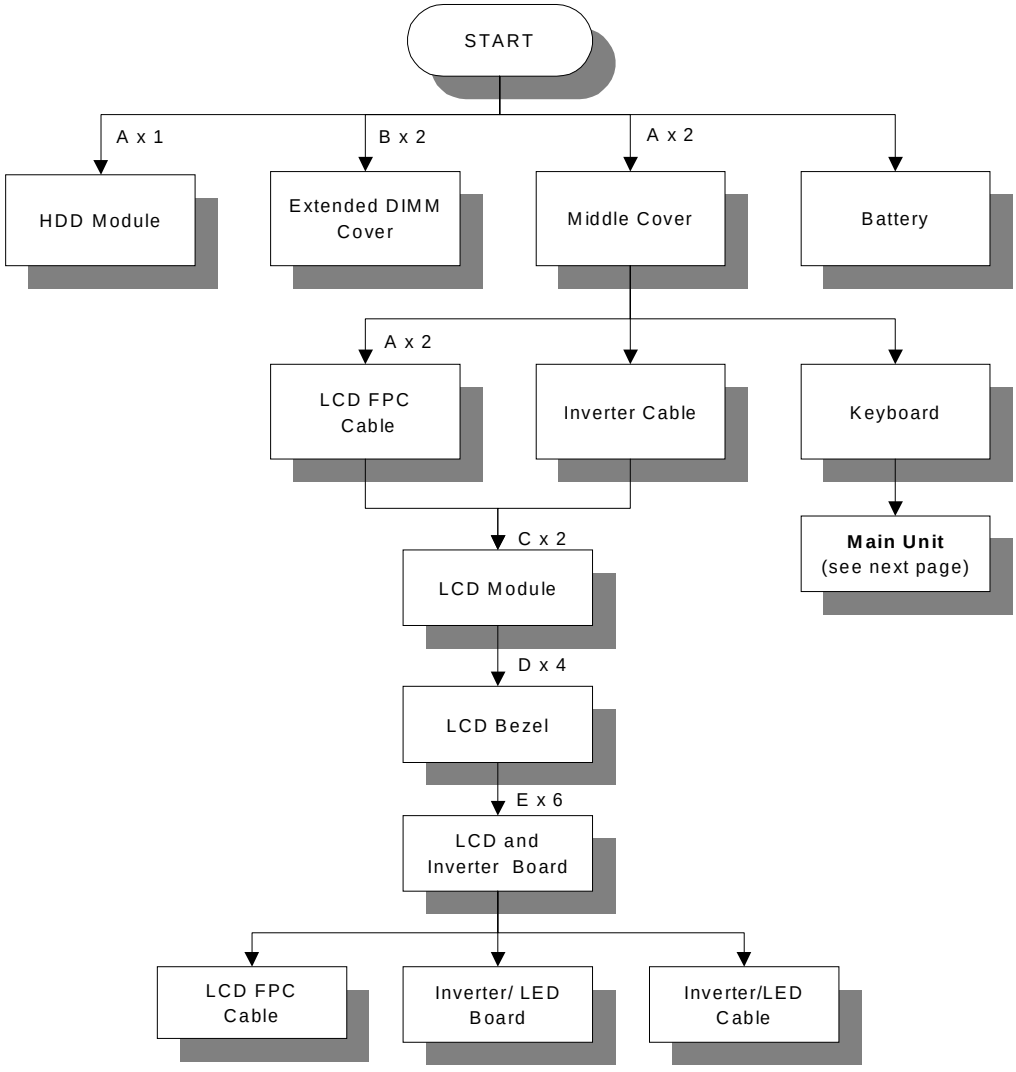
## Before You Begin

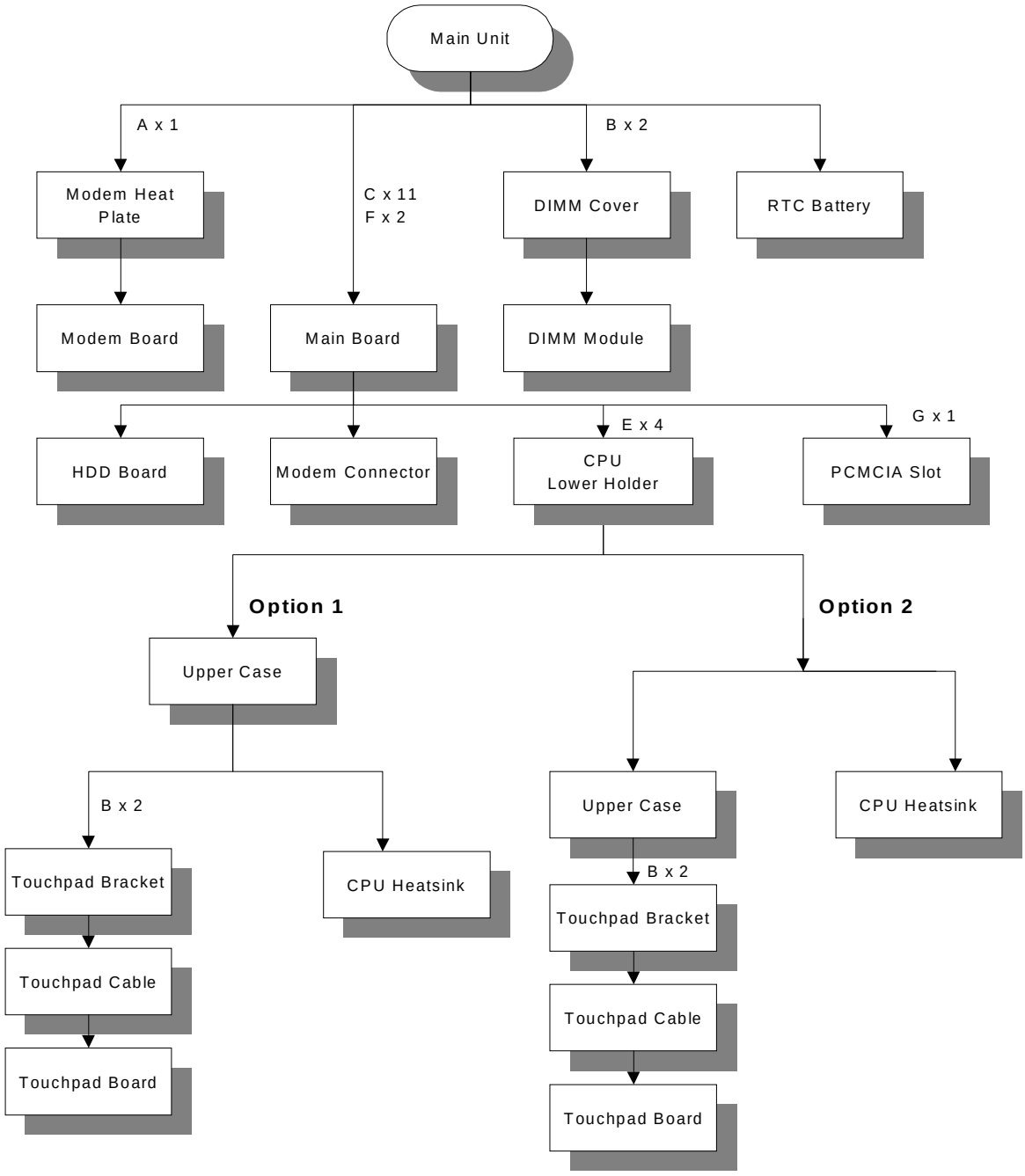
Before proceeding with the disassembly procedure, make sure that you do the following:

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.





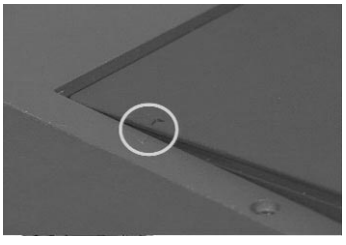

**Screw List**

| Item | Part No. | Description |
|---|---|---|
| A | 86.9A322.9R0 | Screw M2.0X9 (Black) |
| B | 86.9A322.4R0 | Screw M2.0X4 |
| C | 86.9A353.6R0 | Screw M2.5X6 |
| D | 86.9A553.5R0 | Screw M2.5X5 |
| E | 86.9A323.4R0 | Screw M2.5X4 (Black) |
| F | 86.9A522.6R0 | Screw M2.0X6 |
| G | 86.9A323.6R0 | Screw M2.5X6 (Black) |

## Removing the Battery Pack

1. Push the battery release button inward.
2. Slide the battery pack out from the main unit.

**NOTE:** To replace the battery pack into the main unit, be sure that the triangular point in the battery pack matches with the point in the lower case.



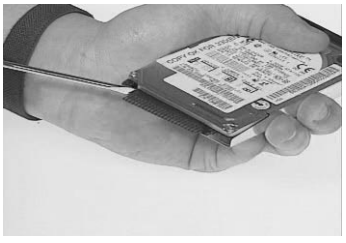
## Removing the Hard Disk Drive Module

1. Remove the screw of the hard disk module.
2. Slide the hard disk module out from its bay.

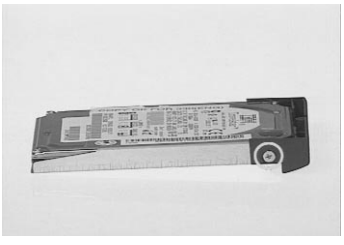
**NOTE:** [1]After loosening the hard disk drive screw, you must completely remove it so you can then slide out the hard disk drive. It may be a little difficult to completely remove the screw.

