

Installing driver over the network

- 10 Click **Install**. All components necessary for machine operations will be installed.
If you click **Customize**, you can choose individual components to install.
- 11 Enter the password and click **OK**.
- 12 Installing software requires you to restart your computer. Click **Continue Installation**.
- 13 After the installation is finished, click **Close**.
- 14 Open the **Applications** folder > **Utilities** > **Print Setup Utility**.
 - For Mac OS X 10.5-10.7, open the **Applications** folder > **System Preferences** and click **Print & Fax**.
- 15 Click **Add** on the **Printer List**.
 - For Mac OS X 10.5-10.7, click the "+" icon. A display window will pop up.
- 16 For Mac OS X 10.4, click **IP Printer**.
 - For Mac OS X 10.5-10.7, click **IP**.
- 17 Select **HP Jetdirect - Socket** in **Protocol**.



When printing a document containing many pages, printing performance may be enhanced by choosing **Socket** for **Printer Type** option.

- 18 Enter the machine's IP address in the **Address** input field.
- 19 Enter the queue name in the **Queue** input field. If you cannot determine the queue name for your machine server, try using the default queue first.
- 20 For Mac OS X 10.4, if Auto Select does not work properly, select **Samsung** in **Print Using** and your machine name in **Model**.
 - For Mac OS X 10.5-10.7, if Auto Select does not work properly, choose **Select Printer Software** and your machine name in **Print Using**.
- 21 Click **Add**.
Your machine appears in the **Printer List**, and is set as the default machine.

Linux

You need to download Linux software packages from the Samsung website to install the printer software (www.samsung.com > find your product > Support or Downloads).



To install other software:

- See "Installing the Smart Panel" on page 4.
- See "Installing the Printer Settings Utility" on page 5.

Installing driver over the network

Install the Linux driver and add network printer

- 1 Make sure that the machine is connected to your network and powered on. Also, your machine's IP address should have been set.
- 2 Download the Unified Linux Driver package from the Samsung website.
- 3 Extract the UnifiedLinuxDriver.tar.gz file and open the new directory.
- 4 Double-click the **Linux** folder > **install.sh** icon.
- 5 The Samsung installer window opens. Click **Continue**.
- 6 The add printer wizard window opens. Click **Next**.
- 7 Select network printer and click **Search** button.
- 8 The machine's IP address and model name appears on list field.
- 9 Select your machine and click **Next**.
- 10 Input the printer description and **Next**.
- 11 After the machine is added, click **Finish**.
- 12 When installation is done, click **Finish**.

Add a network printer

- 1 Double-click the **Unified Driver Configurator**.
- 2 Click **Add Printer**.
- 3 The **Add printer wizard** window opens. Click **Next**.
- 4 Select **Network printer** and click the **Search** button.
- 5 The printer's IP address and model name appears on list field.
- 6 Select your machine and click **Next**.
- 7 Enter the printer description and click **Next**.
- 8 After the machine is added, click **Finish**.

UNIX



- Make sure your machine supports the UNIX operating system before installing the UNIX printer driver (see "Features by models" on page 4)
- The commands are marked with "", when typing the commands, do not type "".

Installing driver over the network

To use the UNIX printer driver, you have to install the UNIX printer driver package first, then setup the printer. You can download the UNIX printer driver package from the Samsung website (www.samsung.com > find your product > Support or Downloads).

Installing the UNIX printer driver package

The installation procedure is common for all variants of UNIX OS mentioned.

- 1 From the Samsung website, download and unpack the UNIX Printer Driver package to your computer.
- 2 Acquire root privileges.
"su -"
- 3 Copy the appropriate driver archive to the target UNIX computer.



See administration guide of your UNIX OS for details.

- 4 Unpack the UNIX printer driver package.
For example, on IBM AIX, use the following commands.
"gzip -d < enter the package name | tar xf -"
- 5 Go to the unpacked directory.

- 6 Run the install script.

