Troubleshooting

Complete the following in the order presented until your system is functioning properly. If all of the steps below fail then contact your local reseller for assistance.

▸ *Questions and Answers*

▸ *Check the Connections*

Verify all of the power and peripheral cables are securely plugged into their sockets and that your system and power supply is on.

▸ *Norton AntiVirus*

Run Norton AntiVirus to insure a virus is not affecting your computer.

To run Norton AntiVirus proceed as follows:

Click **Start > Programs > Norton AntiVirus > Norton AntiVirus 2002**

▸ *Windows Help and Support*

Run Windows Help and Support to find problem that may be affecting your computer.

To run Windows Help and Support proceed as follows:

Click **Start > Help**

▸ *Reinstalling Software*

If for some reason your system crashes you may corrupt your HDD, Windows Operating system and/or some of your device drivers. If this is the case, use **System Recovery CD** to reinstall **OS** and **System Software CD** to reinstall the corrupt device drivers.

System Recovery Precaution:
Before you start restoring your windows operating system insure you backup all data on your hard drive.
Samsung is NOT responsible for any data loss.

Questions and Answers

Operating System Problems

Problem	Action
The computer does nothing when you turn it on.	Has the battery run down? Connect the power cord to the computer and recharge the battery. Try turning on the computer again.
Some of the letter keys type numbers instead of the indicated letters.	Is the Num Lock light on? If so, the numeric keypad on the keyboard is active. To return the keypad keys to typing letters, press <Num Lock>.
Battery power seems to run out faster than expected.	If you are running the computer from the battery rather than the power cord, make sure that you set the Idle Mode field in System Setup to On. This setting enables the microprocessor and the hard drive to slow down when the computer is not busy.
Certain software programs "hang" during operations when there is no interaction with the keyboard or peripheral devices.	Your computer may be in Suspend or Rest mode. Tap the touchpad to resume from Suspend or press the power button to resume from rest.
PC Card does not work correctly.	Make sure that the PC Card is inserted left side up in the PC Card slot. Check that the card is inserted fully into the slot. If you are using a PC Card modem, check the modem cable connections.
Your ATA or Compact Flashcard do not work.	A patch is provided for these cards on the Recovery CD
The System Setup settings are not retained when you turn off the computer.	The CMOS battery inside the computer may need to be replaced. The CMOS battery provides power to save the system BIOS information when the computer is turned off. Normally, the CMOS battery lasts for several years. Do not attempt to open the chassis and replace this battery yourself or your warranty is void. Have an authorized the manufacturer's service center replace the CMOS battery.

Problem	Action
No sound.	Verify if the mute check box is checked or the volume is not turned down in the pop up menu by clicking the speaker icon of the task bar.
System/BIOS behaves erratically	If you caused an abnormal power interruption (i.e.. removing battery while on battery power), you may cause BIOS data corruption.

Video Problems

Problem	Action
Nothing appears on the LCD panel when you turn on the computer.	Adjust the brightness on a TFT LCD. Are you using an external monitor? If so, press **\<Fn+F4\>** to return to the LCD panel.
Error Message when entering Power Management while in Multimonitor mode.	If the secondary monitor is set to 256 colours, this error message could appear. Change the colour of the secondary monitor to 'high colour (16 bit)'.
Nothing appears on the external monitor when you switch the display to it.	Is the monitor properly connected to the computer? Is the monitor's power cord connected to an AC wall outlet? Check the brightness and contrast controls on the monitor. Does the program appear on the LCD panel instead of the external monitor? If so, press **\<Fn+F4\>** to switch to the monitor. Try turning the monitor off and on again.
Only the LCD Display works when system returns from Power management mode while in Multimonitor mode.	The system resets to the original BIOS setup when the system returns from the power management mode. If the Display mode, in the Advanced menu of BIOS setup is set to LCD, then only the LCD will be turned on when the system wakes up. Set the Display mode in the BIOS to Both to turn on the LCD & CRT on wakeup.
The external monitor displays flashes or waves.	Check the cables between the monitor and the computer. Are they properly installed?
Cannot toggle between CRT and LCD while playing the 3D game.	If you are using the Multimonitor mode, you can not use the **\<Fn+F4\>** key combination and also you cannot use this function in 3D games using Direct-X.
There is LCD or CRT has noise (speckles, lines or raged edges) on the picture when playing a MPEG file with the Media player/ DVD software or using the USB camera.	Adjust the resolution and the colour to 1400 x 1050 and 32 bit to display clearly, or avoid playing two programs at the same time.
In DOS mode the CRT/LCD button does not work.	The LCD only mode is not supported using this Key combination.

