



- External Monitor / TV is not supported in the DOS Command Prompt window.
- Simultaneous output to all 3 (LCD + CRT + HDMI) is not supported.
- If the screen is not switched even if you press the **Fn** + **F4** key combination, you have to install the **Easy Settings** program.

Setting up HDMI TV video (Optional)

If the Desktop screen displayed on the TV does not fit to the TV screen, configure it as follows depending on the graphics card.



- You can view the graphics card type by selecting **Device Manager** > **Display adapters** and then clicking the + symbol.
- The screen images and terms may differ from actual product depending on the computer model and driver version.

► For Intel graphics cards

1 Right-click over the Desktop and select **Graphics Properties**.



If a window appears where you can select the mode, select **Basic Mode** and click **OK**.

2 Click **Display** > **General Settings**, select **Customize Aspect Ratio** in the **Scaling** field, fit the Desktop to the TV screen and click **OK**.



Setting up HDMI TV audio (Optional)

You can configure the sound of the computer to be played through the HDMI TV.

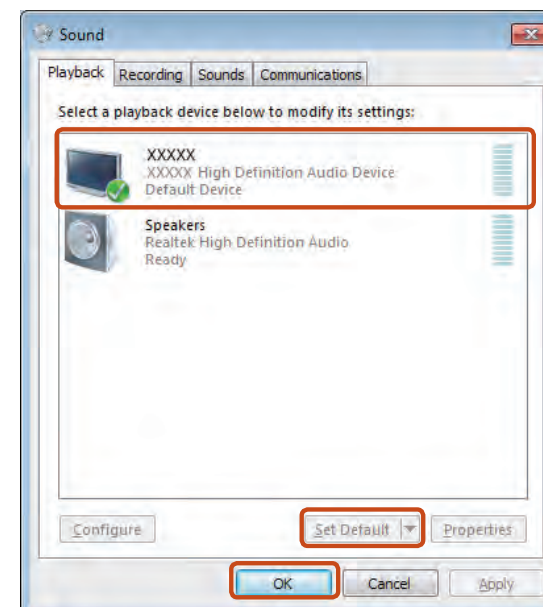
You have to configure the sound device in the Control Panel whenever you connect the HDMI TV in order to hear sound from the computer on the TV.

 The screen images and terms may differ from actual product depending on the computer model.

1 Right-click over the **Volume** Control icon  in the notification area at the bottom right of the Desktop and select **Playback Devices**.

(Alternatively, click the **Control Panel > Hardware and Sound > Sound**.)

2 Change the setting to Digital Audio (HDMI), HDMI Device or Digital Output Device, click **Set Default** and click **OK**.



 HDMI Output Device may not appear on the playback device list depending on the computer model.

In this case, turn on the TV, connect the TV to the computer using a HDMI cable and then switch to HDMI or LCD+HDMI Clone or LCD+HDMI DualView mode using the Shortcut

Key( + ).

 To listen to sound on the computer after disconnecting the HDMI TV, you have to set the Playback Device to Speakers.

Using multiple displays (Optional)

You can connect and use two displays devices by connecting them to the monitor and the Micro HDMI ports respectively.

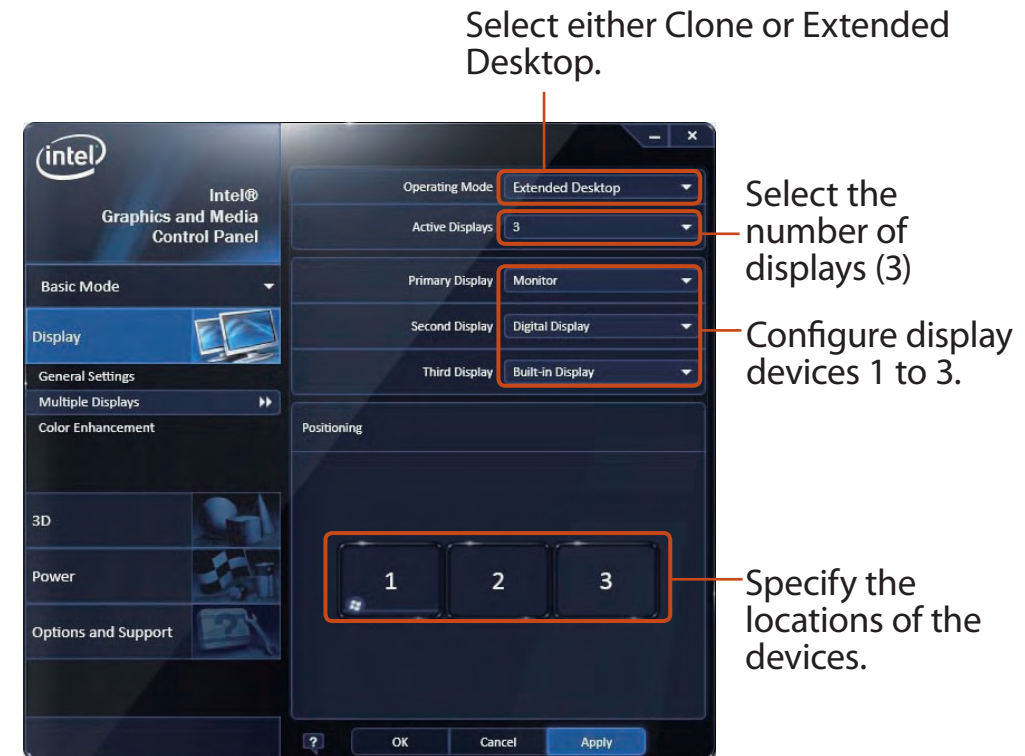


This function is supported for **13.3 inch Intel® HD Graphics 4000 models**.

You can check if this feature is available by selecting **Computer > System Properties > Device Manager > Display adapters** and confirming that the display adapter is an **Intel® HD Graphics 4000**.

- 1 Connect the display devices to the monitor and the Micro HDMI ports.
- 2 Right-click on the Desktop and select **Graphics Properties > Display > Multiple Displays** from the popup menu.

- 3 Configure the settings and click **Apply**.



You can save a file stored on a device onto the computer by connecting a digital device such as a camera, camcorder or mobile phone to the computer and using the file management functions.

Connecting and using a camera or camcorder

If a digital device such as a camera or camcorder is connected with the computer, it is recognized as a removable disk so that you can copy or move the files on the device.

- 1 Connect the USB port of the notebook computer and the USB port of the digital device such as a camera using the USB cable.

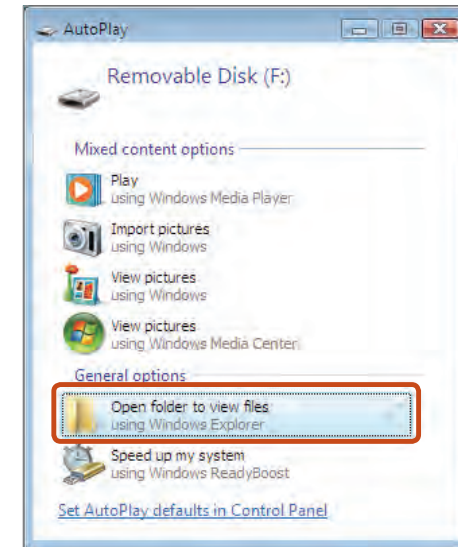


- Both the computer and the digital device must be turned on.
- You have to additionally purchase the USB cable necessary to connect the computer and the device.

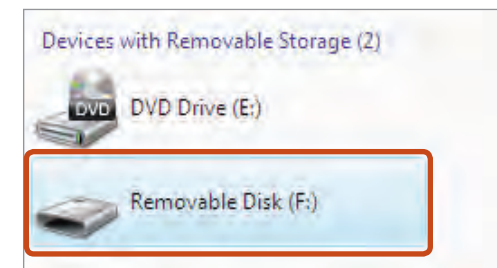


- 2 The **Auto run** window appears. Click **Open folder and view files**.

If the window does not appear, click **Start > Computer**.



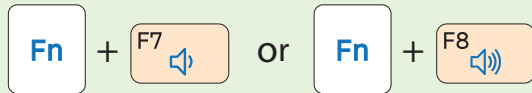
- 3 Double-click the corresponding drive. You can then save, move or delete data.



The device name of the card drive may differ depending on the model.

You can adjust the volume using the keyboard and the volume control program.

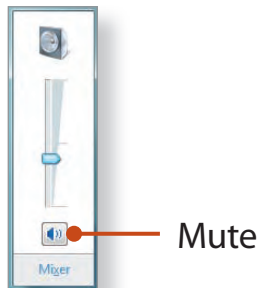
Adjusting the Volume using the Keyboard



Alternatively, press the **Fn** + **F6** (speaker icon with an 'x') key combination to turn the volume on or off.

Adjusting the Volume using the Volume Adjustment Program

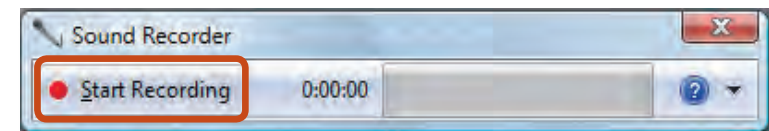
Click the Volume icon  on the taskbar and slide the volume control bar to adjust the volume.



Using the Sound Recorder

The procedures to record sound using the Windows Recorder are described below.

- 1 Connect a microphone to the microphone jack.
You can also use the internal MIC.
- 2 Right-click over the **Volume** icon  on the taskbar and select **Recording Device**.
- 3 Check if the microphone is set as the default recording device.
If this is the case, it is already set as the default device. If not, right-click over the microphone and select **Set default**.
- 4 Click **Start > All Programs > Accessories > Sound Recorder** and click **Start recording** to start a recording.



Using SoundAlive (Optional)

The SoundAlive function enables you to experience more stereophonic sound using stereo speakers.

- 
- SoundAlive is only supported in Windows 7.
 - The software programs provider may vary, depending on your computer model.
 - In addition, some pictures may differ from actual product depending on the computer model and software version.

- 1 Right-click over the **Volume Control** icon  in the notification area at the bottom right of the Desktop and select **Playback Devices**. (Alternatively, click the **Control Panel > Hardware and Sound > Sound**.)
- 2 Right-click over the **Speakers** and select **Properties**.
- 3 Select the **SoundAlive** tab and select one of the modes.

