SAMSUNG *Q30 plus*

The product images may differ from actual product appearance.

Manual

This manual describes how to use computer as well as information
on Windows, Internet, Upgrade, and Troubleshooting.

The photographs used in this user manual may be somewhat different in shape and color to those of your computer depending on the model of your computer.

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1. Getting Started

2. Introducing Windows

3. Using The Computer

4. Connecting to the Internet

5. System Management

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7. Recovering the Computer

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Chapter 1

Getting Started

This chapter provides
basic information
for using this computer.
System overview and
methods for general
use are provided.

Introducing The Computer

Front View

LCD Panel

Keyboard
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Status Lights
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(P. 1-7)

Right View

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1394 Port (6Pin)

Microphone Jack

DC-In Port

Moniter Port

USB 2.0 Port

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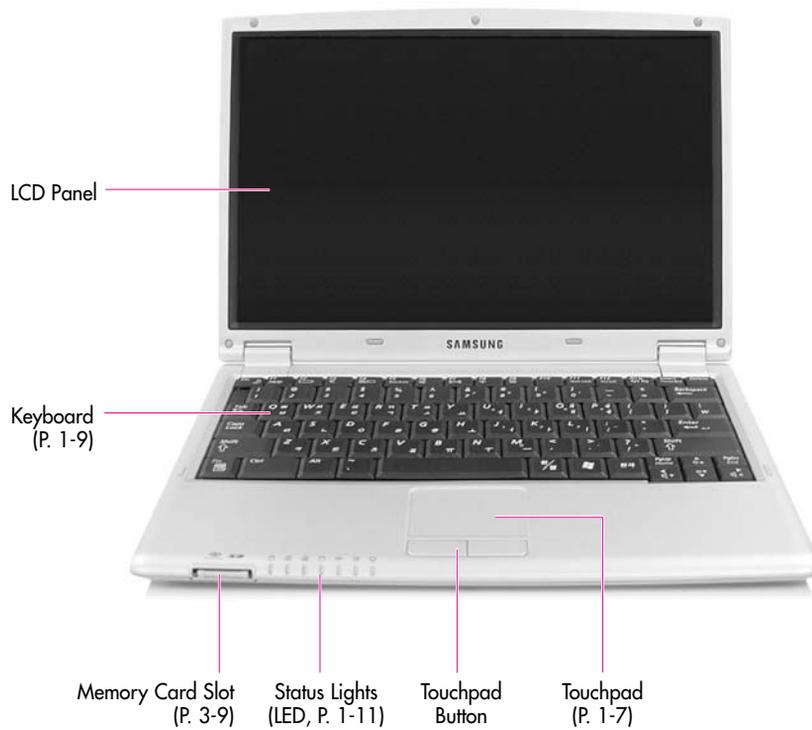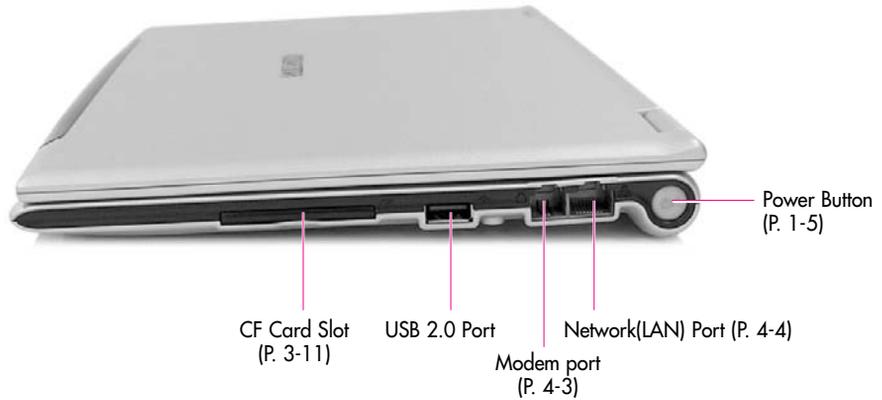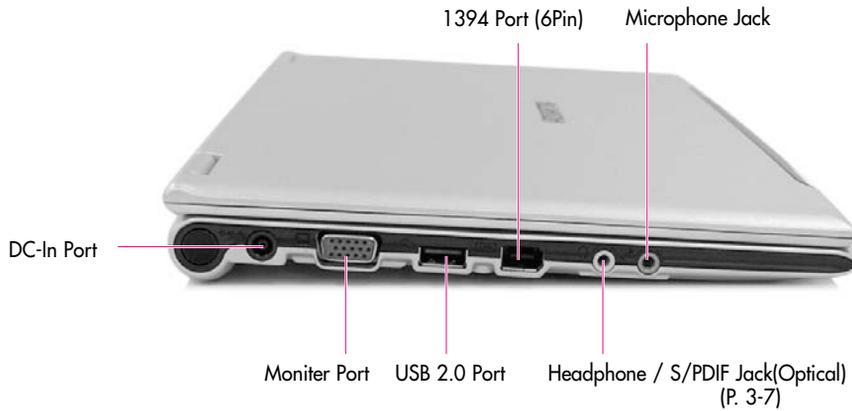
Rear View

Battery
(P. 5-4)

Security Lock Port
(P. 5-8)

Bottom View

Battery Latches

Speaker

Turning the Computer On and Off

Turning On

1. Insert the battery and connect the power according to the supplied Installation Guide.
2. Lift up the LCD panel and open it to a comfortable angle.
3. Press and then release the power button to turn the system on.

Power Button
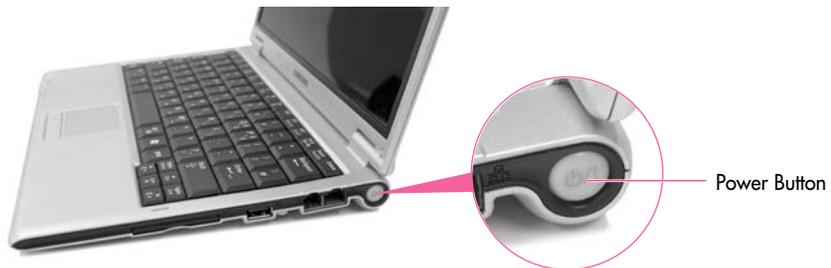
Caution : Since opening the LCD panel by hand might cause damage to the panel, please use both hands when opening the panel.

Turning Off

1. Click the **Start** button on the Taskbar.
2. Select **Turn Off Computer**.
3. Click **Turn Off** from the [Turn Off Computer] window.

Caution : If the system is not turned off properly due to a system error, press and hold the power button for more than 4 seconds to turn the system off. After doing so, when you turn the system on, the system examination program is executed automatically.

Creating and Changing User Accounts

Multiple users can be registered in a single system so that each user may use their own customized working environment. Procedures to register and change user accounts are provided below.

■ Registering a new user

1. Click **Start** > **Control Panel**.
2. Click **User Accounts** > **Create a new account**.
3. Type a name for the new account, and click **Next**.
4. **Select the account type** and click **Create Account**.
   The new user account has been created.

Note : **To delete a user account**
1. Click on a user account to delete and click **Delete the account**.
2. Select either **Keep Files** or **Delete Files**, and then click **Delete Account**.

■ Changing users

1. Click **Start** > **Log Off**
2. Click **Switch User**.

3. In the [Windows Log On] window, select the desired **user name**.

Touchpad

Movement of the pointer (arrow) on the screen will correspond to movement made with a finger on the touchpad.

Touchpad

Touchpad buttons
the two buttons below the touchpad provide identical functions to buttons of a mouse.

Note : **Locking the touchpad**
You can lock the touchpad and use only the keyboard and mouse. To lock the touchpad function, press the **<Fn>+<F9>** key combination.

■ Click (Select Function)

Place a finger on the touchpad, move the pointer on the screen to the icon or item to select, and tap the touchpad once. The click operation is also used to move the 'cursor' during document operations.

■ Double-click (Run Function)

Place a finger on the touchpad, move the pointer on the screen to the item to run, and quickly tap your finger on the touchpad twice.
Or double-click the left touchpad button.

■ Drag (Move / Select)

Drag and drop a part to the required place.
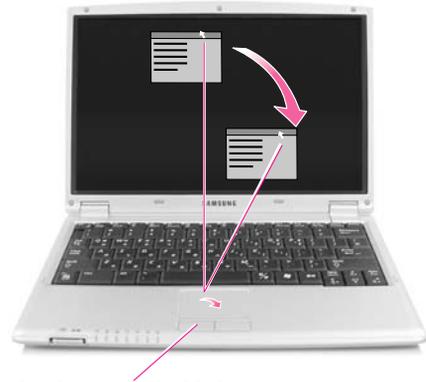
■ Using the Touchpad Scroll Function

The touchpad has a scroll function, which can be used like the wheel dial of a wheel mouse. Move up and down along the right edge of the touch pad (scrolling up and down) or left and right along the bottom edge of the touch pad (scrolling left and right) to scroll the screen. However, this may not apply to some programs.
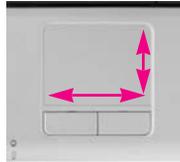
Caution : Using other objects other than a finger for touchpad use will result in touchpad malfunction and damage. Only use bare fingers.

Operating the touchpad or touchpad button while starting your system may increase the time required for starting Windows.

Note : To utilize the touchpad buttons for other more diverse functions, please refer to the Mouse icon in the Control Panel.

Using the Keyboard

Function Keys

<Fn> Key

Numeric Keypad

Screen Brightness and Volume
Adjustment / Direction Keys
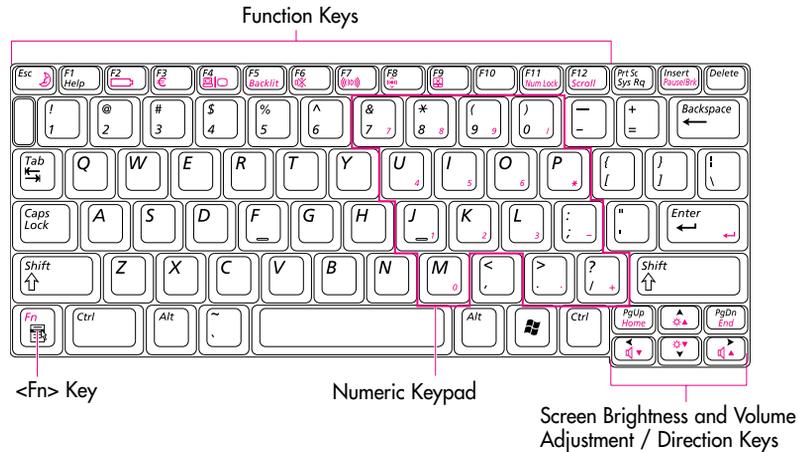
■ **Special Function Keys:** The <Fn> key activates special functions
when pressed in combination with other keys.

Fn Key Combinations	Key Name	Function
Esc	REST	Puts the computer into suspended mode. To use the computer again, press the power button.
F2	Gauge	Shows the current power source and the remaining battery charge.
F4	LCD/CRT	Switches the display between the LCD and an external display device when an external display device is connected. (P. 6-8)
F5 Backlit	Backlit	Turns the LCD on and off.
F6	Mute	Turns the audio output on and off.
F7	SRS	This feature enables you to experience more stereophonic sound. You can select one of the following modes by pressing the button.

Note : WOW XT ON Mode: Select to listen to music.
TruSurroung XT ON Mode: Select to watch a movie.
SRS OFF Mode: Switches off the SRS function.
The SRS function is only supported through the built-in speaker of the computer and the headphones. It is not supported through the S/PDIF port.

Caution : When using the SRS function, noise may occur depending on the audio source.

Key Combinations	Key Name	Function
F8	Wireless LAN	Turns the wireless LAN service on and off for appropriate models.
F9	Touchpad	Turns the touchpad function on and off.
F11 Num Lock	Num Lock	Puts the computer into suspended mode. To use the computer again, press the power button.
F12 Scroll	Scroll Lock	Scrolls the screen up and down while the cursor position does not change in some applications.
Insert Pause/Brk	Pause/Break	In DOS mode, pauses the scroll of the screen or exits a running program.
PgUp Home	Home	Moves to the beginning of the sentence.
PgDn End	End	Moves to the end of the sentence.
Volume Up	Volume Up	Increases the audio volume.
Volume Down	Volume Down	Decreases the audio volume.
Brightness Up	Brightness Up	Turns the LCD screen brighter.
Brightness Down	Brightness Down	Turns the LCD screen dimmer.

Key	Function
Page Up / Page Down Direction Keys	**Page Up / Page Down, Direction Keys** Moves to the previous or next page, or moves the location of the cursor on the screen.
Fn	**Application Key** Provides the right button function of the touchpad.
Windows	**Windows key** Display start menu.

Status Indicators

Shows the operating status of the computer.
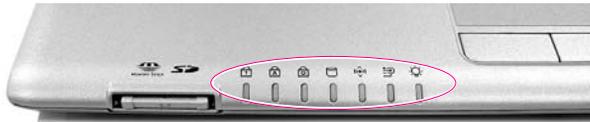
Icon	Name	Description
[1]	Num Lock	Turns on when the numeric keypad is activated.
[A]	Caps Lock in upper case.	Turns on when all alphabet characters you type will be
[scroll]	Scroll Lock	Turns on when it is set to scroll the screen up and down while the cursor position does not change in some applications.
[disk]	Hard disk drive	Blinks when the hard disk drive is in operation.
«(•)»	Wireless LAN	Turns on when wireless LAN function is enabled. (This light does not operate for the models without wireless LAN.)
[charger]	Charger	Green - When the computer is operating on AC power and the battery is fully charged Amber - When the computer is operating on AC power and the battery is being charged. Off - When the computer is operating on battery power.
[power]	Power	Turns blue - when the computer is turned on. Blinks - when the computer is in Standby mode.

Adjusting LCD Brightness

There are 8 levels of LCD brightness (1:Dimmest~8:Brightest).

■ To adjust using keyboard

Press <Fn>+<▽> or <Fn>+<△> keys from the keyboard to adjust LCD brightness. When changed, the current LCD brightness is displayed on the top left corner of the LCD screen for a few seconds.

Whenever you turn the system on or change the power source the brightness level changes according to the settings.
- when operating on AC power: Brightness Level 8
- when operating on battery power: Brightness Level 2

■ Adjusting the brightness using the Battery Manager

You can adjust the screen brightness using the Battery Manager. (P. 5-6)

Note
Maintaining your LCD brightness settings after turning the system off and on
1. Turn the system on. When the **Samsung Logo** appears, press the **<F2>** key to enter Setup.
2. In the **Boot** menu, change the **Brightness Control Mode** option to **User Control**.
3. Save the settings and exit Setup.
   When using the Battery Manager, only the screen brightness set in 'Custom Mode' is maintained.

To save the battery charge
When your computer is operating on battery power, adjusting the LCD brightness level to dimmer diminishes the battery power consumption.

Bad pixels in the LCD
The limits of the LCD manufacturing technology allow a maximum of 10 abnormal or bad pixels, which do not affect system performance. This system may have the same level of abnormal or bad pixels as any other company's products.

Caution
Maintenance Instructions
When cleaning the LCD panel, use only computer specific cleaners on a soft cloth, and lightly wipe in one direction.

Adjusting the Volume

■ To adjust using keyboard

Press <Fn>+<🔉> or <Fn>+<🔊> from the keyboard.

■ Using the Volume Control Program

On the taskbar, click the **Volume** (🔊) icon, and adjust the **slide bars**.

音量

☐ 靜音(M)

For advanced volume control options, double-click the **Volume** (🔊) icon, and adjust the settings in the [Master Volume] dialog.

主音量

選項(P) 說明(H)

| 主音量 | Wave | SW 合成 | CD 播放機 |

平衡: 平衡: 平衡: 平衡:

音量: 音量: 音量: 音量:

☐ 全部靜音(M) ☐ 靜音(M) ☐ 靜音(M) ☐ 靜音(M)

Crystal WDM Audio
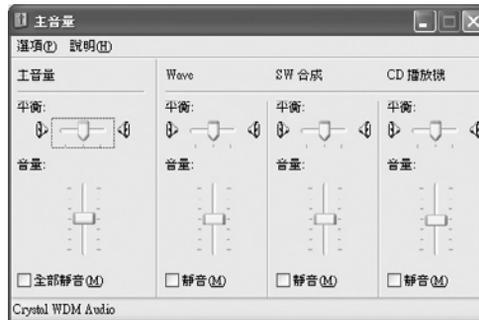
Caution ⋮ When you turn the system on, a booting noise may occur.

Proper Seating Posture During Computer Use

The proper seating posture during computer use is provided here.
Maintaining proper posture during computer use enhances performance
and prevents physical bodily harm.

If necessary, use a footrest to raise the level of your knees
and ease the pressure on the thighs.

