

USER'S MANUAL

LCD PC



LCD PC

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



Warning

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the manufacturer for compliance with the above standards could void your authority to operate the equipment.

IMPORTANT SAFETY INSTRUCTIONS

The LCD PC is quite rugged, but it can be damaged. To ensure that does not happen, follow these suggestions:

1. **Don't drop it.** Make sure it's on a stable surface. If the computer falls, the case and other components could be damaged.
2. **Don't overheat it.** Keep the computer and power supply away from any kind of heating element. Keep the computer out of direct sunlight.
3. **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic fields. These can hinder proper performance and damage your data.
4. **Keep it dry.** This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
5. **Be careful with power.** The computer has specific power requirements.
 - A steady, uninterrupted power supply is necessary. If you are unsure of your local power specifications, consult your dealer or local power company.
 - The power cord may have either a 2-prong or a 3-prong grounded plug. The third prong is an important safety feature; do not defeat its purpose. If you do not have access to a compatible outlet, have a qualified electrician install one.
 - When you want to unplug the power cord, be sure to disconnect it by the plug head, not by its wire.
 - Make sure the socket and any extension cord(s) you use can support the total current load of all the connected devices.
 - Before cleaning the computer, make sure it is disconnected from any external power supplies.



CLEANING

- Do not apply cleaner directly to the computer, use a soft clean cloth.
- Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.

SERVICING

- **Do not attempt to service the computer yourself.** Doing so may violate your warranty and expose you and the computer to electric shock. Refer all servicing to authorized service personnel.
- Unplug the computer from the power supply. Then refer servicing to qualified service personnel under any of the following conditions:
 - When the power cord is damaged or frayed.
 - If the computer has been exposed to rain or other liquids.
 - If the computer does not work normally when you follow the operating instructions.
 - If the computer has been dropped or damaged.

UL®

Mainboard Battery Note

CAUTION: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

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1 Introduction

1

OVERVIEW

This chapter covers:

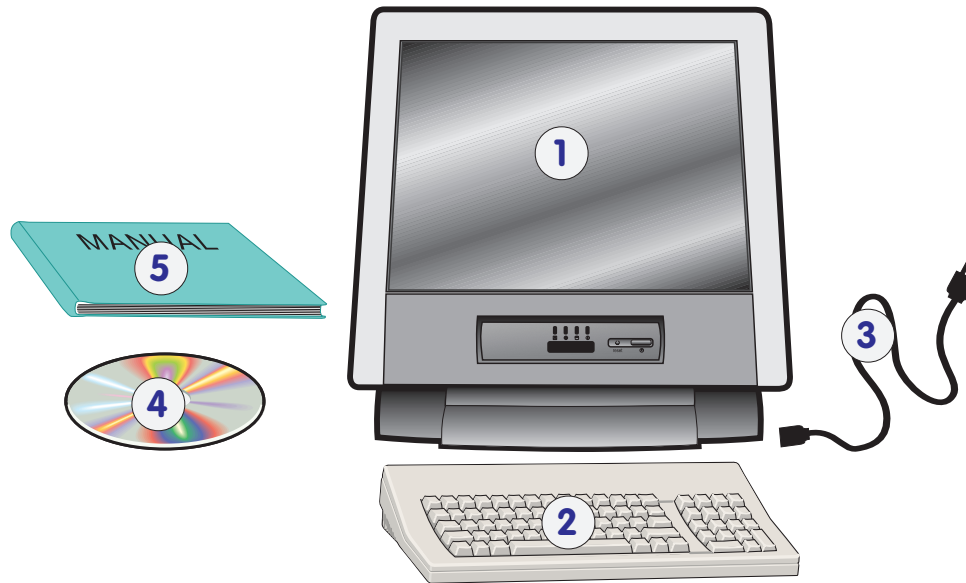
- In the Box - the parts and pieces we've included
- The Manual - how to use it
- Quick Start Guide - the absolute minimum
- System Map - a navigation tool with some tips

IN THE BOX

Out of the box, you should have the following:

1

Box Contents
Fig. 1 - 1



1. The LCD PC
2. Keyboard (optional)
3. Power cord
4. Device Drivers & Utilities + User's Manual CD-ROM (including the electronic version of this manual in Adobe Acrobat "PDF" format)
5. User's manual

Keep the packing materials in a safe place in case you need them for shipping or long-term storage.



THE MANUAL

This manual explains the hardware and essential software you need to operate your system. Depending on how your system is configured, some or all of the features described may already be set up.

ADVANCED USERS

If you're an "advanced" user, you may want to skip over most of this manual. However, you should still look at *Chapter 2: Getting Started*. Also look at *Chapter 3: Advanced Controls & Chapter 4: System Utilities*. Information that might be of particular interest to you is indicated by the "☑" symbol.

NOT-SO-ADVANCED USERS

If you are new to the wonders of computers, or just feel like a beginner, you should still look over all of the documentation. Don't worry if you don't understand everything the first time around. Just keep this manual near your computer, and learn as you go.

No matter what your level, please pay careful attention to warning and safety information indicated by the "⚠" symbol. Also pay careful attention to the safety information in the *Preface*.



Advanced Notes

Advanced users should check the light pink boxes which look like this.

You'll find tips and more detailed information about the computer's various features.

"Beginners" are welcome too. As you get used to your computer, you may be surprised at how much of this stuff you can understand.

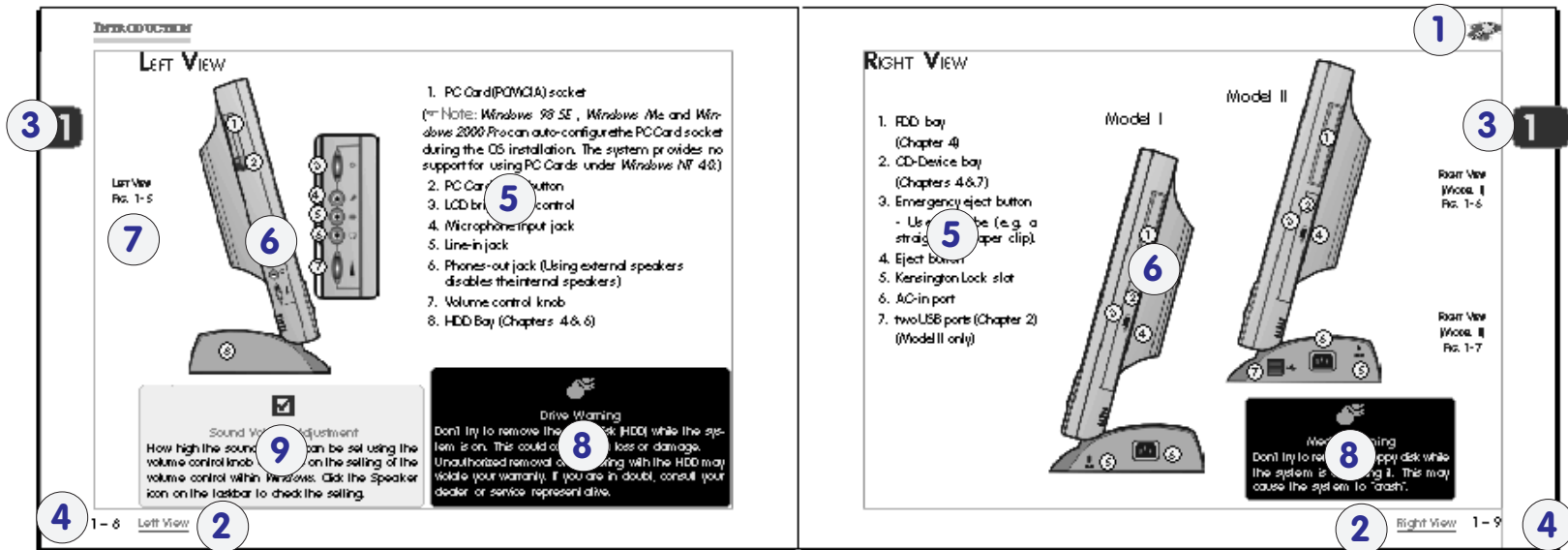
NOT HERE

Operating systems (e.g. *Windows 98 Second Edition*, *Windows Me*, *Windows 2000 Professional*, *Windows NT 4.0*, etc.) have their own manuals as do applications (e.g. word processing and database programs). If you have questions about those programs, you should consult those manuals.

MANUAL LAYOUT KEY

FIG. 1 - 2

1. chapter icon
2. chapter topic & quick Key
3. chapter tab
4. page #
5. general beginner text
6. graphic
7. graphic key
8. warning text
9. advanced user text





QUICK START GUIDE

This quick start guide assumes that you're already familiar with LCD PCs and can tell at a glance what and where all the key components are.

If you're not that comfortable with this sort of device, take a look at the following pages for an overview of the system.

In any case, you should review these steps, *before* you take any action. If you aren't sure about one of the procedures, check the relevant chapter before continuing.

Unless you have to install an operating system, your computer is ready to work right out of the box.

But, before you begin, follow the safety instructions in the *Preface*, especially the instruction on placement.

1. Remove all packing materials, CDs/DVDs, floppy disks and any PC Cards.
2. Securely attach any peripherals you want to use with the LCD PC (e.g. mouse and keyboard) to their ports. (See **Fig. 1 - 8**)*.
3. Attach the AC power cord to the AC-in port on the computer's right side. Then plug the AC power cord into an outlet.
4. Push the power button to turn "on".
 - * Peripherals which connect to the USB and (optional) IEEE 1394 ports can be connected after *Windows* is up and running. All other peripherals must be connected before you turn on the system.

SYSTEM MAPS

The LCD PC has a lot of built-in features. The operating system automatically enables most of them. Further explanations (if necessary) of the various subsystems are covered in the chapters or pages indicated.



Model Differentiation

This manual applies to two models. Both mainly differ in external appearance with minor differences in standard functions. The illustrations in this manual are generalized representations. Your system's features may be shaped differently, but the functions we've described are identical.

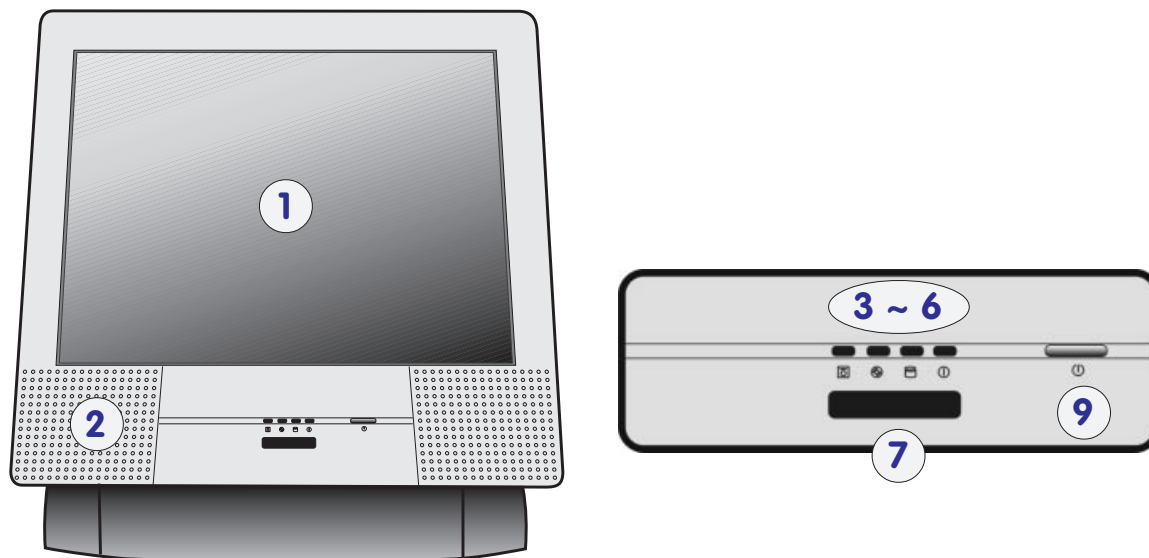
FRONT VIEW (MODEL I)

FRONT VIEW
(MODEL I)
Fig. 1 - 3





FRONT VIEW (MODEL II)



FRONT VIEW
(MODEL II)
FIG. 1 - 4

1

- 1. The 15" LCD (Chapters 3 & 5)
- 2. Speakers (Chapter 7)
- 3. FDD activity LED (Chapter 4)
- 4. CD-device activity LED (Chapters 4 & 7)
- 5. HDD activity LED (Chapter 6)
- 6. Power LED (Chapters 3 & 7)
 - solid (green) = ON**
 - flashing (orange) = Standby mode**
- 7. Infrared port (COM B) (Chapters 2 & 4)
- 8. Reset button (Model I only)
 - (= pressing **Ctrl + Alt + Del**)

- 9. Power button (Chapters 3 & 7)



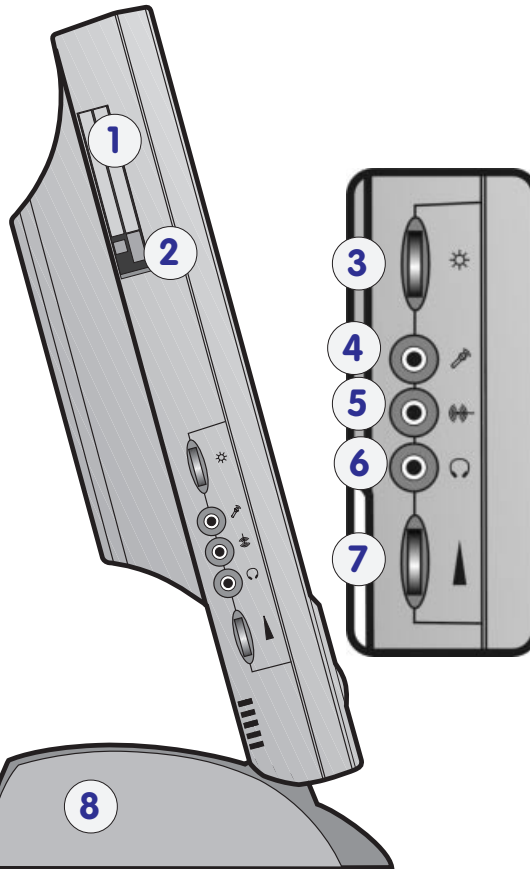
Power button as Standby or Hibernate button

If you are using an ACPI-compliant operating system, such as *Windows Me* or *Windows 2000 Professional*, the power button can be designated as Standby or Hibernate button within your OS's "Power Management" or "Power Options" subsystem. (Refer to Chapter 3, "Advanced Controls" of this manual & your OS's user documentation for details.)

Forced Off

If the **Ctrl + Alt + Del** key combination doesn't work when the system hangs, press the power button for **4 seconds** to force the system to turn itself off.

LEFT VIEW



LEFT VIEW
FIG. 1 - 5

1. PC Card (PCMCIA) socket

(**Note:** *Windows 98 SE*, *Windows Me* and *Windows 2000 Pro* can auto-configure the PC Card socket during the OS installation. The system provides no support for using PC Cards under *Windows NT 4.0.*)

2. PC Card eject button

3. LCD brightness control

4. Microphone input jack

5. Line-in jack

6. Phones-out jack (Using external speakers disables the internal speakers)

7. Volume control knob

8. HDD Bay (Chapters 4 & 6)



Sound Volume Adjustment

How high the sound volume can be set using the volume control knob depends on the setting of the volume control within *Windows*. Click the **Speaker** icon on the taskbar to check the setting.