► Basic Mode

Music	Select this mode to listen to music.
Movie	Select this mode to watch a movie.
Speech	Emphasizes voice over other sounds.
Silver	Silver mode is for people who have difficulty in hearing.
3D Depth Sound Mode	Select this mode to play a 3D movie or game.

► Advanced Mode

Finely tuned 25 presets are arranged on a square according to their relative sound characteristics.

► User Mode

You can control a variety of sound effects.

A wired network is a network environment used for a company network or broadband internet connection at home.



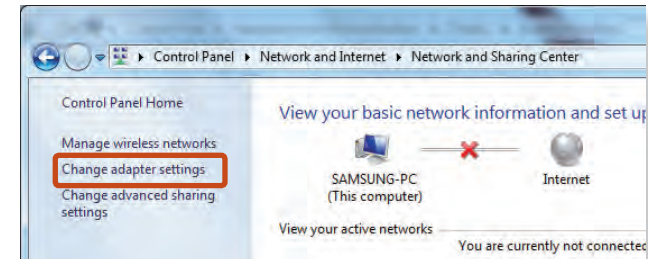
- You can use wired LAN by using the LAN adapter (Optional).
- The figures used for the description are of a representative model. Therefore the figures may differ from the real ones.

Connecting to a Wired LAN through Windows

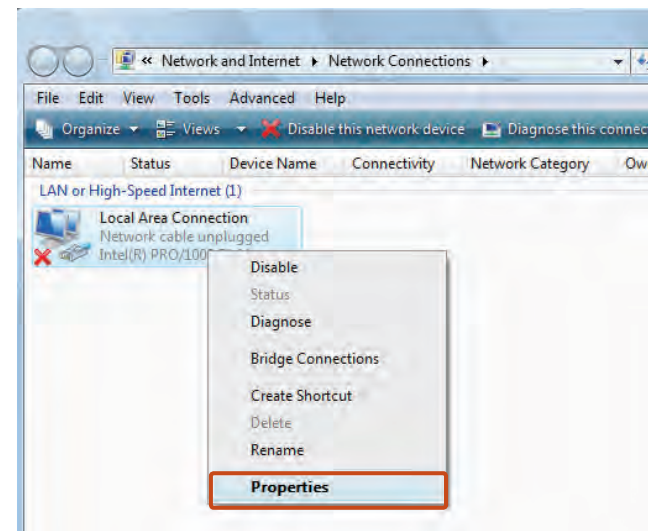
- 1 Connect the **LAN adapter** to the wired LAN port.
- 2 Connect the LAN cable to the connected LAN adapter.



- 3 Click **Start > Control Panel > Network and Internet > Network and Sharing Center** and click on **Change adapter settings** in the left menu pane.

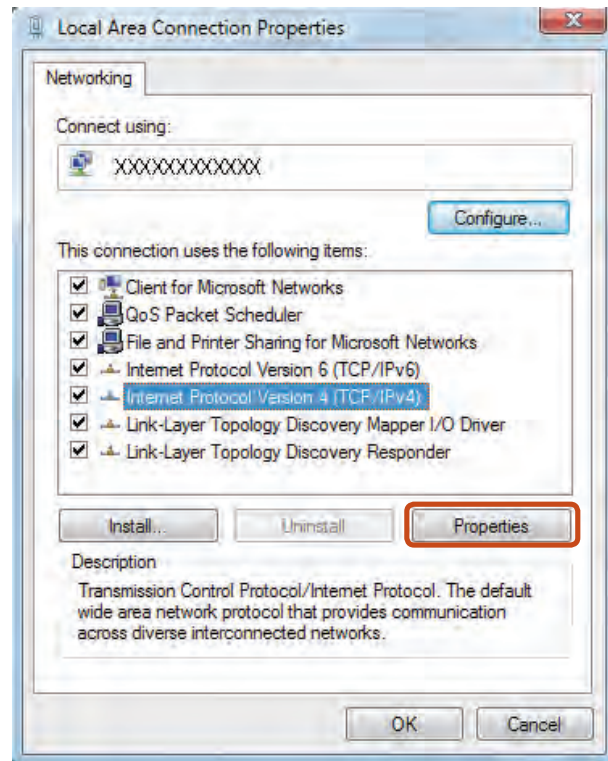


- 4 Select **Local Area Connection** and click the right button of the touch pad and select **Properties**.



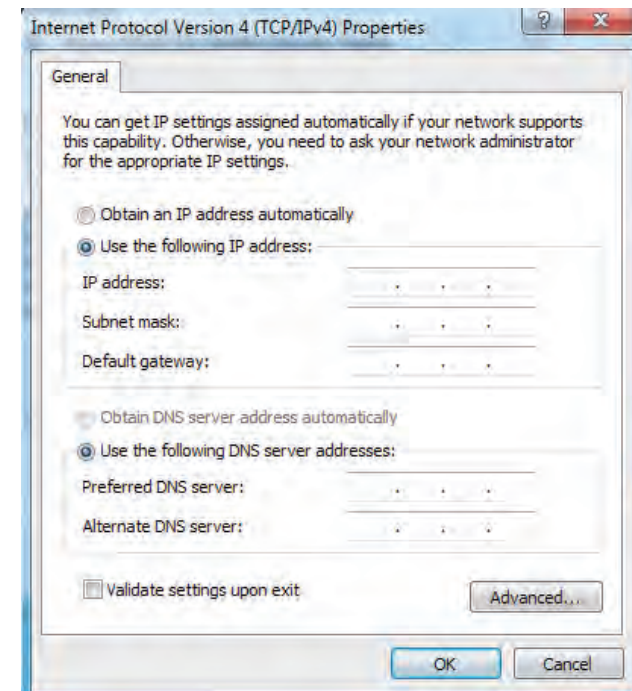
The LAN Device name may differ depending on your computer's Network Device.

- 5 Select **Internet Protocol Version 4(TCP/IPv4)** from the list of Network Components and click **Properties**.



- The Network Component name may differ depending on the Operating System Installed.
- To add a network component, click **Install** in the screen shown in the figure above. You can add clients, services, and protocols.

- 6 Configure the IP settings.
When using DHCP, select **Obtain an IP address automatically**. To use a static IP address, select **Use the following IP address**, and set the IP address manually.



- When not using DHCP, ask your network administrator for the IP address.

- 7 When you have completed the settings, click the **OK** button. The network settings have been completed.

Using the <Wake On LAN> Function

<Wake On LAN> is a function that activates the system from Sleep mode when a signal (such as a ping or magic packet command) arrives over the network (wired LAN).

- 1 Click **Start > Control Panel > Network and Internet > Network and Sharing Center** and click on **Change adapter settings** in the left menu pane.
- 2 Right-click on the Local Area Connection and select **Properties**.
- 3 Click **Configure > Power Management** tab. Select **Allow this device to bring the computer out of standby**, then click **OK**. Restart the system.
 - If the system wake up from Sleep mode even though there is no received signal, use the system after disabling the <Wake On LAN> function.
 - The LAN LED may not be turned off if System is shutdown without disabling the WOL <Wake on LAN> option.
 - Connecting a wired LAN while using a wireless LAN may not activate the <Wake On LAN> function. Set the Wireless LAN to **Disable** to use the <Wake On LAN> function.
 - <Wake On LAN> feature may not work while using Hybrid power saving feature.



For **Windows 7**, **Wake On LAN** is not supported **Ping**.



When connected to a 100Mbps/1Gbps wired LAN and the computer exits Sleep/hibernation mode, a message appears informing you of a connection to a 10Mbps/100Mbps wired LAN. This happens because when the computer exits standby/hibernate mode, restoring the network takes about 3 seconds. When the network is restored, it operates at 100Mbps/1Gbps.

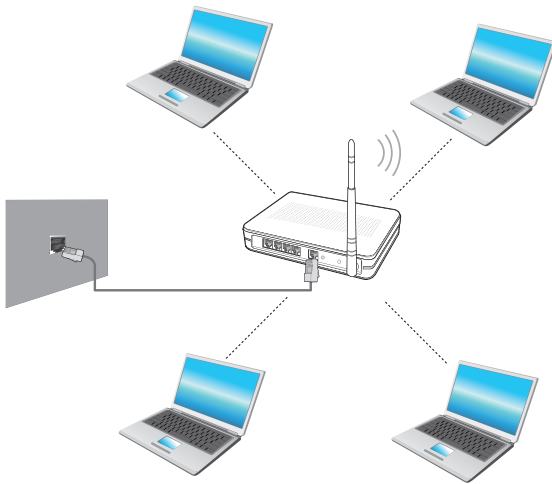


When system is running on battery, some time it takes about 20sec after inserting LAN cable to be able to connect to internet. This symptom happen as a result of power saving feature to reduce battery consumption.



When system is running on battery, the Wired LAN speed is decreased automatically to reduce battery consumption. In such case, a 1Gbps /100Mbps LAN would function at 100Mbps/10Mbps speed.

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



- The screen figures and terms may differ depending on the model.
- Depending on the program version, some functions may not be provided or different functions may be provided.
- The descriptions below are for computer models with a Wireless LAN card or device. A Wireless LAN device is optional.
The pictures in this manual may differ from the actual product depending on your wireless LAN device model.
- If the wireless LAN is turned off, press the **Fn** + **F12** key combination to turn it **on**.



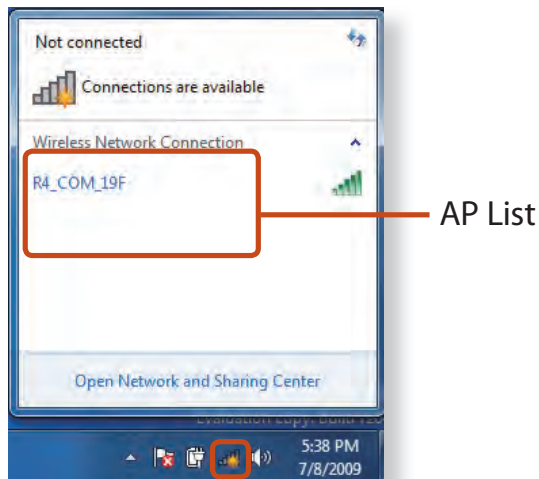
What is an Access Point (AP)?