Seating Posture
- Position the chair so that the eyes are slightly higher than the display panel.
- Straighten the neck and back.
- Place the legs naturally.
- If necessary, use a cushion to provide extra back support.
- Avoid working postures that require twisting the body or neck.

Lighting
- Soft, indirect lighting is recommended.
- Position the display panel so that external light does not reflect off the screen. Use curtains, if necessary.

Work Habits
- Take periodic breaks and stretch out stiff muscles regularly.
- Look outside the window or at distant objects frequently to relieve strain on the eyes.

Chapter 2

Introducing Windows

This chapter provides basic
information on using
the computer's main
operating system
Windows.

Windows XP Basics

Windows is the computer's main operating system, which needs to be familiarized with in order for efficiently computer use.

Windows XP Tour

A tour of the elementary functions provided by Windows XP.

Click **Start** > **Tour Windows XP**.

Or click **Start** > **All Programs** > **Accessories** > **Tour Windows XP**.

Click on the topics to find out about important functions of Windows XP.

Click the Title.

An explanation will appear on the lower part of the screen.
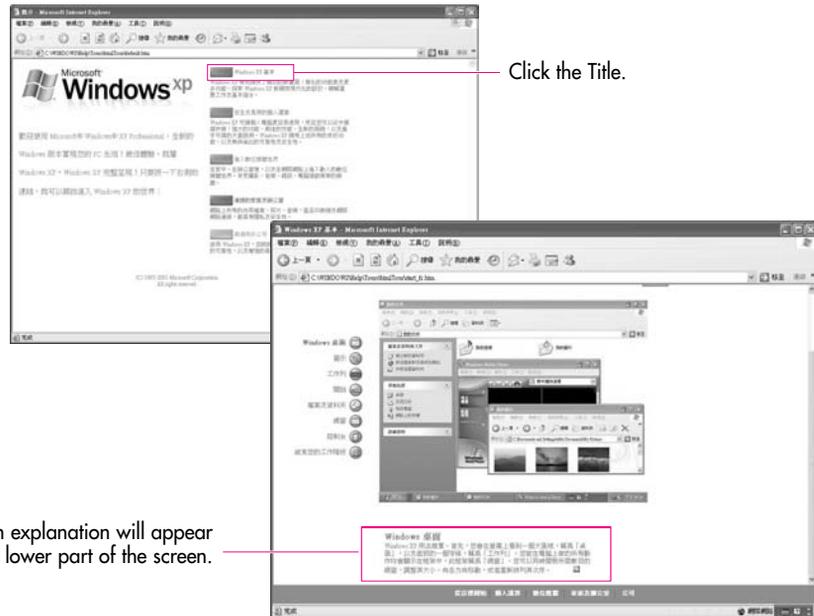
Understanding the Desktop

The Desktop is the working area on the computer. It consists of the large workspace, which is more or less the entire the screen and a Taskbar at the bottom.

Desktop Icons
You can directly launch a program.

Start Menu

Start Button

Taskbar

Recycle Bin
Language Bar

System Tray with Clock
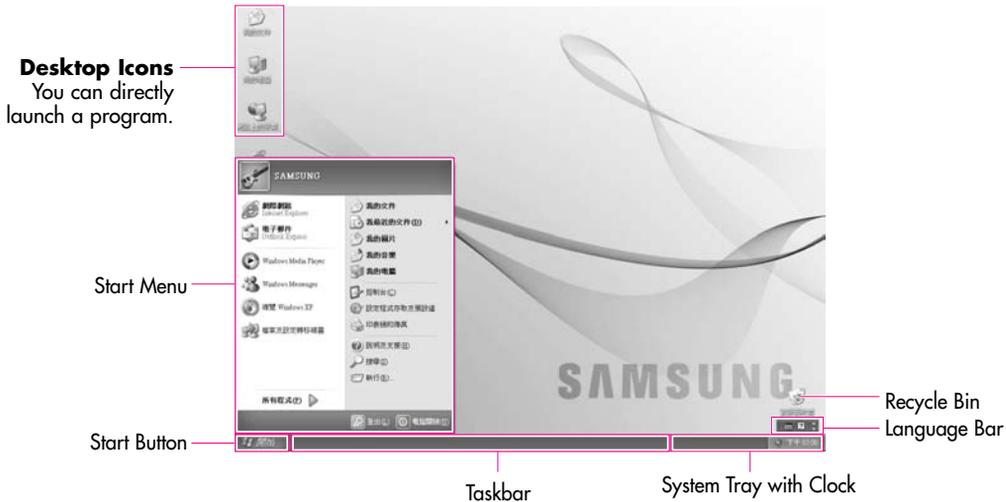
Start Button		Opens the Start Menu.
Taskbar		Displays programs that are currently running. Frequently used icons can be placed here.
Recycle Bin		Deleted files or folders end up here.
Language Bar		Enables switching between English/other languages text inputs and provides other text input services.

Understanding the Start Menu

The Start Menu includes everything that is required to start Windows.

From the Start Menu it is possible to run a program, open a file, assign system users with the Control Panel, receive support by clicking Help and Support, and search desired items from computer or Internet by clicking Search.

Fixed Items
Internet Browser
Electronic Mail Program

List of Programs Last Used
The program item and location may be changed.

This Folder Stores Personal Documents

My Computer

Control Panel

Help and Support

Includes All Programs

Click This Button to View the Start Menu

My Computer		Displays the contents of the hard disk, the CD-ROM drive, the network drive, and floppy disks. It can also be used to search and open files and folders.
Control Panel		Enables users to configure settings on the computer.
Help and Support		Provides on-line help, information on Windows and troubleshooting.
Search		Enables users to search for information in files or the Internet.
Run		Runs programs or documents.

Understanding a Window

A window is the basic component in working with the computer. The My Computer window, which is a window for the computer's hard drive, will be used as an example here to show the basic composition of a window.

Click **Start** > **My Computer**.

Title Bar

Menu Bar

Folder Icon

Close Window Button

Maximize Button

Minimize Button

Quick Task Window

Folders

Files

Click Shared Files or the Local Disk to view the folders and files in it.
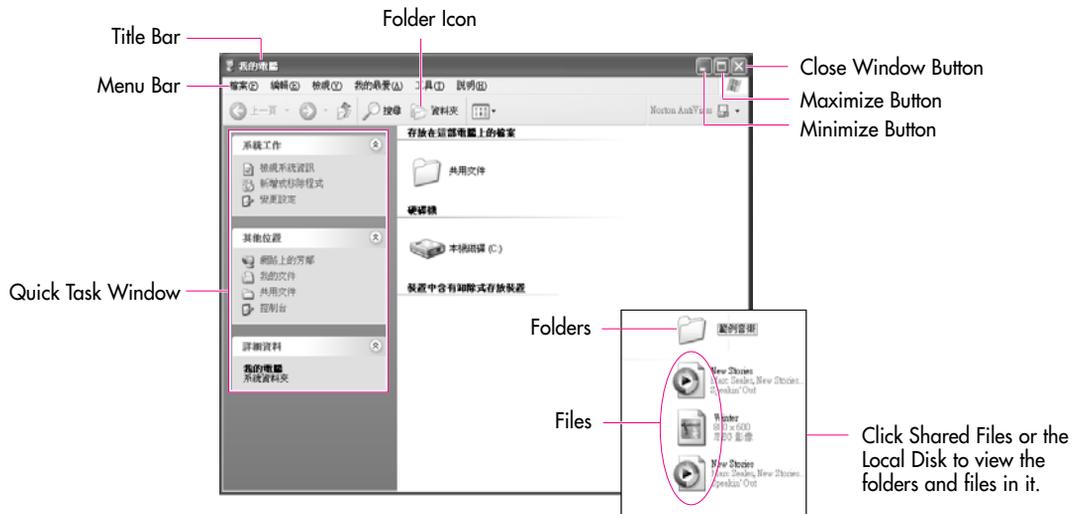
Double-click the hard drive (local disk) to view internal folders and files stored in it. If the contents do not appear, click Show Contents.

Note

• **What is a Drive?**	A storage device in which files and folders are saved in, and read from.	
• **What is a Folder?**	A folder is used to group and manage files systematically, and may include files in sub-folders. It is similar to a bookshelf.	
• **What is a File?**	A file is a document or various kinds of material that is generated as a result of program operation. It is also called data.	

To view the entire structure of the drive

Click the Folder Icon in the Toolbar to view the entire structure. Click again to return to the Quick Task Window.

Help and Support Center

Help and Support Center provides references and troubleshooting information regarding computer use.

Click **Start** > **Help and Support**.

Displays Help Index

Related help information appears when a search keyword is entered.

Help Topics

Connect to Support Center. The computer has to be connected to the Internet

Computer information can be viewed and the problem can be diagnosed.

Troubleshooting Information
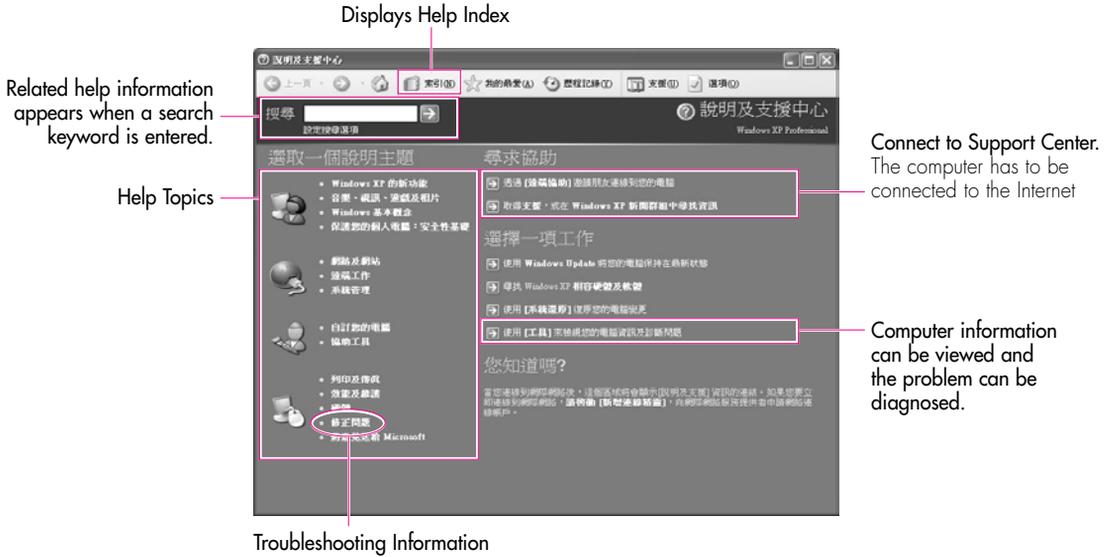
Document Operations

To create documents, WordPad or NotePad, which is included in Windows, or a separate specialized word processor program can be used, such as MS Word.
Instructions for creating documents using WordPad is provided here.

■ Creating a New Document

1. Click **Start** > **All Programs** > **Accessories**> **WordPad**
2. Create and edit your document. For more information about WordPad, refer to on-line Help.
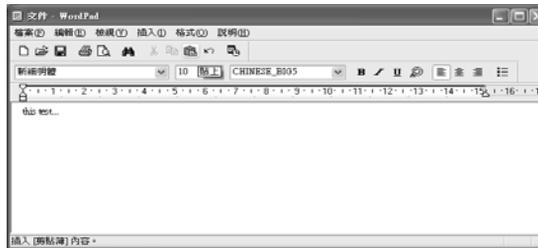
■ Saving a Document

1. Select **File** from the Menu, and click **Save**.
2. Click on the Save in field to specify a folder to save the file in, enter the name of the file in the File Name field, and click **Save**.

Save Location

Enter File Name
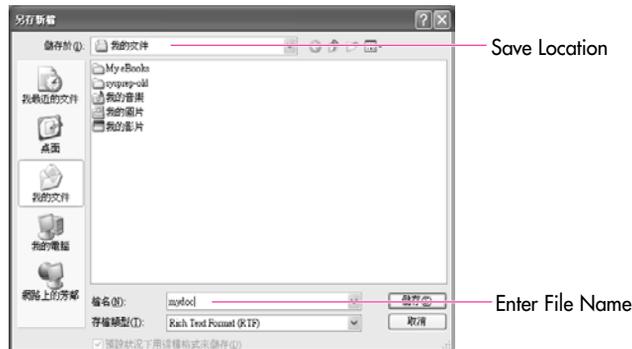
■ Opening a Document

1. Click **Start** > **All programs** > **Accessories** > **WordPad**.
2. Select **File** From the Menu, and click **Open**.
3. Click on the Look in field and specify the folder in which the file is saved.
4. Select the file to open and click **Open**.

■ Printing a Document

To print a document, connect a printer to the computer.
For more information about connecting and configuring a printer, please refer to the printer manual.

To print a WordPad document
1. Turn on the printer, and insert paper.
2. Open the WordPad file to print.
3. Select **File** from the Menu and select **Print**.
4. Click **Properties**, adjust the printer options accordingly, and click **OK**.
5. In Print window, click **OK** to print the document.

Chapter 3

Using The Computer

This chapter investigates various
different functions of the computer
and provides information
on using the related application
programs for them.

Using the CD Drive (optional)

This computer is supplied with an IEEE 1394 external-type CD-RW/DVD-ROM Combo or DVD Super Multi drive.

■ Connecting a CD drive

Connect the CD drive to the IEEE 1394 port.

IEEE 1394 Port
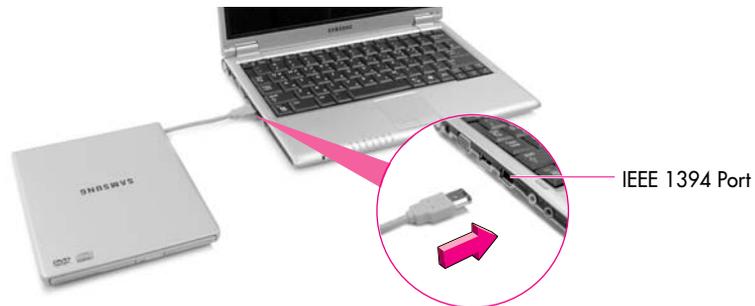
■ To Run a CD

1. Push the eject button on the CD drive.

Status Indicator ──── Emergency Eject Hole
Eject Button
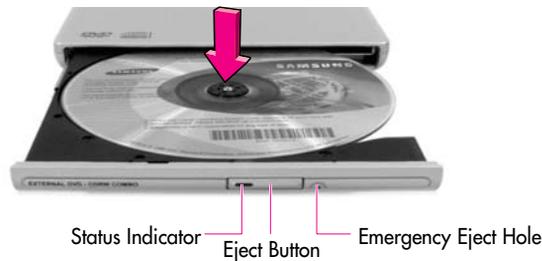
2. When the tray slides out, place a CD onto it and push down until it clicks.
3. Push the CD tray in gently. The CD will run automatically.

Note : To eject a CD when the CD drive is out of order or the system is turned off, unfold a paper clip, and insert the unfolded end of the clip into the hole (∾) and press until the CD tray opens.

Caution : • To clean a CD or DVD title, clean the disc with a soft clean cloth by wiping from the center outwards.
• Do not eject the CD while the Status Indicator is on.

Using the Windows Media Player

Window Media Player enables you to play and manage audio and video files.

Click **Start** > **Windows Media Player**.
Or click **Start** > **All Programs** > **Accessories** > **Entertainment** > **Windows Media Player**.

Running the program the first time displays the set up screen. Define the settings according to the instructions displayed on the screen.
When you complete the settings, the following screen appears.

Features

Playlist pane

Playback Controls area
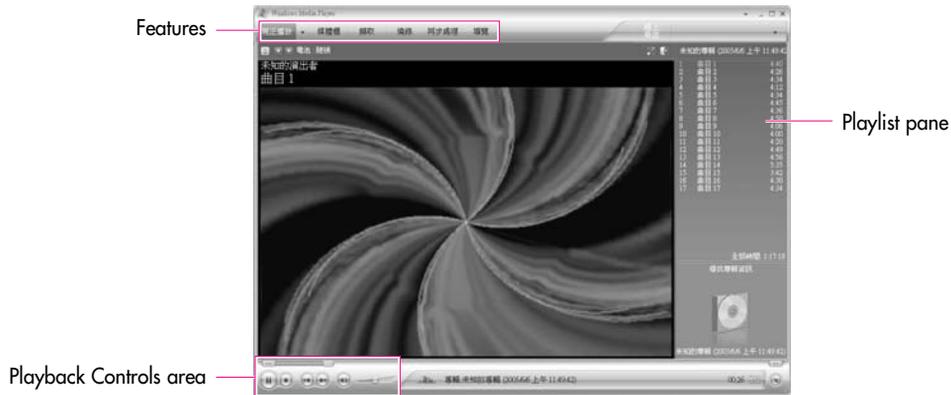
Note : **To view detailed information on how to use Windows Media Player:**
Run Windows Media Player and right-click over the Function Taskbar and select
Help > Windows Media Player Help

To Play an Audio CD

1. Insert an audio CD into the CD drive, and a list of all available players is displayed automatically.
2. Select **Windows Media Player**, and click **OK** to play the audio CD.