"/install"

install is the installer script file which is used to install or uninstall the UNIX Printer Driver package.

Use "**chmod 755 install**" command to give the permission to the installer script.

- 7 Execute the "**./install -c**" command to verify installation results.

- 8 Run "**installprinter**" from the command line. This will bring up the **Add Printer Wizard** window. Setup the printer in this window referring to the following procedures.



On some UNIX OS, for example on Solaris 10, just added printers may not be enabled and/or may not accept jobs. In this case run the following two commands on the root terminal:

"**accept <printer_name>**"

"**enable <printer_name>**"

Installing driver over the network

Uninstalling the printer driver package



The utility should be used to delete the printer installed in the system.

- a** Run “**uninstallprinter**” command from the terminal.
It will open the **Uninstall Printer Wizard**.
The installed printers are listed in the drop-down list.
- b** Select the printer to be deleted.
- c** Click **Delete** to delete the printer from the system.
- d** Execute the “**./install -d**” command to uninstall the whole package.
- e** To verify removal results, execute the “**./install -c**” command.

To re-install it, use the command “**./install**” to reinstall the binaries.

Setting up the printer

To add the printer to your UNIX system, run ‘installprinter’ from the command line. This will bring up the Add Printer Wizard window. Setup the printer in this window according to the following steps:

- 1** Type the name of the printer.
- 2** Select the appropriate printer model from the model list.
- 3** Enter any description corresponding to the type of the printer in the **Type** field. This is optional.

- 4** Specify any printer description in the **Description** field. This is optional.
- 5** Specify the printer location in the **Location** field.
- 6** Type the IP address or DNS name of the printer in the **Device** textbox for network-connected printers. On IBM AIX with **jetdirect Queue type**, only the DNS name is possible-numeric IP address is not allowed.
- 7** **Queue type** shows the connection as **lpd** or **jetdirect** in the corresponding list box. Additionally, **usb** type is available on Sun Solaris OS.
- 8** Select **Copies** to set the number of copies.
- 9** Check the **Collate** option to receive copies already sorted.
- 10** Check the **Reverse Order** option to receive copies in the reverse order.
- 11** Check the **Make Default** option to set this printer as default.
- 12** Click **OK** to add the printer.

IPv6 configuration



IPv6 is supported properly only in Windows Vista or higher.



If the IPv6 network seems to not be working, set all the network setting to the factory defaults and try again using **Clear Setting**.

In the IPv6 network environment, follow the next procedure to use the IPv6 address.

From the control panel

- 1 Connect your machine to the network with a network cable.
- 2 Turn on the machine.
- 3 Print a **Network Configuration Report** that will check IPv6 addresses (see "Printing a network configuration report" on page 3).
- 4 Select **Start > Control Panel > Printers and Faxes**.
- 5 Click **Add a printer** in the left pane of the **Printers and Faxes** windows.
- 6 Click **Add a local printer** in the **Add Printer** windows.


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The **Add Printer Wizard** window appears. Follow the instructions in the window.



If the machine does not work in the network environment, activate IPv6. Refer to the next section followed by.

Activating IPv6

- 1 Press the  (**Menu**) button on the control panel.
- 2 Press **Network > TCP/IP (IPv6) > IPv6 Activate**.
- 3 Select **On** and press **OK**.
- 4 Turn the machine off and turn it on again.
- 5 Reinstall your printer driver.

IPv6 configuration


Setting IPv6 addresses

The machine supports the following IPv6 addresses for network printing and managements.

- **Link-local Address:** Self-configured local IPv6 address (Address starts with FE80).
- **Stateless Address:** Automatically configured IPv6 address by a network router.
- **Stateful Address:** IPv6 address configured by a DHCPv6 server.
- **Manual Address:** Manually configured IPv6 address by a user.

DHCPv6 address configuration (Stateful)

If you have a DHCPv6 server on your network, you can set one of the following options for default dynamic host configuration.