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.

Connecting to a Wireless LAN through Windows

If there is an AP, you can connect to the Internet via the AP using the Wireless LAN connection method provided by Windows.

- 1 If you click the **Network Connections**  icon in the system tray, a list of available APs appears. If you select an AP to connect to, the **Connect** button appears.

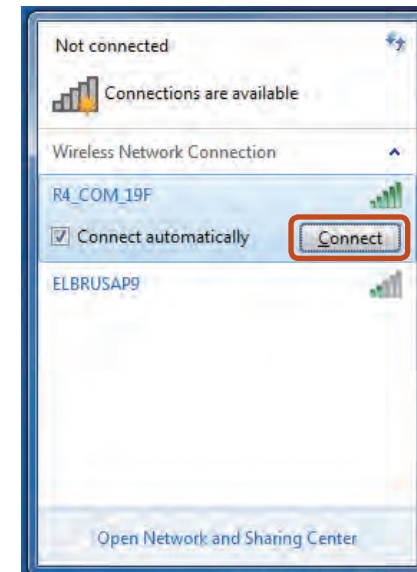


- 2 Click **Connect**.

If a network key is set for the AP, enter the network key and then click **Connect**.



For the network key, please ask your network administrator.



- 3 When **Connected** to the AP is displayed, click the **Close** button.

You can access the network.

Normal Wireless LAN Status

If the wireless LAN icon is displayed in the system tray of the Taskbar, it indicates that the computer is connected to the Internet properly (see below).



Abnormal Wireless LAN Status

When the wireless LAN is not connected

If the wireless LAN icon is displayed with an "X" in the system tray of the Taskbar, it indicates that the wireless LAN device is turned off or that there are no available APs. Or the wireless LAN is disconnected.



If the wireless LAN is turned off, press the **Fn** + **F12** key combination to turn it on.

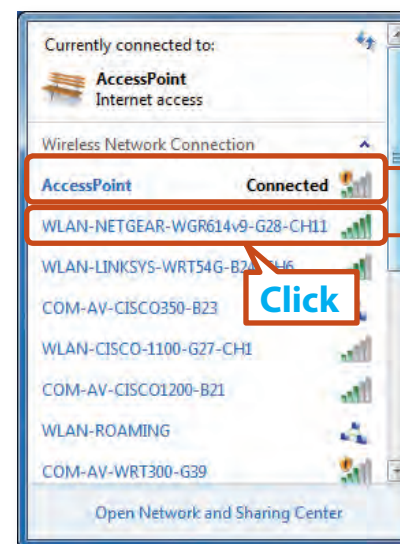
When you are not connected to the Internet

This is indicated by the wireless LAN icon  in the system tray of the Taskbar. In this case, you have to check the IP address settings. Please contact your network administrator and reconfigure the IP address.



When APs are found but your computer is not connected to the Internet

This is the case when an AP with a weak signal has been set to a high priority. Connect to an AP with a strong signal by clicking it.



The currently connected AP.

The signal strength is low.

An AP with a strong signal strength

A TPM (Trusted Platform Module) security device is a security solution that protects your personal information by saving the user authentication data on the TPM chip installed on the computer.

To use the TPM security device, you have to initialize the TPM chip in the BIOS Setup, initialize the TPM program, and then register the user.



- This function is only supported for models with TPM (security chip).
- For more information, refer to the online help for the program.
- The program version described in this manual is subject to change and the screenshots and terms used in this manual may differ from the actual product.

Setting Up the TPM



To use the TPM function, you have to complete the following steps.

1

Initializing the TPM chip

Initializes the authentication information saved on the TPM chip.

2

Installing the TPM program

Installs the TPM program.

3

Registering the TPM program

Registers the TPM program.

If you complete the steps above, you can use the TPM function.

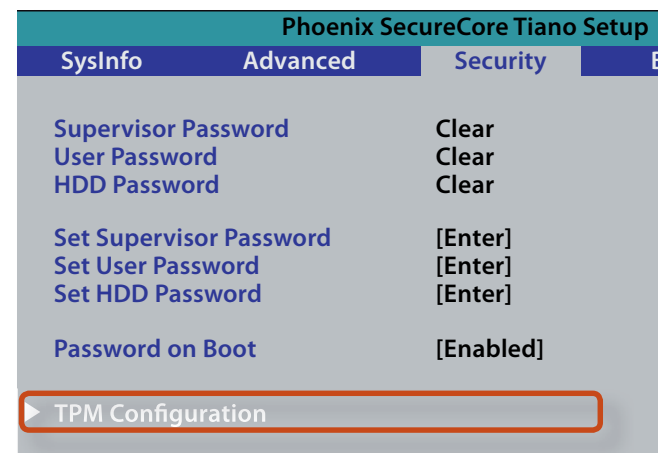
Initializing the TPM chip

When you use the TPM function for the first time or you want to register the user again, you have to initialize the TPM chip.

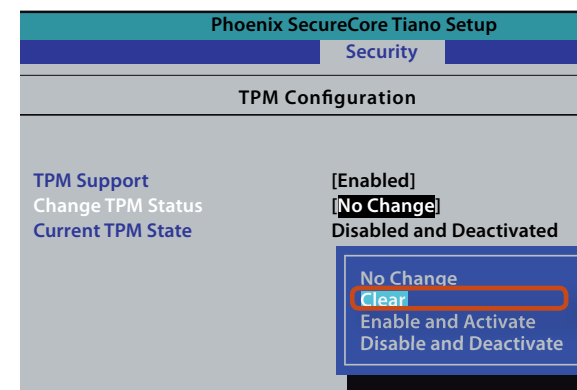
- ! Initializing the TPM chip erases all authentication information saved on the TPM chip. Any decision to initialize must be taken carefully.
- To initialize the TPM chip again while the TPM function is in use, you have to decrypt any existing files and folders encrypted by the TPM function first. Otherwise, you will not be able to access the files and folders after re-initialization.

- 1 Restart the computer.
When the Samsung logo screen appears, press the **F2** key repeatedly.

- 2 If the BIOS screen appears, select the **Security > TPM Configuration** item and press **Enter**.

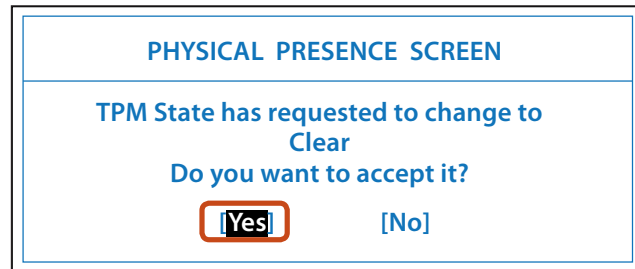


- 3 Set the **TPM Support** item to **Enabled** and set the **Change TPM Status** to **Clear**.



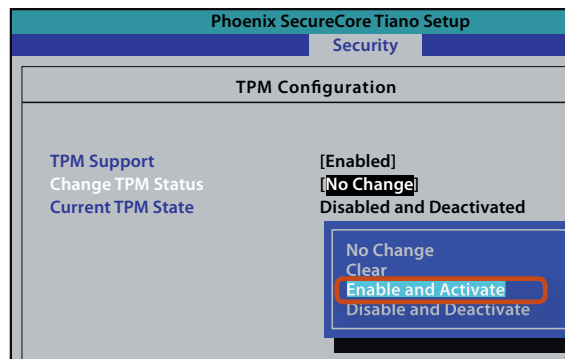
- 4 Press the **F10** key to save the changes.

- 5 If the system automatically restarts, the **PHYSICAL PRESENCE SCREEN** appears. Confirm that **Yes** is selected and press **Enter**.



- 6 When the computer restarts automatically and the Samsung logo screen appears, press the **F2** key repeatedly.

- 7 Select the **Security > TPM Configuration > Change TPM Status** item and set the item to **Enable and Activate**.



- 8 Press the **F10** key to save the changes. The computer automatically restarts. Initialization of the TPM chip has been completed.

Now, install the TPM program and register the TPM program.

Installing the TPM program

You can install the TPM program as follows. Install the program according to the procedures below.

 This program is only provided for models with Samsung Recovery Solution and the TPM function.

- 1 Launch the **Samsung Recovery Solution**.
- 2 Click the **System Software** icon.
- 3 Click the **System Software Installation** icon.
- 4 The **Easy Software Manager** program will be launched. Select **TPM Host SW** and click **Install Now**.
- 5 After the installation, if you click **OK**, the computer restarts.

 If the system software media is supplied with the product, you can install the program by using the system software media (only when supplied.)

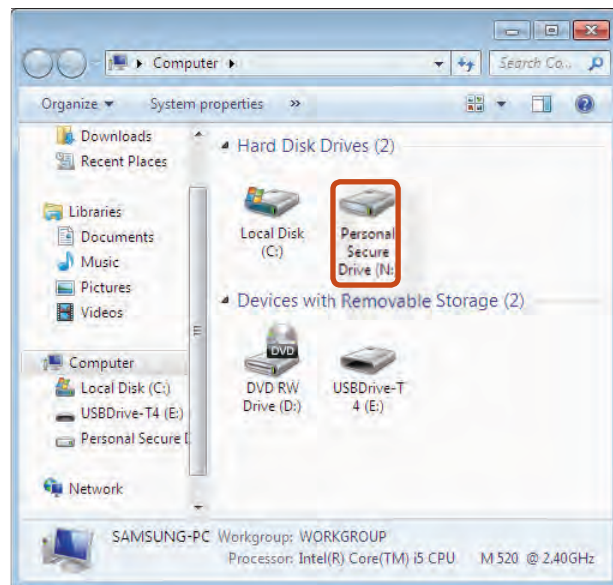
Registering the TPM program

- 1 Click **Start > All Programs > Infineon Security Platform Solution > Manage Security Platform > User Settings**.
(with administrator authority)
Alternatively, double-click the  icon on the Taskbar and run initialization with administrator authority.
- 2 The security authentication settings begin with the **Initialization Wizard**. When the Initialization Wizard appears, click **Next**.