## Disassembling the Hard Disk Drive Module

1. Gently, detach the connector from the hard disk module.



2. Remove the two screws on both sides of the hard disk module.
3. Remove the hard disk plate from the hard disk module.

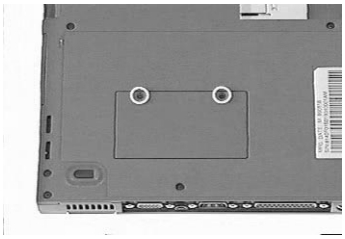
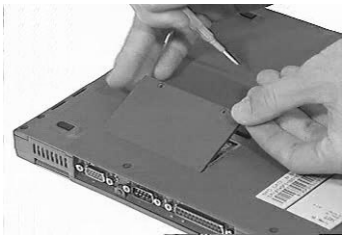


4. Slide the hard disk out from the hard disk drive bezel.
5. This completes the disassembly procedure of the hard disk drive.

[1] New added description. Please pay attention to this note.

## Removing the External  DIMM Module

1. Remove the two screws holding the external DIMM cover.
2. Lift the cover out to remove the DIMM module.

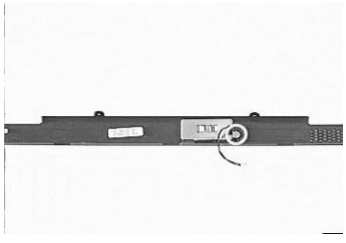
# Removing the LCD Module

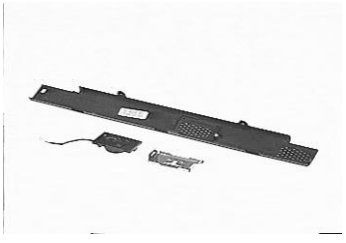
## Removing the Middle Cover

1. First remove the two screws from the rear of the unit.
2. Push the release button to release the middle cover gently.
3. Pull the middle cover up.
4. Disconnect the speaker cable from the main board and lift the middle cover away.

## Removing the Speaker

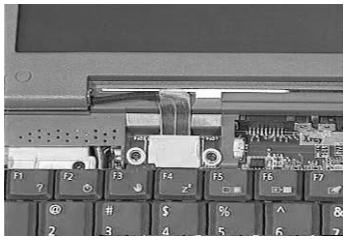
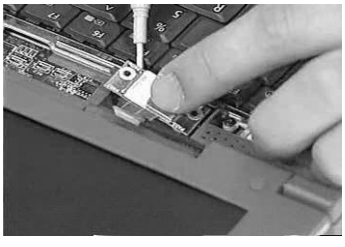
1. First, remove the screw.
2. Remove the speaker plate with the speaker from the middle cover
3. Separate the speaker plate from the speaker.



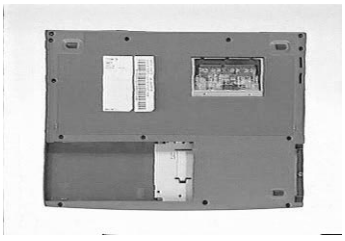


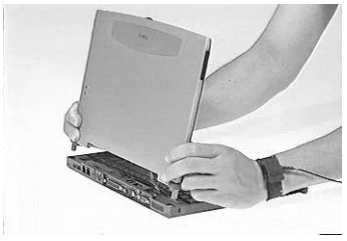
## Disassembling the LCD module

1. Disconnect the inverter cable from the main board.
2. Remove the two screws from the LCD FPC cable.
3. Disconnect the LCD  FPC cable from the main board.

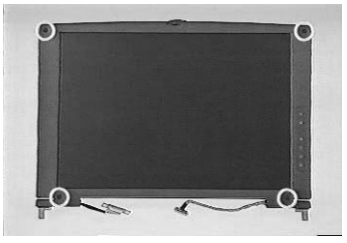



4. Close the LCD module.
5. Remove the two screws on the base of the unit
6. Open the LCD to remove the LCD module from the main unit.



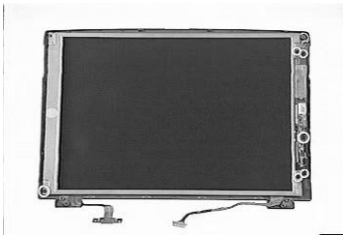
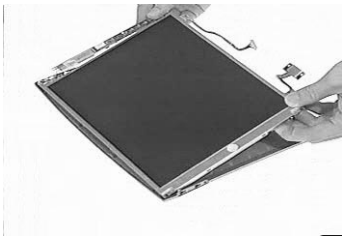


7. Remove the two camera rubbers from the LCD.
8. Remove the four cushions.
9. Remove the four screws from the LCD bezel.

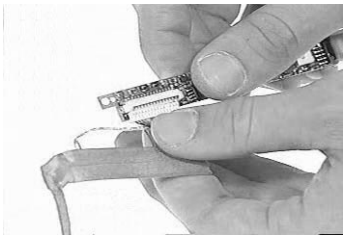
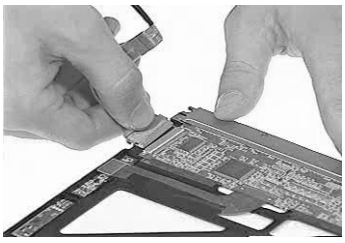


10. Snap off the LCD bezel carefully and gently remove the LCD bezel from the LCD module.
11. Remove the two screws from the hinges.
12. Remove the hinges from the LCD module.

13. Detach the hinge caps from the hinges.
14. Remove the six screws from the LCD and the inverter.
15. Remove the LCD and the inverter from the LCD Panel.

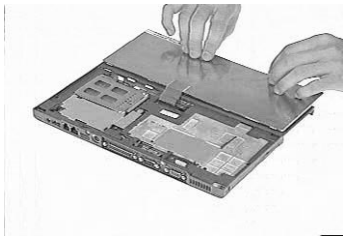
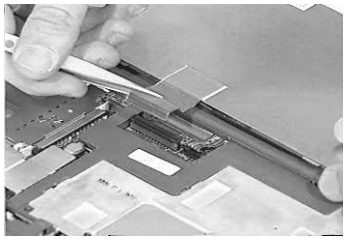
16. Turn the LCD over and disconnect the LCD power connector from the inverter.
17. Disconnect the inverter cable from the inverter.
18. Disconnect the LCD FPC cable from the LCD.

# Disassembling the Main Unit

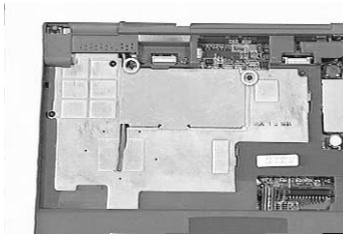
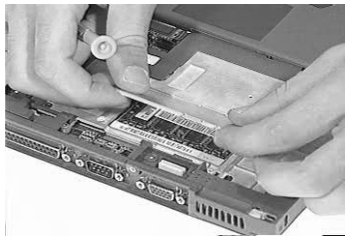
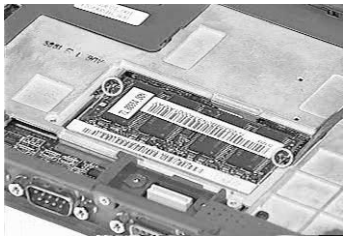
## Removing the Keyboard

1. Pull out and upward to expose the keyboard.
2. Disconnect the keyboard cable from the main board.
3. Remove the keyboard from the main board.

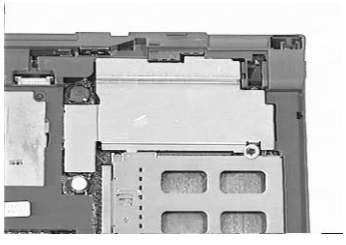
## Removing the DIMM Module

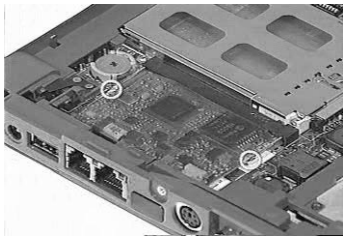
1. Remove the two screws from the DIMM cover.
2. Remove the DIMM cover from the main unit.
3. Use two flat bladed screw drivers to push out the latches on both sides of the DIMM socket .
4. Remove the DIMM module from the main unit.

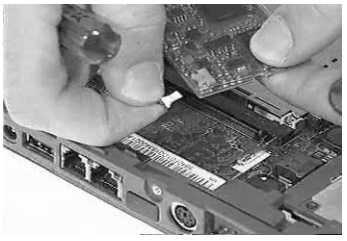
## Removing the Modem Combo Board

1. Remove the screw from the modem heat sink and remove it from the main unit.
2. Use two flat bladed screw drivers to push out the latches on both sides of the modem socket.