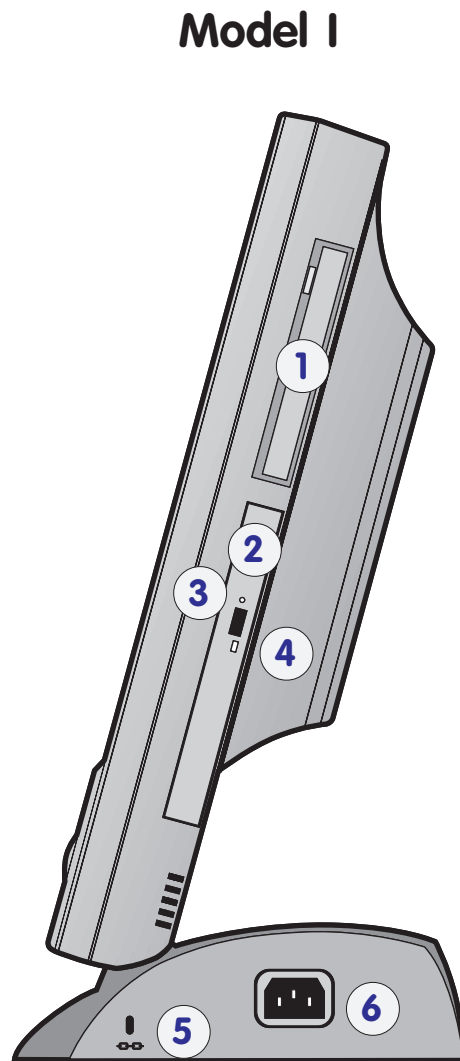
Drive Warning

Don't try to remove the hard disk (HDD) while the system is on. This could cause data loss or damage. Unauthorized removal or tampering with the HDD may violate your warranty. If you are in doubt, consult your dealer or service representative.

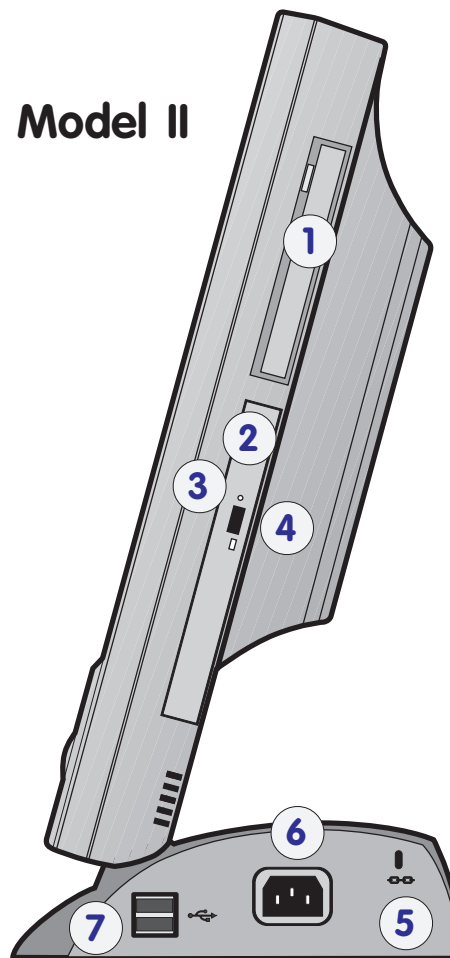


RIGHT VIEW

- 1. FDD bay
(Chapter 4)
- 2. CD-Device bay
(Chapters 4 & 7)
- 3. Emergency eject button
- Use a probe (e.g. a
straightened paper clip).
- 4. Eject button
- 5. Kensington Lock slot
- 6. AC-in port
- 7. two USB ports (Chapter 2)
(Model II only)




Model I



Model II

RIGHT VIEW
(MODEL I)
FIG. 1 - 6

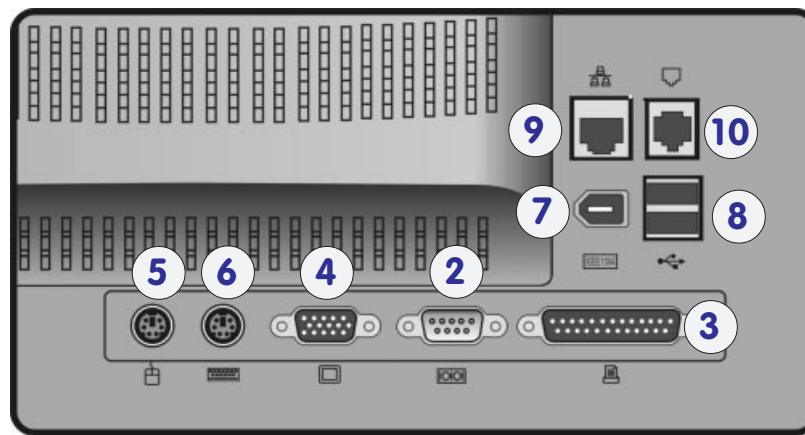
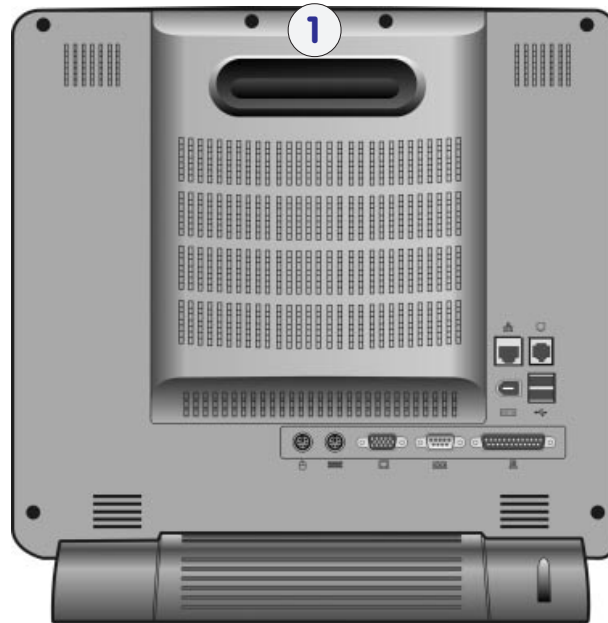
RIGHT VIEW
(MODEL II)
FIG. 1 - 7

 **Media Warning**
Don't try to remove a floppy disk while the system is accessing it. This may cause the system to "crash".

REAR VIEW

1

REAR VIEW
FIG. 1 - 8



Handle Warning

The handle design allows for single-hand use provided that you have enough strength to move the machine with one hand. However, considering its weight, we strongly recommend you use both hands to move the machine (with one hand gripping the handle and the other gripping the base of the machine) to avoid accidentally dropping it, which might cause damage to the machine or yourself.



1. Carrying handle
2. Serial port (COM A)
(Chapters 2 & 4)
3. Printer/Parallel port
(Chapter 4)
4. VGA port
(Chapters 3 & 5)
5. PS/2 mouse port
(Chapter 2)
6. PS/2 keyboard port
(Chapter 2)
7. IEEE 1394 port
(👉 **Note:** The IEEE 1394 module is a dealer option.)
8. two USB ports (Chapter 2)
9. RJ-45 LAN port
(Chapters 3 & 5)
10. RJ-11 Modem port (Chapters 3 & 5)
(👉 **Note:** The modem module is a dealer option.)



Note for the Optional IEEE 1394 Module

The IEEE 1394 is a high-speed serial interface. Many external devices with IEEE 1394 support are available on the market, such as external hard disk drives & digital cameras.

Before you purchase or use any IEEE 1394 device, be sure to check and see if the device can supply power on its own. The optional IEEE 1394 module only supports **SELF-POWERED** IEEE 1394 devices though the IEEE 1394 port on the rear panel is a standard 6-pin port.

NOTES:

1



2 Getting Started

2

OVERVIEW

This chapter is a guide to putting together a very basic system:

- Ergonomics: placement & usage
- Basic Connections: keyboard & mouse
- Basic Peripherals: printer (USB & Parallel)

ERGONOMICS

We designed your LCD PC system to be functional as well as attractive. To get most out of it, here are some suggestions on how to position and use the computer:

2

- The top third of the LCD (screen) should be at eye-level or slightly below.
- The LCD should be at least 18"/45cm. directly in front of you.
- Angle the LCD so that it doesn't reflect any light into your eyes.
- If the screen resolution (e.g. 1024x768) makes you strain to read, change it: In *Windows* Control Panel, double-click **Display** (icon) and click **Settings** (tab). Then adjust the "Screen area" to something more comfortable (e.g. 800x600).
- Use a chair which offers good back support (especially lower-back). The seat should allow your feet to rest flat on the floor or on a footrest directly in front of you.
- If possible, illuminate your work area with natural daylight or use a steady-glowing (non-flickering) light source.
- Place the keyboard and mouse so that your arms are at your sides and your forearms are roughly parallel to the floor. Your wrists should flex slightly downward as you work. Your neck and shoulders should also be relaxed.
- Take a break from the computer. Get up, stretch, flex your wrists, walk about, and look at something else for about 10 minutes every hour.



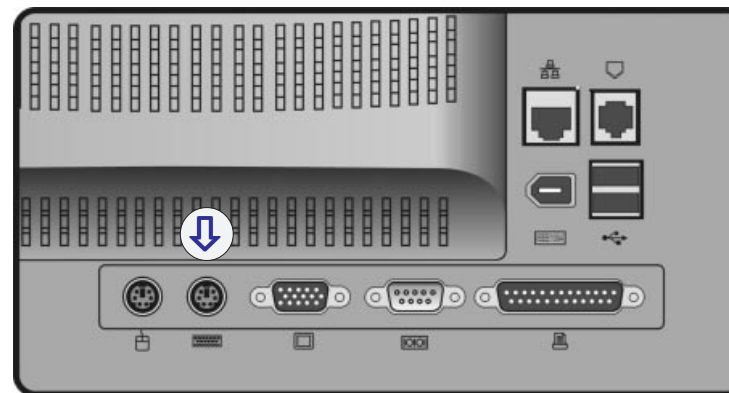
KEYBOARD (OPTIONAL)

The optional keyboard is a standard full-sized AT-compatible PS/2 keyboard with a few extra function keys.

To install it,

1. Make sure the system is OFF.
2. Plug the keyboard's PS/2 connector into the outer PS/2 port on the back of the computer.
3. Position the keyboard in front of the computer.

Note: When you turn on the system, it automatically enables any standard PS/2 keyboard.



PS/2 KEYBOARD
PORT
FIG. 2 - 1

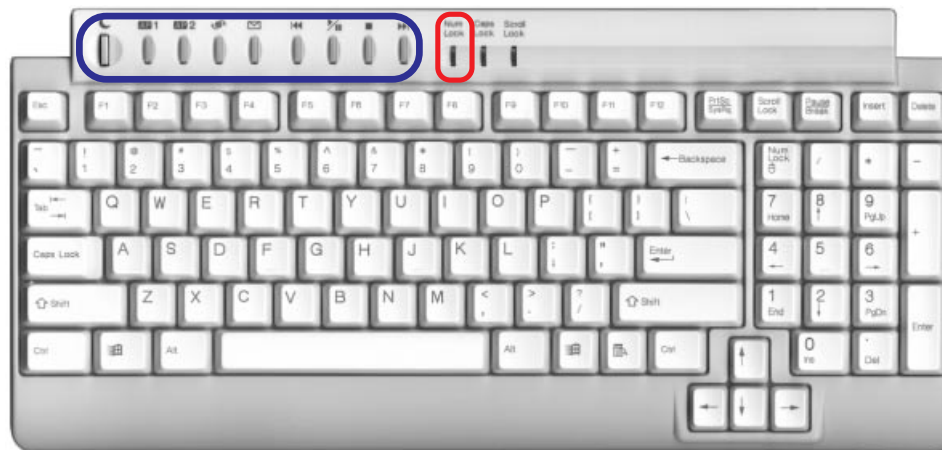
STANDARD FUNCTION KEYS

Many operating systems (and applications) use these keys (**F1 ~ F12**) to activate special features, so you should consult those manuals.

SPECIAL FUNCTION KEYS

These keys control some of the hardware and launch selected applications. You have to enable them before use. The keyboard utility is available on the *Device Drivers & Utilities + User Manual CD-ROM*. Refer to *Chapter 5, Drivers & Utilities, (operating system), Keyboard (Optional)* for installation instructions. In addition, refer to *Chapter 3: Advanced Controls, Keyboard System-Specific Function Keys* for more on how to set up these functions.

SPECIAL FUNCTION
KEYS
FIG. 2 - 2



Special characters

Some software applications allow the number-keys to be used with **Alt** to produce special characters. These special characters can only be produced by using the numeric keypad. Regular number keys won't work.

Note: Make sure **NumLock** is on.



OTHER KEYBOARDS

If your keyboard is damaged or you just want to make a change, you can use any standard PS/2 or USB keyboard. The system automatically detects and enables it. However, special functions/hot keys unique to the system's regular keyboard may not work.

Connectors - If it doesn't have a 6-pin Keyboard connector, use a 5-to-6 pin adapter.



Port Warning

This port can only accept one keyboard at a time. Don't try to install a USB and a PS/2 keyboard at the same time. Doing so may cause resource conflicts and make the system unstable.

2

MOUSE

The second most important input device is the mouse. You can use a mouse with the LCD PC through one of the following interfaces.

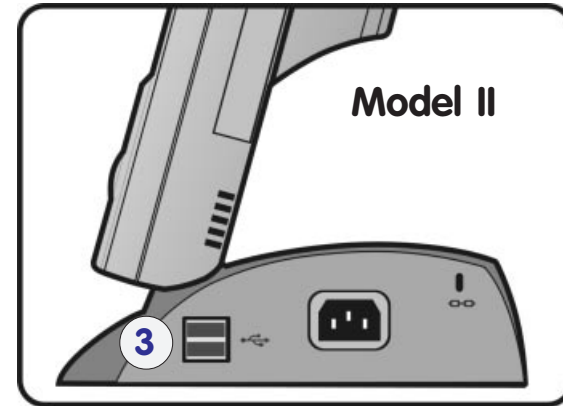
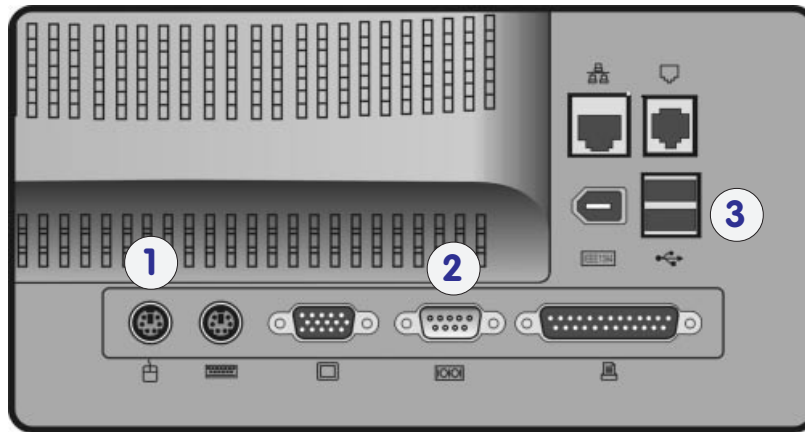
- Serial (Serial 1 port on the rear panel)
- PS/2 (PS/2 mouse port on the rear panel)
- USB (two USB ports on the rear panel/two USB ports on the right side of the base, Model II only)

Note: The system doesn't support 3-key USB mice.

2

THE MOUSE CONNECTIONS
FIG. 2 - 3

1. PS/2 mouse port
2. Serial 1 port
3. USB ports



Mouse Driver Installation

Your operating system may be able to auto-configure your mouse during its installation or only enable its basic functions. Be sure to check the device's user documentation for details.