 If the **status not initialized** message appears, click **Yes**.
If you backup the emergency recovery file to an external storage device according to the instructions of the Initialization Wizard, you can use the TPM security device more safely.

- 3 Select a **Security Platform Feature** and set a **basic user password**.
- 4 Complete the registration according to the instructions.
- 5 The user registration for the TPM program has been completed. You can encrypt files and folders by using the encryption file system, and use files and folders to be encrypted by creating or copying them to the virtual drive. The virtual drive is created in the following location.



Using the TPM program



For more information about using the TPM program, refer to the online help for the program.

Encrypting a file (folder)

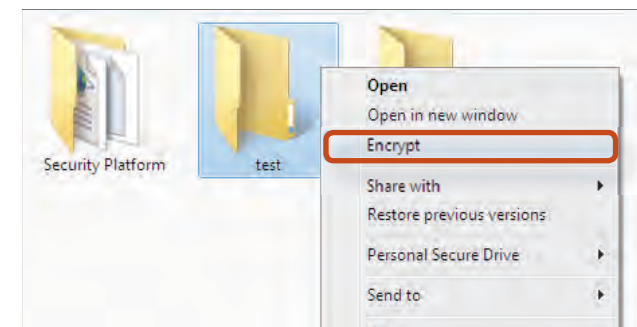
This function enables encrypting files and folders. You can safely protect documents through the Encrypt File System (EFS).



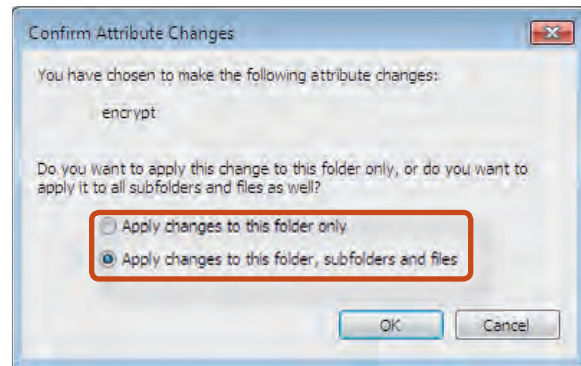
The Encrypt File System(EFS) function is supported by the following operating systems.

- Windows XP Professional
- Windows Vista Business / Enterprise / Ultimate
- Windows 7 Professional / Enterprise / Ultimate

- 1 Right-click over the folder (or file) to be encrypted, and select **Encrypt** from the pop-up menu.



- 2 If the **Confirm Attribute Changes** window appears, select the range to apply the encryption to and click **OK**.
(This dialog box only appears when the folder is encrypted.)

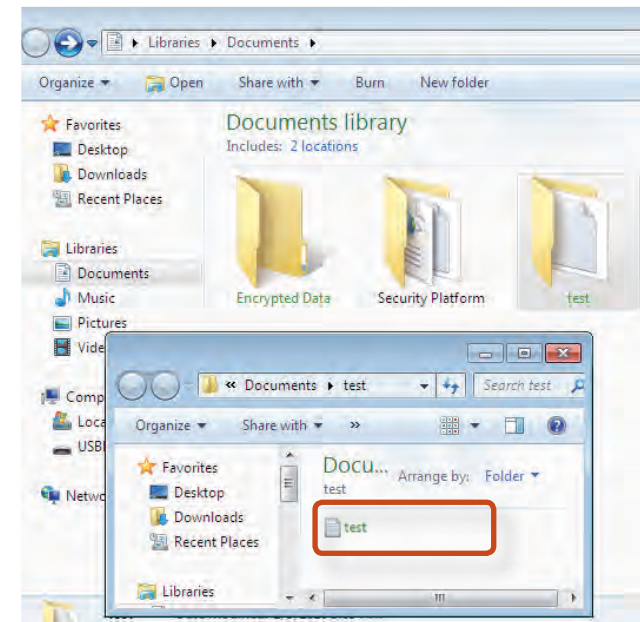


If the current operating system is Windows 7 or Vista, the user account control window appears. In this case, click **Continue**.

- 3 In the **user authentication** window, enter the **Basic user password** you entered when registering the user and click **OK**.



- 4 You will be able to confirm that the color of the folder (file) name in the encrypted folder has been changed to green.



Opening an encrypted folder (file)

- 1 Double-click an encrypted folder (file).
- 2 If the user authentication window appears, enter the **basic user password** you entered when registering the user and click **OK**.
- 3 The folder (file) opens.

Decrypting an encrypted folder (file)

- 1 Right-click over an encrypted folder (file) and select **Decrypt** from the pop-up window.
- 2 If the user authentication window appears, enter the **basic user password** you entered when registering the user and click **OK**.
- 3 The folder (file) is decrypted.

Using the virtual drive (Personal Secure Drive: PSD)

The virtual drive (PSD) is a virtual space to save and manage confidential data. In the created virtual drive (PSD), you can create files and folders as with a normal drive (e.g. drive C:) and you can use confidential data saved on another drive by copying the data to the virtual drive (PSD).

When the virtual drive (PSD) does not appear

You can only use the virtual drive (PSD) when you have selected the Personal Secure Drive (PSD) option during the program registration.

If you have not selected the option during the registration, complete the following steps.

- 1 Click **start > All Programs > Infineon Security Platform Solution > Manage Security Platform** and click the **User Settings** tab > **Security Platform Features** and then **Configure**.
- 2 When the **Initialization Wizard** appears, select **Personal Secure Drive (PSD)** and enter the user password.
- 3 Click **Next** several times according to the instructions of the **Initialization Wizard** to finish the wizard.

When the virtual drive (PSD) is not loaded

To use the virtual drive (PSD), the virtual drive (PSD) should be loaded first. If it is not loaded, you can load it according to the procedures below.

- 1 Right-click over the **Security Platform**  icon in the system tray of the Taskbar and select **Personal Secure Drive > Load** from the pop-up menu.

- 2 In the load window, enter the basic user password and click **OK**.
- 3 If you click **Start > Computer**, you will be able to confirm that the Personal Secure Drive is created.

 Note that when you have copied confidential data to the PSD, the original data files are not encrypted.

When you have to register again (to erase the authentication information on the TPM chip)

To register a user again, you need to delete the existing authentication information saved on the TPM chip and then clear the TPM chip.

Register the user in the following order.

- 1 Delete the virtual drive.
- 2 Delete the existing authentication information saved on the TPM chip.

Deleting the virtual drive

If a virtual drive has been created, you have to delete the virtual drive before deleting the existing authentication information saved on the TPM chip.

- 1 Right-click over  >  and click **Personal Secure Drive > Create/Manage**.
- 2 Click **Next**.
- 3 Enter the password that you entered when registering the TPM program and click **Next**.
- 4 Select Delete selected PSD and click **Next**.
- 5 Select **"I want to permanently delete my Personal Secure Drive without saving an unencrypted copy of its contents."** and click **Next**.
- 6 Click **Next** and then **Finish**.
- 7 Now the virtual drive has been deleted.

Deleting the existing authentication information saved on the TPM chip.

- 1 Click the **Start > Control Panel > Programs > Uninstall Program > Infineon TPM Professional Package** and click **Uninstall**.
- 2 If the message window appears, click **Yes** to remove the program.
- 3 If the **Infineon Security Platform** message appears, click **No**.
- 4 Click the **Start > Computer > Organize > Folder and Search Options > View > Hidden files and folders** item, select **Show hidden files and folders** and click **OK**.
- 5 Click the **Start > Computer > Drive C: > ProgramData** folder and delete the **Infineon** folder.
- 6 Now the TPM Program has been deleted.
To use the TPM function, please repeat the procedures of the **TPM chip initialization** process.

Using the Desktop management program, you can quickly access frequently used programs and documents.

► Method 1

Click **Software Launcher**  in the taskbar.



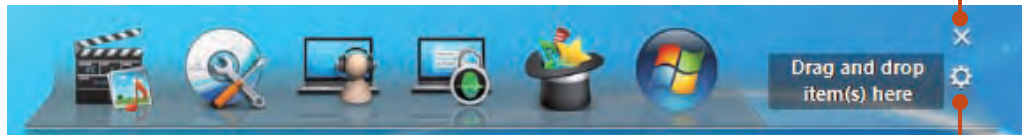
► Method 2

Click **Start > All Programs > Samsung > Software Launcher**.

Using the Software Launcher, you can register frequently used programs and launch them quickly.



The registered program may differ depending on the model.



Close

Settings

Adding a program

Drag a program to be added from the Desktop or start menu path to the **Drag and drop item(s) here** area of the launcher.



Removing a program

Drag a program to be removed from the launcher to the Desktop.



Chapter 3.

Settings and Upgrade

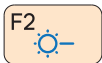
LCD Brightness Control	73
Easy Settings (Optional)	74
BIOS Setup	75
Setting a Boot Password	77
Changing the Boot Priority	80
Battery	81

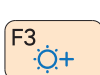
You can adjust the LCD brightness in 8 levels.



The screen brightness is automatically set to the brightest level when AC power is connected and the brightness is automatically set dimmer when the computer runs on battery power to extend the battery use time.

Controlling the Brightness Using the Keyboard

Adjust the LCD brightness by pressing the  +  key or the  +  key.

The LCD brightness can change up to 8 levels and the brightness increases by 1 level when pressing the  +  key once.



• Maintaining the changed LCD brightness even after turning the computer on again

To maintain the LCD brightness set by using the brightness control keys or through the Power Options, follow the procedures below.

1. Click **Control Panel > Hardware and Sound > Power Options**.
2. Click **Change the settings** of the currently configured mode.



3. Adjust the display brightness adjustment menu bar and click the **Save the changes** button.

• Saving battery power consumption

Decreases the LCD brightness when the computer is running on battery power to save battery power consumption.

• LCD bad pixels principle of computer

Samsung observes the specifications regarding strict quality and reliability of LCD. But in spite of that, it is inevitable that there might be a small number of bad pixels. A large number of bad pixels can cause problems in appearance, but a small number of pixels doesn't affect the computer performance.