To Play a Video CD

1. Insert a video CD into the CD drive.
2. When a video window appears, double-click the **MPEGAV** folder.
3. Double-click the **DAT** file.
4. When a warning window appears, click the **Open with** button.
5. In the new window, click **Select Program from List** and click **OK**.
6. Select the **Windows Media Player**, and click **OK**.
    The video will start playing.

To Write Data in CD

If your computer has CD-RW functionality, you can copy data to a blank CD or create an audio CD.

Note : An additional CD writing program is supplied in an additional CD.

1. Insert a blank CD into the CD-RW drive.
2. Click **Open Writable CD Folder** and click **OK**. The CD-ROM drive window appears automatically.
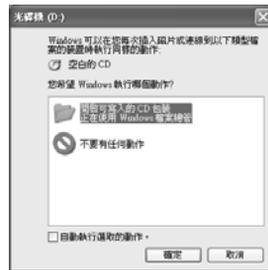
3. Click **Start** > **My Computer**.

4. Select, drag and drop folders or files to copy onto the CD-ROM drive window. Click **Write Files to CD** in the CD-ROM drive window.

CD-ROM drive window

1. Drag and drop folders or files to copy

2. Click Write Files to CD

My Computer window
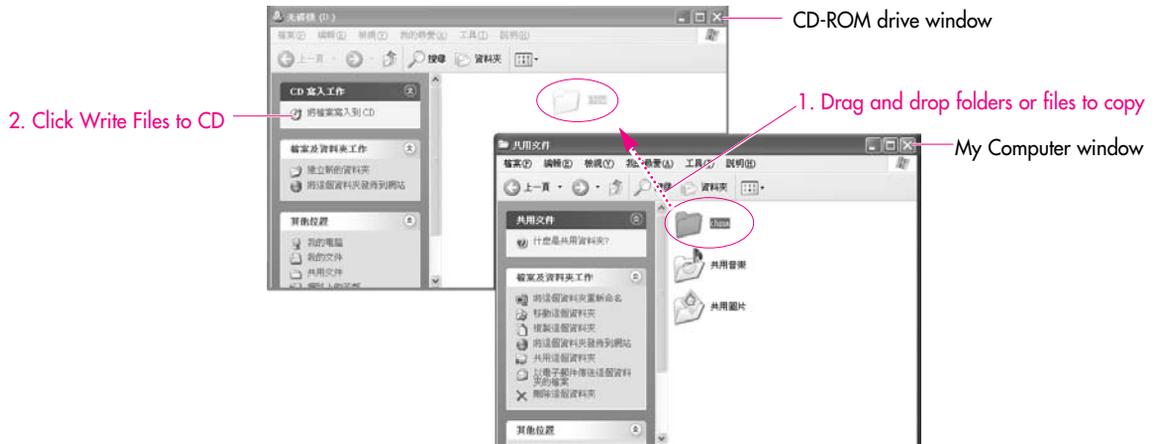
5. When the CD Write Wizard appears, enter the **CD label**, and click **Next**. The data will begin copying.

6. When copying is completed, a 'completed' message will appear and the CD-ROM drive will open automatically.

Note :

For more information on copying CDs

Click Start > Help and Support. Enter [CD copy] in the search field, and click the Search button.

To Burn an Audio CD:

Run Windows Media Player and right-click over the Function Taskbar and select **Help > Windows Media Player Help** from the popup menu.
Select **Using the Player > Using CDs, DVDs and VCDs > Using CDs > Burning your own CD > To burn your own CD** to see detailed information.

Enjoying Home Theater

This product supports 5.1 channel output, which is a basic function for home theater systems, and DVD drives. It provides 3D surrounding sound and vivid screen.

Note : Home theater system usually consists of a TV, DVD, 5.1 channel speaker, and digital amp and provides a high-resolution screen (MPEG2) and 3D surrounding sound (Dolby 5.1 or DTS). With a home theater system, you can enjoy a vivid screen and sound in your home as if you are in a movie theater.

The following devices are required to enjoy a home theater system.
- 5.1 channel speaker system (amplifier, speakers, connection cables) (Purchased separately)
- DVD drive and DVD playing program on the computer
- DVD title that supports 5.1 channel (Purchased separately)

■ Step 1. Connect 5.1 channel soeaker system to your computer

1. Connect the S/PDIF jack(Optical) on the left-hand side of the system and the 5.1 channel amplifier.
2. Connect speakers to the amplifier. (Refer to speaker system's manual.)

Note : To connect the computer with a TV, refer to 'Using External Display Devices' (P. 6-8)
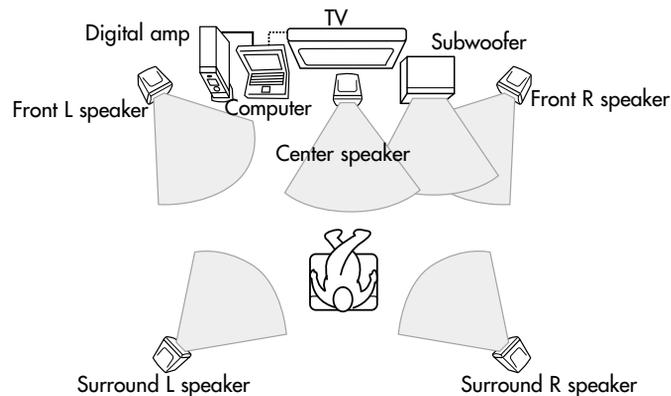
■ Step 2. Configure digital sound output on the computer

1. Click **Start > Control Panel > Sounds, Speech and Audio Devices > Sounds and Audio Devices**.

2. In the Device volume field on the **Volume** tab, click **Advanced**.

3. In the [Master Volume] dialog, click **Option > Advanced Controls**. Then **Advanced** button is displayed on the bottom of the dialog.

4. Click **Advanced**, select "1 PCM SPDIF", then click **Close**.

■ Step 3. Enable S/PDIF on the DVD program

When using 5.1 channel speakers, you need to install the Power DVD program from the DVD Installation CD separately supplied and then change the settings as directed in these steps:

1. Run Power DVD and click the **Settings** button.

2. On the Audio tab, set the Output setting to '**Use SPDIF Output**'.

Now, you can enjoy home theater using DVD titles.

Caution : To control volumes for your 5.1 channel speaker, use the control on the digital amp. (Please, refer to the speaker manual.)

Using Memory Card Slot

Using the memory card slots, you can use memory cards (Memory Stick, Memory Stick Pro, SD Card and MMC are supported). You can use a memory card as a removable disk and use it to transfer data between the computer and a digital device such as a digital camera.

| Memory Stick | Memory Stick Pro | SD Cord | MMC |

Caution : **Restrictions on Using Memory Cards**

You can use memory cards for storig data only. Copyright protection function is not supported.

■ To insert and use a memory card

Caution : Before using the memory card slot, remove the slot protector. Press the end of the slot protector softly to pop it outward, then remove it.

1. Insert the memory card into the memory card slot.

(ex : Memory Stick)

2. Click **Start > My Computer**. The inserted memory card is displayed.

 MemoryStick (E:)

(ex : Memory Stick)
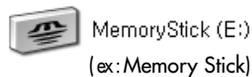
3. You can write data to the memory card. If the memory card is not formatted yet, format the memory card before use.

Caution : Since the memory card may be easily mislaid when moving your computer, keep the memory card separately.

■ To remove a memory card

1. Press the end of the memory card softly to pop it outward.
2. Remove the memory card.

■ To format a memory card

You can use a memory card after the format operation. The procedures to format a memory card are described below.

Caution : Since format operation deletes all data in the memory card, please make sure that there is no important data in the memory card before formatting.

Note : **To protect the data in the memory card**
Set the write protection tab of the Memory Stick or SD memory card to the Lock position.

1. Click Start > My computer.
2. Press the right touchpad button on the memory card drive, and select Format from the pop-up menu.
3. Click Start to start the format operation.

Caution : To use a memory card in both the computer and other digital device such as digital camera, it is recommended to format the memory card in the digital device. If you format the memory card in the computer, you may have to format the memory card in other digital device again to use the memory card in the digital device.

Using the CF Card Slot

You can insert a CF card, used in multimedia devices such as digital cameras, into the CF card slot and exchange data between the CF card and the computer.

1. Insert a CF card into the CF card slot at the side of the system.

CF Card Slot

2.   If you insert a CF card, the Removable Disk window appears and you can use the CF card.

Caution   **To remove a CF card**

Close the Removable Disk window and pull the CF card, holding the lower side of the card.
Since using your nails to pull the card may cause injury to your nails, please use your fingers to pull the card.

Using EasyBox

Use EasyBox program to make use of Windows' complicated function easily andconveniently.

Learn about EasyBox

Double-click the **EasyBox**( ) icon on the desktop.
(Or select **Start > All Programs > Samsung > EasyBox > EasyBox**.)

▶ **System** : System management features are available, including disk defrag-
menter, removing unnecessary files/folders, computer scheduling and
system recovery.

▶ **BIOS** : In windows-based mode, you can recover the BIOS defaults and
change the boot sequence.

▶ **Desktop** : Desktop management features include changing the font size, execut-
ing a magnifier function, the start menu settings and managing the
quick launch icons on the taskbar.

▶ **Security** : Here you can configure the security settings supported by Windows
XP SP2. And you can change the configuration of the firewall set-
tings, Windows automatic updates and blocking pop-ups when con-
nected to the Internet.

▶ **Plus Tip** : This is a collection of additional Windows functions that are useful for
system management. (Offering shortcut descriptions of Windows,
configuring network sharing and opening local folder sharing, etc.)

Using EasyBox

Security management function will be used as an example here to show the function of Easybox

■ Configuring Firewall

The Windows Firewall prevents unauthorized users from gaining access to your system via the network or the Internet.

1. Click **Start > All Programs > Samsung > EasyBox > EasyBox**.
2. Click **Security** from the top menu bar.
3. Select **Windows Firewall Settings** from the Security menu on the left.
4. Select a firewall level.
5. Click **Apply**.

Click the User Setting button for advanced features, including exceptions and permissions.

Using Samsung Smart Screen

Use Samsung Smart Screen program to arrange desktop icons as desired and manage them effectively.

1. Click **Start > All Programs > Samsung > Samsung Smart Screen**.

Note : When you launch Samsung Smart Screen for the first time, a dialog box asking whether to register the program as a start program or not appears. If you select OK, the program is automatically launched when you start your computer.

2. Samsung Smart Screen appears. When you run the program for the first time, water drop image is displayed.

Click a water drop to open and close the group.

3. To move an icon, click a water drop to open it, then drag an icon to another water drop.

Note : **To return to Windows desktop**
Right-click on Samsung Smart Screen and click Windows desktop. Windows desktop is displayed.
To return to Samsung Smart Screen, double-click ( ) icon on the taskbar.

To change background or skin
Right-click on Samsung Smart Screen and select desired item.

Using Samsung Theme

Samsung Theme is a program that enables a user to easily switch a theme (desktop, logon screen and sound effect).

Double-click the **Samsung Theme** ( ) icon on the desktop.
(Or select **Start > All Programs > Samsung > Samsung Theme > Samsung Theme**.)

Help button
Close button

Move the mouse pointer over Samsung Theme item, then the Samsung Theme will be displayed below.
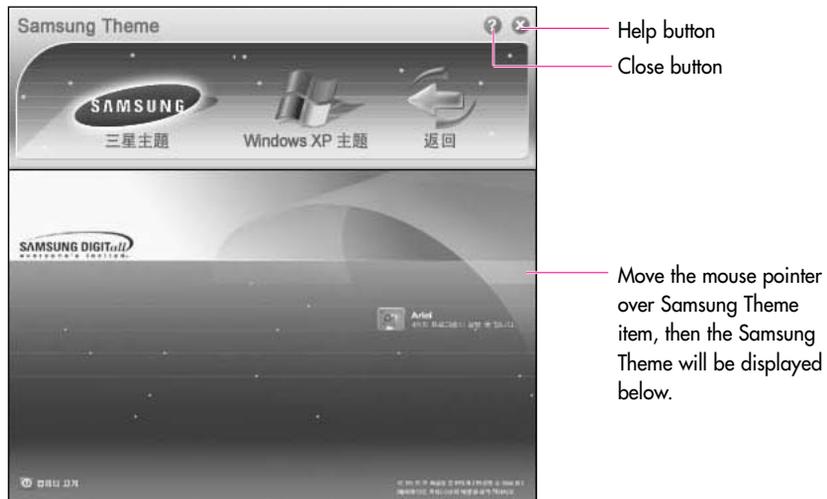
▶ **Samsung Theme** : Switches to Samsung Theme (desktop, logon screen and sound effects on booting).

▶ **Windows XP Theme** : Switches to the Windows XP default Theme.

▶ **Back** : Restores the theme to its previous status.

Using Samsung Update Plus

Samsung Update Plus is software that examines and updates Samsung software and drivers installed on your Samsung computer to the latest version. To use Samsung Update Plus, your computer has to be connected to the Internet.

■ To Update Samsung Software and Drivers

1. Select **Start > All Programs > Samsung > Samsung Update Plus > Samsung Update Plus**.

Note : If this is the first time you are running the program, a window will appear asking you if you agree to the agreement in the window.
Click Agree to use this software.

2. Click **Search for and Install Updates** and click the **Search for Updates** button.

3. If there are available software or driver updates for your computer, the available updates will be listed. Select the required updates from the list and click Install Update to start the update.

(The update list on the screen may differ depending
on the computer model.)

Note **Updates that must be installed separately.**
If you select an update that must be installed separately, a message appears
informing you of this. Follow the instruction message to correctly install it.

Automatic update items display
By default, your computer is configured to automatically search for updates.
If there is a new update available, this is notified in the notification area.
Click the balloon help icon in the notification area. Here you will be able to
find the latest available updates.

To change the automatic update settings, click the Custom button in Figure 2
and change the settings.
: Samsung Update Plus does not provide updates for additionally installed
software and device drivers.

Chapter 4

Connecting to the Internet

This chapter provides instructions on connecting to the Internet.

Connecting to the Internet

The following options show many ways to connect to the Internet.
An appropriate option should be selected depending on the user's
working environment and the user's system specifications.

Option 1 **Connecting using a modem and a telephone line**
Service has to be applied for and received from an Internet
Service Provider (ISP) through an Internet service account.

Option 2 **Connecting using a High-speed communication
network service, such as ADSL and VDSL**
Service has to be applied for and received from a High-speed
communication network service provider. Receiving Internet
service may require support from specific devices.
Contact the service provider for details.

Option 3 **Connecting using a wired LAN**
Use a LAN cable that is already installed in your office or
building,

Option 4 **Connecting using a wireless LAN**
The Internet can be accessed without a telephone line or a LAN
cable if there is a Wireless LAN AP (Access Point) nearby.

Note : The Wireless LAN function is optional.

My computer   Internet Service
                       Provider

The Internet Provider
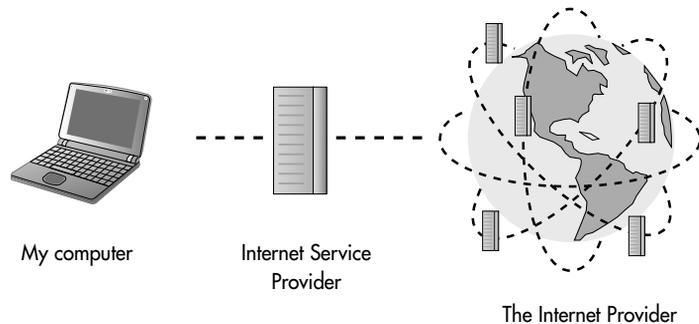
Connecting to the Internet Using a Modem

1. Connect the telephone line to the modem port. Do not use a digital telephone line.

2. To connect the modem to the Internet, and use e-mail, you have to apply to an Internet Service Provider (ISP) for an Internet service.

Note
- For more account information, please contact your ISP.
- Ask your ISP about Internet fees and the disconnection procedure. If the Internet connection is not disconnected properly, additional telephone charges may incur.

Configuring the Network Environment Settings for Wired LAN Connections

A wired LAN environment is an environment where you can connect to the Internet using the company's LAN or with a broadband modem.

1. Connect the network (LAN) cable to the LAN port of the system.

2. Click **Start** > **Control Panel**.
3. Select **Network and Internet Connections** in the [Control Panel] window.
4. Click **Network Connections** in the [Network and Internet Connections] window.
5. In the [Network Connections] window, point the mouse pointer to Local Area Network and click the right touchpad button. Select **Properties** from the popup menu that appears.