Note for left-handers:

Most operating systems allow you to reverse the mouse-button settings.



PERIPHERALS

The most frequently used peripheral is a printer.

USB PRINTER

Most newer personal printers are available with a USB connection.

2

To install it,

1. Set up the printer according to its instructions (unpacking, paper in the tray, toner/ink cartridge, etc.)
2. Attach the USB cable to the printer.
3. Connect the printer's USB cable to one of the USB ports on the back of the computer.
4. Turn ON the printer.
5. Turn ON the computer.
6. *Windows* will identify the printer and either load one of its own drivers or ask you to supply one. Follow the on-screen instructions.

PARALLEL PRINTER

This is the most common type of printer.

To install it,

1. Set up the printer according to its instructions (unpacking, paper in the tray, toner/ink cartridge, etc.)
2. Attach the parallel cable to the printer.
3. Connect the printer's parallel cable to the parallel port on the back of the computer.
4. Turn ON the printer.
5. Turn ON the computer.
6. *Windows* will identify the printer and either load one of its own drivers or ask you to supply one. Follow the on-screen instructions.

WHICH PARALLEL?

The computer features a “Plug & Play” BIOS, so *Windows 98 SE*, *Windows Me* and *Windows 2000 Professional* can automatically configure the parallel port for the most appropriate mode.

If you're not running one of the three OSs, the default setting (**ECP**) in the computer's SCU will work in most cases. However, if the printer's instructions require a specific configuration, refer to *Chapter 4: System Utilities* to find out how to make changes.

(👉 **Note:** SCU > Components Menu > LPT Port > Port Definition)



3 Advanced Controls

3

OVERVIEW

This chapter covers:

- Advanced video controls
- Power management features
- Keyboard system-specific function keys
- Remote wakeup considerations

 **Note:** You are unable to use most advanced controls until the necessary drivers and utilities are properly installed. If your system hasn't been properly configured (your dealer may have already done that for you), refer to *Chapter 5, Drivers & Utilities*, for installation instructions.

ADVANCED VIDEO CONTROLS

This section is about making adjustments for the LCD, switching display devices and configuring video memory.

MAKING ADJUSTMENTS FOR THE LCD: RESOLUTION & COLOR DEPTH

3

With the video driver installed, the LCD is capable of supporting a resolution of 1024x768 at 256K colors. The higher the resolution, the more information the LCD can display on screen.

To change the LCD's resolution and color depth in which it will display,

1. Click **Start**, point to **Settings** and click **Control Panel**.
2. Double-click **Display** (icon).
3. In the **Display Properties** dialog box, click **Settings** (tab).

To change the resolution:

4. Under **Screen area** move the slider to the setting you prefer.

To change the color depth:

5. Under **Colors** click the arrow and select the setting you prefer.
6. Click **Apply**.



SWITCHING DISPLAY DEVICES

Besides the built-in LCD, you can also use an external CRT connected to the VGA port as your display device. You have the following four display options:

1. The built-in LCD ("Single")
2. A CRT connected to the VGA port ("Single")
3. The LCD and a CRT showing the same image ("Mirror")
4. The LCD and a CRT showing different images ("Multimonitor")

Use the video driver to change display options and make other adjustments. Table 3 - 1 lists the video driver-supported driver modes by operating system. The following pages describe how to access the video driver control panel in each operating system.

Driver Mode	Windows 98 Second Edition	Windows Me	Windows 2000 Professional	Windows NT 4.0 (with SP6 installed)
Single	✓	✓	✓	✓
Mirror	✓	✓	✓	✓
Multimonitor	✓	✓	NA	NA

OS-SUPPORTED DRIVER MODES
TABLE 3 - 1

Single
either the LCD or a CRT as display device

Mirror
both the LCD and a CRT as display devices, outputting the same view in the same resolution and same number of colors

Multimonitor
both the LCD and a CRT as display devices, outputting different views in different resolutions and different numbers of colors

WINDOWS 98 SECOND EDITION & WINDOWS ME

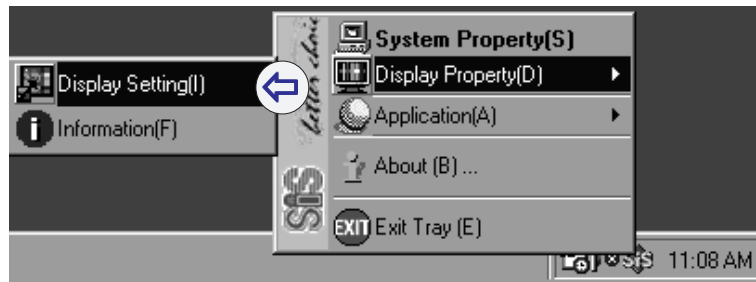
To change display devices and make other adjustments,

1. Right-click the  icon on the taskbar, point to **Display Property** and click **Display Setting** to go to the **SiS 630/730 Properties** dialog box.

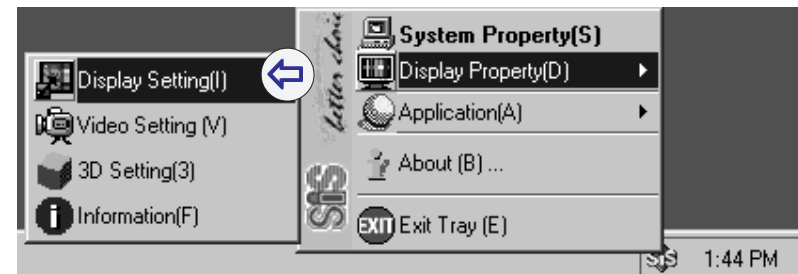
3

OPENING THE SiS VIDEO CONTROL PANEL (WINDOWS 98 SE & WINDOWS ME)
FIG. 3 - 1

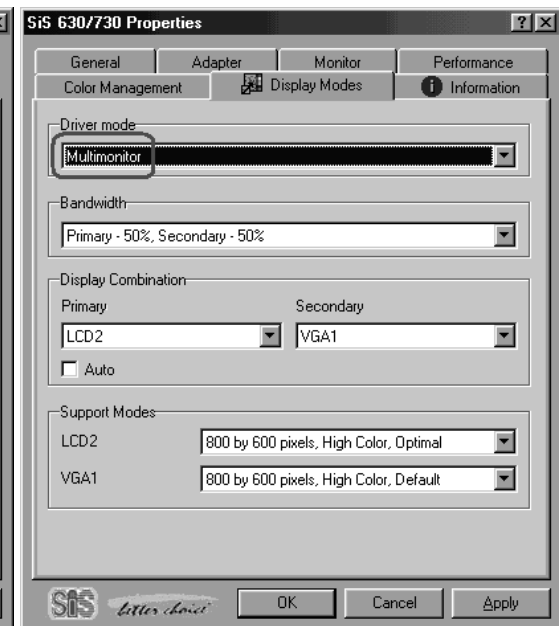
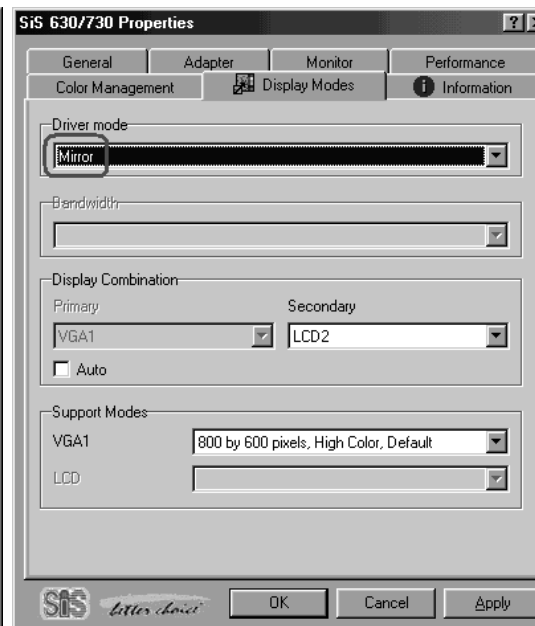
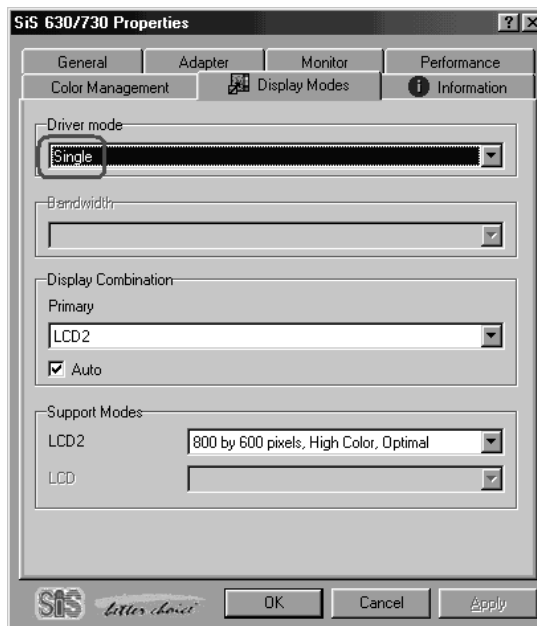
Windows 98 SE



Windows Me



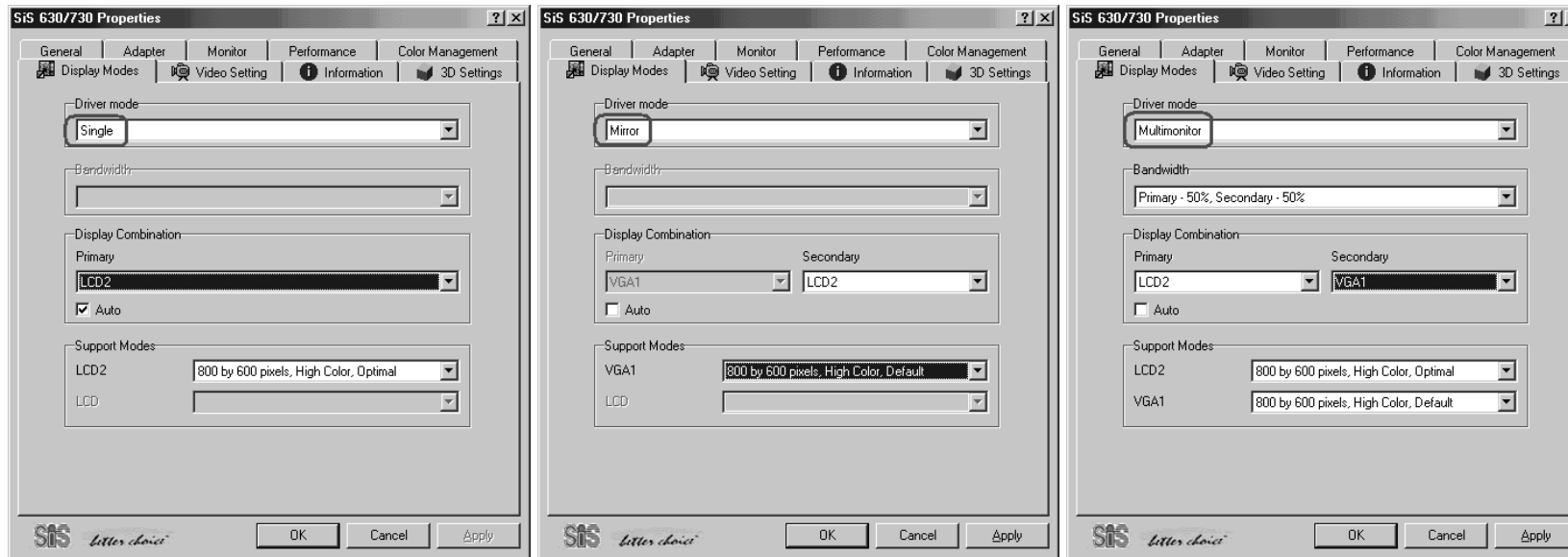
Windows 98 SE



VIDEO DRIVER MODES (WINDOWS 98 SE & WINDOWS ME)
FIG. 3 - 2A



Windows Me



3

VIDEO DRIVER MODES
(WINDOWS 98 SE & WINDOWS ME)
FIG. 3 - 2B

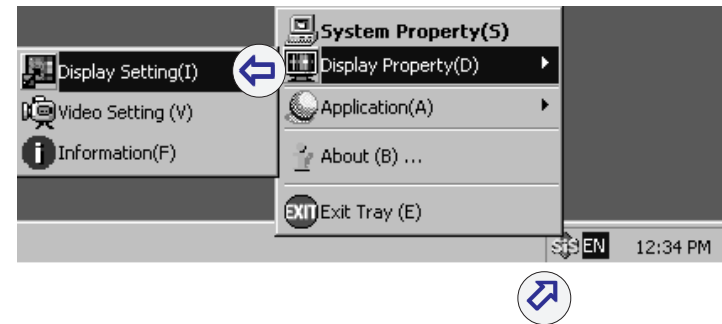
Driver Mode	Bandwidth	Display Combination		Support Mode
		Primary*	Secondary	
Single	NA	LCD2 (built-in LCD) or VGA1 (CRT))	NA	all settings shown
Mirror	NA	VGA1 (CRT))	LCD2 (built-in LCD)	all settings shown
Multimonitor	all settings shown	LCD2 (built-in LCD) or VGA1 (CRT)	VGA1 (CRT) or LCD2 (built-in LCD)	all settings shown (for different devices)

* The continuous view starts from the primary display (from left to right).

WINDOWS 2000 PROFESSIONAL & WINDOWS NT4.0

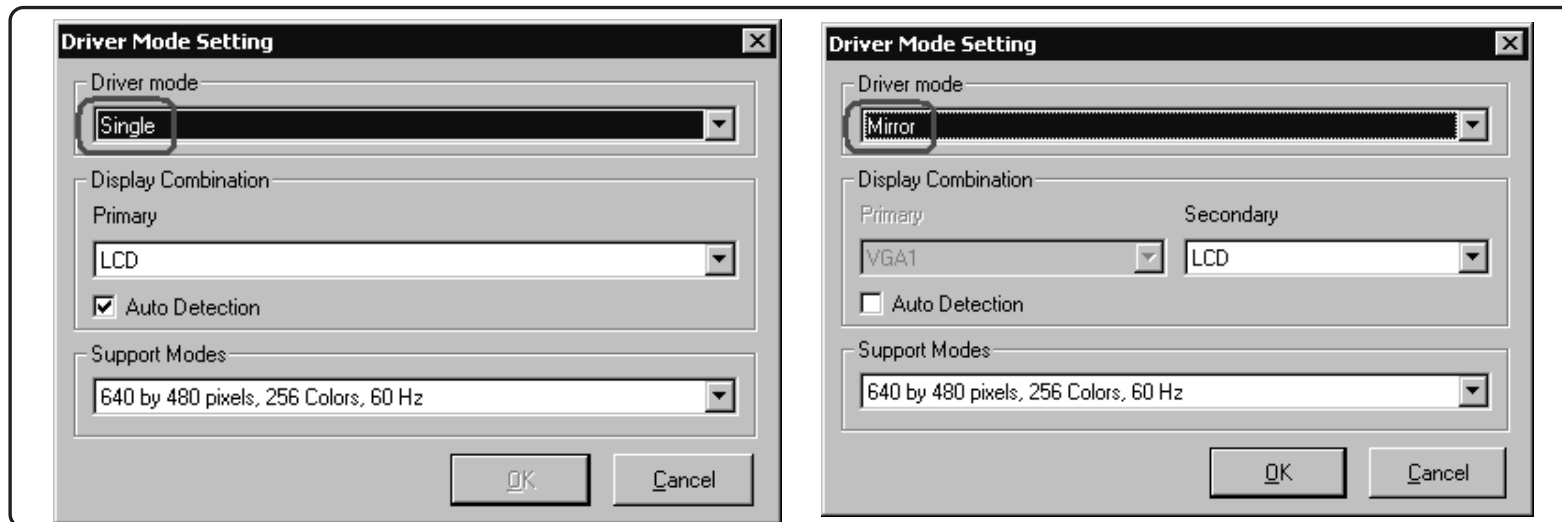
To change display devices and make other adjustments,

1. Right-click the  icon on the taskbar, point to **Display Property** and click **Display Setting** to go to the **Driver Mode Setting** dialog box.