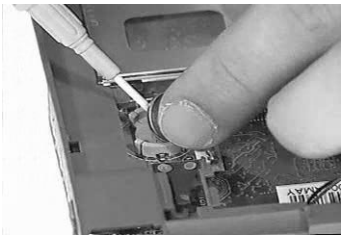


3. Pull the modem combo board out from its socket.
4. Disconnect the network cable from the modem combo board.

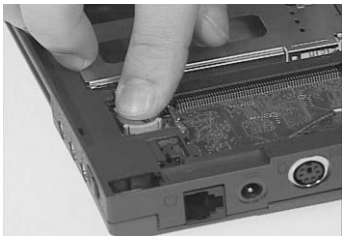


## Removing the RTC

1. Use a plastic flat bladed screw driver to remove the RTC battery from its socket.

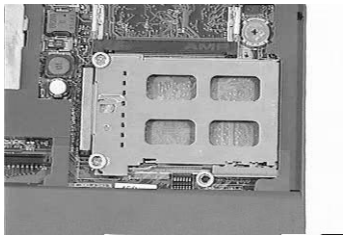
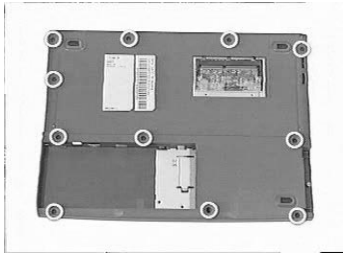


**NOTE:** To replace the RTC battery, press the RTC battery into the socket.

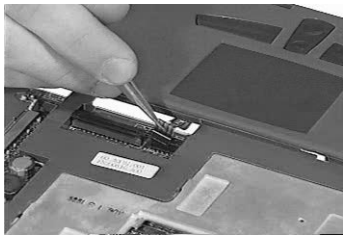
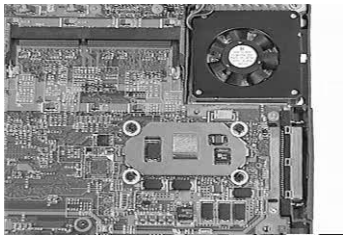
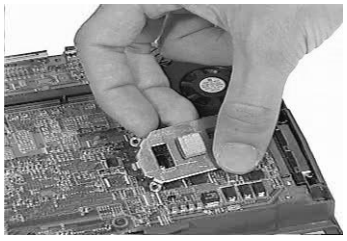


## Removing the Lower Case

1. Remove the three screws, and the 11 screws on the base of the unit .
2. Remove the lower case from the main unit.

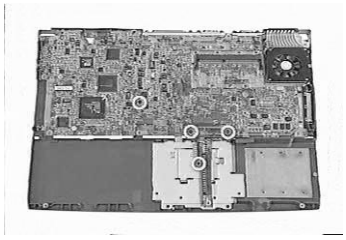
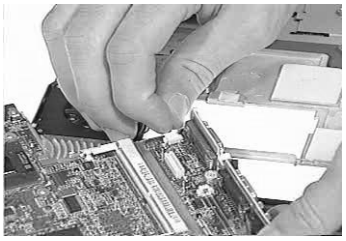
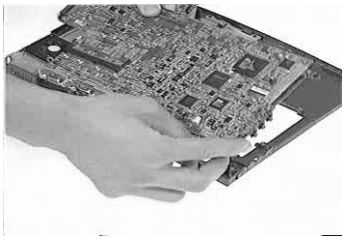



3. Disconnect the touch pad cable from the main board.
4. Turn the unit over to remove the 4 screws on the CPU lower holder.
5. Remove the CPU lower holder from the main board.

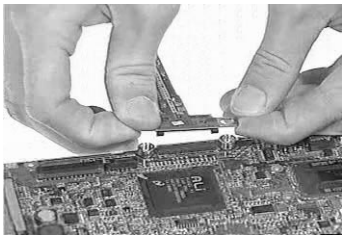
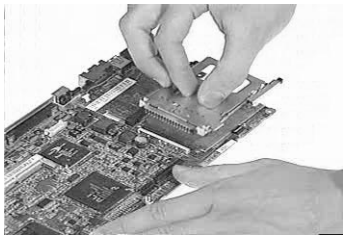




## Removing the Main Board

1. Remove the 4 screws on the mother board as shown below.
2. Turn the main board over and put it on the side of the upper case.
3. Remove then fan cable from the main board.
4. Remove the main board from the upper case.

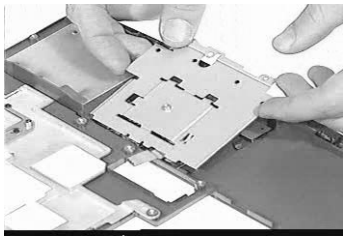
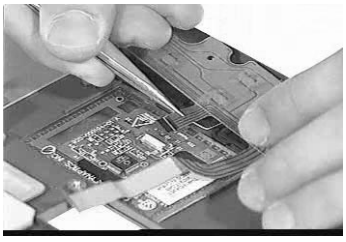
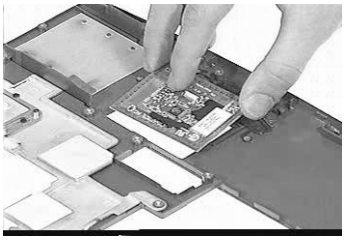




5. Remove the harddisk drive board from the main board.
6. Gently, remove the PCMCIA slot from the main board by hand.

## Removing the Touchpad Board

1. Remove the two screws from the touchpad bracket.
2. Remove the touchpad bracket from the upper case.
3. Disconnect the touchpad cable from the touchpad board.
4. Remove the touchpad board from the upper case.

# 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 55. |
| POST does not complete. No beep or error codes are indicated. | “Power-On Self-Test (POST) Error Message” on page 57 “Undetermined Problems” on page 63 |
| POST detects an error and displayed messages on screen. | “Error Message List” on page 58 |
| The diagnostic test detected an error and displayed a FRU code. | “Running PQA Diagnostics Program” on page 37 |
| Other symptoms (i.e. LCD display problems or others). | “Power-On Self-Test (POST) Error Message” on page 57 |
| Symptoms cannot be re-created (intermittent problems). | Use the customer-reported symptoms and go to “Power-On Self-Test (POST) Error Message” on page 57<br>“Intermittent Problems” on page 63<br>“Undetermined Problems” on page 63 |

# 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. See “Running PQA Diagnostics Program” on page 37 for details.

1. Boot from the diagnostics diskette and start the PQA program (see “Running PQA Diagnostics Program” on page 37).
2. Go to the diagnostic Diskette Drive in the test items.
3. Press F2 in the test items.
4. Follow the instructions in the message window.

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

If the error still remains:

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

## External CD-ROM Drive Check

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

Do the following to select the test device:

1. Boot from the diagnostics diskette and start the PQA program (refer to “Running PQA Diagnostics Program” on page 37.
2. Go to the diagnostic CD-ROM in the test items.
3. Press F2 in the test items.
4. 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 system 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. See “Running PQA Diagnostics Program” on page 37 for details.

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

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

The following auxiliary input devices are supported by this computer:

- ❑ Numeric keypad
- ❑ External keyboard

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

## Memory Check

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

1. Boot from the diagnostics diskette and start the PQA program (please refer to “Running PQA Diagnostics Program” on page 37.
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:

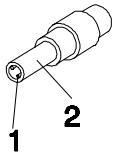
1. Remove the battery pack.
2. Connect the power adapter and check that power is supplied.
3. Disconnect the power adapter and install the charged battery pack; then check that power is supplied by the battery pack.

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

- ❑ “Check the Power Adapter” on page 55
- ❑ “Check the Battery Pack” on page 55

### 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




Pin 1: +19 to +20.5V
Pin 2: 0V, Ground

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 63.
   - ❑ 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.

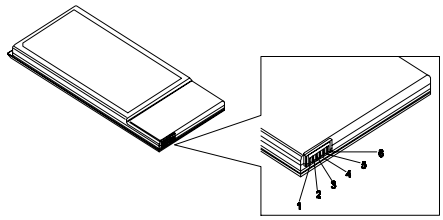
3. If the power-on indicator does not light up, check the power cord of the power adapter for correct continuity and installation.
4. If the operational charge does not work, see “Check the Battery Pack” on page 55.

### Check the Battery Pack

To check the battery pack, do the following:

1. Power off the computer.

2. Remove the battery pack and measure the voltage between battery terminals 1(+) and 6(ground). See the following figure




3. If the voltage is still less than 7.2 Vdc after recharging, replace the battery.

To check the battery charge operation, use a discharged battery pack or a battery pack that has less than 50% of the total power remaining when installed in the computer.

If the battery status indicator does not light up, remove the battery pack and let it return to room temperature. Re-install the battery pack.

If the charge indicator still does not light up, replace the battery pack. If the charge indicator still does not light up, replace the DC/DC charger board.

## Touchpad Check

If the touchpad doesn't work, do the following actions one at a time to correct the problem. Do not replace a non-defective FRU:

1. 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 63.