6. In the General tab of the [Local Area Connection Properties] window, check that the connecting device field includes the **Broadcom 440x 10/100 Integrated** driver.

7. In the "This connection uses the following items" field, select **Internet Protocol (TCP/IP)**, and click **Properties**.

① Check the driver

② Select "Internet Protocol (TCP/IP)"
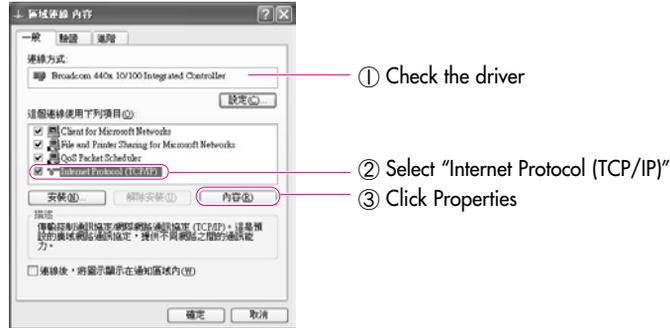
③ Click Properties

Note : In the above screen, necessary network components can be added by clicking the Install button.

8. Enter the system's IP and DNS server addresses on the General tab of the [Internet Protocol (TCP/IP) Properties] window. If DHCP is used, click "Obtain an IP address automatically" and "Obtain DNS server address automatically" on the **General** tab.

Note : IP addresses and other information necessary for configuration can be obtained from the network administrator.

9. Once all of the information is entered in the [Internet Protocol (TCP/IP) Properties] window, click **OK** to finish.

Using Both DHCP and Static IP Simultaneously.

When you are alternatively using networks with either DHCP or static IP addressing, you can use alternative settings that enable simultaneous configurations of DHCP and static IP to use both of the network connections without reconfiguring.

Note : This function is provided only when your operating system is Windows XP.

1. Click **Start > Control Panel > Network and Internet Connections > Network Connections > Local Area Connection**, press the right button of the touchpad, and then select Properties.

2. Select the **Internet Protocol (TCP/IP)** item, and then click **Properties**.

3. In the **Alternate Configuration** tab, click **User configured**, and then enter the appropriate values for the following:

   (IP address, Subnet mask, Default gateway, Preferred and alternate DNS server, Preferred and alternate WINS server)
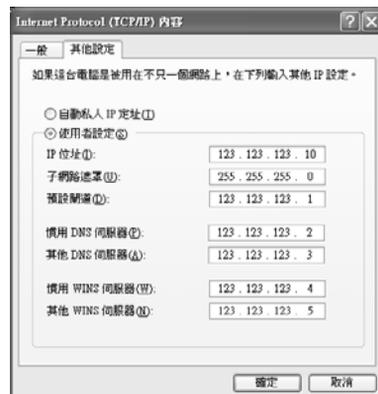
4. When the configuration has been completed, click **OK**.
   Now you can connect to both networks using DHCP and static IP respectively.

Configuring the Network Environment Settings for Wireless LAN Network (WLAN)

A wireless network (Wireless LAN) environment is a network environment that enables communication between multiple computers at home or a small-size office through wireless LAN devices.

When a computer-to-computer network has been constructed, a computer that is not connected to the Internet can share the Internet by accessing another computer connected to the Internet. (See P. '4-18. To share an Internet connection')

Note
: The description in this section refers to the Intel(R) PRO/Wireless 2200BG Network Connection (hereafter referred to as an 802.11BG card) and the Intel(R) PRO/Wireless 2915ABG Network Connection (hereafter referred to as an 802.11ABG card) device.

A wireless LAN card is optional. The model of the wireless LAN card is determined by the relevant product.

To view the installed wireless LAN card, click Start > Control Panel > Performance and Maintenance > System > Hardware tab > Device Manager.

The wireless LAN connection settings will be described on the basis of the Windows XP Service Pack 2 installed computer.

It is recommended using the default settings provided by Windows XP for the wireless LAN settings for Windows XP installed computers. To setup using the software supplied by the wireless LAN card manufacturer, refer to p.4-13 'Using a wireless Network with the Wireless LAN Setting Program'.

To use the wireless network, you have to turn on the wireless LAN function by using the Wireless LAN On/Off Button. (See P. 1-9)

Wireless network connections can be classified into two categories.

1) Access Point

You can connect to an AP to use the network. This is possible only in an environment equipped with an AP. (See P. 4-8, 'Connecting to an Access Point (AP)')

Note
: **What is an Access Point (AP)?**

An AP is a network device that bridges wired and wireless LANs, and corresponds to a wireless hub in a wired network. You can connect multiple wireless LAN installed computers to an AP.

2) Computer–to-computer (ad hoc)

This is also called a peer-to-peer network.
In computer-to-computer wireless networks, you can wirelessly connect 2 or more computers that have wireless LAN modules. (See P. 4-9, 'Connecting to computer-to-computer networks (peer-to-peer or ad hoc)').

Connecting to an Access Point (AP)

This section describes how to connect to an AP. You can use the network when you are connected to an AP.

Note : For more detailed information such as the network key (encryption key), ask your network administrator.

1. Right-click on the **Wireless Network Connection** (📶) icon on the taskbar, and select **View Available Wireless Networks**.
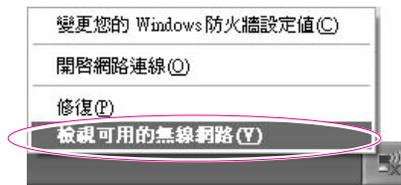
2. Select an AP (E.g. Test) to connect to and click **Connect**.
   If there is a configured network key for the AP to connect to, the Enter Network Key window appears.
   Enter the **Network Key** in the window and then click the **Connect** button.

Note :

When a network key is not defined for a selected AP, click on Link to display the warning message box. Then click Connect again in the box.

Now when Connected in AP is displayed, and you can access the network.

Note : **Checking the connection status.**
Move the mouse pointer over the **Wireless Network Connection** (📶) icon on the taskbar, and the connection status is displayed.
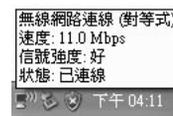
Connecting to computer-to-computer networks
(peer-to-peer or ad hoc)

In computer-to-computer wireless networks, you can wirelessly connect 2 or more computers that have wireless LAN modules.

Using this method, a computer that is not connected to the Internet can share the Internet by accessing another computer connected to the Internet.
(See P. '4-18. To share an Internet connection')

You can connect by completing the following steps:

▶ Step 1. Set up a computer-to-computer network on a computer.

▶ Step 2. Connect to the configured computer from other computers.

■ Step 1. Setting up a computer-to-computer network

1. Right-click on the **Wireless Network Connection** (![icon]) icon on the taskbar, and select **View Available Wireless Networks**.
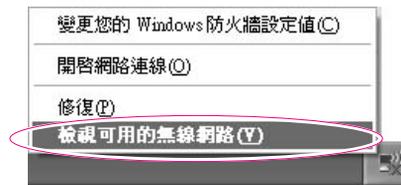
2. Click **Change the order of Preferred Networks.**
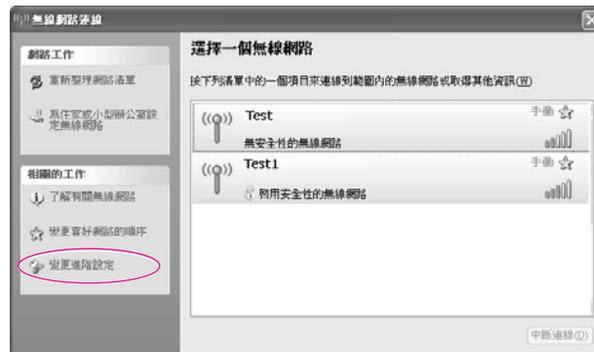
3. On the Wireless Networks tab, click **Advanced**.

4. Clear '**Automatically connect to non-default network**' check box, if it is selected.
Select '**Computer-to-computer (ad hoc) networks only**', and click **Close**.

5. In the Wireless Networks tab, click **Add**.

6. Enter the network name (e.g. samsung), and unselect '**The key is provided for me automatically**'. Enter the encryption key in the Network key field, and click **OK**.

Note : To prevent a network connection from an unauthorized user, it would be better to configure a network key (encryption key). A network key consists of 5 ~ 13 alphanumeric characters (e.g. magic), or of 10 ~ 26 hexadecimal numbers (a hexadecimal number is represented by numbers '0' to '9' or letters 'a' to 'f').

7. Check that the configured network name (e.g. samsung) is in the 'Preferred networks item', and click **OK**.
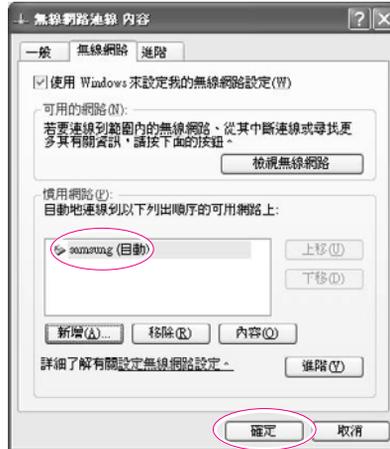
Now your wireless network setup has been completed.

■ Step 2. Connecting to the configured computer

1. Right-click on the **Wireless Network Connection** () icon on the taskbar, and select **View Available Wireless Networks**.

2. Select the wireless network name (e.g. samsung) specified in "Connecting to computer-to-computer networks (peer-to-peer or ad hoc)", and click **Connect**.

3. Enter a cryptographic key in the network key box and click Connect.
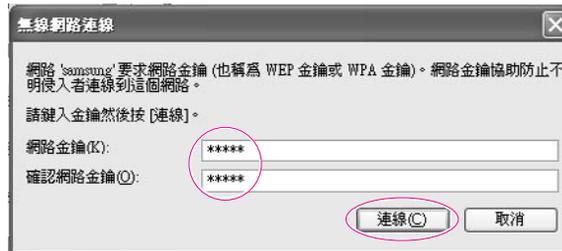
Note : If the network key is not configured in "Connecting to computer-to-computer networks (peer-to-peer or ad hoc)" on P. 4-9, just click **Connect**, without any keystrokes.

When connected to the wireless network, the system displays **Connected** in the selected network of the Network Connection window.

Note : **Checking the connection status.**

Move the mouse pointer over the **Wireless Network Connection** () icon on the taskbar, and the connection status is displayed.

Wireless Network Setup Using the Wireless LAN SetupProgram

You can use a wireless LAN by using a wireless LAN configuration program (PROSet) provided separately.

To use wireless network connection, complete the following procedures.

▶ Step1. Install the wireless LAN configuration program (PROSet).
▶ Step2. Configure wireless network settings through the wireless LAN configuration program.

■ Step 1. Installing the wireless LAN configuration program (PROSet)

You can install the Wireless LAN Client Manager program by using the System Software Media. Insert the System Software Media into the CD-ROM drive and then install the Wireless LAN program.

■ Step 2. Using the wireless LAN configuration program (PROSet)

Double-click the **wireless LAN program** (📶) icon on the taskbar.
(Or, click **Start > All Programs > Intel PROSet Wireless > Intel PROSet Wireless**.)

Note : In some languages, some buttons on the window may not be displayed. If this is the case, resize the window to use the program.

Configure wireless network settings in PROSet following the procedures below.

▶ **To connect to an Access Point**

To connect to an access point or existing computer-to-computer (Ad Hoc) network, refer to the following procedures. (To create a new computer-to-computer network, refer to the following P.4-15 **To create computer-to-computer (Ad Hoc) network** section.)

1. In Available Networks, click on **Refresh**.

2. Select the name of desired access point or computer-to-computer network to connect from the searched available networks list, and click **Configure**.

Note : If your desired network does not appear, click **Refresh**.

An access point is represented by the ( ) icon, and a computer-to-computer network is represented by the ( ) icon. An ( ) icon is displayed in front of an access point or a computer-to-computer network with configured security settings.

3. Enter **Profile Name** and click **Next**.

4. In the Search Security Settings window, the wireless network security search message will appear. Click **Next.**

5. Enter the **network authentication, data encryption (WEP), encryption level, key index**, and **wireless security password** configured for the target access point or computer-to-computer network in the Security Settings window, and click Next.

Note : The network authentication, data encryption (WEP), key index, and password of a access point are configured in the access point management program. For information on the security information, check the security settings of the access point or ask your wireless network administrator.

To connect to an existing computer-to-computer (Ad Hoc) network, enter the password configured when creating the computer-to-computer network for the first time. You do not need to enter network authentication or key index.

Security Settings

- **Network authentication** : The network authentication option includes Open System and Shared Key. When you select Open System, no authentication is applied (however, encryption is supported). When you select Shared Key, a WEP key is used for authentication. The default setting is Open System

- **Data encryption (WEP)** : The IEEE 802.11 WEP (Wired Equivalent Privacy) standard defines two levels of encryption, a 64-bit key (this is sometimes represented by 40bits) and a 128-bit key.

- **Key index** : Select the current encryption key index used by the access point out of 1 to 4.

- **To use encryption key** : Click **Use pass phrase** to activate, and enter 5 (for 64-bit) ~ 13 (for 128-bit) alphanumeric characters (represented by 0-9, a-z, or A-Z).

6. The Done window appears, click **OK**.

When a wireless connection to an access point is established, connection icon ( ) appears in front of the name of connected profile.

▶ To create a computer-to-computer (Ad Hoc) network

To create a new computer-to-computer (Ad Hoc) network or to connect to a hidden access point (Stealth/Closed Mode), refer to the following procedures.

Note : A hidden access point is an access point that exists, but is configured not to be detected by the scan operation to prevent access attempts from unauthorized users.

1. In Profiles, click on **Add**.

2. Enter **Profile Name** and **Network name (SSID)**, select **Operating Mode**, then click **Next**.

Note : **What is a network name (SSID)?**
Network name (SSID) is a name that a wireless adapter uses for identifying connection. Enter the name of computer-to-computer network to create (e.g., samsung) or the name of access point to connect. The network name identifies cases. (capital and lowercase) For the name of access point, check the settings of the access point, or ask your wireless network administrator.

Operating Mode:

Network (Infrastructure) - Connect to an Access Point : Select to connect to an access point.
Device to device (Ad hoc) - Connect directly to other computers : Select to create a computer-to-computer (Ad Hoc) network.

3. Configure password setting to be used for computer-to-computer network connection in the Security Settings window.
To connect to an access point, enter the **network authentication, data encryption (WEP), encryption level, key index**, and **wireless security password** configured in the access point.

Note : It is recommended to configure data encryption for security purposes when creating a computer-to-computer network connection profile. For more information on security settings refer to the security settings in Connecting to AP or Help.

When you are creating a computer-to-computer network connection profile, the network authentication setting is disabled.

4. When a profile creation is completed, the new created profile appears in the profiles list. Select corresponding profile, and click Connect to connect to the created profile.

When a wireless connection to the created profile is established, the connection icon (⊚) appears in front of the name of the connected profile.

Using Samsung Network Manager

Use Samsung Network Manager to configure network setting.

Using the program, you can do the following.

- You can save network settings (including IP address) according to network places such as office and home. When you change places, simply select a network place and the network settings will be automatically changed accordingly.
- You can easily find out your current IP.

■ To configure network setting

1. Connect LAN cable to the computer's LAN port.
2. Double-click Samsung Network Manager icon on the desktop.

   Or click **Start > All Programs > Samsung Network Manager > Samsung Network Manager**.
3. When you are using DHCP, available IP's are displayed in the status dialog box. Click **Change**.

4. Click **Add**, click **Choose Icon** and select an icon. Enter a place name in **New Name** field and click Ok.

5. New place icon is displayed and full dialog box appears. Check your IP and click **Close**. Network setting is saved.

Note   To configure network setting of some place other than current place, click the place icon and configure each network device. If you are using DHCP, select 'DHCP' check box and click Save.

If you are using a static IP, clear 'DHCP' check box, enter appropriate network set-ting and click Save.

Ask ISP or network administrator for IP address.

■ To change network places

You can change network places as below.

1. Connect LAN cable to the computer's LAN port, and double-click **Samsung Network Manager** icon on the desktop.

Note   If you used static IP in previous place, previous static IP is displayed in the status dialog box.

2. Click **Change**, select a place icon then click **Change**.

3. On "Do you want to change the location setting?" dialog box, click Ok.

4. When the network place is changed, corresponding place icon is displayed in color and full dialog box appears. In the right area of full dialog box, network setting is displayed.

5. Click **Close** to close the dialog box.

■ To share an Internet connection,

Using Internet Connect Share, you can use the Internet by connecting to a computer connected to the Internet, even if your computer does not have a direct Internet connection.

You can setup the server, which is a computer directly connected to the Internet and which provides the Internet Connection Share service, and the client, which is a computer that will use the Internet Connection Share service.