Problem	Action
If the connected CRT monitor display is not steady.	If the refresh rate is not optimal for the connected CRT, then this problem may occur. **To correct this problem do the following:** 1. Click **Start** > **Settings** > **Control Panel.** 2. Double-click the **Display** icon to open the **Display properties**. 3. Select **Settings** 4. Click the **Advanced** button. 5. Click the Adapter tab 6. Adjust the Refresh rate to optimal or other selections until you see the CRT clearly.

Modem Problems

Problem	Action
My modem doesn't connect to services or disconnects during communication	If your modem has difficulty in connecting to on-line services and sustaining communications, first check if other devices are connected and remove them. Also remove any extension leads. Interference from certain devices or poor line power conditions may degrade the quality of your connection. Under these conditions gradually reduce the communication speed of your modem until a reliable connection is achieved. Check with your on-line service provider.
When using a PBX phone system I can't dial on my modem.	If you use a PBX phone system you may need to press a number i.e. '9' to connect to an external line, you should enter the following command before trying the connection and check modem initialization. (***ATX3&W***) And add "9," as the external line prefix (example) of the phone number when using the dial command "***ATDT9, 123-4567***".
Screen displays random or garbage characters during communications.	After your modem has connected to the on-line service, your screen may display garbage characters or after-images in screen transitions. This problem is caused by a mismatch of the terminal modes between communications service and communications programs. You need to match the terminal modes to each other. Refer to the user's guide of the communications program you're using.
Reports error message that insufficient Hard Disk space is available.	Delete the unnecessary messages or data you received by Modem or Fax every one to three months as required. If you're using the internet, many picture and data files can get downloaded to your HARD DISK every time you visit a home page, which will consume a lot of your HARD DISK space. For more detailed information about the method of deleting, refer to the help of the Web browser you've been using or your user's guide.

FAX Problems:
Depending on telephone line status, or types of Fax machines/programs that send/receive the Fax, Fax transmission/reception may not work correctly. In that case, please try other Fax programs. (e.g. Win Fax)

Reinstalling Software

Windows Application/Driver (Re)Installation

If you wish to reinstall drivers or applications, please use the **Software CD.**

If you wish to reinstall the Windows operating system, please use the **Recovery CD.**

Application/Driver (Re)Installation

Simply install the driver(s) according to the instructions below:

1. Insert the **System Software** CD-ROM.
2. Follow the directions provided in the opening window.

Windows (Re)Installation

To reinstall the your Microsoft Windows XP Operating System:

1. Start your computer.
2. Open the CD Drawer and insert the Recovery CD. Close the drawer.
3. When the Recovery Menu appears, select the option as required to restore your system. You have two options for system recovery. The **Standard** Installation and the **User** Installation.

    - The **Standard Installation** Option will SAVE all user data files on your hard disk and restore your operating system to normal.

    - The **User Installation** Option will DESTROY all data on your hard disk. If you have any data files or other software you do not wish to lose, make a backup of these files to a diskette or other medium using a backup utility before proceeding.
      Samsung is NOT responsible for any data loss.

You MUST, however reinstall all of your applications and drivers using the Software CD and other application software as required.

If the Recovery Menu does not appear, proceed as follows:

1. Restart your computer

2. Open the CD Drawer and insert the Recovery CD. Close the drawer.

3. You will see a message "Press any key to boot from the CD", press any key.

4. You will be presented with the User Installation Option.

If your computer cannot boot from the CD, change the boot priority to the CD-ROM device as described in this manual.

Specifications

Dimension

LCD viewing area (14.1" TFT)	285.6 x 214.3 mm
Width	32.0 cm
Depth	26.5 cm
Height	2.95 cm
Weight (CD Drive, Li-Ion battery & 14.1" TFT LCD)	2400 g

Environment

Ambient temperature, operating	5°–35°C
Ambient temperature, storage	-32°–60° C
Relative humidity (noncondensing), operating	30–80%
Relative humidity (noncondensing), storage	95%
Altitude, operating	0 to 4,572 m
Altitude, storage	0 to 13,716 m
Shock, operating	122 G for 2 ms half sine
Shock, nonoperating	163 G for 2 ms half sine

Lithium-Ion Smart Battery

Normal Weight	435g
Nominal open circuit voltage	14.8 VDC
Capacity, typical	4400 mAhr, 65.0whr
Charging time, approximate, with computer turned off, typical	3.0 hr
Charging time, approximate, with computer turned on , typical	6.0 hr

External AC Adapter

Operating voltage	100-240 VAC
Line frequency	50-60 Hz
Input current	1.5 A 100 V ~ 0.8 A 240 V
Output current	4.2 A
Output voltage	19.0 VDC