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

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

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

# Index of Error Messages

## Error Message List

| Error Messages | FRU/Action in Sequence |
|---|---|
| Failure Fixed Disk | Reconnect hard disk drive connector.<br>“Load Default Settings” in BIOS Setup Utility.<br>Hard disk drive<br>System board |
| Stuck Key | see “Keyboard or Auxiliary Input Device Check” on page 54 . |
| Keyboard error | see “Keyboard or Auxiliary Input Device Check” on page 54. |
| Keyboard Controller Failed | see “Keyboard or Auxiliary Input Device Check” on page 54. |
| 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<br>System board |
| System RAM Failed at offset: nnnn | DIMM<br>System board |
| Extended RAM Failed at offset: nnnn | DIMM<br>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 configuration used | RTC battery<br>Run BIOS Setup Utility to reconfigure system time, then reboot system. |
| System timer error | RTC battery<br>Run BIOS Setup Utility to reconfigure system time, then reboot system.<br>System board |
| Real time clock error | RTC battery<br>Run BIOS Setup Utility to reconfigure system time, then reboot system.<br>System board |
| Previous boot incomplete - Default configuration used | Run “Load Default Settings” in BIOS Setup Utility.<br>RTC battery<br>System board |
| Memory size found by POST differed from CMOS | Run “Load Default Settings” in BIOS Setup Utility.<br>DIMM<br>System board |
| Diskette drive A error | Check the drive is defined with the proper diskette type in BIOS Setup Utility<br>See “External Diskette Drive Check” on page 54. |
| Incorrect Drive A type - run SETUP | Check the drive is defined with the proper diskette type in BIOS Setup Utility<br>See “External Diskette Drive Check” on page 54. |
| System cache error - Cache disabled | System board |
| CPU ID: | System board |
| DMA Test Failed | DIMM<br>System board |
| Software NMI Failed | DIMM<br>System board |
| Fail-Safe Timer NMI Failed | DIMM<br>System board |

### Error Message List

| Error Messages | FRU/Action in Sequence |
|---|---|
| Device Address Conflict | Run “Load Default Settings” in BIOS Setup Utility.<br>RTC battery<br>System board |
| Allocation Error for device | Run “Load Default Settings” in BIOS Setup Utility.<br>RTC battery<br>System board |
| Failing Bits: nnnn | DIMM<br>BIOS ROM<br>System board |
| Fixed Disk n | None |
| Invalid System Configuration Data | BIOS ROM<br>System board |
| I/O device IRQ conflict | Run “Load Default Settings” in BIOS Setup Utility.<br>RTC battery<br>System board |
| Operating system not found | Enter Setup and see if fixed disk and drive A: are properly identified.<br>Diskette drive<br>Hard disk drive<br>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 55.<br>Ensure every connector is connected tightly and correctly.<br>Reconnect the DIMM.<br>LED board.<br>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 55.<br>Reconnect the LCD connector<br>Hard disk drive<br>LCD inverter ID<br>LCD cable<br>LCD Inverter<br>LCD<br>System board |
| No beep, power-on indicator turns on and LCD is blank. But you can see POST on an external CRT. | Reconnect the LCD connectors.<br>LCD inverter ID<br>LCD cable<br>LCD inverter<br>LCD<br>System board |
| No beep, power-on indicator turns on and a blinking cursor shown on LCD during POST. | Ensure every connector is connected tightly and correctly.<br>System board |
| No beep during POST but system runs correctly. | Speaker<br>System board |

# Index of Symptom-to-FRU Error Message

### LCD-Related Symptoms

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

### Indicator-Related Symptoms

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

### Power-Related Symptoms

| Symptom / Error | Action in Sequence |
|---|---|
| Power shuts down during operation | Power source (battery pack and power adapter). See “Power System Check” on page 55.<br>Battery pack<br>Power adapter<br>Hard drive & battery connection board<br>System board |
| The system doesn’t power-on. | Power source (battery pack and power adapter). See “Power System Check” on page 55.<br>Battery pack<br>Power adapter<br>Hard drive & battery connection board<br>System board |
| The system doesn’t power-off. | Power source (battery pack and power adapter). See “Power System Check” on page 55.<br>Hold and press the power switch for more than 4 seconds.<br>System board |
| Battery can’t be charged | See “Check the Battery Pack” on page 55.<br>Battery pack<br>System board |

### PCMCIA-Related Symptoms

| Symptom / Error | Action in Sequence |
|---|---|
| System cannot detect the PC Card (PCMCIA) | PCMCIA slot assembly<br>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.<br>DIMM<br>System board |

### Speaker-Related Symptoms

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

### Power Management-Related Symptoms

| Symptom / Error | Action in Sequence |
|---|---|
| The system will not enter hibernation | Keyboard (if control is from the keyboard)<br>Hard disk drive<br>System board |
| The system doesn't enter hibernation mode and four short beeps every minute. | See “Hibernation Mode” on page 22.<br>Press Fn+F4 and see if the computer enters hibernation mode.<br>Touchpad<br>Keyboard<br>Hard disk connection board<br>Hard disk drive<br>System board |
| The system doesn’t enter standby mode after closing the LCD | See “Standby Mode” on page 22.<br>LCD cover switch<br>System board |
| The system doesn't resume from hibernation mode. | See “Hibernation Mode” on page 22.<br>Hard disk connection board<br>Hard disk drive<br>System board |
| The system doesn't resume from standby mode after opening the LCD. | See “Standby Mode” on page 22.<br>LCD cover switch<br>System board |
| Battery fuel gauge in Windows doesn’t go higher than 90%. | Remove battery pack and let it cool for 2 hours.<br>Refresh battery (continue use battery until power off, then charge battery).<br>Battery pack<br>System board |

### Power Management-Related Symptoms

| Symptom / Error | Action in Sequence |
|---|---|
| System hangs intermittently. | See “Thermal and Fan Utility” on page 35.<br>Reconnect hard disk/CD-ROM drives.<br>Hard disk connection board<br>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.<br>Reconnect hard disk/CD-ROM/diskette drives. |
| External display does not work correctly. | Press Fn+F5, LCD/CRT/Both display switching<br>See “Running PQA Diagnostics Program” on page 37.<br>System board |
| USB does not work correctly | See “Running PQA Diagnostics Program” on page 37<br>System board |
| Print problems. | Ensure the “Parallel Port” in the “Onboard Devices Configuration” of BIOS Setup Utility is set to Enabled.<br>Onboard Devices Configuration<br>Run printer self-test.<br>Printer driver<br>Printer cable<br>Printer<br>System Board |
| Serial or parallel port device problems. | Ensure the “Serial Port” in the Devices Configuration” of BIOS Setup Utility is set to Enabled.<br>Device driver<br>Device cable<br>Device<br>System board |

### Keyboard/Touchpad-Related Symptoms

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

### Modem-Related Symptoms

| Symptom / Error | Action in Sequence |
|---|---|
| Internal modem does not work correctly. | See “System Diagnostic Diskette” on page 36.<br>Modem phone port<br>modem combo board<br>System board |

**NOTE:** If you cannot find a symptom or an error in this list and the problem remains, see “Undetermined Problems” on page 63.

## 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 55):

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/Floppy 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 board
    - ❑ LCD assembly

## Index of AFlash BIOS Error Message

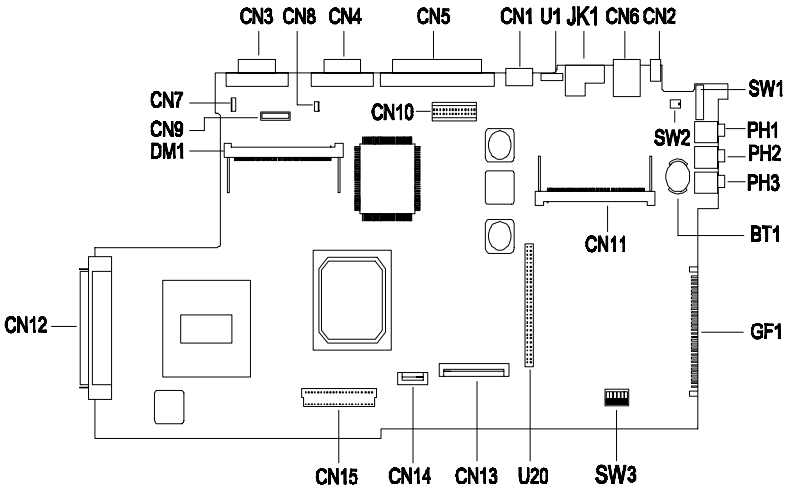
| Error Message | Action in Sequence |
|---|---|
| Hardware Error | See “System Diagnostic Diskette” on page 36 |
| VPD Checksum Error | Reboot the system and then restest with this diskette. |
| BIOS Update Program Error | Turn off the power and restart the system. |
| System Error | Make sure this AFlash BIOS diskette for this model. |
| Without AC adapter | make sure to connect AC adapter |
| Battery Low | make sure to install a highly charged battery, and reboot system. |

## Index of PQA Diagnostic Error Code, Message

| Error Code | Message | Action in Sequence |
|---|---|---|
| 16XXX | Backup battery error | Backup battery |
| 01XXX | CPU or main board error | Reload BIOS default setting.<br>System board |
| 02XXX | Memory error | DIMM<br>System board |
| 03XXX | Keyboard error | Reset Keyboard<br>Keyboard<br>System board |
| 04XXX | Video error | System board |
| 05XXX | Parallel Port error | System board |
| 06XXX | Serial port or main board error | System board |
| 07XXX | Diskette drive error | Diskette drive<br>System board |
| 08XXX | Hard disk error | Reload BIOS default setting<br>Hard disk<br>System board |
| 09XXX | CD-ROM error | Reset CD-ROM cable<br>CD-ROM drive<br>System board |
| 10XXX | Co-processor error | System board |
| 11XXX | Pointing device error | Reset Keyboard<br>Keyboard<br>System board |
| 12XXX | Cache test error | System board |

# Jumper and Connector Information

## Top View



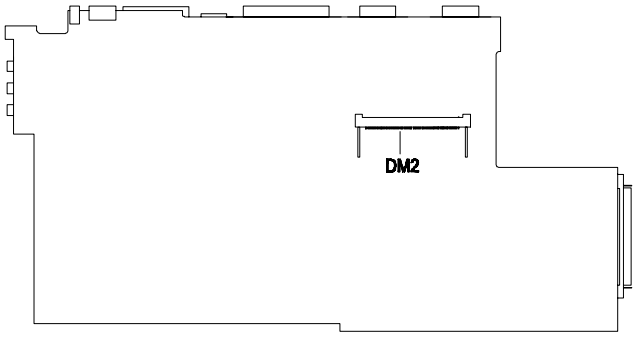

### PCB 99203

| | | | |
|---|---|---|---|
| CN1 | PS/2 Port | CN15 | HDD Board Connector |
| CN2 | AC Adapter Connector | JK1 | LAN/Modem Connector |
| CN3 | Video Port | SW1 | Power Switch |
| CN4 | Serial Port | SW2 | LCD Cover Switch Connector |
| CN5 | Parallel Port | SW3 | See SW3 Setting |
| CN6 | USB Port | PH1 | Line-out port |
| CN7 | FAN Connector | PH2 | Line-in port |
| CN8 | Speaker | PH3 | Microphone-in Port |
| CN9 | LCD Connector | DM1 | DIMM Socket 1 |
| CN10 | LED/Inverter Board Connector | U1 | FIR Port |
| CN11 | Mini PCI Card Connector | U20 | PCMCIA Socket |
| CN12 | External FDD, CD/DVD-ROM Module Connector | GF1 | Golden Finger for Debug Board |
| CN13 | Internal Keyboard Connector | BT1 | RTC Battery |
| CN14 | Touchpad Connector | | |