▶ To configure the server,

1. Connect the network (LAN) cable and double-click the Samsung Network Manager icon on the Desktop.

2. Click Click here to setup Internet Connection Share.

3. The computers are represented by an icon. Click the server computer.

Select the location of your computer. Move the mouse point over a computer icon to view a brief description for that computer.

4. In the server, select a device that is directly connected to the Internet.

Note If you select **Use Firewall**, you can use the Windows Firewall.
If you are using an external modem, select the network card connected to the external modem.

5. The network types connecting to the server and client will be displayed. Select a network type and then click **OK**.

6. Your configuration is displayed such as the Internet Connection, Use Firewall, Home Network Connection, etc. Confirm your configuration and click **OK** to begin the Internet Connection Share setup.

7. Configure the connection between the server and the client.
   If it is a wireless connection, the wireless network connection properties window and the wireless network setup procedure instruction window appear.
   Setup your wireless network according to the messages of the wireless network setup procedure instruction window.

8. The current location is represented as a server. The server configuration is complete.

▶ To configure the client,

1. Connect the network (LAN) cable and double-click the Samsung Network Manager icon on the Desktop.

2. Click **Click here to setup Internet Connection Share**.

3. The computers are represented by icons. Click the client computer.

4. Select a network to connect to the server and click **OK**.

   If it is a wireless connection, the wireless network connection properties and the wireless network setup procedure instruction windows will appear.

   Setup your wireless network according to the messages of the wireless network setup procedure instruction window.

5. The current location is represented as the client. The client configuration is complete.

Using Network Services

While the computer is connected to the network, you can use network services to share files, folders, and printers.

Note : Network services are provided for the computers that are connected to the network through wired or wireless network connections. (See Pages 4-4, 4-7, **Configuring Network Environment Settings**)

Sharing files or folders

This section describes how to share files and folders between computers connected to the network.

To share files, complete the following procedures:

▶ Step 1. Configuring the sharing of files and folders on a computer.

▶ Step 2. Accessing shared files and folders from another computer.

Caution : When a file or folder is shared, anyone connected to the network can open and delete the shared file or folder.
Configure a file sharing network only when the network is secure, and do not share important data.

■ Step 1. Configuring Sharing

1. Right-click the target file or folder to share in **My Computer**, and select **Sharing and Security**.
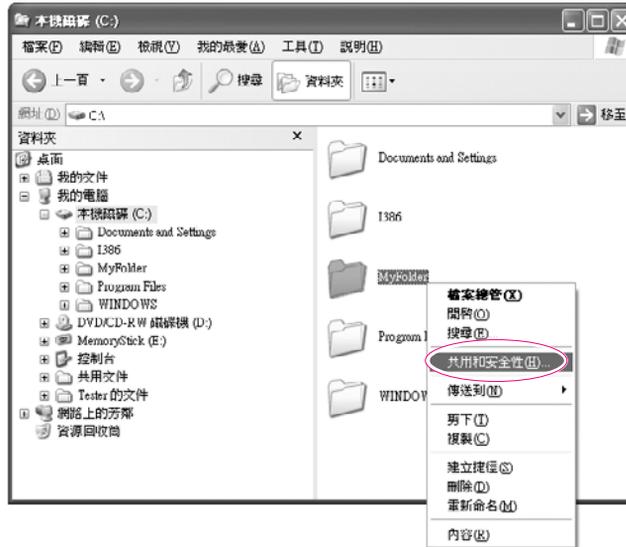
2. Click '**IF you understand the security risks but want to share files without running the wizard, click here**'.

Note : It has the same security effect as that of the '**Network Setup Wizard**'.
This screen does not appear if Internet Sharing Network Wizard has been installed in the computer-to-computer wireless network environment.

3. Select '**Just enable file sharing**', and click **OK**.

4. In the 'Network sharing and security' field, select '**Share this folder on the network**', enter the share name, and click **OK**.

Caution : Be cautious when selecting 'Allow network users to change my files' since other network users can change the files in the shared folder.

The file and folder sharing configuration has been completed.

■ Step 2. Using Shared Files or Folders

This section describes how to access shared files or folders if your computer is a member of the same workgroup.

1. Click **Start > My Computer**. Under **Other Places**, click **My Network Places** in your computer.

2. Click '**View workgroup computers**', and click the desired computer to access the shared file.

Sharing Printers

This section describes how to share a printer between computers connected to a network.

To share a printer, complete the following procedures:

▶ Step 1. Configure printer sharing in the computer connected to the printer.

▶ Step 2. Add and use the shared printer in other computers on the network.

■ Step 1. Configuring Printer Sharing

1. From the computer connected to the printer, click **Start > Printers and Faxes**.

2. Right-click the printer you want to share, and click **Sharing**.

3. Select '**Share this printer**', enter a share name for the shared printer, and click **OK**.

4. In the Printers and Faxes window, you will find the printer icon has been changed to another icon on a hand.

■ Step 2. Adding and Using a Shared Printer

1. From a different computer that wants to use the shared printer, click **Start > Printers and Faxes**.
2. Click **Add a printer**.
3. In the **Add Printer Wizard**, click **Next**.
4. Select '**A network printer, or a printer attached to another computer**', and click **Next**.
5. Select '**Browse for a printer**', and click **Next**.
6. Select the workgroup or computer, select the desired printer, and click **Next**.

If you cannot find the desired printer, try again after a while.

7. Read the warning about a shared printer, and click **Yes** to install the shared printer.
8. Select **Yes** for 'Do you want to use this printer as a default printer?', and click **Next**.
9. Click **Finish**.
10. When the printer sharing configuration has been completed, the shared printer appears in the Printers and Faxes window.

Now you can print using the shared printer even if your computer is not directly connected to a printer.

Using Bluetooth Devices (Optional)

You can transfer files between Bluetooth devices, use the Internet, and construct a Personal Area Network. In addition, you can use a wireless keyboard, wireless mouse, and a wireless printer that have the Bluetooth function.

Note : You can only use the Bluetooth communication function between devices (computers, mobile phones, PDAs, printers, etc.) which support Bluetooth.

Bluetooth Device On-line Help

For more detailed procedures on using the Bluetooth function, click **Start > Help and Support > Network and the Web > Networking > Wireless networking > Bluetooth devices,** and view the descriptions.

■ The following functions are provided by the Bluetooth software.

▶ **Transferring files**

You can transfer files between Bluetooth devices such as computers, mobile phones, PDAs (Personal Digital Assistant), etc.
For more detailed procedures on transferring files, refer to ˝**Send and Receive files to/from a Bluetooth device**˝
of the Bluetooth On-line help.

▶ **Using the Internet via a mobile phone**

You can connect to the Internet through your mobile phone after connecting it to a computer which is connected to the Internet.
For more detailed procedures on using the Internet, refer to ˝**Install a Bluetooth mobile phone**˝ and ˝**Create a Bluetooth connection to the Internet using a Bluetooth mobile phone**˝ of the Bluetooth On-line help.

▶ **Using a wireless keyboard and mouse**

You can use a wireless keyboard and mouse which have the Bluetooth function.
For more detailed procedures on using a wireless keyboard and mouse, refer to ˝**Install a Bluetooth keyboard**˝ and ˝**Install a Bluetooth mouse**˝ of the Bluetooth On-line help.

▶ **Using a wireless printer**

You can use a wireless printer if the printer supports Bluetooth HCRP (Hardcopy Cable Replacement Profile).
For more detailed procedures on using a wireless printer, refer to ˝**Install a Bluetooth printer**˝ of the Bluetooth On-line help.

- **Using a Personal Area Network**
  You can exchange files between computers by connecting to the shared folder of another computer via a Personal Area Network.
  For more detailed procedures on using the Personal Area Network, refer to "**Join a personal area network**", "**Provide a name for your computer on a personal area network**" and "**Bluetooth personal area networking overview**" of the Bluetooth On-line help.

- **Sharing data with a Palm Hand-held PC or a Pocket PC**
  You can transfer data to and from a Palm Hand-held PC or Pocket PC.
  For more detailed procedures on sharing data, refer to "**Installing a Palm handheld computer using Bluetooth technology**" and "**Installing a Pocket PC using Bluetooth technology**" of the Bluetooth On-line help.

■ Precautions

- Please do not send files larger than 60MB when transferring files through a File Transfer Function or Personal Area Network. Sending a file larger than 60MB may fail due to an unstable Bluetooth connection.

- When using the Personal Area Network function, other computers may not appear in My Network Places. If you cannot see other computers after 5 minutes, click "**Start > Search > Computers or people**" and enter the name of a computer and search for it.
  For procedures to view the name of your computer, refer to "**Provide a name for your computer on a personal area network**" of the Bluetooth On-line help.

Chapter 5

System Management

This chapter provides information on efficient computer management.

Managing Power

Use Power Options to save power consumption. You can switch Standby Mode while you are not using your computer or configure the system components to shut it down on a specified time.

Specifying Power Save Time

You can specify Turn Off Monitor, Turn Off Hard Disk, System Standby Mode, and Maximum Power Save Mode.

Select **Start** > **Control Panel** > **Performance and Maintenance** > **Power Options** > **Power** Schemes tab. Then specify time in each item and click OK.

Note : The Power Setting is set to BatteryMgr-Normal Mode. BatteryMgr-Normal Mode extends the battery use time when using battery power, and optimizes the Intel Speedstep feature. Since it automatically optimizes the processing speed of the system to minimize power consumption, you may experience slower operations when using battery power than when using AC power. To use BatteryMgr-Normal mode in the Windows system, please install the Battery Manager program by using the System Software Media.

Monitor Off
The LCD display goes into Power-Saving mode after the specified period of time.

Hard Disk Off
The Hard Disk goes into Power-Saving mode after the specified period of time.

Standby Mode
If the computer is not used for the specified period of time, the monitor and hard disk drives are turned off to reduce power consumption.

Hibernation Mode
Saves the current working status onto the hard disk and turns the computer off. Pressing the Power button restores the computer to the previous working status.

Note : Press Power button to use computer again in Standby Mode or Hibernation Mode.
You can also reserve Turning Computer Off, Maximum Power Saving Mode, Hold Mode, etc. by selecting System > Computer Scheduling in the EasyBox program. (See P. 3-12.)
If you change the power settings in the Battery Manager program, the settings of the 'Power Options Properties' window are automatically changed accordingly (see P. 5-6).

Using the Power button

You can configure the function of the power button.

Click **Start** > **Control Panel** > **Performance and Maintenance** > **Power Options** and select the Advanced tab.

Configure the Power button function.

Configuring the function of the < [Fn] >+< [Esc] > key combination.

Caution : When the Power button is configured to put the system into Power-Saving Mode, manually shutting down the computer requires the Power button to be pressed and held for more than 4 seconds.

Using the Battery

Please refer to the following instructions when running the computer on battery power without connecting the AC power.
This computer uses smart rechargeable Lithium-Ion (Li-Ion) battery.

Caution
- Please read the instructions on the battery before use.
- Please refer to the system operation environment (Page A-2) of this manual and operate and store the battery at room temperature.

Ejecting and Attaching Battery

1. Shutdown system and close LCD.
2. Put the computer upside down.
3. First, slide the right battery latch in the direction of **open** (⌒), slide the left battery latch in the direction of **open** (⌒) and remove the battery.
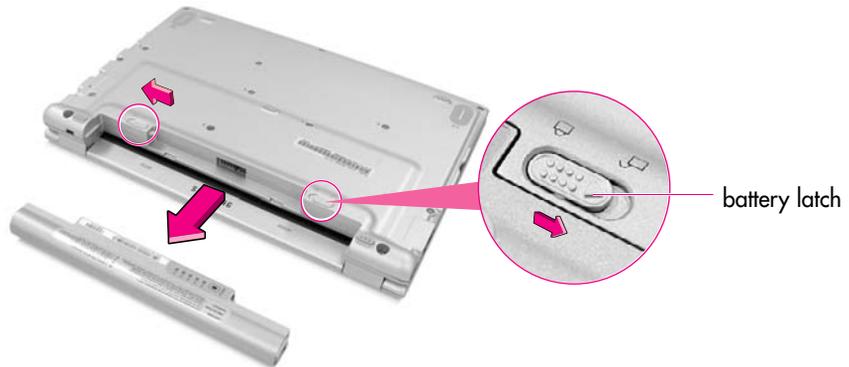
battery latch

4. To install the battery again, insert the battery into the battery compartment of the system and slide the right battery latch in the direction of **closed**(⌒) to fix the battery.
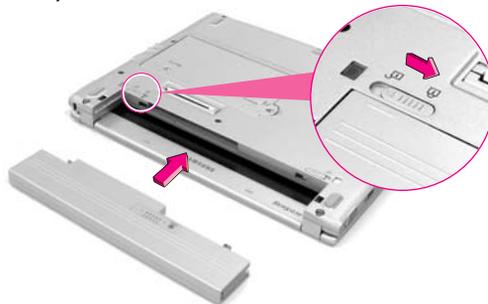
Monitoring the Battery Charge

You can view the battery charge status by completing the following procedures.

■ Using the shortcut key to view

Press the < > + < > key combination on the keyboard and then the current power source and the current remaining battery charge are displayed at the top left of the screen.

■ To view on the battery

Click the **PUSH** button on the battery. The remaining battery charge (%) will be displayed.

——— Slightly press PUSH button.

■ To view through the Control Panel

Select Start > Control Panel > Performance and Maintenance > Power Option > Power Measure tab.
Then you can view the current power source and the current remaining battery charge.

——— Power supply status

——— Remaining Battery Charge
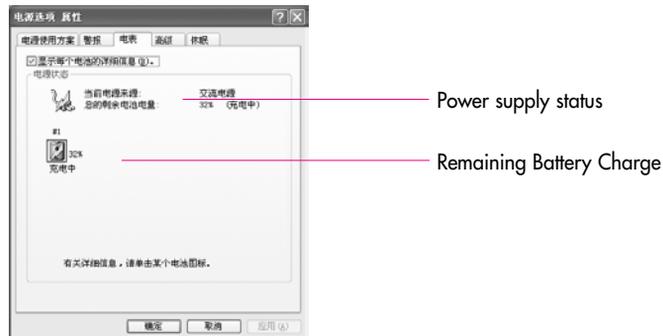
Caution : **Using the battery**
Battery is an expendable supply, so when you use it for a long time, the capacity/battery life is shortened. If the battery life time is reduced to under half of the initial time, we recommend that you purchase a new battery to use.

Note : **Battery Warning**
You will hear an alarm when the remaining battery charge is under 10%. Connect the power cable or turn off the computer and install a fully charged battery. When the remaining battery charge is under 3%, the computer automatically saves current work and turns off. This may be different according to the settings in Control Panel > Performance and Maintenance > Power Options > Alarms tab.

Extending the battery use time

▇ Decreasing the LCD Brightness

Decreasing the LCD brightness by pressing the < [Fn] >+< [☼▼] > key combination on the keyboard or adjusting the brightness in the Battery Manager program extends the battery use time. (P. 1-12)
Decreasing the LCD brightness by one level extends the battery use time by 3~5% (10~20 minutes). (The battery use time is determined by the corresponding model.)

▇ Using the Battery Manager

Battery Manager is a power management program that enables using battery power efficiently.
You can easily change the power mode by selecting an optimized power mode and manually optimizing the battery use time by setting each option.

Click on Start > All Programs > Samsung > Samsung Battery Manager > Samsung Battery Manager

You can only change the detailed configuration in Custom Mode.

Select the Power Mode.

Power Saving Effects

▶ **Maximum Battery Saving Mode :** This mode is appropriate for condtions which require the maximum battery use time. This may degrade the performance of the system.

▶ **Normal Mode :** This mode is appropriate for normal conditions. Both system performance and battery use time are optimized.

▶ **Maximum Performance Mode :** This mode is appropriate for conditions that require maximum system performance. Therefore, the battery usage time may be reduced in this mode.

▶ **Custom Mode :** In this mode, a user can configure a detailed configuration to save the battery usagetime. You can adjust the LCD brightness, the system standby time, the screen color quality, and the graphic mode values.

Power Saving Effect

This shows the relative battery use time for each power mode. The more effective the power saving, the longer the graph will appear.

When Running a Game or Multimedia Application

A game or multimedia application may not work smoothly in Maximum Battery Saving Mode.Using this is recommended when the AC adapter is connected or in Normal or higher modes.

■ Turning Off Unnecessary DevicesTurning off

Turning off unnecessary devices extends the battery use time.

Select the **Start > Control Panel > Performance and Maintenance > System > Hardware** tab and click **Device Manager**. Right-click a device you are not using, and select 'Disable' (e.g. Wireless LAN, IEEE 1394, etc.)

■ Use Battery Calibration

If you charge/discharge the battery repeatedly for only a short time, the battery use time may be reduced by the difference between the actual battery charge and the remaining charge display. In this case, the actual battery charge and the remaining charge display will be same by discharging the battery completely using the Battery Calibration function, and then recharging it again.