3

OPENING THE DRIVER MODE SETTING DIALOG BOX (WINDOWS 2000 PRO.& NT4.0)
FIG. 3 - 3



Driver Mode	Bandwidth	Display Combination		Support Mode
		Primary*	Secondary	
Single	NA	LCD (built-in LCD) or VGA1 (CRT)	NA	all settings shown
Mirror	NA	VGA1 (CRT)	LCD (built-in LCD)	all settings shown

* The continuous view starts from the primary display (from left to right).



VIDEO MEMORY

The system doesn't come with dedicated video memory. It makes use of a portion of system memory as video memory. By default, the video memory is set to 8MB. You can also set it to 16MB or 32MB (maximum) using SCU. However, keep in mind that the more the video memory becomes, the less the system memory. Refer to *Chapter 4, System Utilities, Shared Memory (Memory Menu)* for details.



Video Memory Usage

3D applications, such as games and CAD software, tend to require more video memory than most other applications. Check your application's user documentation for video memory requirements.

POWER MANAGEMENT FEATURES

The system supports various ACPI-compliant power management features. You can use them to save the power consumption or extend the life of your system or some of its devices.

Windows 98 Second Edition, Windows Me and Windows 2000 Professional are ACPI-compliant operating systems but *Windows NT4.0* is not.

In this section, we will first give you an overview of the power management options the system can offer under these three operating systems and then separately introduce how to use these options by operating system.

3



SYSTEM-SUPPORTED POWER OPTIONS OVERVIEW (WINDOWS 98 SECOND EDITION, WINDOWS ME & WINDOWS 2000 PROFESSIONAL)

Type	Option	Description	To Activate		To Wake up*
			Windows 98 SE	Windows Me Windows 2000 Prof.	
Global	Standby Mode	The system turns off its display and hard disk and puts itself in low power state. (The Power LED flashes in orange.)	<ol style="list-style-type: none"> 1. press the power button 2. preset timeout (auto) 3. press the Standby key 4. use the Shut Down Windows dialog box 	<ol style="list-style-type: none"> 1. press the power button 2. preset timeout (auto) 3. press the Standby key 4. use the Shut Down Windows dialog box 	press the power button
	Hibernate Mode	The system saves what is in RAM on the hard disk and turns itself off. (All LEDs are off.)	press the power button	<ol style="list-style-type: none"> 1. press the power button 2. preset timeout (auto) 3. use the Shut Down Windows dialog box 	press the power button
Local	Display Timeout	The display automatically turns off after a preset time of inactivity. (The Power LED remains green.)	preset timeout (auto)	preset timeout (auto)	<ol style="list-style-type: none"> 1. press any key 2. any mouse action
	Hard Disk Timeout	The hard disk automatically turns off after a preset time of inactivity.	preset timeout (auto)	preset timeout (auto)	<ol style="list-style-type: none"> 1. press any key 2. any mouse action

* The system will return to where it left off (what was on your desktop) after it wakes up.

POWER OPTIONS OVERVIEW
TABLE 3 - 2

HIBERNATE MODE VS SHUTDOWN

“Hibernate Mode” and “Shutdown” are the same in that the system is off and you need to press the power button to turn it on. Their main difference is:

When you come back from hibernation, you can return to where you last left off (what was on your desktop) without reopening the application(s) and file(s) you last used.

You can use either way depending on your needs.

3

STANDBY MODE VS HIBERNATE MODE

If you want to stay away from your work for just a while, you can put the system on standby instead of in hibernation. It takes a longer time to wake up the system from Hibernate Mode than from Standby Mode.



POWER OPTIONS IN WINDOWS 98 SECOND EDITION

HIBERNATE MODE

ENABLING

Part I:

You need to create a special file for system hibernation use. Refer to *Chapter 5, Drivers & Utilities, Suspend to Disk (Hibernate)*, page 5-8, for setup instructions.

Part II:

1. Click **Start** (menu), point to **Settings** and click **Control Panel**.
2. Double-click **Power Management** (icon) and click **Hibernate** (tab).
Note: If the hibernate-specific file is not created or is not big enough, the tab won't appear.
3. Select **Enable hibernate support** (check box) and click **Apply**.

ACTIVATING

Pressing the power button puts the system in hibernation. (You first have to designate the power button as hibernate button as follows.)

1. Go to **Control Panel > Power Management** (icon) > **Advanced** (tab).
2. In the **When I press the power button on my computer** list click the arrow and select **Hibernate** and then click **Apply**.

WAKING UP

Press the power button and the system will restore to where it last left off.



Future Memory Upgrade

Your Suspend-to-Disk (Hibernate) file should be as large as or larger than the size of your total memory for *Windows* to allow you the option of enabling Hibernate support. Before you increase memory, be sure to check if the **Ovsus.dat** file is big enough. By default, it is in the root directory of Drive C.

STANDBY MODE

ENABLING

By default, this function is enabled.

ACTIVATING

You can use one of the following methods to put the system on standby. When the system is on standby, the Power LED flashes in orange.

Manually

Method 1: pressing the Standby key.

Method 2: using the Shut Down dialog box (**Start > Shut Down...**)

Method 3: pressing the power button (You first have to designate the power button as standby button as follows).

1. Go to **Control Panel > Power Management** (icon) > **Advanced** (tab).
2. In the **When I press the power button on my computer** list, click the arrow and select **Standby** and then click **Apply**.

Automatically

The system will automatically enter Standby mode after the preset time of system inactivity. To set the time,

1. Go to **Control Panel > Power Management** (icon) > **Power Schemes** (tab).
2. In the **System Standby** list, click the arrow and select the setting you prefer and then click **Apply**.

WAKING UP

Press the power button and the system will restore to where it last left off.



HARD DISK AND DISPLAY TIMEOUTS

The device (display/hard disk) will turn off after the preset time of inactivity. To set a time,

1. Click **Start** (menu), point to **Settings** and click **Control Panel**.
2. Double-click **Power Management** (icon) and click **Power Schemes** (tab).
3. Click the arrow and select the settings you prefer in the **Turn off Monitor** and **Turn off hard disks** lists. Then, click **Apply** (button).

When the display times out, it goes blank and the Power LED remains green. Press any key or perform any mouse action and the system will restore to where it last left off.

POWER OPTIONS IN WINDOWS ME & WINDOWS 2000 PRO

HIBERNATE MODE

ENABLING

1. Click **Start** (menu), point to **Settings** and click **Control Panel**.
2. Double-click **Power Options** (icon) and click **Hibernate** (tab).
3. Select **Enable hibernate support** (check box) and click **Apply**.

ACTIVATING

You can use one of the following methods to put the system in hibernation.

Manually

Method 1: Using the Shut Down dialog box (**Start > Shut Down...**)

Method 2: Using the power button (You first have to designate the power button as Hibernate button as follows.)

1. Go to **Control Panel > Power Options** (icon) > **Advanced** (tab).
2. In the **When I press the power button on my computer** list click the arrow and select **Hibernate** and then click **Apply**.

Automatically

The system will hibernate after the preset time of system inactivity. To set a time,

1. Go to **Control Panel > Power Options** (icon) > **Power Schemes** (tab).
2. In the **System hibernates** list click the arrow and select the setting you prefer and then click **Apply**.

WAKING UP

Press the power button and the system will restore to where it last left off.



STANDBY MODE

ENABLING

By default, this function is enabled.

ACTIVATING

You can use one of the following methods to put the system on standby.

Manually

Method 1: pressing the Standby key.

Method 2: using the Shut Down dialog box (**Start** > **Shut Down...**)

Method 3: using the power button (You first have to designate the power button as standby button as follows).

1. Click **Start** (menu), point to **Settings** and click **Control Panel**.
2. Double-click **Power Options** (icon) and click **Advanced** (tab).
3. In the **When I press the power button on my computer** list, click the arrow and select **Standby** and then click **Apply**.

Automatically

The system will put itself on standby after the preset time of system inactivity. To set the time,

1. Go to **Control Panel** > **Power Options** (icon) > **Power Schemes** (tab).
2. In the **System Standby** list, click the arrow and select the setting you prefer and then click **Apply**.

WAKING UP

Press the power button and the system will restore to where it last left off.

HARD DISK AND DISPLAY TIMEOUTS

The device (display/hard disk) will turn off after the preset time of inactivity. To set the time,

1. Click **Start** (menu), point to **Settings** and click **Control Panel**.
2. Double-click **Power Options** (icon) and click **Power Schemes** (tab).
3. Click the arrow and select the settings you prefer in the **Turn off Monitor** and **Turn off hard disks** lists. Then, click **Apply** (button).










3

When the display times out, it goes blank and the Power LED remains green. Press any key or perform any mouse action and the system will restore to where it last left off.



KEYBOARD SYSTEM-SPECIFIC FUNCTION KEYS

The 9 system-specific function keys are on the upper row of the optional keyboard. With the keyboard utility installed, these 9 keys are configured with the defaults shown in the following table. Pressing a specific key does the corresponding action.

Key Group	Icon	Key name	Default
System Status Key		Standby	enabled
Application Keys		Application 1	MS Word
		Application 2	MS Excel
		Browser	Internet Explorer
		E-mail	Outlook Express
Audio/Video CD Keys		Previous Track	enabled
		Play/Pause	enabled
		Stop	enabled
		Next Track	enabled

STANDBY KEY (SYSTEM STATUS KEY)

Pressing the Standby key puts the system on standby.

 **Note:** To wake up the system from Standby mode you have to press the power button.

APPLICATION KEYS


If the application a key tries to launch is not installed, the message “File not found!” will appear.



Locating the Corresponding .exe file for an Application

First, right-click the application shortcut on your desktop or on the **Start** menu and click **Properties**. Then, click **Shortcut** (tab) and see where the execution file in the **Target** line is located.

To resetup a key for another application,

1. Right-click the  icon on the taskbar, point to **Setup** and click the name of the key you want to resetup.
2. Locate the execution file for the application you want the key to launch and click **Open**.

AUDIO/VIDEO CD KEYS

Once the keyboard utility is installed, it replaces or supplements the OS built-in audio and video CD players. Insert an audio/a video CD and the CD control panel will appear on the upper right corner of your desktop. You can operate the CD using the four CD keys or the CD control panel.



REMOTE WAKEUP CONSIDERATIONS

A remote system can wake up your system through LAN or modem if both systems are properly setup. The following table shows when a wakeup event is acceptable to the system.

System Status	Windows 98 Second Edition, Windows Me, Windows 2000 Professional
In Standby Mode	wakeup on LAN wakeup on ring
In Hibernate (Save to Disk) Mode	wakeup on ring


PASSWORD PROTECTION ISSUES

SCU-LEVEL PASSWORD PROTECTION

Any attempt to *remotely wake up the system from Hibernate mode* will stop at SCU-level password verification if any password protection is enabled in SCU (System Configuration Utility).

Be sure to disable the following two password protection features in SCU for the system to be remotely accessible.

- **Boot Password (in Startup menu)**
- **SCU Password (in Startup menu)**



Entering SCU

To enter SCU, start the system and press **F2** immediately after the message **“Press F2 to enter System Configuration Utility”** appears. For more information on using SCU, refer to *Chapter 4, System Utilities*.

OS-LEVEL PASSWORD PROTECTION

Whether a remote wakeup attempt has to pass your system password verification depends on if your system is set up with password protection during standby and in hibernation.

WAKEUP ON RING CRITERIA

To enable the system to be remotely accessible via modem, make sure you have complied with the following besides attending to the above-mentioned password protection issues:

- Installing the modem driver
- Activating HyperTerminal

3

INSTALLING THE MODEM DRIVER

If you haven't installed the modem driver, refer to *Chapter 5, Drivers & Utilities, (operating system), Modem* for installation instructions.

ACTIVATING HYPERTERMINAL

HyperTerminal is a *Windows* utility.

WINDOWS ME & WINDOWS 2000 PROFESSIONAL

To run **HyperTerminal**, click **Start**, point to **Programs > Accessories > Communications** and click **HyperTerminal**.

WINDOWS 98 SECOND EDITION

To run **HyperTerminal**, click **Start**, point to **Programs > Accessories > Communications**, click **HyperTerminal** and then double-click **Hypertrm.exe**.

For information on how to use this utility, refer to the **Help** menu.



WAKEUP ON LAN CRITERIA

To enable the system to be remotely accessible via LAN, make sure you have complied with the following besides attending to the above-mentioned password protection issues:

- Installing the LAN driver
- Enabling Wakeup on LAN in SCU
- Installing a remote access utility (depending on your needs)

INSTALLING THE LAN DRIVER

If you haven't installed the LAN driver, refer to *Chapter 5, Drivers & Utilities, (operating system), LAN* for installation instructions.

ENABLING WAKEUP ON LAN IN SCU

This allows the system to be waken up from standby via LAN.

(👉 **Note:** SCU > Power menu > Wakeup on LAN)

USING A REMOTE ACCESS UTILITY

Depending on your needs, you may or may not need to install a remote access utility. For example, a remote system can wake up your system using the *Windows* built-in **Ping** command if both systems are in a TCP/IP network. Refer to *Windows* Help for information on how to use this command. If you need to use a remote access utility, consult the utility's user documentation for setup information.



Wakeup on LAN Consideration

Do not keep Wakeup on LAN always enabled if you do not want a remote system to access your system while it is on standby.

NOTES:

3



4 System Utilities

OVERVIEW

This chapter covers the software that's built into the computer:

- Diagnostics: the POST (Power-On Self Test)
- Configuration: the SCU (System Configuration Utility)

HOW TO USE THIS CHAPTER

If you need to make changes to the SCU, first **print** this chapter (pages 4-4 ~ 4-12). You won't be able to view the electronic version of this manual when you're running the SCU.

Even if you are a beginner, keep a record of the settings you find and any changes you make. This information could be useful if your system ever needs servicing.

WHEN TO USE THIS CHAPTER

If your computer has never been set up, or you are making important changes to the system, then you should review this chapter first and note the original settings found in the SCU.

Note: Don't make any changes unless you are sure of what you are doing. Many of the settings are required by the system, and changing them could cause it to become unstable or worse. If you have any doubts, consult your system dealer.

THE POWER-ON SELF TEST (POST)

Each time you turn on the computer, the system takes a few seconds to conduct a POST, including a quick test of the on-board RAM. As the POST proceeds, the computer will tell you if there is anything wrong. If there is a problem which prevents the system from booting, it will display a system summary and prompt you to run SCU. If there are no problems, the SCU prompt disappears and the system loads the operating system. Once that starts, you can't get into SCU without rebooting.