- 1 Press the  (**Menu**) button on the control panel.
- 2 Press **Network > TCP/IP (IPv6) > DHCPv6 Config**.
- 3 Press **OK** to select the required value you want.
 - **DHCPv6 Addr.:** Always use DHCPv6 regardless of router request.
 - **DHCPv6 Off:** Never use DHCPv6 regardless of router request.
 - **Router:** Use DHCPv6 only when requested by a router.

From the SyncThru™ Web Service



For models that do not have the display screen on the control panel, you need to access **SyncThru™ Web Service** first using the IPv4 address and follow the below procedure to use IPv6.

- 1 Access a web browser, such as Internet Explorer, from Windows. Enter the machine IP address (http://xxx.xxx.xxx.xxx) in the address field and press the Enter key or click **Go**.
- 2 If it's your first time logging into **SyncThru™ Web Service** you need to log-in as an administrator. Type in the below default ID and password.
 - **ID: admin**
 - **Password: sec00000**
- 3 When the **SyncThru™ Web Service** window opens, move the mouse cursor over the **Settings** of the top menu bar and then click **Network Settings**.
- 4 Click **TCP/IPv6** on the left pane of the website.
- 5 Check the **IPv6 Protocol** check box to activate IPv6.
- 6 Check the **Manual Address** check box. Then, the **Address/Prefix** text box is activated.

IPv6 configuration

- 7 Enter the rest of the address (e.g.,:3FFE:10:88:194::**AAAA**. "A" is the hexadecimal 0 through 9, A through F).
- 8 Choose the DHCPv6 configuration.
- 9 Click the **Apply** button.

Using SyncThru™ Web Service

- 1 Start a web browser, such as Internet Explorer, that supports IPv6 addressing as a URL.
- 2 Select one of the IPv6 addresses (**Link-local Address, Stateless Address, Stateful Address, Manual Address**) from **Network Configuration Report** (see "Printing a network configuration report" on page 3).
- 3 Enter the IPv6 addresses (e.g.,: http://[FE80::215:99FF:FE66:7701]).



Address must be enclosed in '['] brackets.

Wireless network setup

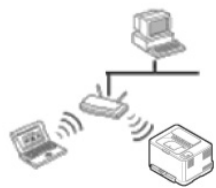


- Make sure your machine supports wireless networking. Wireless networking may not be available depending on the model (see "Features by models" on page 4).
- If the IPv6 network seems to not be working, set all the network settings to the factory defaults and try again using **Clear Setting**.

Getting started

Understanding your network type

Typically, you can only have one connection between your computer and the machine at a time.



Infrastructure mode

This is an environment generally used for homes and SOHOs (Small Office/ Home Office). This mode uses an access point to communicate with the wireless machine.



Ad hoc mode

This mode does not use an access point. The wireless computer and wireless machine communicate directly.

Wireless network name and network key

Wireless networks require higher security, so when an access point is first set up, a network name (SSID), the type of security used, and a Network Key are created for the network. Ask your network administrator about this information before proceeding with the machine installation.




Wireless network setup

Introducing wireless set up methods






You can set wireless settings either from the machine or the computer. Choose the setting method from the below table.



Some wireless network installation types may not be available depending on the model or country.

Set up method	Connecting method	Description & Reference
From the machine's control panel 	Using the WPS (recommended) 	<ul style="list-style-type: none">• See "Machines with a display screen" on page 21.• See "Machines without a display screen" on page 22.
	Using the menu button 	<ul style="list-style-type: none">• See "Using the menu button" on page 23.