1. Turn off the computer and disconnect the AC power.

2. Turn on the computer and press <F2> to enter into System Setup.

3. Select **Smart Battery Calibration** in the **Boot** Menu, and press <Enter> to start.
    The Battery Calibration function is activated and the battery is discharged forcibly. This operation requires 3~5 hours depending on the battery capacity and the remaining battery charge.

```
                    PhoenixBIOS Setup Utility
    Main     Advanced     Security     Boot     Exit

▶ Boot Device Priority                           Item Specific Help
  NumLock                      [Off]
  Enable Keypad                [By NumLock]       Select system boot
  Summary screen               [Disabled]         options
  Boor-time Diagnostic Screen  [Disabled]
  PXE OPROM                    [Only with F12]

  Brightness Mode Control      [Auto]
  Wireless device control      [Always On]

  Smart Battery Calibration


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

4. When the calibration process is complete and the battery is completely discharged, connect the AC power adaptor to fully recharge the battery.

Using the Security Lock

The security lock is a device used to physically 'fix' the system when using it in a public place. The locking device needs to be purchased separately. The shape and methods of use may differ depending on the manufacturer. Please refer to the manual provided with the security lock for proper use.

Fix the Kensington lock cable to a fixed object (①) and connect the cable to the Anti-theft port at the rear of the system (②).

Traveling with the Computer

- When traveling, keep the system and the AC adapter disconnected. Otherwise, it may affect the functions of the system.

- Make sure that the system is not pressed by a book or heavy objects. The LCD may get damaged.

- When traveling by plane, use a bag designed for notebook PCs and hand-carry the computer.

- Allow the computer and disks to pass through security X-rays but do not pass the computer and disks through metal detectors.

- Do not use the computer during take off and landing.

Chapter 6

Customizing your computer

This chapter provides information how to use the system setup, customizinig screen settings.

Using System Setup

System Setup is a utility that enables the computer environment to be changed to suit the user. System Setup is used when changing the system password, booting priority, or when adding new devices.
Please use extra care when configuring System Setup, as it may cause serious system error.

To enter System Setup

1. Turn on the computer.
2. When the booting screen appears, press <F2>.

3. The initial System Setup screen will appear in a moment.

```
                    PhoenixBIOS Setup Utility
   Main    Advanced    Security    Boot    Exit

   System Time           [10:21:53]              Item Specific Help
   System Date           [07/10/2005]
                                            <Tab>, <Shift-Tab>, or
 ▶ Primary Master        [40001MB]          <Enter> selects field.

   Cpu Type              Intel (R) Pentium(R) M
   Cpu Speed             XXXX MHz
   Total Memory          XXX MB
   Slot1 Memory          XXX MB
   Slot2 Memory          Not Installed

   BIOS Version          XXXXXXXX
   Micom Version         XXXXXXXX



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

Setup Menu

Help
Displays help information on the current selected item.

Setup Item

Navigation Keys
Use these navigation keys to view and change the System Setup settings.

Sub-Menu
Press<enter> to display sub-menu.

System Setup Menus

Menu Items	Description
Main	Configures the basic system environment
Advanced	Configures OS and major chipset options of the system
Security	Configures system security options
Boot	Configures booting options
Exit	Exits System Setup

Note : For more information on System Setup menus or options, please refer to Help on the right side of the screen.

System Setup Navigation Keys

Displays the Help window.

Moves up and down between fields.

Changes the value of the current field.

Restores default values.

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

Exits the current sub menu or opens the Exit menu.

Moves between menus.

Selects a field or opens a sub menu.

Saves changes and exits System Setup.

Note : Contents of System Setup may be changed due to functional improvement or other reasons.

Configuring the Password

■ Setting the Supervisor Password

By configuring a supervisor password, you can restrict system access to autho-rized users only.

Note : Do not lose or forget your password. If you have forgotten your password, contact the Samsung service center.

1. Select the **Security** menu in the System Setup. (To enter into System Setup, see Page 6-2.)

2. On the '**Set Supervisor Password**' item, press <Enter>.

```
                    PhoenixBIOS  Setup Utility
     Main      Advanced     Security     Boot     Exit

  Supervisor Password        Clear              Item Specific Help
  User Password              Clear
                                               Supervisor Password
  Set Supervisor Password    [Enter]           controls access to the
  Set User Password          [Enter]           setup utility.

  Password on boot           [Disabled]
  Fixed disk boot sector     [Normal]




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

3. Enter a password, press <Enter>, re-enter the password for confirmation, and press <Enter> again.

```
            Set Supervisor Password

   Enter New Password      [       ]
   Confirm New Password    [       ]
```

4. When a message confirming the password configuration appears in the [Setup Notice] window, press <Enter>.

■ Setting the User Password

You can configure user passwords so that other users can use the system.

Note : Before configuring a user password, a supervisor password must have been configured.
Users can start the system with their user password, but cannot enter into the System Setup.
Deactivating the supervisor password also deactivates the user password.

On the 'Set User Password' item, press <Enter>, and complete step 3-4 of Configuring the Supervisor Password.

■ Activating the Booting Password

Note : Before activating the booting password, the supervisor password must have been configured.

Set the 'Password on boot' option to [Enabled].
From now on, you must enter the password to boot the system.

■ Deactivating the Password

1. On the password to delete, press <Enter>. (e.g. supervisor password)
2. Enter the current configured password, and press <Enter>.
3. Leave the 'New Password' and 'Confirm New Password' field empty, and press <Enter> to deactivate the password.

Changing Booting Priority

You can select the booting priority among the devices such as the hard drive, CD-ROM drive, etc. The following example describes how to configure the hard drive as the first booting device when the CD-ROM drive is configured as the first booting device by default.

1. Select the Boot Menu in System Setup.
2. Press <Enter> on **Boot Device Priority** item.

```
                        PhoenixBIOS  Setup Utility
     Main     Advanced     Security     Boot     Exit

  ▶ Boot Device Priority                          Item Specific Help

    NumLock                      [Off]            Select system boot
    Enable Keypad                [By NumLock]     options
    Summary screen               [Disabled]
    Boor-time Diagnostic Screen  [Disabled]
    PXE OPROM                    [Only with F12]

    Brightness Mode Control      [Auto]
    Wireless device control      [Always On]

    Smart Battery Calibration




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

3. Use the < ↓ > key to move to the **Hard Drive** item, and press <F6> key until it is at the very top.

```
              Boot Options

      CD-ROM/DVD
      Removable Devices
   +  Hard Drive
```
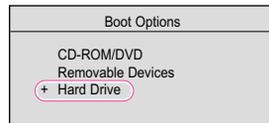
4. Press <F10> to save the changed configuration, and exit System Setup.
   Now you can boot the system with the hard disk drive as the first booting device.

Configuring Resolution and Color Depth

Screen resolution is the number of pixels displayed on the screen. High resolution makes the overall screen area large, although individual items appear small. Color quality is determined by the number of bits used to represent a pixel on the screen. High color quality displays more number of colors on your screen.

1. Select **Start > Control Panel > Appearance and Themes > Change the screen resolution**.

2. Make changes on the **Settings** tab of the [Display Properties] dialog.

To change the number of colors displayed on a monitor, select an appropriate color quality.

To change your screen resolution, move the slider to select an appropriate resolution.

3. When you have completed configuration, click **Apply**.

Note : It is recommended setting the resolution to 1280x768, and the number of colors to Highest (32bit).

Using External Display Devices

Using external display devices such as monitor or projector, you can view the screen images alternatively or simultaneously. You can extend the screen into two display devices to use larger workspace.

Using external display devices would be especially useful when you are giving presentations or watching a video file.

1. Connect the external display device (e.g. a monitor or a projector) to the corresponding port of the system.

Note : You can connect the computer to a TV, which has a VGA port. Connect the Monitor port of the computer and the VGA port of the TV using a monitor cable. (A monitor cable is not supplied with the product, and can be additionally purchased.)

2. Right-click on the desktop, and select **Graphics Properties**.

3. On the **Devices** tab, select your desired display device, and click **OK**. (The displayed device list is determined by the currently connected devices.

Monitor	Displays on an external device such as monitor or a projector.
Notebook	Displays on the notebook LCD only.
Twin/Intel(R) Dual Display Clone	Displays the same screen on the notebook LCD, and an external device such as monitor or projector.
Extended Desktop	Extends the screen into the notebook LCD and an external device such as monitor or projector to use a 2 times larger workerspace.

Note

To switch display devices using shortcut key

You can switch display devices easily by pressing <Fn>+< [F4] > shortcut key.

Provided that the CRT monitor is connected, the display order will be LCD > CRT > LCD+CRT whenever the <Fn>+< [F4] > key is pressed.

Provided that multiple external display devices are connected, the display order is LCD>CRT>LCD+CRT>LCD whenever the <Fn>+< [F4] > keys are pressed.

You cannot use the <Fn>+< [F4] > shortcut key in the full screen mode DOS prompt or extended desktop.

To change display devices easily
Right-click on the desktop, and select **Graphics Options > Output To** to change the current display device easily.

To change the screen resolution and color quality
If the screen does not appear clearly, please try to change the screen resolution and color quality. In the figure of step 3, select a Display Settings, and adjust Color Quality, Screen Resolution, Refresh Rate of right screen.

When using an LCD and a wide monitor, the LCD and monitor screen sizes may differ. To make them the same size, select Twin/Intel(R) Dual Display Clone .

Checking for Viruses

The Norton AntiVirus software is provided as the virus inspection program.

Note : When you first run Norton AntiVirus, the Norton AntiVirus Configuration window pops up. If you complete the configuration and your computer connect to network, you can download and install the latest updates via the network. When the live update is done, virus scanning starts automatically. To stop scanning, click on Stop.

If you didn't configure the Norton AntiVirus program, a security alert icon (🛡) appears in the notification area on the right of the task bar. This indicates that the current security state of your computer is not secure. Configure the virus-scanning program to make the security alert icon disappear.

1. Select **Start** > **All Programs** > **Norton AntiVirus** > **Norton AntiVirus 2005**.

2. Click **Scan Virus**, select drive to inspect, and click **Scan**.

Vaccines for the latest viruses can be downloaded by connecting to Symantec's homepage.

3. If a virus is detected, select Automatic in Norton AntiVirus, and click **Next** to delete the virus.

Chapter 7

Recovering the Computer

This chapter provides recovery procedures using the System Recovery CD when the computer is not operating properly.

Restoring the System

The System Restore function allows you to restore your computer to an earlier copy (called restore point), and restores the settings if a problem occurs.

The System Restore function is provided by Windows XP to enable the resolution of various problems without reinstalling Windows XP completely.

You can use System Restore in the following cases.
· The system files are deleted or damaged by mistake.
· The system is unstable or a problem occurs in a device driver.
· A problem occurs after changing system files such as the registry.
· A problem occurs after installing a new program.

■ Creating a Restore Point

Restore points are created at predetermined times and at times of significant system events such as when a program or a driver is installed. You can also decide when to create your own restore points.

Note : There has to be more than 200MB of free space on the hard disk drive. If the disk space is insufficient, a saved restore point might be deleted.

You are recommended to create a restore point when you have purchased a new computer and before installing new programs or device drivers. Before creating a restore point, check that the computer is operating properly.

The procedures to create your own restore point are described below.

1. Click **Start > All Programs > Accessories > System Tools > System Restore.**
2. Select 'Create a restore point', and than click **Next**.

3. In the **Restore point description** box, type a name to identify the restore point, and than click **Create**. A restore point has been created.

■ Returning your computer to an earlier restore point

The procedures to return your computer to an earlier restore point when a problem has occurred are described below.

1. **Start > All Programs > Accessories > System Tools > System Restore**.

2. Select 'Restore my computer to an earlier time', and click **Next**.

Caution : Since changes made after the Recovery Point may not be maintained, please back-up all necessary files to another location before performing system recovery.

3. Select the desired restore date (①) from the calendar restoration and select the desired restore point from the list (②), and then click **Next**.

Note : The date of the restore point is displayed in bold font.

4. Confirm the selected restore point and click **Next**. System Restore shuts down Windows, and starts the restoration processes.

5. After the restoration is complete, Windows restarts. In the [System Restore completed] dialog box, click **OK**. Your computer has been restored to the selected restore point.

■ Undoing the last restoration

The procedures to undo a restoration are described below.

1. Click **Start > All Programs > Accessories > System Tools > System Restore**.

2. Select 'Undo my last restoration', and click **Next**.

3. Confirm the restoration information to undo, and click **Next**. System Restore shuts down Windows and starts undoing the restoration.

4. After the undo restoration is complete, Windows restarts. On the [Undo the last restoration completed] dialog box, click **OK**. Your computer has been restored to the point prior to the last restoration.

Reinstalling Software

If you have reinstalled the Windows operating system, or the system and program do not operate properly, you can re-install the driver and program using the System Software Media.

Note : This computer is optimized for Microsoft Windows XP. Therefore, Windows drivers other than the ones included in the system software media are not provided.

■ Running the system software media

Insert the system software media into the CD-ROM drive. The initial screen appears automatically.
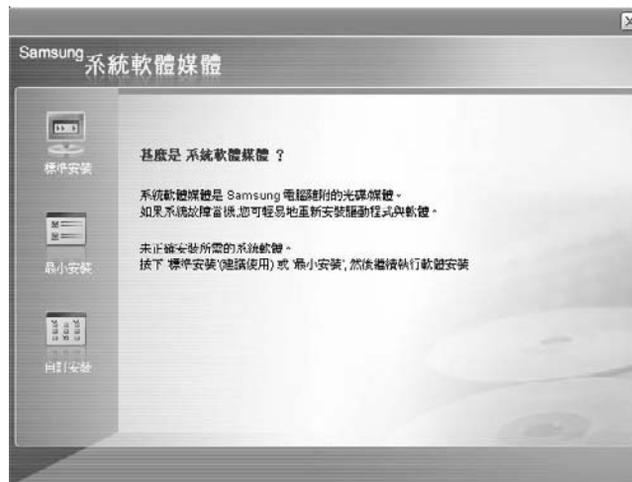
- **Standard Installation** : This displays a list of drivers or programs that are not currently installed on your computer from the system software media provided.
  All necessary components are installed using the factory defaults.
- **Minimum Installation** : This displays the components (driver, Windows programs, etc) that, if not installed, may cause problems with the system performance. You can install only required components.
- **Custom Installation** : You can customize the installation of drivers and programs.

■ Installing drivers and programs

1. Click **Standard Installation** in the main window of the System Software Media. (Standard Installation is recommended)

2. The system is scanned to display the drivers and programs that need to be installed.

3. Click **OK**. The drivers and programs are automatically installed as factory defaults.

4. When done, restart the system.

Re-Installing Windows

When Windows is not operating properly due to an error on the hard disk drive, you can easily reinstall Windows using the Samsung Recovery Solution Media.

Caution : **Please backup your hard disk drive.**
Samsung Recovery Solution formats your hard disk drive before installing Windows. Therefore, please backup important data onto a separate storage device before reinstallation.

When using a partitioned hard disk drive:
If there is insufficient free disk space for installing Windows (approximately less than 5 GB), Windows cannot be installed.

1. Insert the **Samsung Recovery Solution** media into the DVD-ROM drive and restart your computer.

2. When the **Press any key to boot from DVD**. . . message appears, press any key on the keyboard.
   After a while, the Samsung Recovery Solution Start screen appears.

3. Read the instructions on the Start screen and click the Start button to install Windows.

4. The Windows installation will be performed. Installation will take approximately 15~20 minutes depending on the performance of the computer.

 If the Select Windows version (language) screen appears instead of the Windows installation screen:

The **Select Windows version** screen may appear if you have formatted your hard disk drive. Select a **Windows version** according to the following procedures.
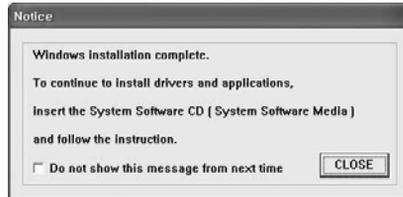
4-1 Select the **Windows version** you have used and click the **Start** button.

4-2 The Confirmation window appears. Confirm the selected Windows version and click the **Yes** button.

5. When the Windows installation is complete, the computer will automatically restart and the **Notice** window will appear.

 Insert the **System Software Media** into the DVD-ROM drive.

After a short wait, the System Software Media Start screen will appear.

Note The drivers and applications from the System Software Media need to be installed. Windows cannot be used without them.

6. Select a menu from the **System Software Media Start screen**, and install the drivers and application programs.

 When the installation is complete, the computer will automatically restart and the Windows registration screen will appear.

Note For more information about the procedures to use the **System Software Media**, refer to the descriptions of 'P. 7-4 Re-Installing Software'.

 If the System Software Media consists of 2 CDs
 When the installation of the first CD is complete, the Windows registration screen appears. (See Step 7) Install the second CD after registering Windows.