4

THE POST (SAMPLE SCREEN)

Fig. 4 - 1

1. BIOS information
2. CPU type
3. memory status
4. enter SCU cue-appears only during POST
5. HDD identification notice
6. error notice (example)
7. Save to disk status (refer to *Chapters 3 & 5*).
Note: Your POST may identify different components (e.g. "Fixed Disk 0").

```

Insyde Software MobilePRO BIOS Version 28.02.05
Copyright 1993 - 1999 Insyde Software Corp. All Rights Reserved.
} 1

-----

LCD PC Version 1.0
3.00 -a1

CPU: Intel(R)Celeron Processor 667 Mhz } 2
Base Memory           000640 Kb
Extended Memory       121856 Kb
Total Memory          122880 Kb
Shared Memory (VGA)   008192 Kb
} 3

Press F2 to enter System Configuration Utility } 4

Auto Detecting IDE Devices } 5

PCI Warning: Card Requesting IRQ, NO IRQ assigned
PCI Warning: Card Requesting IRQ, NO IRQ assigned
} 6

Insyde ACPI BIOS Version 1.00.12
Copyright (c) 1998-1999 Insyde Software Corp. All Rights reserved } 1

Suspend-to-Disk partition Not Found
- This function requires 0VMAKFIL.EXE or Operating System's equivalent. } 7
    
```



FAILING THE POST

Errors can be detected during the POST. There are two categories, “fatal” and “non-fatal”.

FATAL ERRORS

These stop the boot process and usually indicate there is something seriously wrong with your system. Take the computer to your dealer or authorized service center as soon as possible.

NON-FATAL ERRORS

This kind of error still allows you to boot. You will get a message identifying the problem (make a note of this message!) followed by the cue:

Press < F1 > to resume, < F2 > to enter SCU

Press **F1** to see if the boot process can continue. It may work, without the correct configuration.

Press **F2** to run the SCU (System Configuration Utility) and try to correct the problem. If you still get an error message after you change the setting, or if the “cure” seems even worse, call for help.



POST Note

- If your model's SCU allows it, enable the Boot Splash logo, to see an abbreviated version of this screen.
- **BIOS information**
 - Important stuff, if your system needs servicing.
- **Memory**
 - If you don't want the system to test this each time, turn on “Fast Boot” in the SCU.
- **Shared Memory**
 - Use the SCU to change this value.

THE SYSTEM CONFIGURATION UTILITY (SCU)

Insyde's utility, tells the system how to configure itself and manage basic features and sub-systems (e.g. port configuration).

ENTERING THE SCU

To enter the SCU, turn on the computer and press **F2** during the POST. The prompt seen in **Fig. 4 - 1** is usually present for a few seconds after you turn on the system. If you get a "Keyboard Error" (usually because you pressed **F2** too quickly) just press **F2** again.

If the computer is already on, reboot using the **Ctrl + Alt + Del** key combination (or pressing the Reset button) and then hold down **F2**, the SCU's main menu will appear.

4



SCU MENUS

The SCU interface looks like a “windows” screen:

The ‘background’ shows some basic configuration information about the system.

Along the top of the screen is a menu bar with six (6) headings. Both your mouse and your keyboard work in the SCU.

Keyboard operation: Press the **Alt** key on your keyboard to activate the menus. Then follow the instruction along the bottom bar to navigate. When you select a heading, a list drops down. Use the arrow keys to scroll through the settings and switch lists.

A “Help” on the bottom bar explains highlighted item(s) and has useful messages about options.

If you see an arrow (“▶”) next to an item, press ↵ to go to a sub-menu on that subject. The sub-menus which appear are similar in layout but the ↵ key may confirm a selection.

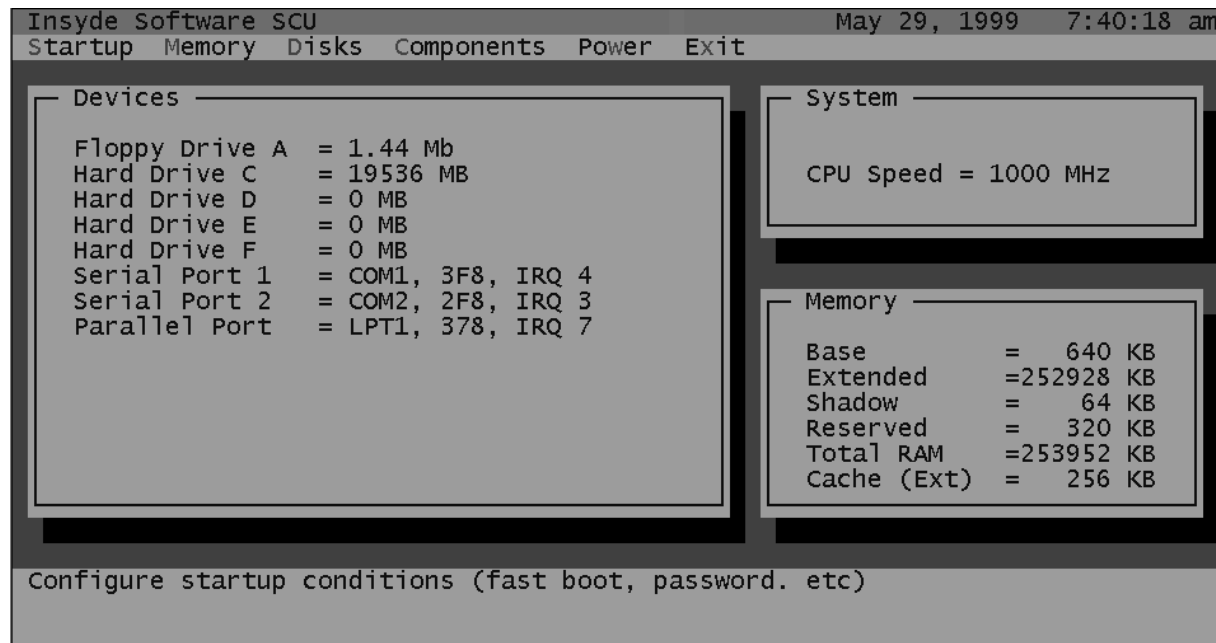
MORE ON SCU - A FEW DETAILS

Following is additional advice on portions of the SCU, not covered in the Help bar.

Note: The SCU menus shown in this section are for reference only. Your computer's menus will indicate the configuration appropriate for your model and options.

DATE & TIME (STARTUP MENU)

The hour setting uses the 24-hour system (i.e., 0 = midnight; 13 = 1pm). If you can change the date and time settings in your operating system, you will also change these settings. Some applications may also alter data files to reflect these changes.



STARTUP MENU
Fig. 4 - 2



FAST BOOT (STARTUP MENU)

If selected, the system assumes the memory is OK and skips its time-consuming test. (The default is Enabled.)

USB SETTING (STARTUP MENU)

This only concerns *Windows NT 4.0* users. Disable this before installing *Windows NT 4.0*. (The default is Enabled.)

BOOT PASSWORD & SCU PASSWORD (STARTUP MENU)

If you forget/lose your password(s), contact your service center.

Note: Disable the Boot Password & SCU Password features if you want a remote system to be able to wake up your system from hibernation via modem.

Note: Use the SCU Password feature if you are setting up your system for kiosk presentations - lock out the various ports and FDD, then lock the SCU so no one else can copy your data. (**Warning:** the USB, optional IEEE 1394, and optional modem ports can't be switched off.)

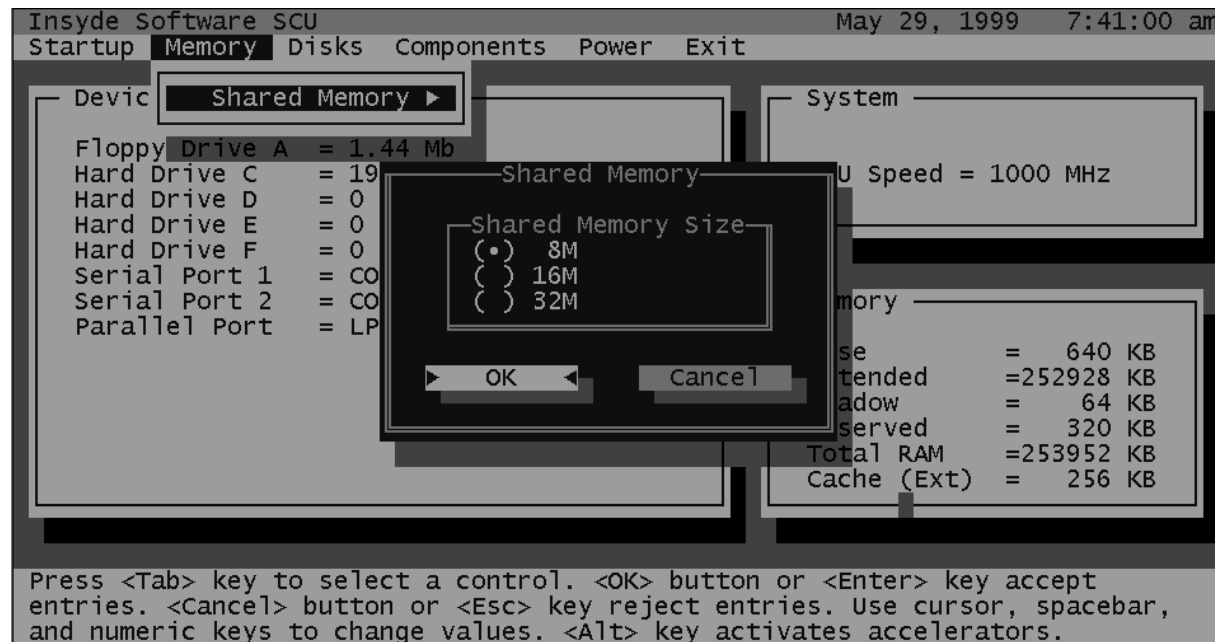
SHARED MEMORY (MEMORY MENU)

Use this to adjust the amount of memory reserved for video functions. (The default is 8MB)

Note: Some games, CAD applications, as well as higher resolutions, colors, or an (optional) second monitor, perform better with more memory.

4

MEMORY MENU
FIG. 4 - 3





IDE SETTINGS (DISKS MENU)

If you upgrade your Hard Disk Drive, be sure to carefully read its specifications. Use this sub-menu to set up the “best” connection.

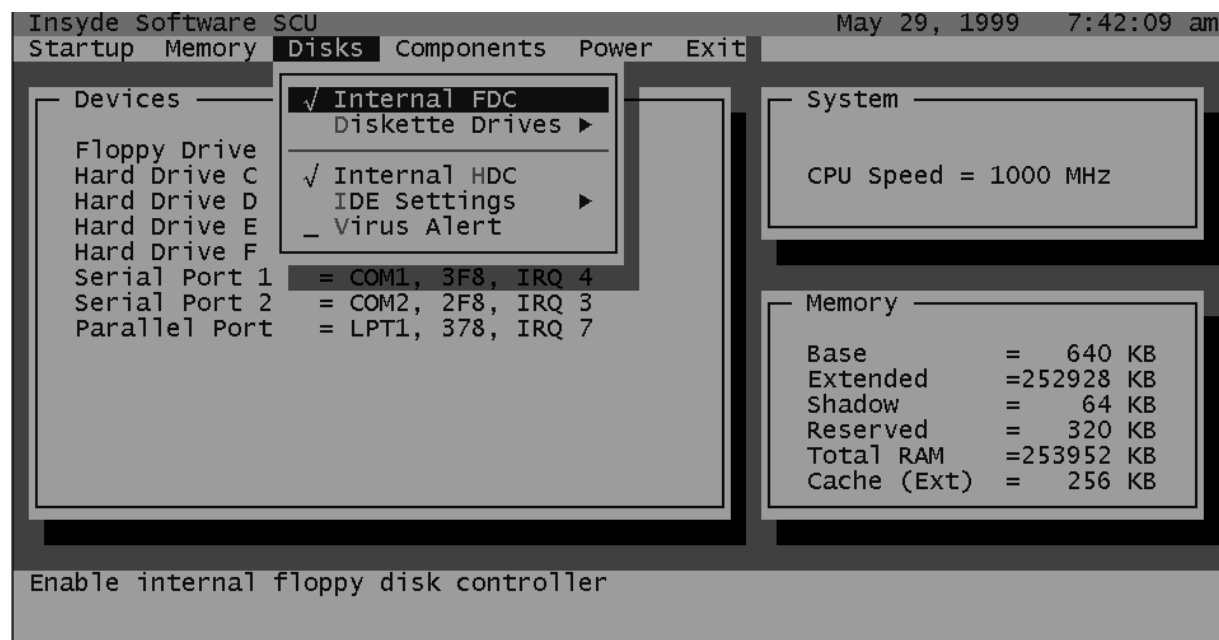
Note: The system automatically detects the HDD’s size.

VIRUS ALERT (DISKS MENU)

This will only tell you if the boot sector of your HDD has changed. This is NOT a substitute for a good anti-virus utility. (The default is Disabled.)

Note: You may want to turn this feature OFF while you are installing a new operating system.

4



DISKS MENU
FIG. 4 - 4

COM PORTS (COMPONENTS MENU)

Refer to the instructions with your serial device to determine the appropriate settings.

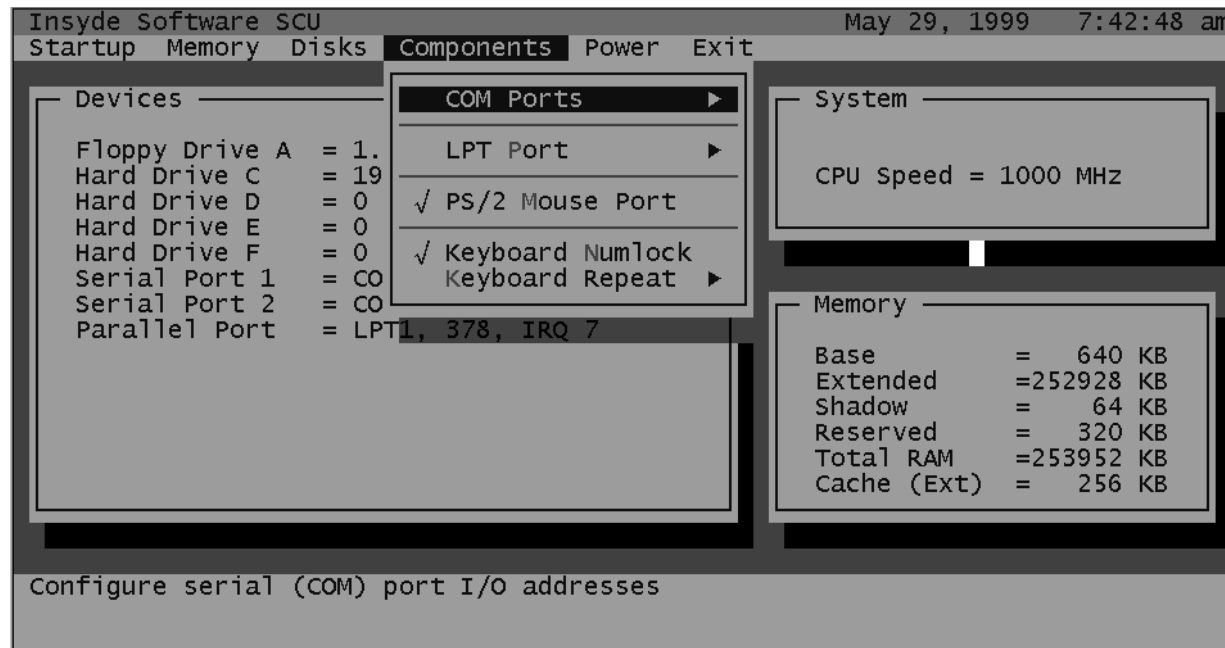
Note: The infrared port on the front of the system is "COM Port B". By default, its operating mode is set to FAST IR.