Wireless network setup


Set up method	Connecting method	Description & Reference
From the computer 	Access point via USB cable (recommended) ()	<ul style="list-style-type: none"> Windows user, see "Access point via USB cable" on page 24. Macintosh user, see "Access point via USB cable" on page 33.
	Access point via WPS button (without a USB cable connection) ( , )	<ul style="list-style-type: none"> Windows user, see "Access point via WPS button (without a USB cable connection)" on page 28. Macintosh user, see "Setting the access point using the WPS button" on page 37.
	Ad hoc via USB cable ()	<ul style="list-style-type: none"> Windows user, see "Ad hoc via USB cable" on page 30. Macintosh user, see "Ad hoc via USB cable" on page 39.
	Using a network cable	<ul style="list-style-type: none"> See "Using a network cable" on page 41.
Other set up methods	Setting the Wi-Fi Direct for mobile printing	<ul style="list-style-type: none"> See "Setting up Wi-Fi Direct" on page 44.



If problems occur during wireless set up or driver installation, refer to the troubleshooting chapter (see "Troubleshooting" on page 46).

Wireless network setup

Using the WPS button

If your machine and an access point (or wireless router) support Wi-Fi Protected Setup™ (WPS), you can easily configure the wireless network settings by pressing the  (WPS) button on the control panel without a computer.





- If you want to use the wireless network using the infrastructure mode, make sure that the network cable is disconnected from the machine. Using the **WPS (PBC)** button or entering the PIN from the computer to connect to the access point (or wireless router) varies depending on the access point (or wireless router) you are using. Refer to the user's guide of the access point (or wireless router) you are using.
- When using the WPS button to set the wireless network, security settings may change. To prevent this, lock the WPS option for the current wireless security settings. The option name may differ depending on the access point (or wireless router) you are using.

Items to prepare

- Check if the access point (or wireless router) supports Wi-Fi Protected Setup™ (WPS).
- Check if your machine supports Wi-Fi Protected Setup™ (WPS).
- Networked computer (PIN mode only)

Choosing your type


There are two methods available to connect your machine to a wireless network using the  (WPS) button on the control panel.

The **Push Button Configuration (PBC)** method allows you to connect your machine to a wireless network by pressing both the  (WPS) button on the control panel of your machine and the WPS (PBC) button on a Wi-Fi Protected Setup™ WPS-enabled access point (or wireless router) respectively.

The **Personal Identification Number (PIN)** method helps you connect your machine to a wireless network by entering the supplied PIN information on a Wi-Fi Protected Setup™ WPS-enabled access point (or wireless router).

Factory default in your machine is **PBC** mode, which is recommended for a typical wireless network environment.




You can change the WPS mode in control panel ( **(Menu)** > **Network** > **Wireless** > **OK** > **WPS Setting**).

Wireless network setup

Machines with a display screen

Connecting in PBC mode

- 1 Press and hold the  (WPS) button on the control panel for more than 2 seconds.


The machine starts waiting for up to two minutes until you press the WPS (PBC) button on the access point (or wireless router).

- 2 Press the **WPS (PBC)** button on the access point (or wireless router).

The messages are displayed on the display screen in the order below:

- a Connecting:** The machine is connecting to the access point (or wireless router).
- b Connected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.
- c AP SSID:** After completing the wireless network connection process, the AP's SSID information appears on the display.

Connecting in PIN mode

- 1 Press and hold the  (WPS) button on the control panel for more than 2 seconds.

- 2 The eight-digit PIN appears on the display.

You need to enter the eight-digit PIN within two minutes on the computer that is connected to the access point (or wireless router).


The messages are displayed on the display screen in the order below:

- a Connecting:** The machine is connecting to the wireless network.
- b Connected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.
- c SSID Type:** After completing the wireless network connection process, the AP's SSID information is displayed on the LCD display.

Wireless network setup

Machines without a display screen

Connecting in PBC mode


- 1 Press and hold the  (WPS) button on the control panel for about 2 - 4 seconds until the status LED blinks quickly.



The machine starts connecting to the wireless network. The LED blinks slowly for up to two minutes until you press the PBC button on the access point (or wireless router).

- 2 Press the **WPS (PBC)** button on the access point (or wireless router).
 - a The light blinks fast on the WPS LED. The machine is connecting to the access point (or wireless router).
 - b When the machine is successfully connected to the wireless network, the WPS LED light stays on.