Therefore Samsung observes and manages the following dot principles:

- Bright dot : 2 or less
- Black dot : 4 or less
- Combination of Bright and Dark : 4 or less



Instructions for Cleaning the LCD

Clean the LCD panel with a soft cloth lightly moistened with computer cleansing detergent moving in one direction.

Cleaning the LCD panel with excessive force can damage the LCD.

The **Easy Settings** is the integrated Samsung software control program that allows users to configure various settings.

- 
- This description is for models that support this function running on Windows 7.
 - The screen image and terminology may change depending on the model.
 - Depending on the program version, some functions may not be provided or different functions may be provided.

- 1
- Press the

Fn

 +

F1 

 key combination to launch the **Easy Settings**.

2

Select an item to configure the corresponding function.
-
- | Functions | |
|-----------------------------------|---|
| Boot Management (Optional) | You can configure Boot Optimization , Power Button settings , Lid Open Action.
 If you select Samsung Fast Boot mode , your PC will be optimized for the fastest booting time. |
| General | You can configure USB Charging, Battery Life Extender, Silent Mode, Keyboard backlit, User Account Control, Intel Rapid Start Technology. |
| Power Management | You can configure Power Plan (high-performance, power-saving, Samsung optimal mode), Eco Mode, the power-saving settings and the display settings. |
| Wireless Network | You can configure whether to use the Bluetooth and Wi-Fi options. |
| Wired Network | You can select automatic or fixed IP settings. |
| Display | You can configure external display devices, and the screen brightness/color. |
| Desktop Background / Screen Saver | You can configure the Desktop background and the screen saver. |
| SoundAlive | You can configure the sound mode (Music, Classic, Concert Hall, Movie, 3D Depth Sound Mode, Advanced, etc.). |

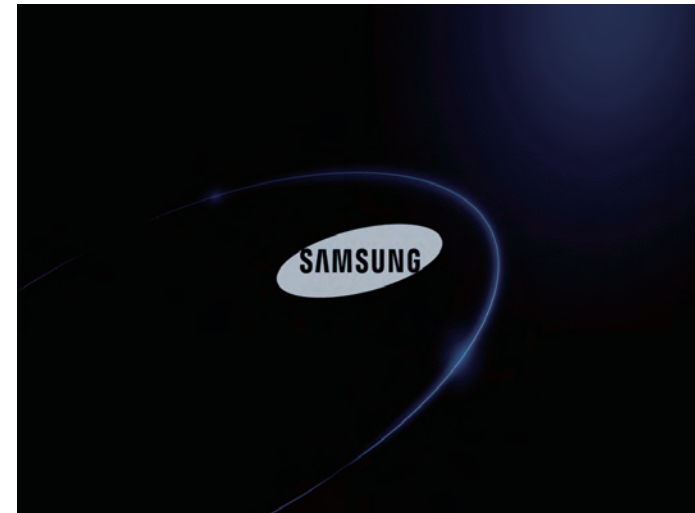
The BIOS Setup enables you to configure your computer hardware according to your needs.



- Use the BIOS setup to define a boot password, change the booting priority, or add a new device.
- Since incorrect settings may cause your system to malfunction or crash, take care when configuring the BIOS.
- The functions of the BIOS setup are subject to change for product function enhancement purposes.
- The BIOS Setup menus and items may differ depending on your computer model.

Entering the BIOS Setup

- 1 Turn the computer on.
- 2 When the booting screen (SAMSUNG logo) appears, press the **F2** key to enter the BIOS Setup.



- 3 After a moment, the BIOS setup screen appears.
The items in the BIOS setup may differ depending on the product.

The BIOS Setup Screen

 The BIOS Setup menus and items may differ depending on your computer model.

XXXXXXXX SecureCore (tm) Setup Utility

SysInfoAdvancedSecurityBootExit

System Time [10:21:53]
System Date [07/30/20XX]

SATA Port 1 XXXXXXXX
SATA Port 2 XXXXXXXX

CPU Vender XXXXXXXX
CPU Type XXXXXXXX
CPU Speed X.XX GHz
CPU UT (UT-x) XXXXXXXX

Total Memory XXX MB
Slot 1 Memory XXX MB
Slot 2 Memory XXX MB

BIOS Version XXXXXXXX
MICOM Version XXXXXXXX

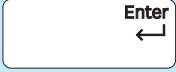
Item Specific Help
<Tab>, <Shift-Tab>, or <Enter> selects field.

Setup Menu
Help
Setup Items

Setup Menu	Description
SysInfo	This is a description about the basic specifications of the computer.
Advanced	Using this menu, you can configure the major chipsets and additional functions.
Security	Used to configure security functions, including passwords.
Boot	This menu enables you to configure peripherals and booting related settings such as the boot priority.
Exit	Used to exit the Setup either saving the changes or not.

System Setup Keys

In the Setup, you have to use the keyboard.

F1		Press to view the Setup Help.
Up & Down Keys	 	Press to move up and down.
F5/F6	 	Press to change the item value.
F9		Press to load the default Setup settings.
ESC		Press to return to a higher level menu or to move to the Exit menu.
Left & Right Keys	 	Press to move to another menu.
Enter		Press to select an item or to enter a sub menu.
F10		Press to save the changes and exit Setup.

 The keyboard image may differ from the actual keyboard.

If you set a password, you have to enter the password when you turn the computer on or enter the BIOS Setup.

By configuring a password, you can restrict system access to authorized users only and protect data and files saved on the computer.



- The password setting provides the following 3 sub menus. (Supervisor Password, User Password and HDD Password)
- Do not lose or forget your password.
- Do not let others know your password.
- If you forget the Supervisor Password or HDD Password, you will need to request assistance from the service center. In this case, a service fee will be charged.
- When you forget the User Password, you can disable the Supervisor Password, and the User Password is also automatically disabled.
- The screen images and terms may differ from actual product depending on the computer model and driver version.

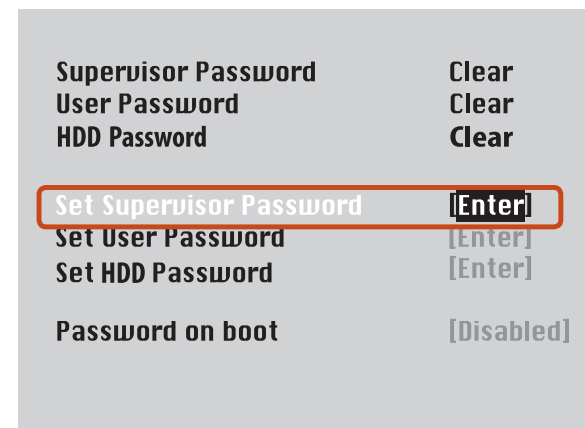
Setting a Supervisor Password

If you set a Supervisor Password, you need to enter the password when you turn the computer on or enter the BIOS Setup.

Setting only the Supervisor Password and User Password is not very secure. You can use an HDD Password as well to increase the security level.

1 Select the **Security** menu in the BIOS Setup.

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



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

The password can be up to 8 alphanumeric characters. Special characters are not allowed.

4 The supervisor password has been set.

The supervisor password is required to turn the computer on or to enter the BIOS Setup.



For some models, if the password entered message appears in the **Setup Notice** window, the settings are not complete until the <**Enter**> key is pressed.

Setting a User Password

Using the User Password, you can turn the computer on but you cannot change the major settings of the BIOS Setup because you cannot enter the BIOS Setup.

This helps prevent unauthorized access to the major settings in the BIOS Setup menu.

Before configuring a user password, a **supervisor password** must have been configured. Deactivating the supervisor password also deactivates the user password.

In the **Set User Password** item, press <Enter> and complete the procedures from Step 3 of Setting a Supervisor Password.

Setting Up a Boot Password

To setup a boot password, the administrator password (**Set Supervisor Password**) should be set in advance.

Set the **Password on boot** item to **Enabled**.

Once a boot password is set, you have to enter a password to boot up the computer.

Be sure to remember the password for later use.

Setting up a Hard Disk Drive Password (Optional)

If you set a password for a hard disk drive, it cannot be accessed from another computer.

Press <Enter> in the **Set HDD Password** item and define a password as described in Step 3 of the Setting up the Supervisor Password.



- The hard disk drive password setting function is not provided for some models.

- **Changing the hard disk drive password**

For security purposes, you can only change a hard disk drive password after restarting the computer by pressing the computer **Power** button.

If you cannot change the hard disk drive password or the **HDD Password Frozen** message appears when entering the BIOS Setup and then selecting **Security > HDD Password**, press the **Power** button to turn the computer on again.

Deactivating the Password

- 1 Press <**Enter**> on the password to be deactivated. For example, to deactivate a supervisor password in the **Set Supervisor Password** item, press <**Enter**>.
- 2 In the **Enter Current Password** item, enter the currently configured password and press <**Enter**>.
- 3 Leave the **Enter New Password** item field empty, and press <**Enter**>.
- 4 Leave the **Confirm New Password** field empty, and press <**Enter**>.

The password is deactivated.



For some models the password is only canceled if the <**Enter**> key is pressed in the **Setup Notice** window.

Changing the Boot Priority

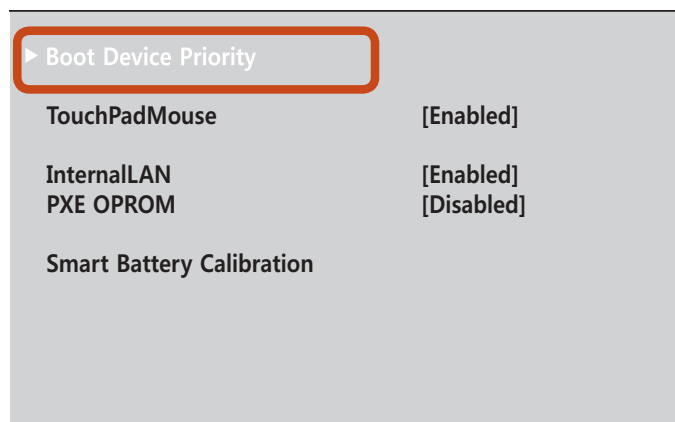
As an example, the procedures to change the highest boot priority device to the hard disk drive are described below.