LPT PORT (COMPONENTS MENU)

Most newer printers recommend ECP or Bidirectional mode. (The default is ECP.)

4

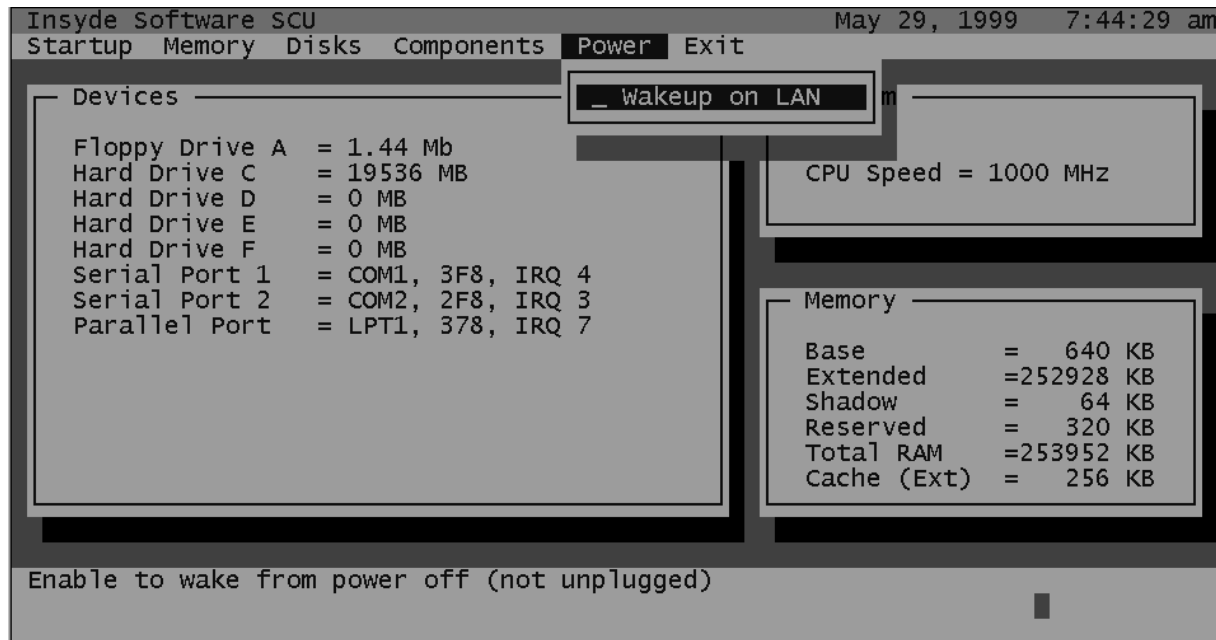
COMPONENTS
MENU
Fig. 4 - 5





WAKEUP ON LAN (POWER MENU)

Enable this feature if you want your system to be able to be remotely waken up from standby via LAN. (The default is Disabled.)

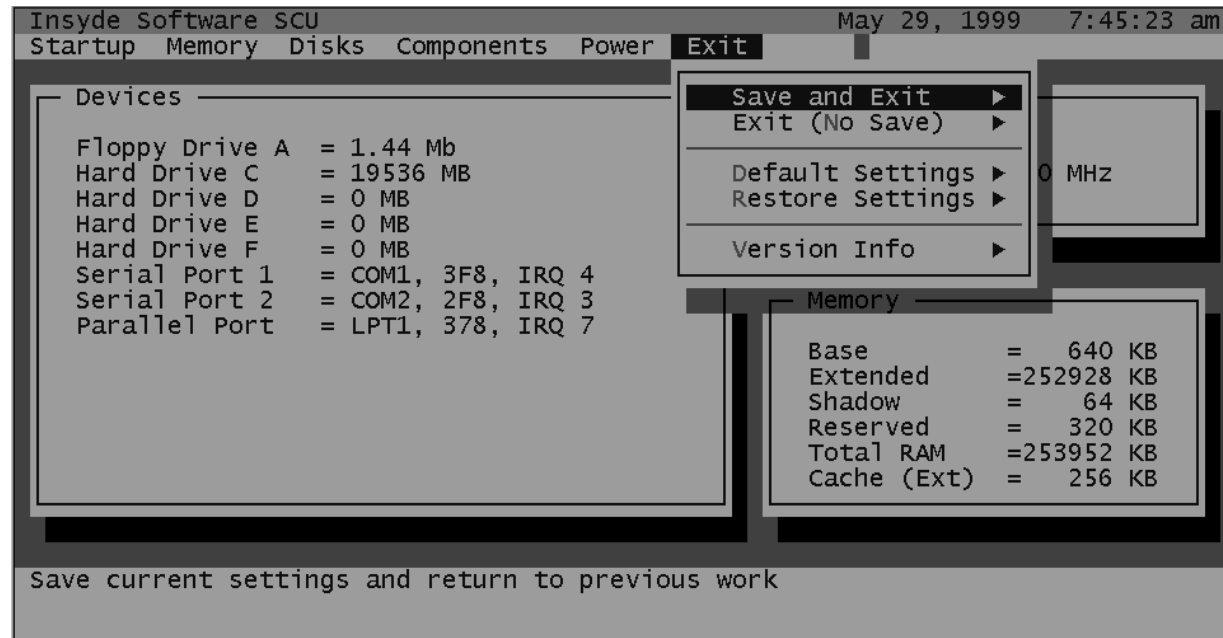


4

POWER MENU
FIG. 4 - 6

EXIT MENU

Choosing to use “Default Settings” and “Restore Settings” wipes out any changes. “Exit (No Save)” will quit the SCU without making any changes, though if there are customized settings from a previous session, they also won’t be changed.



4

EXIT MENU
FIG. 4 - 7



5 DRIVERS & UTILITIES

OVERVIEW

This chapter deals with installing the drivers and utilities essential to the operation or improvement of some of the LCD PC's subsystems. The system takes advantage of some newer hardware components for which the latest versions of most available operating systems haven't built in drivers and utilities. Thus, some of the system components won't be auto-configured with an appropriate driver or utility during operating system installation. Instead, you need to manually install some system-required drivers and utilities. In this chapter, we group driver and utility installation instructions by operating system. The following operating systems are covered.

- *Windows 98 Second Edition*
- *Windows Me*
- *Windows NT 4.0 (with Service Pack 6 or above)*
- *Windows 2000 Professional*

WHAT TO INSTALL

The *Device Drivers & Utilities + User's Manual CD-ROM* contains the drivers and utilities necessary for the proper operation of the LCD PC except for the optional DVD or CD-RW utilities which come with the device if it is part of your system configuration. The following table lists what you need to install manually according to your choice of the operating system.

5

TABLE 5-1
REQUIRED DRIVERS
& UTILITIES BY OS

Feature	Windows 98* Second Edition	Windows Me*	Windows 2000* Professional	Windows NT 4.0* (Service Pack 6 or above)
Video	page 5-4	page 5-9	page 5-12	page 5-17
LAN	page 5-4	page 5-9	page 5-13	page 5-18
Audio	page 5-5	page 5-10	page 5-13	page 5-19
Modem**	page 5-5	page 5-11	page 5-14	page 5-19
Keyboard (optional)	page 5-6	page 5-10	page 5-15	page 5-20
Infrared Port	pages 5-6 & 5-7	auto-configuration	auto-configuration	no support
HDD Controller	auto configuration	auto-configuration	page 5-16	auto configuration
Suspend to Disk (Hibernate)	page 5-8	auto-configuration	auto-configuration	no support
<p>* The versions of the OSs for which our drivers and utilities are tested: Windows 98 Second Edition: ver. 4.10.2222 A Windows Me: ver. 4.90.3000 Windows 2000 Professional: Build 2195 Windows NT.40: Build 1381 with SP6 installed</p> <p>** You have to install the modem driver after installing the audio driver.</p>				



NOTE FOR WINDOWS NT 4.0 USERS

Before you install *Windows NT 4.0*, you must do the following to ensure proper operation of the OS:

1. Go to SCU (System Configuration Utility).
(To Enter SCU, start the system and press **F2** immediately after the message “Press F2 to Enter System Configuration Utility” appears.)
2. Disable “**USB Setting**” under the Startup menu.
3. Save and exit SCU (under Exit menu).

ASSUMPTION

We assume that you will install all drivers and utilities from the built-in CD device and it is assigned to Drive D:. In addition, all file extensions can be seen.

WINDOWS 98 SECOND EDITION


This section covers driver and utility installation instructions for *Windows 98 Second Edition*.

VIDEO

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Video\Win9x\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS630/730 Multimedia Package Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.

5

LAN

 **Note:** The system may need some files from the Windows 98 second edition CD-ROM during or after the installation process. Get the CD-ROM ready for use.

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\LAN\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS PCI Lan Driver Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.



AUDIO

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Audio\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS PCI Audio Driver Setup on-screen instructions to install the drivers and utilities.
Note: The system will need some files from the Windows 98 second edition CD-ROM during installation. Get the CD-ROM ready for use.
4. Restart *Windows* when the Setup Complete box appears.

MODEM

Note: You must first finish the audio setup (described above) and then install the modem driver.

1. Click **Start** (menu), point to **Settings** and click **Control Panel**. Double-click **System** (icon) and then click **Device Manager** (tab).
2. Click "+" next to **Other devices** (if its subitems are not shown).
3. Double-click **PCI Card** and click **Reinstall Driver** (button).
4. When the *Update Device Driver Wizard* appears, click **Next** > **Next**.
5. Select **Specify a location**, navigate (**Browse...**) to **D:\Drivers\MDC\Win98** and click **OK** > **Next**. Then, follow the on-screen instructions to install the drivers.
6. After the updated driver is installed, click **Finish**. Then, close **LP200 MDC Modem Properties** and **System Properties** (dialog box). The modem is ready for dial-up configuration.


KEYBOARD (OPTIONAL)

You need to install the keyboard utility to be able to use the 9 system-specific function keys on the upper row of the keyboard.

1. Click **Start** (menu) > **Run**.
2. Navigate (**Browse**) to **D:\Drivers\Keyboard\Win98\English\KB9973E.exe**. Click **Open** > **OK**.
3. When the *KB-9973 - InstallShield Wizard* appears, follow the on-screen instructions to install the utility.
4. Click **Finish** to restart *Windows*.

5

INFRARED PORT

 **Note:** The system will need some files from the *Windows 98 Second Edition* CD-ROM during installation. Get the CD-ROM ready for use.

1. Click **Start** (menu), point to **Settings** and click **Control Panel**. Double-click **System** (icon) and then click **Device Manager** (tab).
2. Click "+" next to **Network adapters** (not Infrared devices) and double-click **IrDA v3.0 Fast Infrared Port**.
3. Click **Driver** (tab) and then click **Update Driver...** (button).
4. When the *Update Device Driver Wizard* appears, click **Next** > **Next**.
5. Select **Specify a location**, navigate (**Browse...**) to **D:\Drivers\Fir** and click **OK** > **Next**.
6. Click **Next** when *Windows* double-checks the location of driver (**D:\Drivers\Fir\NSCIRDA.INF**).
7. Insert the *Windows 98 Second Edition* CD-ROM and click **OK**.



8. When *Windows* indicates the file “**nscirda.sys**” cannot be found, remove the *Windows 98 Second Edition* CD-ROM, insert the *Device Drivers & Utilities + User’s Manual* CD-ROM and then click **OK**.
9. After the updated driver is installed, click **Finish**.
10. Close **IrDA Fast Infrared Port Properties** and **System Properties** (dialog box).
11. Click **Start** (menu), point to **Settings** and click **Control Panel**. Double-click **Network** (icon) to open **Network** (dialog box).
12. Highlight **IrDA Fast Infrared Port** and click **Properties** (button) to open **IrDA Fast Infrared Port Properties** (dialog box).
13. Click **Advanced** (tab), highlight **Infrared Transceiver A** (under Property) and select **Vishay 6101E/6501E** (under Value). Then, click **OK** to close **IrDA Fast Infrared Port Properties** (dialog box).
14. Click **OK** to close **Network** (dialog box).
15. Restart *Windows* for the new settings to take effect.

SAVE TO DISK (HIBERNATE)

To create a Save to Disk (Hibernate) file for *Windows 98 Second Edition*, do the following,

1. Start the system at the DOS prompt with CD-ROM support.
2. Switch to **D:\Drivers\BIOS\STD**.

 **Note:** You can also copy the **Ovmakfil.exe** file to a floppy disk and run it from Drive A.

3. Type **Ovmakfil.exe -f#*** and then press **Enter**.(* #: the size of the memory your system comes with.)

Ex. Type **Ovmakfil.exe -f64** and then press **Enter**. (Your system comes with 64MB of memory.)

4. When the following message appears, it indicates the file is successfully created.

```
Data File Verified - Suspend-To-Disk is Enabled.
```

5. Restart *Windows*.

 **Note:** By default, a hidden file, **Ovsus.dat**, will be created in the root directory of your Drive C.



Checking the memory size

You can get memory-related information using SCU. To know the total amount of the memory your system comes with, add the amount of video memory to that of system memory (the number shown in the Total RAM field in the Memory box, 1MB = 1024KB).



Note for Memory Upgrade

Before you increase your memory, check to see if your Suspend-to-Disk (Hibernate) file is large enough (check the size of your **Ovsus.dat** file). To change the size of the file, you need to rerun the installation procedure. *Windows* doesn't allow you to enable the Hibernate support if the file is not big enough.



WINDOWS ME

This section covers driver and utility installation instructions for *Windows Me*.

VIDEO

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Video\Win9x\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS630/730 Multimedia Package Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.


5

LAN

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\LAN\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS PCI Lan Driver Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.

AUDIO

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Audio\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS PCI Audio Driver Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.

 **Note:** After *Windows* restarts, you still won't be able to hear any sound but should be able to see the **Speaker** icon on the taskbar. **Shutdown and restart** *Windows* and then you will be able to hear sound.

5

KEYBOARD (OPTIONAL)

You need to install the keyboard utility to be able to use the 9 system-specific function keys on the upper row of the keyboard.

1. Click **Start** (menu) > **Run**.
2. Navigate (**Browse**) to **D:\Drivers\Keyboard\WinMe\English\KB9973EM.exe**. Click **Open** > **OK**.
3. When the *KB-9973 - InstallShield Wizard* appears, follow the on-screen instructions to install the utility.
4. Click **Finish** to restart *Windows*.



MODEM

 **Note:** You must first finish the audio setup (described above) and then install the modem driver.

1. Click **Start** (menu), point to **Settings** and click **Control Panel**. Double-click **System** (icon) and then click **Device Manager** (tab).
2. Click “+” next to **Other devices** (if its subitems are not shown).
3. Double-click **PCI Card** and click **Reinstall Driver** (button).
4. When the *Update Device Driver Wizard* appears, click **Next**.
5. In the Select Other Driver window, select **LP200 MDC Modem** (Driver Description) + **D:\Drivers\MDC\WINME\AMRMW.INF** (Location) and click **OK**.
6. When the *Add New Hardware Wizard* appears, click **Next**.
7. After the new hardware device is installed, click **Finish**.
8. After the selected driver is installed, click **Finish**.
9. Then, close **LP200 MDC Modem Properties** and **System Properties** (dialog box). The modem is ready for dial-up configuration.



Modem Country Selection

Be sure to check if the default setting for the modem country selection is appropriate for you. (**Control Panel** > **Modem Settings** (icon) > **Country**)

WINDOWS 2000 PROFESSIONAL

This section covers driver and utility installation for *Windows 2000 Professional*.