Connecting in PIN mode

- 1 The network configuration report, including PIN, must be printed (see "Printing a network configuration report" on page 3).

In ready mode, Press the  (**Cancel** or **Stop/Clear**) button for more than five seconds on the control panel.

The machine without the  (**Cancel** or **Stop/Clear**) button: Press the **(WPS)**  button for more than ten seconds on the control panel.

You can find your machine's PIN.

- 2 Press and hold the  (WPS) button on the control panel for more than 4 seconds until the status LED stays on.

The machine starts connecting to the access point (or wireless router).

- 3 You need to enter the eight-digit PIN within two minutes on the computer that is connected to the access point (or wireless router).

The LED blinks slowly for up to two minutes until you enter the eight-digit PIN.

The WPS LED blinks in the order below:

- a The light blinks fast on the WPS LED. The machine is connecting to the access point (or wireless router).
- b When the machine is successfully connected to the wireless network, the WPS LED light stays on.

Wireless network setup

Re-connecting to a network



When the wireless function is off, the machine automatically tries to re-connect to the access point (or wireless router) with the previously used wireless connection settings and address.




In the following cases, the machine automatically re-connects to the wireless network:

- The machine is turned off and on again.
- The access point (or wireless router) is turned off and on again.

Canceling the connection process

To cancel the wireless network connection when the machine is connecting to the wireless network, press and release the  (**Cancel** or **Stop/Clear**) or  (**Power**) button on the control panel. **You need to wait 2 minutes to re-connect to the wireless network.**

Disconnecting from a network

To disconnect the wireless network connection, press the  (WPS) button on the control panel for more than two seconds.

- **When the Wi-Fi network is in idle mode:** The machine is immediately disconnected from the wireless network and the WPS LED turns off.
- **When the Wi-Fi network is being used:** While the machine waits until the current job is finished, the light blinks fast on the WPS LED. Then, the wireless network connection is automatically disconnected and the WPS LED turns off.

Using the menu button




Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine

Before starting, you will need to know the network name (SSID) of your wireless network and the network key if it is encrypted. This information was set when the access point (or wireless router) was installed. If you do not know about your wireless environment, please ask the person who set up your network.

Wireless network setup



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installing driver over the network" on page 6).

- 1 Press the  (**Menu**) button on the control panel.
- 2 Press **Network > Wireless > WLAN Settings**.
- 3 Press the **OK** to select the setup method you want.
 - **Wizard** (recommended): In this mode, the setup is automatic. The machine will display a list of available networks from which to choose. After a network is chosen then printer will prompt for the corresponding security key.
 - **Custom**: In this mode, users can give or edit manually their own SSID, or choose the security option in detail.

Setup using Windows



Shortcut to the **Wireless Setting** program without the CD: If you have installed the printer driver once, you can access the **Wireless Setting** program without the CD. From the Start menu, select **Programs** or **All Programs > Samsung Printers > your printer driver name > Wireless Setting Program**.

Access point via USB cable

Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

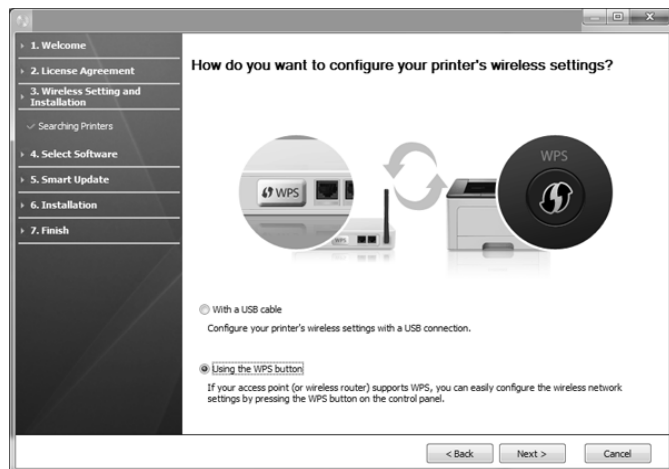
Creating the infrastructure network

- 1 Check whether the USB cable is connected to the machine.
- 2 Turn on your computer, access point, and machine.
- 3 Insert the supplied software CD into your CD-ROM drive.
- 4 Select the **Wireless Setting and Installation** option.
- 5 Read the **License Agreement**, and select **I accept the terms of the License Agreement**. Then, click **Next**.
- 6 The software searches the wireless network.
If the software has failed to search the network, check if the USB cable is connected properly between the computer and machine, and follow the instructions in the window.