7. When **Start Microsoft Windows** appears, click the **Next** button.

Note Register Windows referring to the descriptions of the '**Installing and Registering Microsoft Windows**'section of the Installation Guide.

 If the **System Software Media** consists of two CDs, insert the second CD for program installation into the DVD-ROM drive after completing the Windows registration.

Q&A

This section provides information on possible problems, solutions and other references for system use.

Windows Related

Q1 The system does not shutdown properly.

A   When the system does not shutdown normally, press and hold the Power button until the system manually shuts off. If the Power-Saving Mode is configured into the Power button, press and hold for more than 4 seconds to shut the system off. When the system is turned on after such manual shutdown, Scandisk will run to check errors in the system.

Q2 The system freezes during program operation

A1 There is an error with the program currently being used. Press the <Ctrl>, <Alt>, and <Delete> keys simultaneously and click 'End Task in the [Windows Task Manager] window.

A2 There is an error with the Windows OS. Reboot the system by using the Power button.

Display Related

Q1 The LCD screen is blank.

A   Adjust the LCD screen brightness. Use the <Fn> + <⟨☼▾⟩>, <Fn> + <⟨☼▴⟩> keys.

**Q2 The screen saver disturbs screen viewing during Media Player or
video file operation.**

A   Under the Media Player Options, in Player > Enable Screen Saver During Use,
uncheck the box and restart the player.

**Q3 In DOS mode, changing the full screen DOS mode by pressing
<ALT>+<Enter> key displays a broken image for a short period.**

A   The DOS mode which supports 2 Byte characters such as Korean and Japanese
runs in graphic not in text mode. In this case, a broken image may be displayed
while changing the video mode settings.

**Q4 The screen blinks, displays noise for a short time, or the screen
resolution is changed.**

A   This may happen in the following cases (resolution change, display device
change, removal of AC adapter, system restart, and the implementation or termi-
nation of stand-by mode or maximum power saving mode)

This happens while the system is detecting display devices connected to the
system. During the detection operation, the connected display devices may blink
or some noise may occur. If you continually view an afterimage on the screen,
right-click on the Desktop and select Refresh or restart the system.

**Q5 Extended Desktop is not configured on [Display Properties]
dialog. (Start > Control Panel > Appearance and Themes >
Display > Settings tab)**

A   Change the setting to extended desktop on [Graphics Controller Properties]
dialog. ((P. 6-8) Refer to 'Using External Display Devices'.)

Q6 I pressed <Fn>+<⟨⊡⟩> keys, then the screen blinks.

A   This problem may occur when you pressed <Fn>+<⟨⊡⟩> keys to convert display
devices while there is no external display device connected.
Connect an external display device first, then convert display devices.

Q7 When I pressed <Fn>+<⌨> keys to change display devices, the screen resolution is changed.

A   Change the resolution again on [Graphics Controller Properties] dialog.
    ((P. 6-8) Refer to 'Using External Display Devices'.)

Q8 <Fn>+<⌨> keys do not operate.

A   When you are playing a video file such as a video CD, an MPEG file, or a DVD, when no external display is connected, or when you are using the extended desktop mode or full screen DOS mode, you cannot change display devices.

Q9 Desktop is displayed abnormally or some icons disappear while the system is operating.

A   This problem may occur when you entered hibernate mode while using the Extended Desktop mode, removed the monitor and then pushed power button to exit hibernate mode.
    When the desktop is displayed abnormally, press right touchpad button on the desktop and click Refresh. When the icons disappear, press <Fn>+<⌨> or <Ctrl>+<Alt>+<F3> to change the display setting.

Q10 When I played DVD or Video CD in Dual Display Clone mode or Extended Desktop mode, actions such as changing display setting or volume operates slowly.

A   Playing DVD or Video CD requires separate data handling. When you are using Dual Display Clone mode or Extended Desktop mode, problem may occur because the data exceeds the capacity of the video chip. Change the display device to display only on LCD or only on CRT.

Modem Related

Q1 I cannot hear the modem sound.

A1 Check that the telephone line is properly connected to the modem.

A2 Check that the modem driver is installed properly.
1. Click **Start > Control Panel > Performance and Maintenance > System**.

2. Select **Hardware** tab **> Device Manager > Modems** in the **System Properties** window, and check if there is a yellow exclamation mark on the installed modem icon. If there is, delete the modem device driver and reinstall the driver, because the yellow exclamation mark represents a not properly installed driver.

3. If there is no yellow exclamation mark, double-click the installed modem, and click **Diagnostics** tab **> Query Modem** in the **Modem Properties** window to diagnose the modem.

No message in either of Command and Response in the **Diagnostics** tab means that the modem is not operating properly.
Diagnose the modem again after restarting the system or reinstalling the driver.
(You have to exit all programs using modem in the advance of diagnostics of the modem).

A3 Although I can make a connection with the modem, I cannot hear the dial tone and modem connection sound. In this case check the following list:
1. Click **Start > All Programs > Accessories > Entertainment > Volume Control**.

2. Clear the **Mute** check box in the Telephone Line item.
(Depending on the sound driver, it may be displayed as another name such as Modem, Phone, Mono. If there is no corresponding item, click **Options > Properties > Volume Control**, select 'Playback', and select the 'Telephone Line' under the '**Display the following volume controls**'. Click **OK**.)

Q2 I cannot make a call using an extension line.

A In general, the dial tone of a PABX or a digital phone switching system is not a continuous one, unlike that of a trunk line.
Therefore, the modem may not make a call because the modem mistakes the dial tone from a PABX or a digital phone switching system as a busy tone.
In this case, complete the following procedures.

- **Using an AT command**

  As an initialization command, use the command, ATX3.
  Otherwise, enter the ATX3 command manually before making a call.
  It can correct this problem by skipping the dial tone check step.

- **Configuring the Modem through the Control Panel**

  1. Click **Start > Control Panel > Network and Internet Connections**

  2. Under **See Also**, click **Phone and Modem Options**.

  3. In the **Modems** tab, select the installed modem, and click **Properties**.

  4. In the **Modem** tab of the **Modem Properties** window, clear the '**Wait for dial tone before dialing**' check box.

  5. When the configuration is completed, click **OK**.

Q3 How do I use my modem when dialing from overseas?

A1 Check that the modem is correctly configured according to the current country. Because the values for communication may differ according to the country, you may not be able to connect via the modem due to an incorrect modem configuration.

  1. Click **Start > Control Panel > Network and Internet Connections**.
  2. Under **See Also**, click **Phone and Modem Options**.
  3. In the **Dialing Rules** tab, click **Edit**.
  4. In the **General** tab in the **Edit Location** window, select the current country from the **Country/region** radio box, specify the **Area code**, and click **OK**.

A2 Because the shape of the telephone plug may differ according to the country, you have to purchase and use the appropriate telephone plug for that particular country.

Q4 How do I receive a fax while the system is in power saving mode (Rest mode) (For Windows XP and 2000)?

A To receive a fax when the system is in power saving mode, and the operating system is Windows XP or 2000, configure the system as follows:

  1. The automatic fax reception function of the fax program needs to be activated. (For more information, refer to the corresponding fax program manual.)
  2. Click **Start > Control Panel > Network and Internet Connections**.
  3. Under **See Also**, click **Phone and Modem Options**.
  4. In the **Modems** tab, select the installed modem, and click **Properties**.
  5. In the Power Management tab of the Modem Properties window, select the "With this device, exit the computer from stand-by mode" item and then click OK.

The above setting enables the modem to turn on the system and receive a fax when in power saving mode.

Wired LAN Related

Q1 <Wake On LAN> Function.

A   <Wake On LAN> is a function that activates the system in rest mode when a signal (such as **ping** or **magic packet** commands) arrives from network(wired LAN).

  ▪**To use <Wake On LAN> function**

  1. Select **My Network Environment > View Network Connections** from the Desktop.
  2. Click the right button on the touchpad over **Local Area Connection**, and select **Properties**.
  3. Click **Configure...**, and select **Power Management** tab. Select '**Allow this device to bring the computer out of standby**', then click **OK**. Restart the system.

  ▪If the system in rest mode is activated when there is no received signal, use the system after disabling <Wake On LAN> function.

  ▪Connecting wired LAN while using wireless LAN may not execute <Wake On LAN> function. Configure wireless LAN to '**Disable**' to use <Wake On LAN> function.

Q2 When I connected 100Mbps wired LAN and the computer exits standby/hibernate mode, a message informing 10Mbps wired LAN connection appears.

A   When the computer exits standby/hibernate mode, restoring the network takes about 3 seconds. When the network is restored, it operates in 100Mbps.

Wireless LAN Related

Refer to P.4-7 "Configuring the Network Environment Settings for Wireless LAN Network (WLAN)" for the basic uses of a wireless LAN.

Q1 The Wireless LAN device is operating properly, but I cannot connect to the Internet or to another computer.
This is due to an inappropriate configuration. Check the following check lists:

A1 If you are using a computer-to-computer (Ad Hoc) network connection, check that the name of the configured network (SSID) is correct. The network name (SSID) is case sensitive.

A2 If you are using a network key (encryption key), you have to use the same network keys for an AP (Access Point) or a computer-to-computer network (Ad Hoc). The network key of the AP is configured in the AP management program. Ask your network administrator or AP manager for more detailed information.

A3 Check that the device driver is properly installed. If the driver is not properly installed, you will find a yellow exclamation mark on the network icon by clicking **Start > Control Panel > Performance and Maintenance > System > Hardware tab > Device Manager > Network adapters > Wireless LAN adapter**. If there is a yellow exclamation mark, If a warning message apears, install the driver again using the System Software Media.

A4 Referring to A2 of Q3, check that the network bridge configuration is correct.

Q2 The signal strength is excellent, but I cannot connect to the network.
Even if the signal strength is excellent, the network connection may not operate properly if the TCP/IP properties are not properly configured, or the network key (encryption key) is incorrect.

A1 Check that the TCP/IP properties are configured properly. When you connect to an AP, click the **Wireless Network Connection** icon ( ) on the taskbar and select the Support tab. If the IP is not allocated properly, the IP address will be displayed as follows. (e.g. 169.254.xxx.xxx)
If the network does not provide DHCP, you have to specify the correct IP address by asking your network administrator.
Even if the network provides DHCP, the server may not allocate an IP address to the client properly, and the client station cannot connect to the network.

A2 Referring to A2 of Q1, check that the network key is correct.

A3 Referring to Q4, check that AP is operating properly.

Q3 I cannot share an Internet connection.

A1 It may require some time to synchronize the computers to share an Internet connection after the Internet connection sharing configuration is completed. If you cannot share Internet connection even after a longer period, restart the computer.

A2 Check if the connection between the network adapters is configured to bridge. If there is a configured bridge connection between the network adapters through the network configuration wizard, remove the network bridge, and reconfigure the Internet connection sharing.
A bridge connection is created when you ran Network Setup Wizard from the [Network Connections] window, and selected both the internal connection adapter and another adapter in the wizard.

Q4 I cannot connect to the AP.

Check the Computer Settings

A1 Verify whether the wireless LAN function of the computer is on by doing the following. If the wireless LAN function is off, turn it on.
  • For Windows XP, verify that the wireless network connection has been set to "Enable" in Start > Control Panel > Network Connections.
  • If there is a Wireless LAN On/Off button, check if the wireless LAN button is pressed.

A2 Verify whether the same network key (encryption key) has been entered in both the AP and the computer.
The network key is an encryption key for encrypting data transmitted between the AP and the computer. It is recommended setting the network key manually.

Check the AP Settings

For the AP settings, refer to the User's Guide provided by the AP manufacturer.

A3 Verify whether the environment is suitable for using a wireless LAN.
The use of a wireless LAN may be restricted according to the environment and distance. Obstacles such as walls or doors affect the use of a wireless LAN.
  • Install the AP in a high and open space 50cm from the wall and far removed from any other radio signal sources.

A4 Verify whether the AP is operating properly.
  • When the AP is not operating normally, turn off the AP and after a short while turn it on again.
  • Verify whether the AP's firmware is the most recent version. (Contact the AP manufacturer or the place where you purchased the AP for details of the AP firmware.)

A5 Verify whether the AP has been properly connected to the network.
Verify whether the network is operating normally by connecting the wired network cable, which has been connected to the AP, to your computer.

A6 Check the network key settings (encryption key).

When automatic code conversion (a passphrase function) has been selected and data communication is not functioning even with a normal wireless connection, it is recommended entering the network key (encryption key) manually.

A7 Check the AP settings as follows. (The following is recommended for a standard environment and thus may differ according to the specific wireless network environment.)

- When several APs are present simultaneously, check the channel setting for each AP. When different APs are using nearby channels, interference may occur between electronic waves. Set the APs' channels further apart from each other. (Ex: Ch1, Ch5, Ch9, Ch13)
- When an AP's SSID (Service Set ID) option is set to "Hide", you cannot search for that AP on the computer. We recommend canceling the "Hide" option for an AP. The SSID is a name for distinguishing one wireless LAN from another wireless LAN.
- It is recommended using Long Preamble. Preamble is a signal for data transmission synchronization. Short Preamble may be supported by some types of APs but may cause compatibility problems.
- It is recommended using a static IP.
- Since static channel selection is more reliable than auto channel selection, it is recommended setting a static channel.

Q5 In the Windows XP 'Available wireless networks' window, the Wireless Network Connection is displayed as 'Not Available'.

A1 When there is a Wireless LAN button, ensure that the Wireless LAN button is turned on.

A2 Check if there is additional program for a wireless LAN connection installed. Windows XP supports wireless LAN connections through the Wireless Zero Configuration (WZC) service. Therefore, an additional program for wireless LAN connection is not required, unless the network requires a specific program. However, installation of some wireless LAN related programs may sometimes disable the [View Available Wireless Networks] window supported by WZC service. Exit the wireless LAN related program then check whether the window is enabled.

A3 Initialize the device driver.

Click **Start > Control Panel > Performance and Maintenance > System > Hardware tab > Device Manager > Network adapters**, and select the wireless LAN adapter. Right-click the network adaptor and select 'Disable' from the popup menu. Then right-click over the network adaptor and select 'Enable' after a short wait to check that the device is operating properly.

A4 Right-click the My computer icon, and select **Manage**. When the Computer Management window appears, double-click **Services and Applications** on the left, and then click **Services** from the sub menu tree. Select the Standard tab in the right pane, double-click **Wireless Zero Configuration** and check that Startup Type is configured to **Automatic**, and the Service status is **Started**.

A5 In the case of Windows XP, click Advanced in the [Wireless Network Connection] dialog box (see p.4-8 'Connecting to an AP') and make sure that 'Use Windows to configure my wireless network settings' is selected.
This may happen when a third-party wireless network setup program (e.g. PROSet) other than Windows XP default program is installed. For setting up a wireless network using the Windows XP program, this option should be selected.

Q6 When connecting to a computer-to-computer (Ad Hoc) network, I cannot connect to another computer connected to the same computer-to-computer network.

A1 Make sure that the security settings and network name of the computer-to-computer (Ad Hoc) network is correct.

A2 Check the TCP/IP properties of the computers to be connected through the computer-to-computer (Ad Hoc) network. All of the computers to be connected through a computer-to-computer (Ad Hoc) network should be configured so that their IP addresses are within the same subnet range.
- If the TCP/IP Settings are configured to DHCP, the address is automatically configured to an address within the subnet IP range. This will take about 2~3 minutes.
- If the IP address is configured to static IP in TCP/IP properties, select **Use the following IP address** in the TCP/IP properties of the wireless adapter, configure IP address:10.0.0.1~10.0.0.254, and Subnet mask: 255.255.255.0, and then try again.
- A fixed IP is recommended for a small-size network.

Q7 When using a computer-to-computer (Ad Hoc) network, sometimes I cannot search the access point.

A It may happen occasionally when you are using a computer-to-computer (Ad Hoc) network connection. Even if you cannot find some access points, the computer-to-computer (Ad Hoc) network is operating properly. Click **Refresh** to view the latest search result.

Q8 Running Help file while running Profile Wizard in the wireless LAN program (PROSet) makes the PROSet window white.

A It will be displayed properly when you finish the profile wizard. It dose not affect the program operation.

Q9 The network does not operate properly when both the wireless and the wired network connections are simultaneously configured with the same IP address.

A You cannot use the wireless and the wired network connections using the same IP address simultaneously. To use either the wireless or the wired network in turn with the same IP address, you have to Disable whichever network device will not be using in the network connection of the Control Panel.

Q10 The wireless LAN does not work properly when there is a device operating on an adjacent frequency in the vicinity of the product.

A1 Channel interference may occur when a wireless video transceiver or a microwave oven is being used.If you experience channel interference from other equipment, it is recommended changing the channel to connect to the AP. For more information about AP settings, refer to the User Manual supplied by the AP manufacturer.