Abbreviations

A . . . . Amperes

AC . . . . Alternating current

ACPI . . . . . . Advanced Configuration and Power management Interface

APM . . . . . Advanced Power Management

ATA . . . . . . AT attachment (refers to the hard-drive interface in an AT-compatible computer)

ATAPI . . . . . AT attachment packet interface

BBS . . . . . . Bulletin board system

BIOS . . . . . . Basic input/output system

C . . . . Centigrade

CD . . . . Compact disc

CD-ROM . . Compact disc read-only memory

cm . . . . Centimeters

COM . . . . . Communication (as in communication port)

CMOS . . . . Complementary metal-oxide semiconductor

DC . . . . Direct current

DMA . . . . . Direct memory access

DPMS . . . . Display power-management signaling

DRAM . . . . Dynamic random access memory

DSTN . . . . Double layer super twist nematic

ECP . . . . . . Extended capabilities port

EPP . . . . . . Enhanced parallel port

g . . . . gram

G . . . . Gravity

GB . . . . Gigabytes

hr . . . . hour

Hz . . . . Hertz

IDE . . . . . . Integrated drive electronics

I/O . . . . Input/output

IRQ . . . . . . Interrupt request line

ISA . . . . Industry Standard Architecture

KB . . . . Kilobytes

kg . . . . Kilograms

LAN . . . . . . Local-area network

lb. . . . . Pounds

LBA . . . . . . Logical block addressing

LCD . . . . . . Liquid-crystal display

m . . . . Meters

mA . . . . Milliampere

mAhr . . . . . Milliampere hour

MB . . . . Megabyte

mm . . . . millimeter

MPEG . . . . . Motion Picture Experts Group

MPU . . . . . . Microprocessor unit

ms . . . . Millisecond

PDF . . . . Portable document format

PC . . . . Personal computer

PCI . . . . Peripheral component interconnect

PCMCIA . . . Personal Computer Memory Card International Association

POST . . . . . . Power-on self-test

PNP . . . . Plug and play

PS/2 . . . . Personal System/2

RAM . . . . . . Random-access memory

ROM . . . . . . Read-only memory

SVGA . . . . . Super video graphics array

TFT . . . . Thin-film transistor

USB . . . . Universal serial bus

V . . . . Volt

VAC . . . . . . Voltage alternating current

VCC . . . . . . Voltage collector current

VDC . . . . . . Voltage direct current

whr . . . . Watt hour

Glossary

AC adapter

The AC (or alternating current) adapter regulates current coming into your computer from the wall outlet. The current at the wall outlet is alternating current and needs to be changed by the adapter to DC (direct current) before your computer can use it for power.

ACPI

ACPI (Advanced Configuration and Power Interface)- a method for describing hardware interfaces in terms abstract enough to allow flexible and innovative hardware implementations and concrete enough to allow shrink-wrap OS code to use such hardware interfaces.

BIOS

BIOS stands for basic input/output system. The BIOS is software (often called firmware) that is independent of any operating system. It enables the computer to communicate with the screen, keyboard, and other peripheral devices without using programs on the hard disk.

The BIOS on your computer is flash BIOS, which means that it has been recorded on a flash memory chip that can be updated if needed.

Boot

To start your computer. A cold boot resets the entire computer and runs through all computer self-tests. A warm boot clears out computer memory only.

Boot disk

A disk containing operating system programs required to start your computer. A boot disk can be a floppy disk, hard drive, or compact disc.

Byte

The basic unit of measure for computer memory. A character—such as a letter of the alphabet—uses one byte of memory. Computer memory is often measured in kilobytes (1,024 bytes) or megabytes (1,048,576 bytes).

Each byte is made up of eight bits. For more information on bytes and bits, see an introductory book on computers.

Cache memory

Cache is very fast, zero-wait-state memory located between the microprocessor and main memory. Cache reduces the average time required by the microprocessor to get the data it needs from the main memory by storing recently accessed data in the cache.

CardBus

CardBus technology enables the computer to use 32-bit PC Cards. Hardware in the computer and the Windows operating system provide support for the 32-bit cards. The voltage of 32-bit cards (3.3 volts) is lower than that of 16-bit cards (5 volts). The 32-bit cards can transmit more data at a time than the 16-bit cards, thus increasing their speed.

CMOS memory

CMOS (complementary metal oxide semiconductor) memory is powered by the CMOS battery. The System Setup settings and other parameters are maintained in CMOS memory. Even when you turn your computer off, the information in CMOS memory is saved.

COM port

COM stands for communication. COM ports are the serial ports in your computer.

Compact Disc

A compact disc (CD).

Conventional memory

The first 640 KB of system memory. Operating systems and application programs can directly access this memory without using memory-management software.