### SW3 Settings

| SW3 | Setting |
|---|---|
| Switch 1, Switch 2, Switch 3 | OFF, OFF, OFF: English keyboard<br>ON, OFF, OFF: Japanese keyboard<br>OFF, ON, OFF: European keyboard |
| Switch 4, Switch 5 | OFF, OFF: Acer BIOS<br>ON, OFF: OEM BIOS |
| Switch 6 | ON: Bypass password<br>OFF: Check password |

## Bottom View




| | |
|---|---|
| DM2 | DIMM Socket 2 |

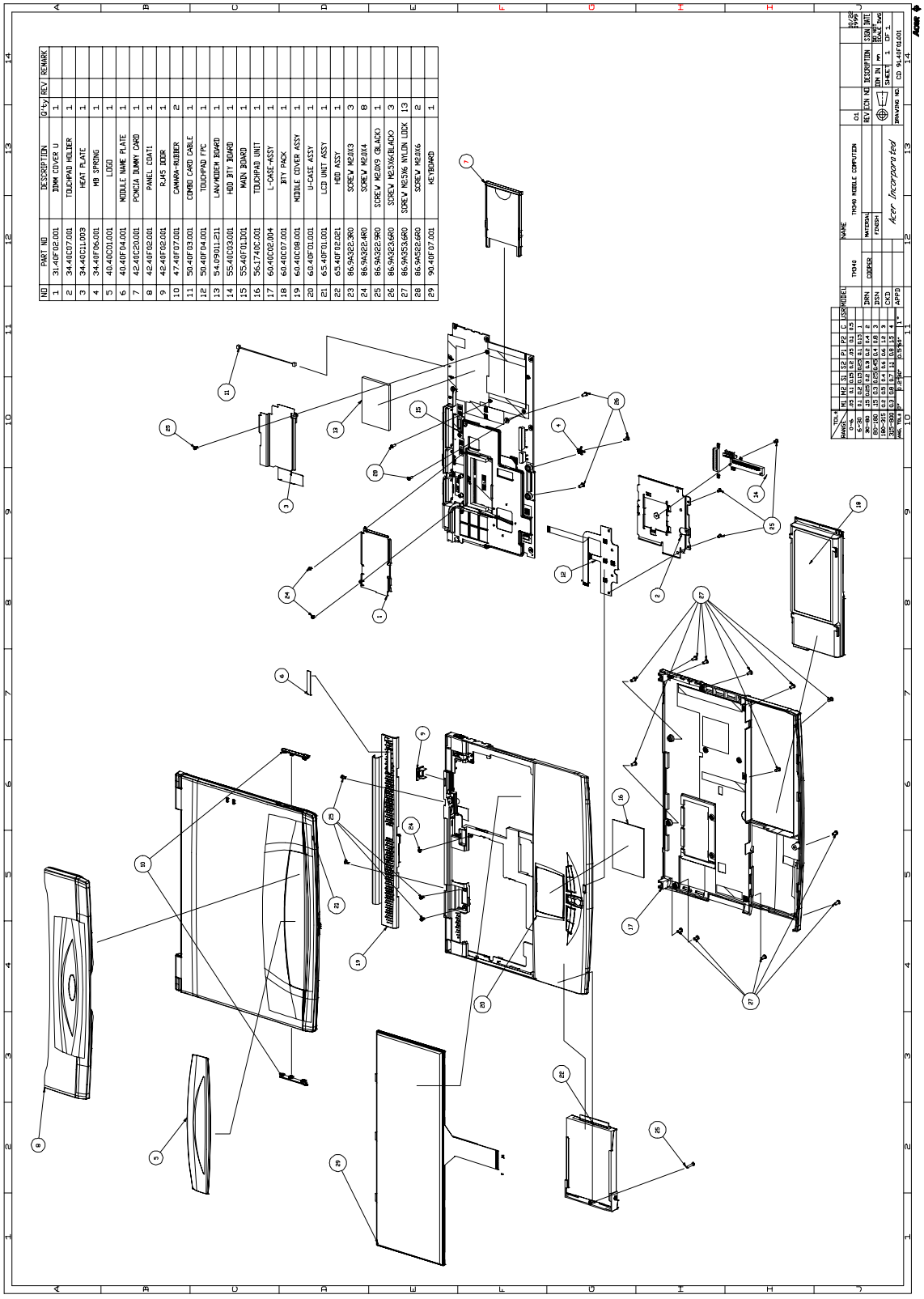
# FRU (Field Replaceable Unit) List

This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of TravelMate 340. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

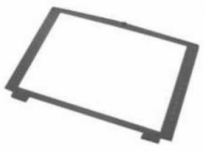
Please note WHEN ORDERING FRU PARTS, that should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT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

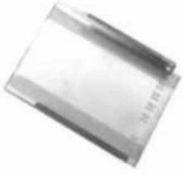
**NOTE:** To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional Acer office on how to return it.

**NOTE:** The number indicates the location shown on exploded diagrams or “NS” indicateds “Not Shown” on it.


NO PART NO DESCRIPTION Q'ty REV REMARK
1 31.40F02.001 3DM COVER U 1
2 34.40C07.001 TOUCHPAD HOLDER 1
3 34.40C11.003 HEAT PLATE 1
4 34.40F06.001 MB SPRING 1
5 40.40C01.001 LOGO 1
6 40.40F04.001 MODULE NAME PLATE 1
7 42.40C20.001 PCMCIA DUMMY CARD 1
8 42.40F02.001 PANEL COATI 1
9 42.40F02.001 RJ45 DOOR 1
10 47.40F07.001 CAMARA-RUBBER 2
11 50.40F03.001 COMBO CARD CABLE 1
12 50.40F04.001 TOUCHPAD FPC 1
13 54.40901.211 LAN/MODEM BOARD 1
14 55.40C03.001 HDD BTY BOARD 1
15 55.40F01.D01 MAIN BOARD 1
16 56.1740C.001 TOUCHPAD UNIT 1
17 60.40C02.004 L-CASE-ASSY 1
18 60.40C07.001 BTY PACK 1
19 60.40C08.001 MIDDLE COVER ASSY 1
20 60.40F01.001 U-CASE ASSY 1
21 65.40F01.001 LCD UNIT ASSY 1
22 65.40F02.021 HDD ASSY 1
23 86.9A322.3K0 SCREW M2.0X3 3
24 86.9A322.4R0 SCREW M2.0X4 8
25 86.9A322.5K0 SCREW ME.0X5 CBLACK0 1
26 86.9A923.6R0 SCREW ME3X6/BLACK0 3
27 86.9A953.6R0 SCREW ME3X6 NYLON LOCK 13
28 86.9A322.6R0 SCREW M2.0X6 2
29 90.40F07.001 KEYBOARD 1
NAME
TM340
TM340 MOBILE COMPUTION
MATERIAL
COPPER
FINISH
DRN
DSN
CHD
APPD
REV ECN NO DESCRIPTION DRN DATE
SHEET 1 OF 1
DRAWING NO. CD 91.40F01.001
Acer Incorporated

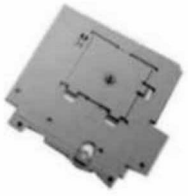
| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
| **LCD** | | | | |
| | NS | LCD ASSEMBLY MODULE (12.1") TORISAN | ASSY LCD MODULE 12.1" TFT TM340 TORISAN | 6M.40F01.001 |
| | NS | LCD 12.1" TFT TORISAN | LCD-LVDS 12.1" TFT TORISAN | 56.0740C.011 |
| | NS | INVERTER/AMBIT | INVERTER T62.123.C.01 V.2A 330 | 19.21030.901 |
| | NS | INVERTER/SUMITA | INVERTER IV12149/T TM340 | 19.21042.001 |
| | NS | INVERTER CABLE/Hua-Chen | C.A INV 20/15P 175MM TM330 | 50.40C02.002 |
| | NS | LCD FPC CABLE/Hua-Chen | C.A LCD COAXIAL (SANYO) TM340 | 50.40F02.001 |
| | NS | LCD FPC CABLE | C.A LCD COAXIAL (SANYO) FAV TM340 | 50.40F02.011 |
| | NS | HINGE PACK | ASSY HINGE PACK TM340 | 6K.40C01.001 |
| | NS | HINGE | HINGE LCD L STEEL 330 | 34.40C06.002 |
| | NS | HINGE | HINGE LCD R STEEL 330 | 34.40C05.002 |
| | NS | LCD PANEL TFT | ASSY LCD PANEL TM340 | 60.40F08.001 |

| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
|  | NS | LCD BEZEL TFT | ASSY LCD BEZEL 12.1” TM340 | 60.40F09.001 |
| **DIMM** | | | | |
| | NS | DIMM 32MB SDRAM/ Mitsubishi | SDIMM 32M MH4S64BBKG-8 PC100 (MITSUBISHI) | 72.00464.00N |
| | NS | DIMM 32MB SDRAM/ Siemens | SDIMM 32M HYS64V4200GDL-8 (SIEMENS) | 72.64420.A0N |
| | NS | DIMM 64MB SDRAM/ Winbond | SODIMM 64M W9864CASB-75 (WINBOND) | 72.W9864.00N |
| | NS | DIMM 64MB SDRAM/ Mitsubishi | SODIMM 64M 8*16 MH8S64VS-8TA (MITSUBISHI) | 72.08S64.B0N |
| | NS | DIMM 64MB SDRAM/ Mitsubishi | SDIMM 64M MH8S64AW-10WA (MITSUBISHI) | 72.00864.00N |
| | NS | DIMM 64MB SDRAM/ Siemens | SDIMM 64M HYS64V8220GCDL-8 (SIEMENS) | 72.64820.B0N |
| | NS | DIMM 128MB SDRAM/ Winbond | SODIMM 128M W9812CASB-75 (WINBOND) | 72.W9812.00N |
| | NS | DIMM 128MB SDRAM/ Mitsubishi | SODIMM 128M MH16S64VS-8TA (MITSUBISHI) | 72.16S64.A0N |
| | NS | DIMM 128MB SDRAM/NEC | SODIMM 128M W17128IHNC86220 (NEC) | 72.17128.00N |
| **Storage Device** | | | | |
| | NS | HDD ASSEMBLY 6G IBM | ASSY HDD MODULE 6G TM340 | 6M.40F02.001 |
| | NS | 6G HDD DARA206000 IBM | HDD SM 9.5"6G IBM/DARA206000 | 56.02A02.041 |
| | NS | HDD ASSEMBLY 9G IBM | ASSY HDD MODULE 9G TM340 | 6M.40F02.002 |

| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
| | NS | 9G HDD DARA-209000 IBM | HDD SM 9.5” 9G IBM/DARA-209000 | 56.02962.161 |
| | NS | HDD HOUSING ASSEMBLY TM330 | ASSY HDD PLT TM330 | 60.40C15.001 |
| | NS | HDD PLATE | PLT HDD METAL TM330 | 34.40C12.001 |
|  | NS | HDD BEZEL | BZL HDD PC M010 330 | 41.40C01.002 |
| **PCB** | | | | |
| | 13 | PCI MODEM/LAN BOARD/ AMBIT | MDM/LAN 56K AMBIT/T60.082.C.00 | 54.09051.001 |
| | NS | PCI MODEM BOARD/ AMBIT | MODEM INT 56K AMB/J07M039.00 | 54.09011.261 |
| | 16 | TOUCH PAD BOARD/ SYNAPTICS | TOUCHPAD MULTI-SWITCH SYNAPTIC | 56.1740C.001 |

| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
| | NS | HDD BOARD | PCB 98409-1 HDD BOARD 4L TM330 | 48.40C03.011 |
| | NS | TM340 MAINBOARD PIII 500 | 340 PIII500 MAINBOARD | 55.40F01.D02 |
| | 15 | TM340 MAINBOARD PIII 450 | 340 PIII-450 MAINBOARD | 55.40F01.D01 |
| **Keyboard** | | | | |
| | NS | KEYBOARD/US VERSION/ Darfon | KB US NSK-85N11 340 | 90.40F07.031 |
| | 29 | KEYBOARD/US VERSION/ JME | KB (US) JME/K9811 TM340 | 90.40F07.001 |
| **Power** | | | | |
| | NS | ADAPTER 60W/ DELTA | ADT 60W ADP-60XB D 3P 730/340 | 25.10064.041 |
| | 18 | BATTERY PACK LI-ON/ PANASONIC | ASSY BTY PACK CGP-E/618AE 330 | 60.40C07.001 |
| | NS | POWER CORD | CORD 125V UL 3P K01081B1183WP | 27.01618.051 |

| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
| **External Module** | | | | |
| | NS | 24X CD-ROM&FDD MODULE TEAC | CD ROM/FDD MODUL TEAC/ DF240500 | 90.40C28.001 |
| | NS | 2X DVD-ROM&FDD MODULE TEAC | DVD/FDD MODULE TEAC/DF220500 | 90.40C28.002 |
| **Mechanical Parts** | | | | |
| | NS | LOWER CASE | ASSY L CASE 330 | 60.40C02.002 |
| | 20 | UPPER CASE | ASSY U-CASE PC+10%CF TM340 | 60.40F01.001 |
| | NS | UPPER DIMM COVER | PLT L DIMM METAL TM330 | 34.40C18.002 |
| | NS | LOWER DIMM COVER | ASSY DIMM-CVR | 60.40C09.001 |
| | NS | MIDDLE COVER & SPEAKER ASSY | ASSY MIDDLE CVR TM330 | 60.40C08.003 |
| | NS | LCD PANEL COAT | ASSY PNL COAT TM340 | 60.40F10.001 |
| | NS | PCMCIA SOCKET | SKT PCMCIA 68P WZ2131-G2 SMD | 62.10024.061 |
| | NS | CPU HEATSINK TM340 | ASSY CPU HEAT SINK TM340 | 60.40F05.001 |
| | NS | CPU HOLDER TM340 | ASSY CPU HOLDER TM340 | 60.40F03.001 |

| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
| | 3 | MODEM HEAT PLATE | PLT HEAT AL TM330 | 34.40C11.003 |
|  | 2 | TOUCH PAD BRACKET | HLD TOUCH-PAD METAL TM330 | 34.40C07.001 |
| | NS | HINGE CAP PACK | ASSY HINGE CAP PACK TM330 | 6K.40C01.002 |
| **Cable** | | | | |
| | 12 | TOUCH PAD FPC CABLE | C.A FPC TOUCH PAD 340 | 50.40F04.001 |
| | 11 | NETWORK CABLE | W.A 2P/2P 80MM TM340 | 50.40F03.001 |
| **Digital Camera** | | | | |
| | NS | USB DIGITAL CAMERA KIT | USB VIDEO CAPTURE KIT (V6+) | 81.16848.503 |
| **Screws** | | | | |
| | 25 | SCREWS | SCRW KAM MS+SBZ M2*L9 BLACK | 86.9A322.9R0 |
| | 26 | SCREWS | SCRW WH MS+CBZ M2.5+L6 BLACK | 86.9A323.6R0 |
| | 27 | SCREWS | SCRW WAFER NYLO M2.5*6L B-ZN | 86.9A353.6R0 |
| | NS | SCREWS | SCRW WH MS+CBZ M2.5+L4 BLACK | 86.9A323.4R0 |
| | 24 | SCREWS | SCRW WCH FLT M2*L4 B-ZN | 86.9A322.4R0 |
| | 28 | SCREWS | SCRW KAH MS+CN M2*L6 NI | 86.9A522.6R0 |
| **Miscellaneous** | | | | |
| | 5 | 340 LOGO | PLT LOGO (TOOLING) PMMA TM330 | 40.40C01.001 |
| | NS | LCD RUBBER TM330 | CSN LCD RUBBER 330 | 47.40C01.001 |
| | NS | FOOT RUBBER TM330 | FOOT RUBBER RUBBER BT | 42.43B29.001 |

| Picture | No. | Part Name | Description | Part No. |
|---|---|---|---|---|
| | 10 | CAMERA RUBBER TM340 | RUBBER CAMERA TM340 | 47.40F07.001 |
| | NS | LCD LATCH TM330 | LATCH LCD NYLON 050 330 | 42.40C06.003 |
| | NS | LCD SPRING CATCH TM330 | SPRING CATCH STEEL TM330 | 34.40C13.001 |
| **Others** | | | | |
| | NS | RTC BATTERY | IC RTC BQ3285LD SSOP 24P | 71.03285.B0I |

# Model Number and Configurations

This appendix provides the BASIC model number and the configuration to TravelMate 340 decided for Acer's "global" product offering. Contact your regional offices or the responsible personnel/channel to provide you with further extension model numbers and configurations.

- Trade Mark: Acer
- Brand Name: Acer
- Product Name: TravelMate 340
- Description: Notebook Personal Computer

**Model Number Definitions**

| Model No. | LCD | CPU | Memory | HDD | Ext. Module | BTY |
|---|---|---|---|---|---|---|
| 340T | 12.1" TFT | Pentium III 450 (BGA on board) | 64MB | 6.4GB | FDD/24X CD-ROM | Li-Ion |
| 341T | 12.1" TFT | Pentium III 500 (BGA on board) | 64 MB | 10GB | FDD/24X CD-ROM | Li-Ion |
| 342T | 12.1" TFT | Pentium III 550 (BGA on board) | 64MB | 10GB | FDD/24X CD-ROM | Li-Ion |

# Test Compatible Components

This computer's compatibility is tested and verified by Acer's internal testing department. All of its system functions are tested under Windows 98 environment.

Refer to the following lists for components, adapter cards, and peripherals which have passed these tests. Regarding configuration, combination and test procedures, please refer to the TravelMate 340 Compatibility Test Report released by the Acer Mobile System Testing Department.