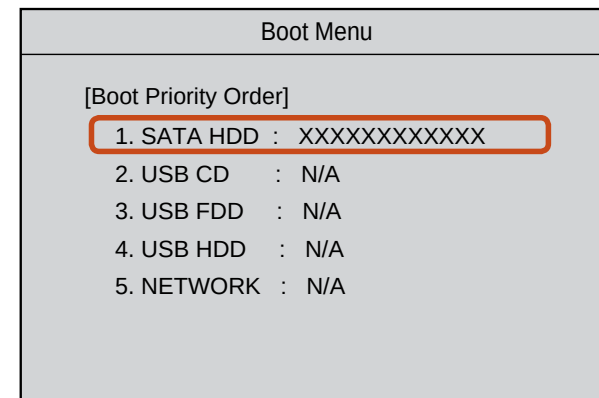
The screen images and terms may differ from actual product depending on the computer model and driver version.

1 Select the **Boot** menu in the BIOS Setup.

2 Press **<Enter>** on the **Boot Device Priority** item.



3 Press the down key (↓) to move to the **SATA HDD** item and press the **F6** key to move up to the top item.



4 Press the **F10** key to save the settings and exit Setup.
The highest boot priority device is now set to the Hard Drive.



If you need to boot to **DOS** using a **USB** device, enter the BIOS Setup, select the **Advanced** menu and set the **Fast BIOS Mode** item to **Disabled**.

Please refer to the following instructions when running the computer on battery power without connecting the AC power.

This computer is equipped with an internal battery.

! Precautions

- **Users cannot remove or replace the internal battery.**
- **To remove or replace the battery, use an authorized service center in order to protect the product and users. You will be charged for this service.**
- Use only chargers specified in the User Manual.
- Never heat the battery pack, put it near or in a fire or use at a temperature higher than 60°C, as this may cause fire.
- Please refer to the system operation environment of this manual and operate and store the battery at room temperature.



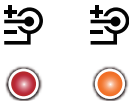
- Before using the computer for the first time, make sure to connect the AC adapter and charge the battery completely.
- The images used for the illustration are of a representative model, therefore the images may differ from the the actual product.



The location of the internal battery

Charging the Battery

- 1
- An internal battery is embedded. Connect the AC adapter to the power input jack of the computer. The battery will start charging.
- 2
- When charging is complete, the Charge LED turns green.

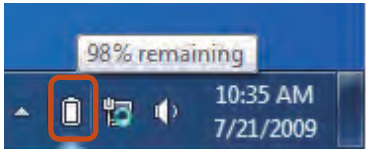
Status	Charge LED	
Charging		Red or orange
Charging complete		Green
AC adapter not connected		Off

Measuring the Remaining Battery Charge

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

Confirming the battery charge in the Taskbar

Disconnect the AC adapter and move the mouse cursor over the battery icon in the system tray of the Taskbar to confirm the remaining battery charge.



Battery Usage Time Information

A battery is an expendable supply, so when using it over a long time, the capacity/battery life is shortened. If the battery life is reduced to under half of its initial time, we recommend purchasing a new battery.

When not using the battery for a long time, store the battery after charging it to 30-40% of its capacity. This extends the battery life time.

Extending the Battery Usage Time

Decreasing the LCD Brightness

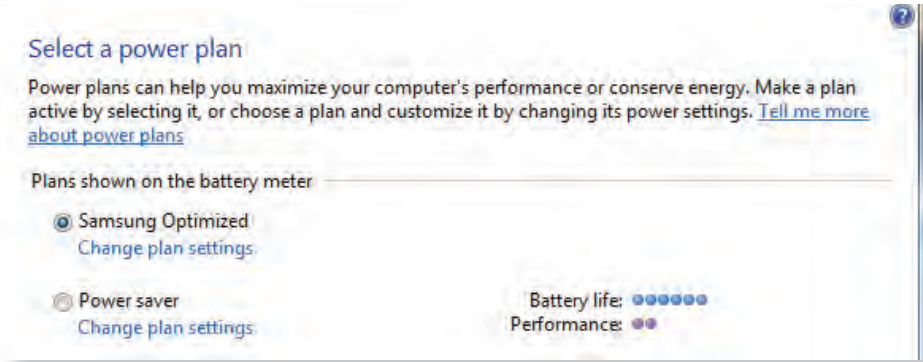
Press the  +  keys on the keyboard to decrease the LCD brightness to extend the battery usage time.

Using the power management program

This program helps you use the battery more efficiently and supports the power mode optimized for the operating environment.

- 1 Click **Start > Control Panel > Hardware and Sound > Power Options**.
- Alternatively, right-click the power measuring device icon  in the notification area of the taskbar and select **Power Options**.

2 If the following screen appears, select one of the modes.



Extending the Battery Life (Optional)

In the **Easy Settings** program, click **General** and set the **Battery Life Extender** to **ON** or **OFF**.

OFF	This mode maintains 100% of the battery charge when using the computer on AC power. In this case, although the battery use time increases, the battery life is reduced.
ON	This mode maintains 80% of the battery charge when using the computer on AC power. In this case, although the battery use time decreases, the battery life is extended.



Alternatively, to extend the battery life

Press the **F2** key when the Samsung logo appears in the booting sequence to enter the BIOS Setup, select **Advanced > Battery Life Cycle Extension**, and set it to **Enable**. Then you can use the battery life cycle extension mode.

Using the Battery Calibration Function

When charging/discharging the battery repeatedly for a short time only, the battery usage 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 the same by discharging the battery completely using the Battery Calibration function, and then recharging it again.

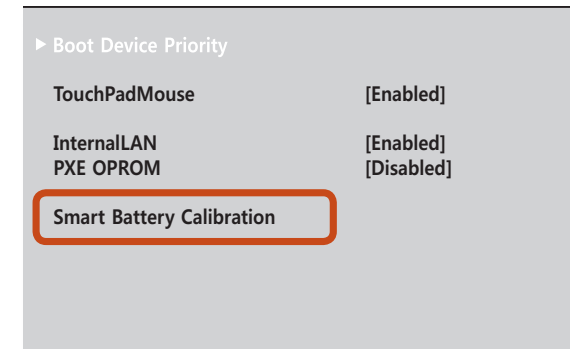


The screen images and terms may differ from actual product depending on the computer model and driver version.

1 Disconnect the AC power adapter after turning off the computer.

2 Restart your computer and press the **F2** button when the Samsung logo appears, to start the BIOS Setup.

3 Move to the **Boot > Smart Battery Calibration** item using the direction keys and press **<Enter>**.



4 Highlight **Yes** in the **Battery Calibration Confirmation** window and press **<Enter>**.

The Battery Calibration function is activated and the battery is forcefully discharged. To stop the operation, press the **<Esc>** button.

This operation requires 3~5 hours depending on the battery capacity and the remaining battery charge.



Chapter 4. Backup / Restore

Samsung Recovery Solution (Optional)

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Samsung Recovery Solution is a program that enables restoring or backing up the hard disk drive for when a problem occurs with the computer.

If the computer fails to boot up, you can restore the computer by pressing the  key in the booting screen.



- Samsung Recovery Solution may not be provided or the version may differ depending on the model. In addition, some functions may not be provided or may differ depending on the version.

For more information on using Samsung Recovery Solution, please refer to the online help of the program.

- The screen images in this document may differ from actual product.
- If your computer does not have an internal ODD, you need an external ODD connected to your computer to use the Backup Function or Restore Function using DVDs.
- The System Software function may not be provided depending on the program version.

Samsung Recovery Solution Functions

Backup/Restore Functions

Backup Function

Backs up drive C or required folders and files.

- **Complete Backup**

Backs up drive C.

- **Data Backup**

Backs up important folders and files.

A problem occurs



Restore Function

Restores major Windows files, drive C, or folders and files to the previous state.

- **Basic Restore**

Restores only major Windows files in a short time.

- **Complete Restore**

Restores drive C to the previous, normal state.

- **Data Restore**

Restores important files or folders to the previously backed up state.

System Software Functions

Samsung Recovery Solution provides system software so that you can reinstall or copy the device drivers and system software necessary for normal operations onto a separate storage device.

Restore Function

Not only can you use Samsung Recovery Solution when Windows is running, but also when you are unable to boot up into Windows. Let's learn how to use Samsung Recovery Solution.

Optional functions such as Initial State Image, Initial Status Backup, and Partitioning are only available in some models.

If the image of the initial state is saved on a DVD or removable storage device, connect the DVD drive or removable storage device to the computer before using the function.

Partition Setup & Initial Status Backup

If you turn your computer on for the first time, the Initial Status Backup function is performed after registering Windows. This function saves an image of the Initial Status of the C drive to a secure location so that users can restore the computer to the Initial Status using the Complete Restore function. An Initial Status Backup is only performed once immediately after the computer is purchased.

1 If you turn the power on for the first time, the Register Windows screen appears. If you register Windows according to the instructions on the screen, the computer will be restarted.

2 After the computer has been restarted, the **Partition Setup** screen appears.

To resize the C and D drives, adjust the partition size using the slide bar and the click **Next**.



The Partition Setup function is only available when the computer is turned on for the first time and will not be available afterwards. Once you have completed the partitioning, it cannot be resized. Partition the disk carefully.

3 The **Initial Status Backup** screen appears.
To continue the Initial Status Backup, click **Restart Now**. The computer will restart.

4 The Initial Status Backup is performed to backup the initial status of the C drive to a secure location. This backup image is used for the Complete Restore function that restores your computer to the initial status.

5 When the Initial Status Backup is complete, restart Windows.

Restoring the computer

Restore is a function that enables restoring the computer to a saved point when the computer was purchased or a user-saved point.

The Restore function provides the Basic Restore and Complete Restore options.