A2 IEEE802.11g equipment operates in hybrid mode when there is active IEEE802.11b equipment. This may result in data rate degradation.

Q11 An established wireless LAN connection is disconnected after 2~3 minutes, and the connection is not recovered.

A1 This may be caused by channel interference. Change the channel of the AP, and reconnect.

A2 This may be caused by selecting the 'Use IEEE 802.1x network authentication' option when IEEE 802.1x authentication is not available.
Check the properties of the AP in the wireless network settings. If the 'Use IEEE 802.1x authentication in this network' option is selected, deselect the option on the Authentication tab.For more detailed information about authentication server, ask your network administrator.

A3 If the AP is configured to 'Use network authentication (Shared Key)'
If the AP is configured to authentication shared mode, all computers to be connected should be configured as follows:

- If you are using Windows XP, select network authentication(shared mode) in the wireless network settings.

Select Start > Control Panel > Network and Internet Connections > Network Connections, right-click the Wireless Network Connection icon and then select View Available Wireless Networks.
Select Change Advanced Settings from the left menu, select an AP from Preferred networks window in the Wireless Networks tab, and click the Properties button.
Select Shared Mode in the Network Authentication field of the Association tab, and then click the OK button.
If the Preferred networks window in the Wireless Network tab is empty, click View Wireless Networks, select an AP to connect to, and select Shared Mode in the Network Authentication field of the Connection Information tab as described

above. For more detailed network authentication procedures, ask your AP (Access Point) administrator.

Q12 After PROSet is installed, The "AEGIS Protocol (IEEE 802.1x) v2.2.1.0" appears in the [Local Area Connection Properties] window.

A   The AEGIS Protocol is a security authentication protocol that is automatically installed when PROSet is installed and does not affect the operation of other programs.

Q13 Although I have turned the wireless LAN off using the Off Button on the PROSet, the wireless LAN operating light is still on.

A   This is normal. The Off Button for the Wireless LAN on the PROSet only turns off the S/W and not the H/W for the Wireless LAN.

Q14 After installing the PROSet, I cannot manage the wireless network under Windows. (for an 11a/g and 11g card)

A   Click on "Use Microsoft Client" in the Tools menu of the PROSet program to manage a wireless network in Windows. To manage a wireless network in the PROSet program, click on "Use Inter PROSet/Wireless" in the Tools menu of the PROSet program.

Game/Program Related

Q1 3D game is not executed, or some functions are not working.

A   Change the graphic setting of the game to '2D' or 'Software Renderer', then exe-
cute the program again.

**Q2 I launched a game right after installing it, and the game is not
executed.**

A   This problem may occur when the game is not compatible with Windows XP.
Launch the game again, and it will be executed properly.

Q3 When I play a game, the screen is displayed in reduced size.

A1 Before executing a game, press touchpad right button on the desktop, and click
Graphics Options > Panel Fit > Enable.
A2 Change the display setting to extended desktop mode before executing a game.
   1. Press touchpad right button on the desktop.
   2. Click Graphic Options > Graphic Properties > Devices tab.
   3. Select Notebook, then select 'Full Screen' check box.
   4. Click OK.

**Q4 When I pressed <Fn>+<⊞> keys to convert display devices
while playing a 3D game, the computer does not operate.**

A   Do not press <Fn>+<⊞> keys while playing a 3D game, since it may cause a
system error.

**Q5 When you press the <Fn>+<⊞> or <Fn>+<⊞> keys while
running a game, the screen is not properly displayed.**

A   This may happen in some games. Press the <Fn>+<⊞> or <Fn>+<⊞> keys
before running a game and do not press the button combination while running
the game.

Q6 The running speed of a game is too slow or fast.

A   Change the setting of Power Schemes to '**Always On**'.
(Click **Start > Control Panel > Performance and Maintenance >
Power Options > Power Schemes** tab, then configure the **Power
schemes** field to '**Always On**'.)

Q7 When I pressed <Fn>+<F10 or F11> keys while playing a game, the computer does not operate properly.

A   Do not press <Fn>+<F10 or F11> keys while playing a game, since it may cause a system error.

Q8 When I played 'The Sims: House Party' game in Dual Display Clone mode, a mouse afterimage is displayed.

A1 Press <Fn>+<⌨> to change the display setting to Dual Display mode, then play the game.

A2 If above method does not solve the problem, change the setting to display only on the LCD.

Security Center

Q1 To change the popup window display settings when connected to the Internet.
In the Windows XP SP2 environment, you can decide whether to display a popup window when connected to the Internet, for user convenience and security.

A1 To display most of the popup windows when connected to the Internet:
   1. Click on Internet Options in Start > Control Panel > Security Center > Manage security settings for.
   2. In the Privacy tab of Internet Properties, clear Block pop-ups.

A2 To display popup windows only from the current site when connected to the Internet:
Place the cursor on the notification area at the bottom of the Internet address bar and right-click to display a menu, from which you can select Temporarily Allow Pop-ups or Always Allow Pop-ups from This Site.

A3 To display popup windows from a particular site:
   1. Click on Internet Options in Start > Control Panel > Security Center > Manage security settings for.
   2. In the Privacy tab of Internet Properties, click on Settings from Block pop-ups.
   3. Enter a URL to want to allow pop-ups into Address of Web site to allow and click on Add.
   4. You will find that the entered address is added to the allowed sites list. The next time you connect to the Web site, you will see pop-ups appearing. When you need to re-block a permitted site, select the Web site address that you want to block from the Allowed Sites and click on Remove.

Q2 When you connect to a Web site, you see the message, "To help protect your security, Internet Explorer stopped this site from installing an ActiveX control on your computer"or "This site might require the following ActiveX control" below the address bar.

A   Windows XP SP2 blocks unsigned ActiveX controls from being installed when connected to certain Web sites for security reasons. On some Web sites that have no ActiveX controls installed, applications are not started or do not display properly. In this case, to install ActiveX controls, right-click the notification area to display a menu from which you can select Install ActiveX control.

Q3 When you see a Windows Security Alert icon appear on the right part of the task bar.

With the Security Center feature added, Windows XP SP2 checks the Firewall, the automatic updates configuration and installation of virus-checking programs to display a Windows Security Alert icon on the right part of the task bar when it judges that the computer is vulnerable to attacks from the Internet. In this case, check the following to install the necessary components.

A1 Set up the Windows Firewall. When you set up the Windows Firewall, you will be protected from unauthorized access through the Internet or the network.
   1. Click on Windows Firewall in Start > Control Panel > Security Center > Manage security settings for.
   2. From the General tab of Windows Firewall, select ON (recommended).
   3. If you want to allow a certain program or service to gain access to your computer using the Firewall, select and check the program or service that you want to allow access from, in the Exceptions tab of the Windows Firewall. If you want to add a program to Programs and Services, click on Add Program and select it.

A2 Set up Windows Automatic Updates.
   This automatically downloads and installs critical updates via the Internet to keep your computer up to date.
   1. Click on Automatic Updates in Start > Control Panel > Security Center > Manage security settings for.
   2. From general tab of Automatic Updates window, select Automatic (recommended).

A3 Keep your computer current with the latest virus updates. (ex: Norton Antivirus)
   Even when you have installed Norton AntiVirus on your computer, Windows cannot recognize the program until you configure the settings, displaying a Security Alert icon. When you first use or install Norton AntiVirus for the first time, follow the Registration Wizard steps to configure the registration settings. To protect your computer from virus attacks with the latest updates, click on Options to display the Norton AntiVirus Options window. From the left menu of the window, check Run Automatic Protection to select Automatic Protection and check Run LiveUpdate to select LiveUpdate.

A4 Two virus scanning programs on one computer may cause system conflicts. Remove one of the programs from the system.

A5 If Windows does not recognize the existence of an anti-virus program even
     when it has been installed, your computer could be vulnerable to attacks from
     the Internet. You should install an anti-virus program that your computer is able
     to identify.
     Check the following programs which Windows can detect and select one from
     the list.
     A list of anti-virus programs that Windows can detect:
     - Symantec Norton Anti-Virus
     - NetworkAssociates (McAfee)
     - TrendMicro
     - ComputerAssociates
     - Panda
     - Kaspersky
     - Ahnlabs (AhnLab)

Note : The list is subject to change. Visit the Web site (www.microsoft.com)
          regularly to check the latest list.

Appendix

Appendix

System specifications,
software types and
safety instructions are
provided here.

System Specifications

The following is the basic hardware specification for the purchased product. Variations may exist depending on the model type.

Item	Specification	Comment
CPU Cache memory Main memory Main Chipset	Intel Pentium M ULV / Intel Celeron M ULV 2 MB / 512 KB L2 cache On board 256 MB, DDR II 400MHz (An additional 128/256/512/1024 MB module can be installed, 1xDDR II socket) Intel 915GMS / ICH6M	Optional
Hard Disk (HDD) CD Drive	1.8", Ultra DMA, S.M.A.R.T 8.0mmH External CD-RW/DVD-ROM Combo, DVD Super Multi	 Optional
Graphics Sound Network Interface Memory Card Slot CF Card Slot Ports	Intel Intergrated GFX 3, Memory : DVMT (max 128 MB) 1280 x 768 Pixel (Wide XGA) AC' 97 Audio CODEC (AD1981B), support S/PDIF (Optical) Modem : AMBIT MDC modem Wired LAN : 10/100 Base T Ethernet Wireless LAN : 802.11BG, 802.11ABG Bluetooth 1.2 Memory Stick, Memory Stick Pro, SD(Secure Digital) Card, and MMC(Multi Media Card) Supported One Type 1 Monitor, USB 2.0 x 2, Modem(RJ-11), LAN(RJ-45), IEEE 1394(6 Pin), DC-In, Microphone, Headphone / S/PDIF	 Optional Optional
Dimensions (mm) LCD Panel Size Battery	287.7 x 197.5 x 18 12.1" Wide TFT LCD Lithium-Ion smart battery	Width x Depth x Height
Operation Environment Operation Voltage Frequency Output Power Output Voltage	Temperature for custody : -5~40°C for operation: 10~32°C Humidity for custody : 5~90% for operation: 20~80% 100 - 240 VAC 50 - 60 Hz 60W 19.0 VDC	

* Please refer to the product catalog or consult your product provider for availability when purchasing optional accessories for this system.
* Some optional devices have to be selected at the point of purchase and cannot be upgraded or changed afterward.

Wireless LAN Specifications (Optional)

Intel(R) PRO/Wireless 2200BG Network Connection

Item		Specifications
Physical Specifications	Dimensions	59.75 X 44.45 mm (Width X Height)
	operation temperature and humidity	Same as system operation specifications Temperature: 0 ~ 70°C, Humidity: less than 85%
Power Specification	Power Saving Mode	135mW
	Receiving Mode	0.85W
	Transmission Mode	1.45W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11g, IEEE 802.11b
	Operating System	Microsoft Windows XP - NDIS5 Miniport Driver
	Media Access Protocol	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*, CCX*

* This piece of equipment supports the Wi-Fi wireless LAN security standard, WPA (Wi-Fi Protected Access) and CCX (Cisco Compatible eXtensions). To connect to a wireless network consisting of the WPA and CCX, 1.2.2.8 or higher version of wireless LAN driver have to be installed on your computer, and certificates or PROSet may be required depending on the network settings. For driver update, visit www.samsung.com and for information on the PROSet installation, refer to P.4-13 "Wireless Network Setup Using the Wireless LAN Setup Program" . For more information, ask your network administrator.

■ RF Specifications

R-F Frequency Band	2.4GHz
Support Channels	Channels allowed per country.
Device Description	Transceiver
Power	5 mW
Transmission Method	11b mode: DSSS 11g mode: OFDM
Data Rate (Mbps)*	11b mode: 11, 5.5, 2, and 1 11g mode** : 54, 48, 36, 24, 18, 12, 9, and 6
Antenna Type	Internal Antenna 2 EA (main/aux)

* The data rate may differ from the actual data rate.
** 11g mode is supported only when the device is connected with an IEEE802.11g device (e.g. IEEE802.11g compatible Access Point).

Intel(R) PRO/Wireless LAN 2915ABG Network Connection

Item		Specifications
Physical Specifications	Dimensions	59.75 X 44.45 mm (Width X Height)
	operation temperature and humidity	Same as system operation specifications Temperature: 0 ~ 70°C, Humidity: less than 85%
Power Specification	Power Saving Mode	135mW
	Receiving Mode	0.85W
	Transmission Mode	1.45W
	Power	3.3V
Network Specifications	Compatibility	IEEE 802.11a, IEEE 802.11b, IEEE 802.11g,
	Operating System	Microsoft Windows XP - NDIS5 Miniport Driver
	Media Access Protocol	CSMA/CA (Collision Avoidance) with Acknowledgement (ACK)
	Security	Wired Equivalent Privacy support (WEP) 64bit/128bit WPA*, CCX*

* This piece of equipment supports the Wi-Fi wireless LAN security standard,
WPA (Wi-Fi Protected Access) and CCX (Cisco Compatible eXtensions). To connect to a
wireless network consisting of the WPA and CCX, 1.2.2.8 or higher version of wireless LAN
driver have to be installed on your computer, and certificates or PROSet may be required
depending on the network settings. For driver update, visit www.samsung.com and for
information on the PROSet installation, refer to P.4-13 "Wireless Network Setup Using the
Wireless LAN Setup Program" . For more information, ask your network administrator.

■ RF Specifications

R-F Frequency Band	2.4GHz, 5GHz
Support Channels	Channels allowed per country.
Device Description	Transceiver
Power	5 mW
Transmission Method	11a mode : OFDM 11b mode : DSSS 11g mode : OFDM
Data Rate (Mbps)*	11a mode** : 54, 48, 36, 24, 18, 12, 9, and 6 11b mode : 11, 5.5, 2, and 1 11g mode*** : 54, 48, 36, 24, 18, 12, 9, and 6
Antenna Type	Internal Antenna 2 EA (main/aux)

* The data rate may differ from the actual data rate.
** 11a mode is supported only when the device is connected with an IEEE802.11a device (e.g.
   IEEE802.11a compatible Access Point).
*** 11g mode is supported only when the device is connected with an IEEE802.11g device (e.g.
   IEEE802.11g compatible Access Point).

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Safety Instructions

Instructions for Setup

● **Set up the system on a stable work surface.**
If the system is dropped it may be damaged or it may inflict injuries on the user.

● **Do not use loose power outlets or damaged power cables.**
There is a danger of electric shocks or fires.

● **Set up the system in a clean, dry and airy place.**
If the system overheats, it may be damaged or it may cause fires.

● **Use standard power voltage.**
High-voltage may result in product damage or cause fires.

● **Use grounded power outlets designed for computers.**
A grounded power outlet prevents electric shock from electricity leakage.

● **Set up the system away from magnetic objects.**
Contents of the hard disk drive may be deleted or the color of the monitor may be permanently distorted.

● **Dispose of moisture-reducing agents and plastic packaging properly.**
Consumption of moisture-reducing agents and placing plastic packaging over the head is fatal, especially for children.

Instructions for careful handling

● **Handle with care so as not to damage the data in the hard disk.**
  - Since the hard disk is fragile and sensitive to external conditions, it may be damaged from temperature changes or impact during operation. Take extra care to prevent such damages.
  - Loss of data due to external conditions or carelessness during use is the user's sole responsibility and the manufacturer shall not be held liable for any compensation.

In order to minimize damages from data loss, please backup data at all times.

Cases when the hard disk and data may be damaged:
  - External impacts while separating from or installing into the computer may cause disk or data damage.
  - Power failure during hard disk operation resulting in resetting the computer may cause disk or data damage.
  - Execution of delete (DEL) or format (FORMAT) commands by mistake may cause loss of data.
  - Virus infection may cause unrecoverable loss of data.
  - An abrupt power cut during program operation may cause disk or data damage.
  - Moving the computer, or impacts to the computer during hard disk operation may cause data loss or bad sectors on the hard disk.

● **Be sure to make backup copies of important data.**
  The Manufacturer is not liable for lost data.
● **Turn on peripheral devices before, turning on the computer**
  Otherwise damages may occur.
● **Turn off the computer before turning off other peripheral devices.**
  Otherwise damages may occur.
● **Do not touch the modem, telephone lines and exposed electrical terminals during a thunder storm**
  There is a danger of electric shocks or fires.
● **Before disassembling the system, turn the power off and disconnect the power cable.**
  There is a danger of electric shocks.

- **Use only authorized parts and do not disassemble, repair or modify the computer unless at an authorized dealer.**
  Use authorized service centers as the system may be damaged.

- **Do not touch the power strip with wet hands.**
  There is a danger of electric shock.

- **Place the computer away from heat devices (such as heaters).**
  It may damage the system or cause fires.

- **Clean with cleaners specifically for computers**
  Do not use benzene, paint thinner, or alcohol to clean the computer. It may damage the product.