VIDEO

To be able to take full advantage of the video functions within *Windows 2000 Professional*, you need to complete the following two-part installation procedure.

5

Part I: video driver installation

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Video\Win2000\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS630/730 Multimedia Package Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.

Part II: AGP driver installation

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Video\Win2000\AGP\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS Acceleration Graphic Port Setup on-screen instructions to install the driver.
4. Restart *Windows* when the Setup Complete box appears.



LAN

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\LAN\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS PCI Lan Driver Setup on-screen instructions to install the drivers and utilities.
4. Restart *Windows* when the Setup Complete box appears.

AUDIO

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Audio\Setup.exe**. Click **Open** > **OK**.
3. Follow the SiS PCI Audio Driver Setup on-screen instructions to install the drivers.
4. Restart *Windows* when the Setup Complete box appears.

MODEM

 **Note:** You have to install the modem driver after installing the audio driver.

1. Click **Start**, point to **Settings**, click **Control Panel**.
2. Double-click **System** (icon) and click **Hardware** (tab) > **Device Manager...** (button).
3. Click "+" next to **Other devices**.
4. Double-click **PCI Device**. Then, click **Reinstall Driver...** (button).
5. When the *Upgrade Device Driver Wizard* appears, click **Next**.
6. Select **Search for a suitable driver for my device** under Install Hardware Device Drivers and click **Next**.
7. Select **Specify a location** under Locate Driver Files and click **Next**.
8. Navigate (**Browse...**) to **D:\Drivers\MDC\Win2000** and click **OK** > **Next**.
9. When the driver is installed, click **Finish** to close the *Upgrade Device Driver Wizard*.
10. Close **LP200 MDC Modem Properties** and **System Properties** (dialog box). (Your modem is ready for dial-up configuration.)



Modem Country Selection

Be sure to check if the default setting for the modem country selection is appropriate for you. (**Control Panel** > **Modem Settings** (icon) > **Country**)



KEYBOARD (OPTIONAL)

To be able to use the 9 system-specific function keys on the upper row of the keyboard, you need to install this utility.

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Keyboard\Win2000\English\KB9973E.exe**. Click **Open** > **OK**.
3. Follow the KB-9973 Setup on-screen instructions to install the utility.
4. Click **Finish** to restart *Windows*.

SiS IDE HARD DISK CONTROLLER

This SiS IDE utility enables the SiS IDE hard disk controller to operate at the faster mode (DMA) right from system start. Without it, each time you start *Windows*, the hard disk controller won't switch to DMA mode until a restart takes place. To install the utility, do either of the following:

Method I:

1. Click **Start** (menu) > **Run...**
2. In Open, type the path: **D:\Drivers\SiSIDE\SiSIDE.EXE /D**.
3. When the **regmod** box appears, click **OK**. Then, restart *Windows* for the settings to take effect.

Method II:

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\SiSIDE\SiSIDE.EXE**. Click **Open** > **OK**.
3. When the installation is finished (no message will be shown), restart *Windows* for the settings to take effect.




WINDOWS NT 4.0 (WITH SERVICE PACK 6)

This section covers driver and utility installation instructions for *Windows NT 4.0*.

VIDEO

1. Click **Start**, point to **Settings** and click **Control Panel**. Double-click **Display** (icon) to open the **Display Properties** dialog box.
2. Click **Settings** (tab) > **Display Type...** (button).
3. Click **Change...** (button) under Adapter Type.
4. Click **Have Disk...**, navigate (**Browse...**) to **D:\Drivers\Video\WinNT40** and click **Open** > **OK**.
5. When you see **SiS 630/730** highlighted in the Change Display box, click **OK** > **Yes**.
6. Click **OK** when the system informs that the drivers were successfully installed.
7. Close both **Display Type** and **Display Properties** (dialog box).
8. Restart *Windows* for the changes to take effect.

LAN

 **Note:** The system will need some files from the *Windows NT 4.0* CD-ROM during the installation process. Get the CD-ROM ready for use.

1. Click **Start**, point to **Settings**, and click **Control Panel**. Double-click **Network** (icon).
2. Click **Yes** when you are asked if you want to install Windows NT Networking.
3. When the *Network Setup Wizard* appears, specify how your computer should participate on a network and click **Next**.
4. Click **Select from list...** and **Have Disk...** to select your Network adapter.
5. In the Insert Disk box type the path: **D:\Drivers\LAN\NT40** and click **OK**.
6. In the Select OEM Option box (**SiS 900 PCI Fast Ethernet Adapter** highlighted), click **OK**.
7. When *Windows* finds your network adapter “**SiS 900 PCI Fast Ethernet Adapter**”, click **Next**.
8. Then, select your network protocol(s) and service(s).
9. In the Windows NT Setup box, type the path where the original source of your Windows NT is (e.g. **D:\i386**) and click **Continue**.
10. When the SiS 900 PCI Fast Ethernet Adapter Setup box appears, click **Continue**.
11. Specify if you wish to use DHCP.
12. Click **Next** for *Windows* to install selected components.
13. Remove the *Windows NT 4.0* CD-ROM, insert the *Device Drivers & Utilities + User's Manual* CD-ROM and then click **Retry** if *Windows* indicates it can not locate some files.
14. Then, specify your network bindings.
15. Click **Next** for *Windows* to start the network.
16. Then, follow the on-screen instructions.
17. Shut down and restart *Windows* for the new settings to take effect.



AUDIO

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Audio\Setup.exe** and click **Open** > **OK**.
3. Follow the SiS PCI Audio Driver Setup on-screen instructions to install the driver.
4. Restart *Windows* when the Setup Complete box appears.

MODEM

 **Note:** You have to install the modem driver after installing the audio driver.

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\MDC\WinNT40\Setup.exe**. Click **Open** > **OK** > **Next**.
3. Select **COM3** or **COM4** when you are asked to choose a Comm Port for your modem and click **Next**.
4. In the Modem System Information: box, click **Next**.
5. Select **Don't detect my modem; I will select it from a list** and click **Next**.
6. Click **CLEVO** and **LP200 MDC Modem** for the manufacturer and model and click **Next**.
7. When asked on which ports you want to install it, select **Selected Ports**, click **COM3** and click **Next**.
8. Click **Finish** when you are told your modem has been set up successfully.
9. Close the **Modems Properties** dialog box and restart *Windows*. (Your modem is ready for dial-up configuration.)



Modem Country Selection

Be sure to check if the default setting for the modem country selection is appropriate for you. (**Start Menu** > **Programs** > **LP200 MDC Modem** > **Modem Country Selection** > **Country**)

KEYBOARD (OPTIONAL)

To be able to use the 9 system-specific function keys on the upper row of the keyboard, you need to install this utility.

1. Click **Start** (menu) > **Run...**
2. Navigate (**Browse...**) to **D:\Drivers\Keyboard\WinNT40\English\KB9973E.exe** and click **Open** > **OK**.
3. Follow the KB-9973 Setup on-screen instructions to install the utility.
4. Click **Finish** to restart *Windows*.



6 Hardware Upgrades

OVERVIEW

This chapter covers hardware upgrades.

- Upgrading the system memory
- Upgrading the hard disk drive (HDD)

 **Note:** Replacing components involves the same procedures as upgrading them.

WHEN NOT TO UPGRADE

These procedures involve opening the system's case, adding and sometimes replacing parts.

You should **not** perform any of these upgrades if:

- your system is still under warranty or a service contract
- you don't have all the necessary equipment
- you're not in the correct environment
- you doubt your abilities

Under any of these conditions, contact your dealer to purchase or replace the component(s).

6



Warranty Warning

Check with your dealer to make sure the upgrade procedures you intend to perform don't violate your warranty or service contract.

WHAT'S NEEDED

If you intend to do the work yourself, you will need:

- a clean, dry, and level work area
- a small Philips-head screwdriver
- a very thin flat-head screwdriver

You should also wear an anti-static wrist-strap (available from most computer supply centers).

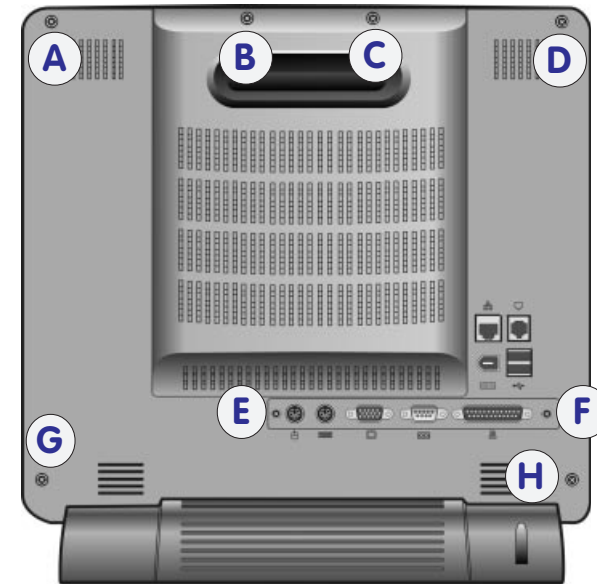


SYSTEM MEMORY UPGRADE

The system can accommodate up to 512MB of memory in two DIMM slots (a maximum of 256MB in each). It supports both PC100 and PC133 specifications and uses the same type of DIMM as conventional desktop systems. Perform the following steps to upgrade/replace system memory.

INSTALLING DIMMs

1. Make sure the system is turned off, you are wearing an antistatic wrist strap and you are in a dust/smoke-free environment.
2. Place the system with its LCD display facing down on a clean, dry, level surface.



3. Remove the 8 screws (**A, B, C, D, E, F, G & H**) which hold the back cover and the rest of the system together.

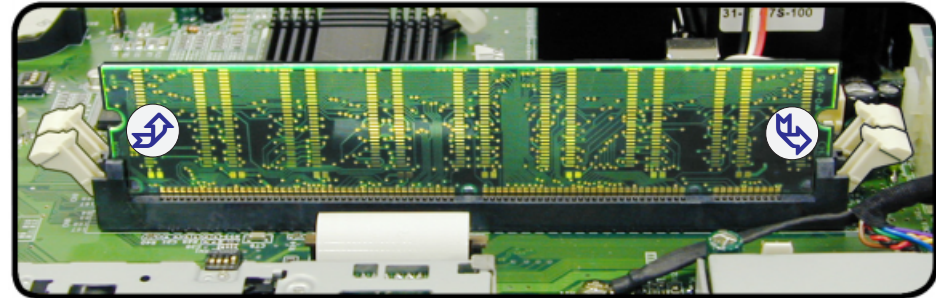


4. Carefully remove the back cover and put it aside.

6

HARDWARE UPGRADES

5. If you want to increase system memory by changing DIMMs, release the levers on the two ends of the DIMM slot. As you do so, the module will rise slightly and remove the seated DIMM, one DIMM at a time.



Contact Warning

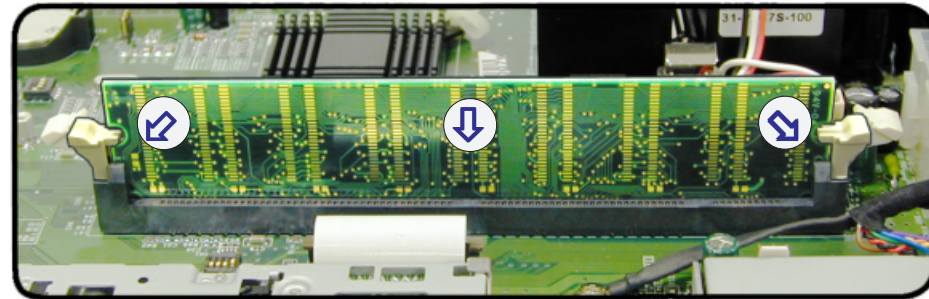
Be careful not to touch the DIMM's pins. Even the cleanest hands have oils which can attract particles, and degrade the module's performance.

👉 Note for Windows 98 SE Hibernate Function

Users: Once you increase system memory, you have to check to see if your Hibernate-specific file is large enough for the system to go into hibernation. It should be as large as or larger than the size of your total memory. Refer to *Chapter 5, Drivers & Utilities, Windows 98 Second Edition, Save to Disk (Hibernate)* and *Chapter 3, Advanced Controls, Power Options in Windows 98 Second Edition* for details.



6. Insert a DIMM in either slot at about a 20° angle. Grooves on the sides of the module allow you to insert it only one way. Make sure it is seated as far into the slot as it will go. DO NOT FORCE IT. The module should fit in without much pressure. If there is a lot of resistance, check to make sure the DIMM is properly seated.
7. Click in the slot levers to secure the module.
8. Reinstall the back cover with the 8 screws removed in step 3.
9. After changing the memory configuration, run SCU so the new total can be registered in the CMOS. (Refer to *Chapter 4: System Utilities*.)



HDD UPGRADE

You can replace your HDD with another 3.5", 25.4mm high IDE HDD of the same or higher capacity. There are two parts to this procedure, hardware and software.

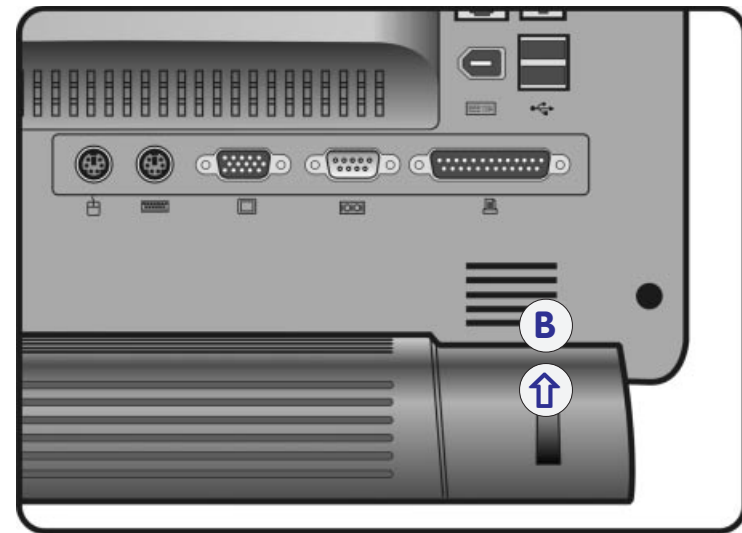
HARDWARE REMOVAL

1. Make sure the system is turned off, you are wearing an antistatic wrist strap and you are in a dust/smoke-free environment.

Model I



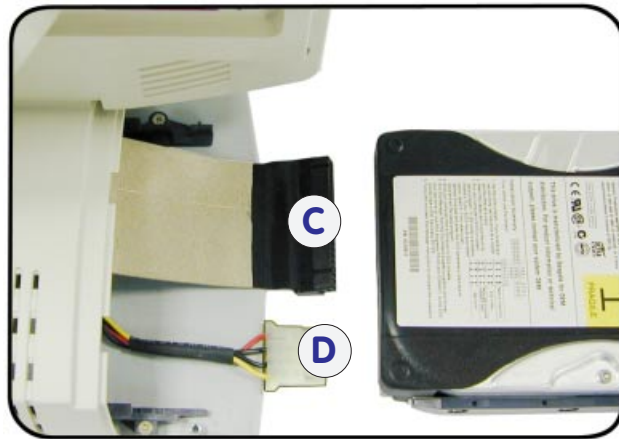
2. Remove screw **A**. (Only Model I has this screw.)



3. Remove screw **B**.



4. Pull the HDD cartridge out from its bay until the HDD's connectors are exposed.



5. Separate the HDD cartridge from the rest of the system by disconnecting the HDD's IDE cable (C) and the power cable (D).

Note: Both of these cables are a tight fit.