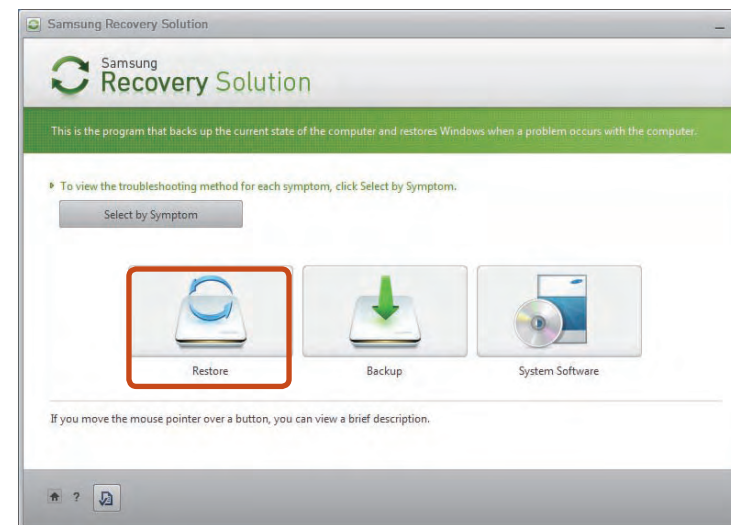
- 1 – **When Windows is running:**
Click **Samsung Recovery Solution**.

– When Windows does not start:

Turn the computer on and press the  key when the boot screen (SAMSUNG logo) appears. After a moment, the computer boots up in Restoration mode and the Samsung Recovery Solution screen appears.

 For computers supporting the touch screen function, the touch screen function does not work during Restore Mode. In this case, please use the touchpad or mouse.

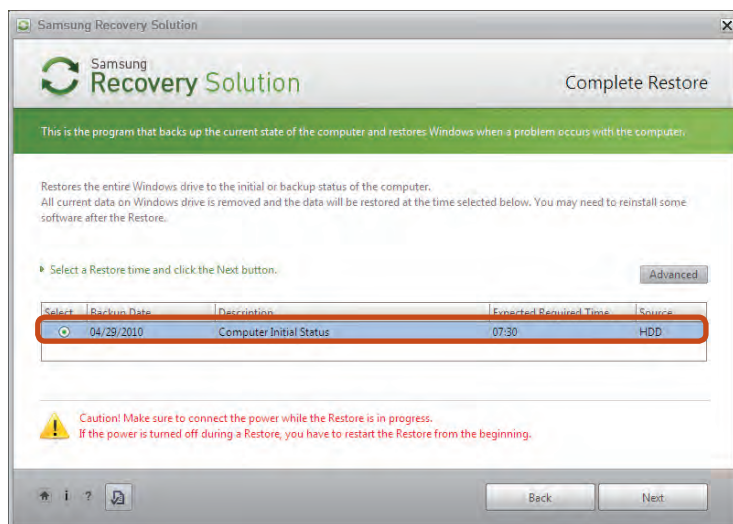
- 2 If the initial menu screen appears, click **Restore**.



If you click **Select by Symptom**, the Select by Symptom menu appears. If you select a symptom, a recommended restoration option will blink. Click the restoration option to continue.

- 3 Select either **Basic Restore** or **Complete Restore** from the Restore menu.

To restore the computer to the initial state, click **Computer Initial State** and perform the restoration process according to the instructions that appear on the screen.



-  Run **Complete Restore** if the computer does not work even after **Basic Restore** has been completed.

! In the **Advanced** menu, you can change the size of the hard drive partitions (e.g. C: and D:).

- Make sure to backup your data in advance, as all data will be deleted after the partition size is changed.
- The **Advanced** menu is only activated when the computer boots up in the restoration area.

(by pressing the  key during the booting sequence.)

! Since a Complete Restore deletes all user data as well as additionally installed programs, please backup your important data first using the Data Backup function, before running Complete Restore.

- 4 The computer boots up into restoration mode and the restoration progress message appears. If you click **OK**, the restoration begins. The restoration may take some time, please wait for a moment.

- 5 When the 'Restart the System' message appears after the restoration is complete, click **OK** to restart the system.

! Make sure that the power cord is connected while the restoration is in process. The first time the computer boots up after a Complete Restore has been performed, the speed of the boot process may be slowed down due to the system optimization process. At this time, do not shut the computer down by force.

Complete Backup/Restore

A **Complete Backup** saves the complete image of the C drive onto another drive or DVD. A **Complete Restore** restores the image file saved by the Complete Backup onto the C drive.

Complete Backup



If you perform the Complete Backup function onto a DVD or removable storage device, you can restore your computer even when a problem occurs with the hard disk or when the restoration area is removed.

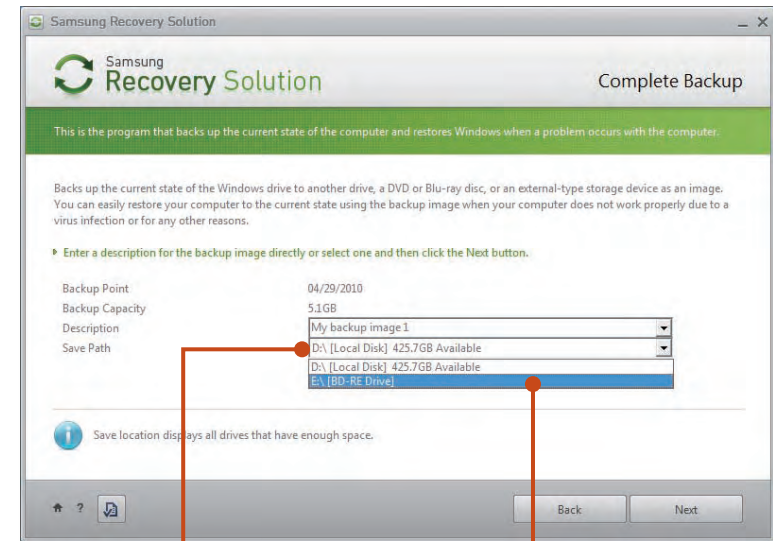
To create a backup, a removable storage device with at least 15 GB of free space is required.

1 Click **Backup** in the start screen of the Samsung Recovery Solution.

2 Enter a description of the current status of the computer and click **Next**.



After connecting a DVD drive or removable storage device, you can specify the DVD drive or removable storage device as the Save Path.



Select Drive D.

Select the DVD drive.

3 When the option selection item appears, select an option and click **Next**.



The Livelicensing and System Software Backup functions are supported as options for the Complete Backup operation.

- **Livelicensing:** Performs the Complete Backup operation while Windows is running. The backup operation using Livelicensing may slow down if the hard disk drive is accessed frequently by other applications.
- **System Software Backup:** This function backs up the system software on to the DVD after the completion of the Complete Backup operation.

4 When the system restarts in Restoration Mode, the **Complete Backup** operation begins. Continue with the backup by following the instructions.



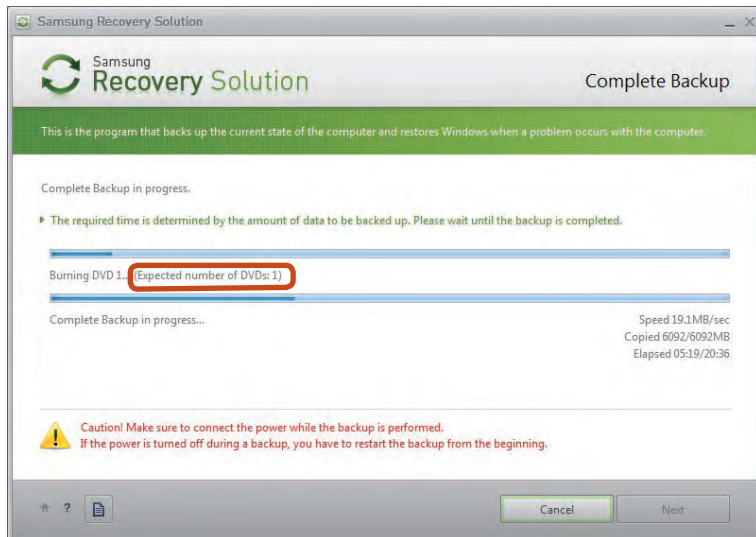
- Samsung Recovery Solution supports the DVD+R, DVD-R, DVD+RW and DVD-RW formats.
- If the Livelmaging option has been selected, the Complete Backup operation begins without the computer being restarted.

5 Continue with the Complete Backup operation by following the instructions.

6 When the 'Restart the System' message appears after the backup is complete, click **OK** to restart the system.



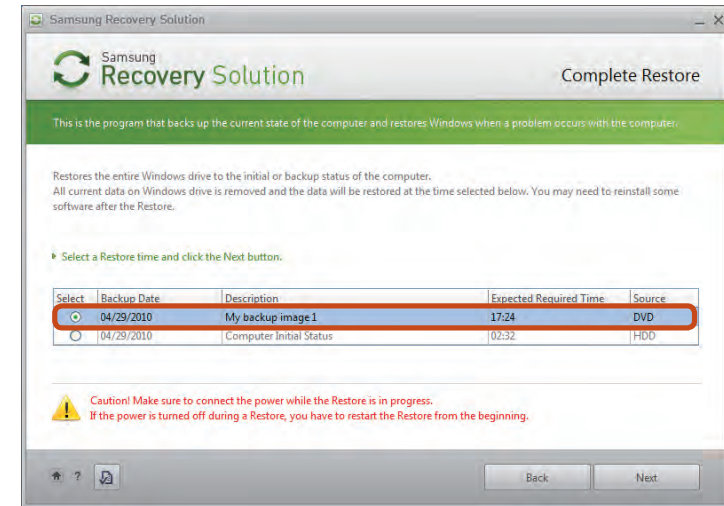
If the Livelmaging option has been selected, the computer is not restarted.



Complete Restore

- 1 – **When backing up onto DVD**
Turn the computer on and insert the backup DVD into the DVD drive.
If there are multiple backup DVDs, insert the first DVD.
 - **When backing up to a removable storage device**
Connect the removable storage device.
 - **When backing up to another drive**
Proceed to Step 2.
- 2 When the Samsung Recovery Solution start screen appears, click **Restore** and then click **Complete Restore**.

- 3 Select a **Complete Backup** restoration point in the restoration point selection screen and click the **Next** button. The system is restarted.



- 4 The restoration progress message appears after the computer boots up in restoration mode. If you click **OK**, the restoration begins.



If multiple DVDs have been used for a Complete Backup, whenever burning a DVD is completed, the “Insert the next DVD” message will appear.