# Windows 95 Environment Test

| Item | Specifications |
|---|---|
| Processor | Intel Pentium III 450<br>Intel Pentium III 500 |
| Hard Disk Drive | IBM 6 GB<br>IBM 9 GB |
| Floppy Disk Drive | TEAC 3.5” FDD (support 3 mode) |
| CD-ROM Drive | TEAC 24X CD-ROM Drive |
| DVD-ROM Drive | TEAC 2X DVD-ROM |
| Memory | 64 MB SDRAM<br>96 MB SDRAM<br>128 MB SDRAM<br>192 MB SDRAM |
| Power | Panasonic Li-Ion battery / 3 hours life<br>Delta 45 Watts adapter |
| I/O Adapter | |
| Display | IBM G42<br>IBM 9514-B04 TFT monitor<br>AcerView 76i<br>AcerView 98i<br>Color monitor V70<br>20” color Monitor<br>Torisan 12.1” TFT LCD |
| PCMCIA - SCSI | Adaptec SlimSCSI APA-1480AB |
| PCMCIA - CDROM | Panasonic 20X Portable CD-ROM Player |
| PCMCIA - ATA | SunDisk ATA 15MB |
| Network Adapter | |
| LAN<br>Ethernet/10baseT/100baseT | 3Com EtherLink III<br>3Com 10/100 16bits Fast EtherLink<br>Accton Ethernet<br>D-Link Ethernet<br>Xircom CreditCard Ethernet Adapter<br>Xircom CreditCard Ethernet Adapter IIps<br>Xircom CreditCard Ethernet Adapter 10/100<br>IBM EtherJet PC Card |
| LAN<br>Token Ring | 3Com TokenLink III 16/4<br>IBM Turbo 16/4 TokenRing PC Card |
| Multi-Function Card | 3Com Ethernet III LAN + 33.6 Modem Global PC Card Combo<br>3Com 10/100 Fast EtherLink LAN + 56K<br>Dlink Winconnect 33.6 LAN/Fax Modem Combo<br>Megahertz PC Card 33.6 Ethernet-Modem with XJACK<br>Xircom CreditCard Etbernet + Modem 33.6 |
| CardBus | 3Com Fast EtherLink XL CardBus<br>3Com 10/100 LAN CardBus<br>Intel EtherExpress PRO/100 Mobile Adapter<br>TDK Cardbus Ethernet 10/100 Base TX<br>D-Link Fast Ethernet CardBus 10/100 mbps<br>IBM 10/100 EtherJet CardBus Adapter (32-bit)<br>Xircom RealPort CardBus Ethernet 10/100<br>Xircom CardBus Ethernet II 10/100<br>Xircom CardBus Ethernet 10/100<br>Intel Built-in LAN |
| Modem Adapter | |
| Modem (up to 28.8K) | TDK V34 28.8/14.4 Data/Fax PCMCIA<br>Xircom PCMCIA Fax/Modem 28.8m |

| Item | Specifications |
|---|---|
| Modem (up to 33.6K) | Dlink Winconnect 33.6 Fax Modem<br>Hayes Optima 336 V34 + Fax for PCMCIA W/EZjack<br>PCMCIA Data/Fax Modem International 33.6/14.4 |
| Modem (up to 56K) | ActionTec DataLink 56Kbps Fax/Modem<br>TDK K56Kflex Data/Fax Modem<br>USR Megahertz 56K Modem<br>IBM 56K Double Jack Modem |

# Windows 98 Environment Test

| Item | Specifications |
|---|---|
| Processor | Intel Pentium III 450<br>Intel Pentium III 500 |
| Hard Disk Drive | IBM 6 GB<br>IBM 9 GB |
| Floppy Disk Drive | TEAC 3.5” FDD (support 3 mode) |
| CD-ROM Drive | TEAC 24X CD-ROM Drive |
| DVD-ROM Drive | TEAC 2X DVD-ROM |
| Memory | 64 MB SDRAM<br>96 MB SDRAM<br>128 MB SDRAM<br>192 MB SDRAM |
| Power | Panasonic Li-Ion battery / 3 hours life<br>Delta 45 Watts adapter |
| I/O Adapter | |
| Display | IBM G42<br>IBM 9514-B04 TFT monitor<br>AcerView 76i<br>AcerView 98i<br>Color monitor V70<br>20” color Monitor<br>Flex Scan E35F<br>Torisan 12.1” TFT LCD |
| PCMCIA - CDROM | Panasonic 20X Portable CD-ROM Player<br>IBM Portable 20X CD-ROM Drive w/ sound (JP) |
| PCMCIA - ATA | SunDisk ATA 15MB |
| Network Adapter | |
| LAN<br>Ethernet/10baseT/100baseT | 3Com EtherLink III<br>3Com 10/100 16bits Fast EtherLink<br>Accton Ethernet<br>D-Link Ethernet<br>Xircom CreditCard Ethernet Adapter<br>Xircom CreditCard Ethernet Adapter IIps<br>Xircom CreditCard Ethernet Adapter 10/100<br>IBM EtherJet PC Card |
| LAN<br>Token Ring | 3Com TokenLink III 16/4<br>IBM Turbo 16/4 TokenRing PC Card |
| Multi-Function Card | 3Com Ethernet III LAN + 33.6 Modem Global PC Card Combo<br>3Com 10/100 Fast EtherLink LAN + 56K<br>Dlink Winconnect 33.6 LAN/Fax Modem Combo<br>Megahertz PC Card 33.6 Ethernet-Modem with XJACK<br>Xircom CreditCard Ethernet 10/100 + Modem 56<br>Xircom CreditCard Etbernet + Modem 33.6 |
| CardBus | 3Com Fast EtherLink XL CardBus<br>Intel EtherExpress PRO/100 Mobile Adapter<br>TDK Cardbus Ethernet 10/100 Base TX<br>D-Link Fast Ethernet CardBus 10/100 mbps<br>IBM 10/100 EtherJet CardBus Adapter (32-bit)<br>Xircom RealPort CardBus Ethernet 10/100<br>Xircom CardBus Ethernet II 10/100<br>Xircom CardBus Ethernet 10/100<br>Intel Built-in LAN |
| Modem Adapter | |
| Modem (up to 28.8K) | TDK V34 28.8/14.4 Data/Fax PCMCIA<br>Xircom PCMCIA Fax/Modem 28.8m |

| Item | Specifications |
| --- | --- |
| Modem (up to 33.6K) | Dlink Winconnect 33.6 Fax Modem<br>Hayes Optima 336 V34 + Fax for PCMCIA W/EZjack<br>PCMCIA Data/Fax Modem International 33.6/14.4 |
| Modem (up to 56K) | Pretec Modem 56K<br>ActionTec DataLink 56Kbps Fax/Modem<br>TDK K56Kflex Data/Fax Modem<br>USR  Megahertz 56K Modem<br>IBM 56K Double Jack Modem |

# Windows 2000 Environment Test

| Item | Specifications |
|---|---|
| Multi-Function Card Adapter | Xircom CreditCard Ethernet 10/100 + Modem 56 |
| CardBus | 3Com 10/100 LAN CardBus<br>TDK Cardbus Ethernet 10/100 Base TX<br>Xircom CardBus Ethernet 10/100<br>Built-in LAN |
| Network Adapters | |
| Ethernet/10baseT/100baseT | 3Com EtherLink III<br>3Com 10/100 16bits Fast EtherLink<br>D-Link Ethernet<br>Xircom CreditCard Ethernet Adapter 10/100<br>IBM EtherJet PC Card |
| TokenRing | IBM Turbo 16/4 TokenRing PC card |
| Modem Adapters | |
| Modem (up to 28.8K) | TDK V34 28.8/14.4 Data/Fax PCMCIA<br>Xicom PCMCIA Fax/Modem 28.8m |
| Modem (up to 33.6K) | Megahertz 33.6 PC Card Modem<br>Hayes Optima 336 V34+Fax for PCMCIA W/EZjack<br>IBM PCMCIA Data/Fax Modem International 33.6/14.4 |
| Modem (up to 56K) | IBM 56K Double Jack Modem |
| I/O Adapters | |
| PCMCIA - SCSI | Adaptec SlimSCSI APA-1480AB |
| PCMCIA - CD-ROM | IBM Portable 20x Speed CD-ROM Drive w/ SOUND (JP)<br>Panasonic 4x Portable CD-ROM Sound Player<br>Panasonic 20x Portable CD-ROM Player |