Disk

The device used by the computer to store and retrieve information. *Disk* can refer to a floppy disk, hard disk, or RAM disk.

Disk cache

A software device that accumulates copies of recently used disk sectors in RAM. The application program can then read these copies without accessing the disk. This, in turn, speeds up the performance of the application.

A cache is a buffer for transferring disk sectors in and out of RAM. Data stored in a disk cache is a copy of data already stored on the physical disk.

DMA (direct memory access)

A method of transferring data from a device to memory without having the data pass through the microprocessor. Using DMA can speed up system performance.

DPMS

Display Power Management Signalling. Displays or monitors that comply with this can be managed by the Power Management features found in the system setup.

Floppy disk

A removable disk, also called *floppy* or *diskette*.

Hard drive

Also called *fixed* disk. A hard drive is connected to the computer and can be installed or removed. Data written to a hard drive remains until it is overwritten or corrupted.

The 2.5-inch hard drive in your computer was designed for use in a notebook computer. Because hard drives in notebook computers are smaller than those in desktop computers, their maximum storage capacity may be less than that of desktop hard drives. However, because of their smaller size, the drives handle shock and vibration better than larger drives, which is important for a notebook computer.

I/O

Input/output. Refers to peripheral devices, such as printers, that are addressed through an I/O address.

I/O address

I/O stands for input/output. Peripheral devices, such as printers, are addressed through the I/O port address.

IRQ (interrupt request line)

The IRQ is a hardware line that a device uses to signal the microprocessor when the device needs the microprocessor's services. The number of IRQs is limited by industry standards.

LCD (liquid-crystal display)

The LCD screen on your computer differs from the display screen of a desktop monitor. Most desktop monitors use CRT (cathode-ray tube) displays, which work by moving an electron beam across phosphor dots on the back of the screen. The phosphor dots light up to show the image. LCDs use a liquid-crystal solution between two sheets of polarizing material. Electric current passing through the liquid aligns the crystals so that light can or cannot pass through them, creating an image.

MB (megabyte)

1,024 kilobytes.

Megabit

1,048,576 bits or about 128 kilobytes.

Operating system

A program that supervises the computer's operation, including handling I/O. Application programs and users can request operating-system services. A user might request operation-system services to copy files or format a disk. An application program might use the operating system to obtain keyboard input, write data to a file, or write data to a screen.

PC Card

PC Card stands for personal computer card. The Personal Computer Memory Card International Association (PCMCIA) defines the standards used to develop all PC Cards. PC Card types include: modems, Ethernet adapters, SCSI adapters, ATA cards, and memory cards.

PC slot

The PC slot is the hardware slot in the computer where the PC Card is placed.

Pixel

A pixel is an individual dot in a graphic displayed on your computer. The pixels are so close together that they look as though they are connected. An LCD screen displays thousands or millions of pixels.

Plug and Play

A plug and play operating system automatically configures computer components to work with your system. With this type of operating system, you normally do not need to set jumpers on devices or set memory addresses or IRQs.

RAM (random access memory)

The computer's system memory, including conventional and extended memory. You can write to and read from RAM. Information stored in RAM is temporary, and is erased when the system is turned off.

Refresh rate

The refresh rate is the rate at which the image on the LCD screen is rewritten to the screen. A fast refresh rate helps keep the image from flickering.

Resolution

The resolution is the sharpness or clarity of the image on your LCD screen. Resolution is measured by the number of pixels the computer's screen can display. For example, a resolution of 800 x 600 means that the screen can display 800 pixels in row and can display 600 rows. The more pixels displayed, the higher the resolution and the better image.

ROM (read-only memory)

Permanent computer memory dedicated to a particular function. For example, the instructions for starting the computer when you first turn on power are contained in ROM. You cannot write to ROM. (ROM is not the same as RAM).

Sector

Also known as *disk sector*. The portion of a track that is numbered and can hold a specified number of characters (usually 512 KB).

Shadow RAM

A write-protected area of RAM that contains a copy of the BIOS. As the computer boots, the BIOS is copied from its permanent location in ROM to RAM. The BIOS can be executed much faster in RAM than in ROM. The BIOS remains in shadow RAM until you turn off the computer.

TFT (thin film transistor) LCD

A TFT LCD uses a separate transistor circuit to control each pixel. This technology provides the best resolution for an LCD screen. A TFT LCD is also sometimes called an active matrix LCD.

Zoomed video

Zoomed video technology enables zoom video PC Card to transfer data directly from the card to video and audio systems without going through the microprocessor. This process improves video performance. Video conferencing and real-time multimedia devices, such as video cameras, are supported by zoom video.