- 5 When the ‘Restart the System’ message appears after the restoration is complete, click **OK** to restart the system. The Complete Restore has been completed.

Data Backup/Restore

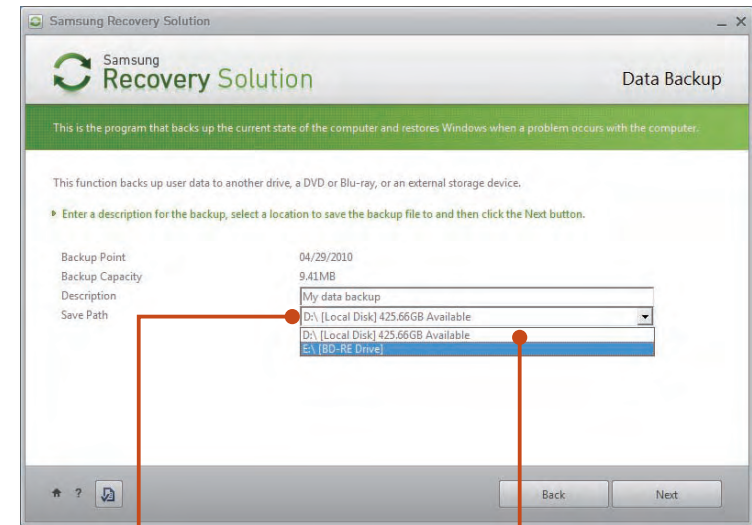
The **Data Backup** function enables you to backup specific files and folders to another drive, DVD or removable storage device. **Data Restore** enables you to restore data using the data saved by a Data Backup when data is lost. This guide describes the Backup and Restore procedures on the basis of backing up and restoring by using DVD.

Data Backup

- 1 When the Samsung Recovery Solution start screen appears, click **Backup** and then click **Data Backup**.
- 2 In the data selection screen, select either **Basic Selection** or **Select from all**, select a folder or file to be backed up, and then click the **Next** button.
- 3 Enter a description for the backup in the **Description** field so that you can easily recognize it later and specify the **Save Path**.



If your computer has a DVD-Writer, you can specify the DVD drive as the Save Path.



Select Drive D.

Select the DVD drive.



If you have specified a hard disk drive or a removable disk as the Save Path, the **SamsungRecovery\SamsungData** folder is created on the corresponding drive (e.g. D:\) and the data is saved to the folder. Take care to not delete the folder by mistake or on purpose.

- 4 If you click the Next button, the Data Backup begins. If you have selected the DVD drive as the Save Path, the "Insert a blank DVD" message appears. Insert a blank DVD and click the OK button.
- 5 The "Backup is completed" message appears.

Data Restore

- 1** – **When backing up onto DVD**
Turn the computer on and insert the backup DVD into the DVD drive.
- **When backing up to a removable storage device**
Connect the removable storage device.
- **When backing up to another drive**
Proceed to Step 2.
- 2** When the initial menu screen appears, click **Restore** and then click **Data Restore**.
- 3** Select a backup item to be restored in the backup list and click the **Next** button.
- 4** Select a folder for the restoration and click the **Next** button.
Data Restore begins.
- 5** When Data Restore is completed, check if the data has been restored to the specified folder.

System Software Function

The System Software function is a function that enables you to reinstall device drivers and System Software Programs or back up those programs.



The system software function is supported by **Samsung Recovery Solution version 4 or later**. Therefore, the function may not be supported depending on the version.



The System Software Installation Function only works in Microsoft Windows.

Installing System Software

- 1 When the initial menu screen appears, click **System Software** > **System Software Installation**.



- 2 Move to the **Easy Software Manager**.
Using the **Easy Software Manager**, you can install device drivers and applications.
- 3 After the installation is complete, the computer will restart.

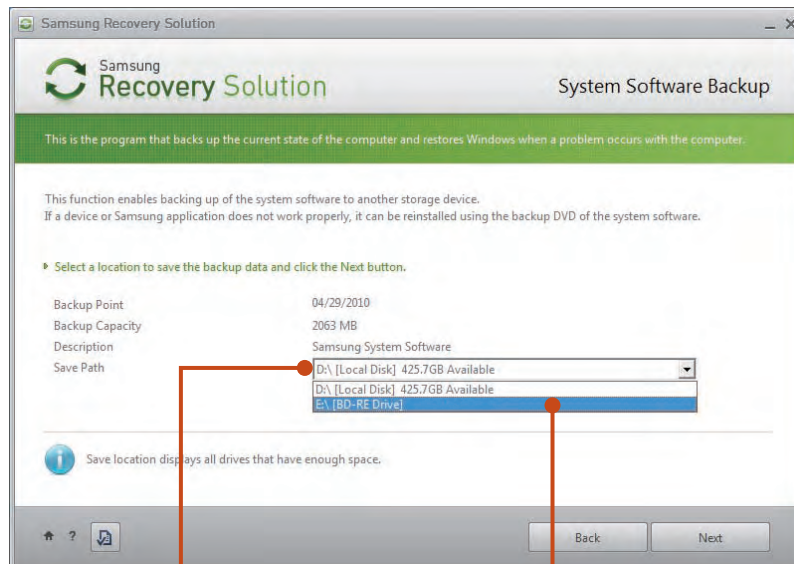
System Software Backup

1 When the initial menu screen appears, click **System Software** > **System Software Backup**.

2 Specify the Save Path.



If your computer has a DVD-Writer, you can specify the DVD drive as the Save Path.



Select Drive D.

Select the DVD drive.



If you have specified a hard disk drive or a removable disk as the Save Path, the **SamsungSoftware** folder is created on the corresponding drive (e.g. D:\) and the system software programs are saved to that folder. Take care to not delete the folder.

3

If you click the **Next** button, the Software Backup begins. If you have selected the DVD drive as the Save Path, the “Insert a blank DVD” message appears. Insert a blank DVD and click the **OK** button.

4

After the backup, the **System Software Backup is completed** message appears.



- If you want to install the System Software Programs backed up on the drive, run the **SecSWMgrGuide.exe** file in the **SystemSoftware** folder.
- When installing System Software Programs from the backed-up DVD, insert the DVD and follow the System Software Installation directions.
- To delete Samsung Recovery Solution, refer to the Help section of the program.

Recovery Solution Representation (Optional)

What is a Recovery Area?

- Samsung computers have an additional partition to recover computers or save backup files.
(Only for models with the Samsung Recovery Solution.)
This partition is called a Recovery Area and it includes a recovery image that comprises of the OS and application programs.
- You can either double-click the Samsung Recovery Solution icon on the desktop or press  while booting the computer to enter the Recovery Area. Then you can back up the present computer state or recover the computer from backed up images.
- For deleting the Recovery Area, you need to use an additional Recovery Area Removal Tool. After deleting the recovery area, you can use the newly created partition for other uses, such as for saving personal data. Be careful that once the recovery area is deleted, the Samsung Recovery Solutions will not work anymore.

The capacity representation of the hard disk drive(HDD) in Windows is different from the product specifications.

- The capacity of the storage device (HDD) of the manufacturer is calculated assuming that 1KB=1,000 Bytes. However, the operating system (Windows) calculates the storage device capacity assuming that 1KB=1,024 Bytes, and therefore the capacity representation of the HDD in Windows is smaller than the actual capacity.
This is due to the difference in capacity calculation and does not mean the installed HDD is different from the product specifications.
- The capacity representation in Windows may be smaller than the actual capacity because some programs occupy a certain area of the HDD outside of Windows.
- For models with Samsung Recovery Solution, the HDD capacity representation in Windows may be smaller than the actual capacity because Samsung Recovery Solution uses a hidden area of about 5~20GB of the HDD to save the recovery image, and that hidden area is not counted towards the total size available to Windows.

The size of Samsung Recovery Solution varies by models because of the different size of applied programs.



Chapter 5. Appendix

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Safety Instructions

Your system is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that the safety instructions marked on the product and in the documentation are followed.



Always follow these instructions to help guard against personal injury and damage to your system.

Setting Up your System

- Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.
- Do not use this product near water or a heat source such as a radiator.
- Set up the system on a stable work surface.
- The product should be operated only with the type of power source indicated on the rating label.
- Ensure that the electrical outlet you are using to power your equipment is easily accessible in case of fire or short circuit.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area.
- Openings in the computer case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space, at least 6 inches (15 cm), around the system for ventilation when you set up your work area. Never insert objects of any kind into the computer ventilation openings.
- Ensure that the fan vents on the bottom of the casing are clear at all times. Do not place the computer on a soft surface, doing so will block the bottom vents.
- If you use an extension cord with this system, make sure that the total power rating on the products plugged into the extension cord does not exceed the extension cord power rating.
- For Notebooks with glossy display bezels the user should consider the placement of the Notebook as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

Care During Use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill anything on the system. The best way to avoid spills is to not eat or drink near your system.
- Some products have a replaceable CMOS battery on the system board. There is a danger of explosion if the CMOS battery is replaced incorrectly. Replace the battery with the same or equivalent type recommended by the manufacturer.
Dispose of batteries according to the manufacturers instructions. If the CMOS battery requires replacement insure that a qualified technician performs the task.
- When the computer is turned off, a small amount of electrical current still flows through the computer.
To avoid electrical shock, always unplug all power cables, remove the battery and modem cables from the wall outlets before cleaning the system.
- Unplug the system from the wall outlet and refer servicing to qualified personnel if:
 - The power cord or plug is damaged.
 - Liquid has been spilled into the system.
 - The system does not operate properly when the operating instructions are followed.
 - The system was dropped or the casing is damaged.
 - The system performance changes.

The Instruction On Safety Operation of NotePC

1. When installing and operating devices please refer to safety requirements in the user guide.
2. Devices can be used only with the equipment specified in the technical specifications of the devices.
3. If any smell of burning or smoke is detected from the computer the unit should be switched off and battery removed. The unit should be checked by a qualified technician before reuse.
4. Service and repair of devices should be carried out by authorized service centers.
5. Do not allow your portable computer to operate with the base resting directly on exposed skin for extended periods of time. The surface temperature of the base will rise during normal operation (particularly when AC Power is present). Allowing sustained contact with exposed skin can cause discomfort or eventually a burn.