# Windows NT 4.0 Environment Test

| Item | Specifications |
|---|---|
| Processor | Intel Pentium III 450 MHz<br>Intel Pentium III 500 MHz |
| Hard disk | IBM 9.0 GB<br>IBM 6.0 GB |
| CD-ROM | TEAC 24X CD ROM Drive |
| DVD-ROM (optional) | TEAC 2X DVD-ROM |
| FDD | TEAC 3.5” FDD ( supports 3-mde ) |
| Memory | 32/ 64/ 128 MB SDRAM |
| Power | Panasonic Li-ion battery / 3 hours life |
| Power Adapter | Delta 45 watts adapter |
| Internal Fax Modem (optional) | V.90 56K Internal Fax modem |
| LCD | Torisan 12.1” TFT LCD |
| Multi-Function Card Adapter | 3COM 10/100 Fast EtherLink Lan + 56K<br>Megahertz PC Card 33.6 Ethernet-Modem with XJACK<br>Xircom CreditCard Ethernet 10/100 + Modem 56<br>Xircom CreditCard Ethernet+Modem 33.6 |
| CardBus | 3Com Fast EtherLink XL cardbus<br>3Com 10/100 Lan CardBus<br>Intel EtherExpress PRO/100 Mobile Adapter<br>TDK Cardbus Ethernet 10/100 Base TX<br>IBM 10/100 EtherJet Cardbus Adapter(32-bit)<br>Xircom CardBus Ethernet II 10/100<br>Xircom CardBus Ethernet 10/100<br>Intel Built-in LAN |
| Network Adapters | |
| Ethernet/10baseT/100baseT | 3Com EtherLink III<br>3Com 10/100 16bits Fast EtherLink<br>D-Link Ethernet<br>Xircom CreditCard Ethernet adapter<br>Xircom CreditCard Ethernet Adapter IIps<br>Xircom CreditCard Ethernet Adapter 10/100<br>IBM EtherJet PC Card |
| TokenRing | 3Com TokenLink III 16/4<br>IBM Turbo 16/4 TokenRing PC card |
| Modem Adapters | |
| Modem (up to 28.8K) | TDK V34 28.8/14.4 Data/Fax PCMCIA<br>Xicom PCMCIA Fax/Modem 28.8m |
| Modem (up to 33.6K) | Dlink Winconnet 33.6 Fax modem<br>Hayes Optima 336 V34+Fax for PCMCIA W/EZjack<br>IBM PCMCIA Data/Fax Modem International 33.6/14.4 |
| Modem (up to 56K) | Pretec Modem 56K<br>ActionTec DataLink 56Kbps Fax/Modem<br>USR Megahertz 56K modem<br>IBM 56K Double Jack Modem |

| Item | Specifications |
|---|---|
| I/O Adapters | |
| Display | IBM G42<br>IBM 9514-B04 TFT monitor<br>Acer AcerView 76i<br>Acer AcerView 98i<br>Compaq Color mionitor V70<br>NEC 20" color Monitor<br>NANAO Flex Scan E35F |
| PCMCIA - SCSI | Adaptec SlimSCSI APA-1480AB |
| PCMCIA - CD-ROM | IBM Portable 20x Speed CD-ROM Drive w/ SOUND (JP)<br>Panasonic 4x Portable CD-ROM Sound Player<br>Panasonic 20x Portable CD-ROM Player |
| PCMCIA - ATA | SunDisk ATA 15MB |

# Online Support Information

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

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

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

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

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

The service repair section provides you with downloadable information on:

- Troubleshooting guides
- Tooling box information
- Repair instructions for specific models
- Basic repair guidelines
- Debug cards for Acer's latest models

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

Also contained on this website are:

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

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

## A


AC Adapter 21
AC adapter 6
ACPI 1
ACPI 1.0a 14
Adapters 84
  CardBus 84, 85
  Display 86
  I/O 84, 86
  Modem 84, 85
  Multi-Function Card 85
  Multi-function card 84
  Network/LAN 84, 85
  Power 85
AFLASH Utility 34
ALI M1533 5, 14
ALI M1621 4, 14
Ambit 15
APM 1
APM 1.2 14
Audio 1, 14, 17
Auxiliary Input Device Check 54


## B


Battery 1, 20
Battery Pack 43
  charging indicator 11
BIOS 5, 14
  package 14
  password control 14
  ROM size 14
  ROM type 14
  Setup Utility 25
  vendor 14
  Version 14
BIOS setup 25
BIOS Supports protocol 14
BIOS Utility 25
  Basic System Settings 27
  Date, setting 27
  Load Default Settings 33
  navigating 25
  Navigating the 25
  Onboard Devices Configuration 29
  Power Management 32
  Startup Configuration 27
  System Information 26
  System Security 30
Board Layout 4
BQ3285LD 14
brightness
  hot keys 12


## C


Cache
  controller 14
  size 14
caps lock
  on indicator 11
CardBus 1, 19, 85
Check Procedures 54
  Battery 55
  Diskette Drive 54
  External CD-ROM Drive 54
  Keyboard 54
  Memory 55
  Power Adapter 55
  Power System Checkout 55
  Touchpad 56
Chipsets 14
CMOS setup 25
Combo Drive 1, 6
  CD-ROM/ Floppy Drive 16
  DVD-ROM/Floppy Diskette 17
Compatibility Test 79
Computer
  display 2
  keyboards 12
  on indicator 11
Connectors 65
Controllers 14
Core logic 14
Cover
  middle 46
  removing 46
CPU
  core voltage 14
  I/O voltage 14
  package 14
  type 14
CRT 2
Cyber 9525 4

## D


Date
  setting in Setup Utility 27
Design 1
Diagnostics
  PQA 37
DIMM 4, 5, 14
  Combinations 15
  external 45
  internal 49
  package 15
  removing 45, 49
  Speed 15
  voltage 15
Disassembly
  Battery Pack 43
  Hard Disk Drive 44
  Machine 39
  Procedure Flowchart 41
Diskette
  System Diagnostics 36
  System Utility 35
Display 2
  computer 2
Dual Display 2
  hot keys 12
  opening and closing 2
  performance 2
  power management 2
  simultaneous 2
Display Standby Mode 22
DMA Channel Assignment 24
DVD 1


## E


Easy Link Combo Drive 1
Environmental Requirements 22
Error Messages 58
Error Symptoms 60
  Indicator 60
  LCD 60
  Memory 61
  PCMCIA 61
  Power 60
  Power Management 61
  Speaker 61
Error Symptom-to-Spare Part Index 57
ESS ES1946 5
Ethernet/10baseT/100baseT  1, 84, 85
Euro 13
External Diskette Drive Check 54


## F


Fan Utility 35
FIR 1, 7, 8, 19
Flash ROM 5
Flash Utility 34
FRU (Field Replaceable Unit) List 67
  External Module 74
  Keyboard 73
  Mechanical Parts 74
  Power 73
  Screws 75
  Storage Device 71


## H


Hard disk 1, 14, 16, 85, 80
  disassembling the 44
  removing the 44
Hard Disk Standby Mode 22
Hardware Configuration and Specification 14
HDD 1, 14, 16
Hibernation Mode 22
Hibernation mode
hot key 12
Hotkeys. See Heuristic Power Management
Humidity 22


## I


I/O Address Map 23
I/O Adapter
  Display 82
  PCMCIA - ATA 80
  PCMCIA - CDROM 80
  PCMCIA - SCSI 80
Indicators 11
Infrared
  setting in BIOS Utility 29
  Intermittent Problems 63
IrDA 19
IRQ Assignment Map 24


## J


Jumpers 65
  Bottom View 66
  Top View 65


## K


KB 9525 14
Keyboard 14, 20
  removing the 49

hot keys 12
Special Keys 12
Keyboard Device Check 54

## L

L2 cache 14
L2 cahe 14
LAN 1, 7
LAN/Modem Combo 15
LCD 1, 2, 20
DC-AC LCD Inverter 20
disassembling the 46
removing 46
Li-Ion 1
Load Default Settings 33
Lower Case
removing 50

## M

M38867 5, 14
M5229 14
Machine Disassembly 39
Main Board
removing the 51
Main Board Data Utility 35
Main Unit
disassembling the 49
Mechanical Specification 22
media access
on indicator 11
Memory 1, 80
Address Map 23
Memory Address Map 23
Memory Check 55
Model Number and Configurations 77
Model Number Definitions 77
Modem 1, 7, 15, 84, 85
removing 49
Modem Adapter 80

## N

Network 1, 7
Network Adapter
Ethernet/10baseT/100baseT 80
Token Ring 80
NS PC97338 5
NS PC97338VJG 14
num lock
on indicator 11

## O

Onboard Devices Configuration 29
Online Support Information 81
OZ6812 5

## P

Panel 6
left 6
rear 6
right 8
Panel ID Utility 35
Parallel Port 7, 18
Parallel port
setting in BIOS Utility 29
Password
Changing a 32
removing a 31
Setting a 30
PC Card 8, 9, 14, 19
PC Card, PCMCIA 1
PCB 99203 65
PCMCIA 4, 19, 84
ATA 86
CD-ROM 86
SCSI 86
Pentium III 14
Pentium® III 1
Ports
FIR 4
Line-in/ Line-out 4
Mic-in 4
Parallel/ Serial 4
PS/2 4
Speaker 4
USB 4
Video 4
POST 57
Power 80
managing in BIOS Utility 32
Power Management 2, 22, 32
Power System Check 55
Battery Pack 55
Power Adapter 55
Power System Checkout 55
PQA
diagnostics 37
PQA Diagnostics Program 37
Processor 14, 80, 85
PS/2 7

## R

RTC 4, 14
  removing 50

## S

Screw List 42
Second Level Cache 14
Serial Port 7, 19
Serial port
  setting in BIOS Utility 29
Solo-1E 5
Speaker 1
  removing 46
  hot key 12
Standby Mode 22
Standby mode
  hot key 12
  status indicator 11
Startup Configuration 27
Super I/O 14
SVGA 2
System
  Basic Settings 27
  Block Diagram 3
  Diagnostic Diskette 36
  Layout 4
  Utilities 25
  Utility Diskette 35
System Check Procedures 54
System Information 26
System Memory 14
System Security 30

## T

Temperature 22
TokenRing 84, 85
Test Compatible Components 79
TFT SVGA 1
Thermal Utility 35
TIME
  setting in Setup Utility 27
Touchpad
  removing 52
  touchpad
  hot key 12
Touchpad Check 56
Troubleshooting 53

## U

Undetermined Problems 63
USB 1, 6, 7, 19
Utilities 25

## W

Windows 2000 Environment Test 82
Windows 95 Environment Test 80
Windows 98 Environment Test 81
Windows NT 4.0 Environment Test 83

## V

Vibration 22
Video 1, 2, 18
  Resolutions 18
Video Port 7
volume
  hot keys 12

## Z

Zoomed Video 1
ZV 1