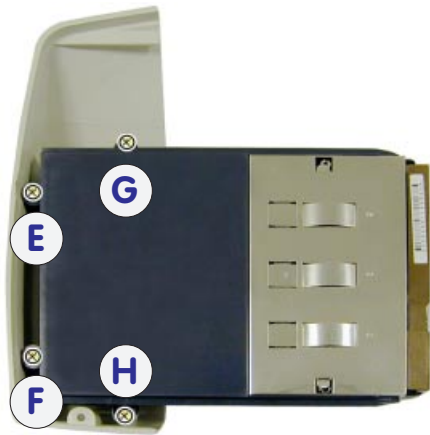


HDD System Warning

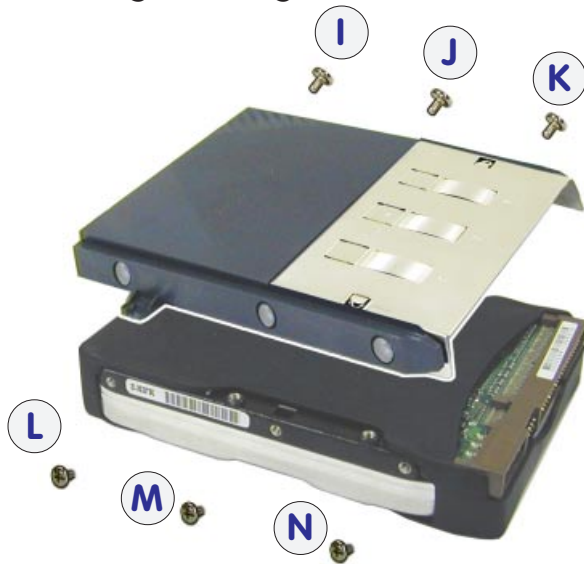
New HDD's are blank. So, before you begin, make sure:

- You've backed up any data you want to keep from your old HDD onto another drive.
- You have all of the CD-ROMs, FDDs and other media you need to install an operating system, and your applications.
- If you have access to the Internet, download the latest application and hardware driver updates for the operating system you plan to install, and copy them onto a removable medium.
- You allow yourself enough time to complete this procedure. (hint: it usually takes twice as long as you first estimated.)

6. Turn the HDD cartridge upside down.



7. Remove 4 screws (E, F, G & H) to separate the HDD frame from the cartridge casing.



8. Remove 6 screws (I, J, K, L, M & N) to separate the HDD from its frame.

INSTALLING AN UPGRADE HDD

Just reverse the removal procedure. However, watch out for:

- Any special jumper settings – refer to the documentation that came with the new HDD. It should be configured as the “Master” drive. (This is usually the default setting.)
- The “Pin 1” connection with the IDE cable – the cable’s Pin 1 line has a red stripe.

SOFTWARE

After you replace or upgrade the HDD, and re-assemble the system, turn it on.

Allow the system to auto-detect the new HDD, or if necessary, run the System Configuration Utility (SCU) to customize the system. Refer to *Chapter 4: System Utilities*.

SETTING UP A NEW HDD

Follow your operating system’s installation instructions and install the necessary drivers and utilities (refer to *Chapter 5, Drivers & Utilities*).



7 Troubleshooting

OVERVIEW

This section is about what you should do if something goes wrong with your system. This can't anticipate every possible problem, but you should check here before you panic. If you don't find the answer in these pages, make sure you have followed the instructions carefully and observed the safety precautions in the Preface. If all else fails, talk to your dealer. You should also make a record of what happened and what remedies you tried.



Of course, if something goes wrong, it will happen at the most inconvenient time possible, so you should preview this section just in case. If, after you've tried everything, and the system still won't cooperate, try turning it off for a few minutes and then rebooting. You will lose any unsaved data, but it may start working again. Then, call your dealer or service representative.

POWER

Problem	Indicator	Possible Solution
Neither the normal shutdown procedure nor pressing the Ctrl + Alt + Del key combination can turn the system off.	The system hangs.	Press down on the power button for 4 seconds to turn the system off. If this remedy still doesn't work, unplug the power cord.
I didn't turn the system off but it looks like it's off.	None of the system status LEDs is on.	Check if the power cord is accidentally unplugged. If that is the case, plug it in and press the power button to turn the system on. The system has entered Hibernate mode. Press the power button to turn on the system. For information on Hibernate mode refer to <i>Chapter 3, Advanced Controls, Power Management Features</i> .



DISPLAY

Problem	Indicator	Possible Solution
The screen goes blank.	The Power LED remains green.	The display timeout is activated. Press any key or move your mouse and the system will return to where it last left off.
	The Power LED is flashing (in orange).	The system has entered Standby mode. Press the power button to return the system to where it last left off.
No image appears on the external monitor I have plugged in and powered on.		You haven't installed the video driver and made necessary adjustments. Refer to <i>Chapter 5, Drivers & Utilities, (operating system), Video</i> and <i>Chapter 3, Advanced Controls, Advanced Video Controls, Switching Display Devices</i> .
		The driver mode is set to Single but the primary display set to LCD (by default). You have to use the video control panel to change settings. (via the  icon on the taskbar > Display Properties > Display Setting). Refer to <i>Chapter 3, Advanced Controls, Advanced Video Controls, Switching Display Devices</i> .
No image appears on the LCD.		The driver mode is set to Single but the primary display set to VGA1 (external monitor). Plug in your external monitor and adjust settings. (via the  icon on the taskbar > Display Properties > Display Setting). Refer to <i>Chapter 3, Advanced Controls, Advanced Video Controls, Switching Display Devices</i> .

KEYBOARD

Problem	Indicator	Possible Solution
None of the function keys on the upper row of the keyboard works.		The keyboard utility is not installed. If this is the case, install it. Refer to <i>Chapter 5, Drivers & Utilities, (Operating System), Keyboard (Optional)</i> . In addition, refer to <i>Chapter 3, Advanced Controls, Keyboard System-Specific Function Keys</i> for more details.



DVD/CD-RW DRIVE

Problem	Possible Solution
I cannot play any DVDs.	The DVD utility is not installed. If this is the case, install it.
I cannot change region codes any more using the DVD utility.	You have changed region codes four times. Region change is device-dependent. You can only make region changes four times at most, including all the region changes you have made under different operating systems.
I experience slowness in playing games using the CD device.	<p>If you are using <i>Windows 2000 Professional</i>, check to see if the AGP driver is installed. Refer to <i>Chapter 5, Drivers & Utilities, Windows 2000 Professional, Video</i>.</p> <p>The video memory is not enough. Consult your game's user documentation for video memory requirements. Refer to <i>Chapter 4, System Utilities, Shared Memory (Memory Menu)</i>, page 4-8, for information on configuring video memory.</p>
I cannot record any file onto a CD-R.	The CD-R utility is not installed. If this is the case, install it.
Either your CRT monitor doesn't display any image but you can hear sound after you start a DVD title or you cannot play a DVD title at all.	<p>It is very likely that your system doesn't have enough video resources to play a DVD title in this mode.</p> <p>To solve the problem, first try to decrease the resolution, color depth and refresh rate you set for your monitor. If it still doesn't work, only use the built-in LCD screen to watch DVD titles. (Refer to <i>Chapter 3, Advanced Controls, Advanced Video Controls</i>.)</p>

AUDIO

Problem

The sound volume is very low even if I have switched the volume control knob to the maximum.

In *Windows 98 SE* or *Windows Me*, I cannot use a joystick or game pad even though it is well plugged in.

Possible Solution

The setting of the volume control within *Windows* determines how high the sound volume can be set using the volume control knob on the system. To check the setting in *Windows*, click the **Speaker** icon on the taskbar.

You need a game port to be able to use your joystick or game pad. The computer doesn't have a dedicated game port but you can use the Serial 1 port or a USB port as a game port by doing the following,

1. Go to **Control Panel** and double-click **Add New Hardware**.
2. When the *Add New Hardware Wizard* appears, click **Next > Next**.
3. Select "**No, the device isn't in the list**" and click **Next**.
4. Select "**No, I want to select the hardware from a list**" and click **Next**.
5. Highlight **Other devices** and click **Next**.
6. Select **Microsoft** under Manufacturers and **Gameport Joystick** under Models and click **Next > Next**.
7. Click **Finish** when the necessary software is installed.



HARD DISK

Problem

It seems my hard disk is performing noticeably more slowly in *Windows 2000* than in *Windows 98*.

Possible Solution

You may not have installed the SiSIDE utility after installing *Windows 2000 Professional*. This lets your hard disk operate in the faster mode (DMA) right from system start. (*Windows 98* auto-enables this function during the OS installation.) Refer to *Chapter 5: Drivers & Utilities, Windows 2000 Professional, SiS IDE Hard Disk Controller*.

PRINTER

Problem

The printer doesn't print properly even though it's plugged in and powered on.

Possible Solution

The operation mode for the parallel port set in SCU doesn't correspond with the mode your printer can work with. First, consult the printer's user documentation to find out which mode your printer can use. Second, go to SCU and check the setting in the LPT Port field (Components menu > LPT Port > Port Definition). Refer to *Chapter 4, System Utilities, More on SCU - a few details, LPT Port*.



OPERATION

Problem	Indicator	Possible Solution
I can put the system on standby but cannot wake it up using the Standby key.		The Standby key doesn't support wake-up from Standby mode. Use the power button instead.
I pressed F2 during the system boot-up but it didn't take me to the SCU screens.		You may have pressed F2 too late. To enter SCU, you have to press F2 immediately after you see the prompt message.
Remote wakeup via LAN doesn't work.		The Wakeup on LAN feature in SCU is not "Enabled". Refer to <i>Chapter 4, System Utilities, More on SCU - a few details, Wakeup on LAN (Power Menu)</i> for details.
My IEEE 1394 device cannot be powered on.		If your device doesn't come with its own power supply, it cannot be powered on when you use it with the system. The IEEE 1394 port on the system is an unpowered connection, which means the system doesn't supply power to any IEEE 1394 device. The system can only support self-powered IEEE 1394 devices.

Problem	Indicator	Possible Solution
<i>Windows NT 4.0</i> is not working properly due to resource conflicts.		Disabling USB Setting in System Configuration Utility before the <i>Windows NT 4.0</i> installation is essential to ensure proper operation of the OS. If you failed to do so, you can only remedy the problem by disabling USB Setting (refer to page 5-3) and reinstalling <i>Windows NT 4.0</i> .
I cannot enable Hibernation support in <i>Windows 98</i> .	The Hibernation tab is not available in the Power Management Properties dialog box.	You haven't created a Hibernation-specific file in DOS using Ovmakfil.exe or the created file is too small. Refer to <i>Chapter 5, Drivers & Utilities, Windows 98 Second Edition, Save to Disk (Hibernation)</i> .
I cannot put the system in hibernation in <i>Windows 98</i> .		You may have just increased system memory but forgot to recreate your Hibernation-specific file. The file has to be as large as or larger than the total amount of your system memory. Refer to <i>Chapter 5, Drivers & Utilities, Windows 98 Second Edition, Save to Disk (Hibernation)</i> .



8 Specifications

OVERVIEW

This information listed in this chapter is for reference only. It is subject to change at the manufacturer's discretion and without notice.

Unless otherwise indicated, none of the components and/or subsystems can be modified or upgraded.

CPU

Intel Celeron

Speed:

- 533/600/633/667/700/
733/766MHz
(FSB66: 66MHz front
side bus)
- 800/850/900/950MHz
(FSB100: 100MHz front
side bus)

L2 Cache: 128KB (on-die)

Package*: Socket-370
(FCPGA/FCPGA2)

Intel Pentium III

Speed:

- 600/650/700/750/800/
850/1100MHz
(FSB100: 100MHz front
side bus)
- 600/733/800/866/933/
1000MHz
(FSB133: 133MHz front
side bus)

L2 Cache: 256KB (on-die)

Package*: Socket-370
(FCPGA/FCPGA2)

* Package type is a manufacturer's option.



CORE LOGIC CHIP

SiS630S digital I/F

BIOS

Manufacturer: Insyde
Type: 2Mb flash ROM
Compliance: APM 1.2
ACPI (S1, S4, S5)

SYSTEM MEMORY*

On-board: 0MB
Expandable: up to 512MB
(using one or both slots)
Slot Specs : 168-pin, 3.3V DIMM
(dual-in-line memory module) slots
(The system has 2 memory slots.)

Memory Type: SDRAM
Memory Speed: 100MHz/133MHz
(PC100/PC133)
Supported Modules: 64, 128, 256MB

*Dealer upgradeable.

VIDEO

Chipset

Controller: built-in SiS630S

Memory*: 8MB (default)
user-adjustable
up to 32MB

Output

Display: built-in 15" color
TFT LCD

Resolution: XGA (1024x768)

Color Depth: 256K colors

Interface: digital I/F

Port: analog 15-pin
VGA port for CRT

* Video Memory Configuration

The system allocates or “shares” a portion of system memory for video use.

“Shared” memory size is user-configurable via the SCU.

Refer to *Chapter 4: System Utilities*, for information on how and when to change the configuration.



AUDIO

Controller:	built-in SiS630S
Compatibility:	Sound Blaster Windows Sound System
Compliance:	AC'97 specs
Output:	2 built-in speakers
Ports:	line-in phones-out microphone-in

COMMUNICATIONS

Modem*

Type:	MDC, V.90, 56K (software-based)
Output:	RJ-11 jack (on-board)

***The modem module is a dealer option.**

LAN

Type:	built-in SiS630S
Output:	RJ-45 jack (on-board)

PCMCIA

Controller:	TI 1420 (with CardBus support)
Socket:	(x 2) Type II or (x 1) Type III

STORAGE DEVICES

Hard Disk Drive (HDD)*

Mounting:	(fixed)
Dimensions:	3.5", 25.4mm
Capacity:	20GB or larger
Type:	Ultra-66 I/F

***Dealer upgradeable**

Floppy Disk Drive (FDD)

Mounting:	(fixed)
Dimensions:	12.7mm
Type:	3.5", 1.44MB (3-mode)

CD Device**

Mounting :	(fixed)
Dimensions:	12.7mm
Types* :	CD-ROM (24X) DVD (8X) CD-RW (4X)

**** CD device type is a manufacturer's option.**



INPUT

Keyboard (optional)

104 keys
AT-compatible
With special function keys

PS/2: (x 2) 6-pin
for mouse and keyboard

USB: (x 2) or (x 4)
depending on the model

IEEE 1394*: (x 1) 6-pin, unpowered

***The IEEE 1394 module is a dealer option.**

I/O

Controller: NS87393

Ports

Serial: (x 1) 9-pin
16550A compatible
(x 1) Infrared
modes: IrDA and FIR

Parallel: (x 1) 25-pin
modes: Standard AT,
Bidirectional,
ECP and EPP

POWER SYSTEM

Adapter: Internal AC
90W, 90-264V,
full range,
auto-sensing

Power management:
ACPI-compliant
(S1, S4 & S5)

SECURITY

BIOS password

Kensington Lock Port

ENVIRONMENT

Temperature

Operating: 5°C to 35°C
(41°F to 95°F)

Storage: -10°C to 65°C
(14°F to 149°F)

Humidity (non-condensing)

Operating: 20 % to 80 %

Storage: 10 % to 90 %

PHYSICAL

Dimensions: **W:** 369mm (14.5")
L: 384mm (15.1")
D: 175mm (6.9")

Weight: 7.9Kg/17.4lbs

Panel Tilt: 0° to 15°

Stand Swivel: 270°

Carrying Handle

ACCESSORIES

CD-ROM: User's Manual
device drivers & utilities

Printed: User's Manual