Wireless network setup

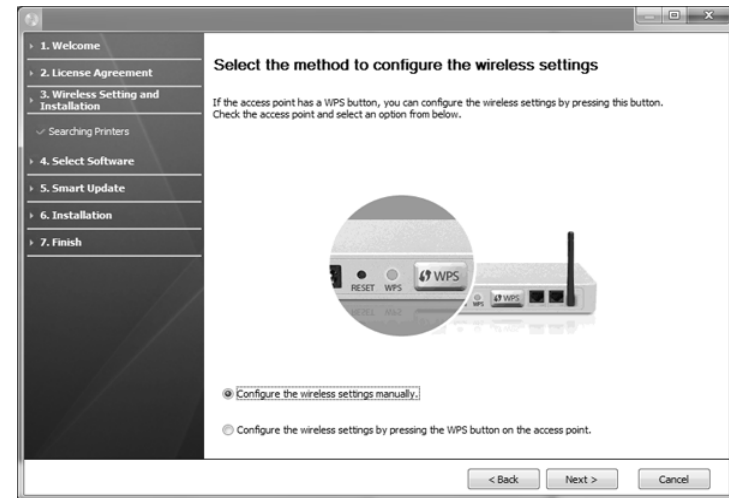


- If wireless network set up has been set before, the **Wireless Network Setting Information** window appears.
If you want to reset the wireless settings, check the check box and click **Next**.
- For models that support the WPS button (without a USB cable connection), the window shown below will appear.



- **With a USB Cable:** Connect the USB cable and click Next, then go to step 7.
- **Using the WPS Button:** See "Access point via WPS button (without a USB cable connection)" on page 28.

- 7 Select the method to use from the wireless set up method window.



- **Configure the wireless settings manually.:** Go to step 8.
- **Configure the wireless settings by pressing the WPS button on the access point.:** Connect to the wireless network by press the WPS button on the access point (or wireless router).
 - Follow the instructions in the window. When you are done configuring the wireless network settings, go to step 11.

- 8 After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you are using and click **Next**.

Wireless network setup



If you cannot find the network name you want to choose, or if you want to set the wireless configuration manually, click **Advanced Setting**.

- **Enter the wireless Network Name:** Enter the SSID of the access point (SSID is case-sensitive).
- **Operation Mode:** Select **Infrastructure**.
- **Authentication:** Select an authentication type.
 - Open System:** Authentication is not used, and encryption may or may not be used, depending on the need for data security.
 - Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.
 - WPA Personal or WPA2 Personal:** Select this option to authenticate the print server based on a WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase), which is manually configured on the access point and each of its clients.
- **Encryption:** Select the encryption (None, WEP64, WEP128, TKIP, AES, TKIP AES).
- **Network Key:** Enter the encryption network key value.
- **Confirm Network Key:** Confirm the encryption network key value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.



The wireless network security window appears when the access point has security settings.

The wireless network security window appears. The window may differ according to its security mode: WEP or WPA.

- **WEP**
 - Select **Open System** or **Shared Key** for authentication and enter the WEP security key. Click **Next**.
 - WEP (Wired Equivalent Privacy) is a security protocol preventing unauthorized access to your wireless network. WEP encrypts the data portion of each packet exchanged on a wireless network using a 64-bit or 128-bit WEP encryption key.
- **WPA**
 - Enter the WPA shared key and click **Next**.
 - WPA authorizes and identifies users based on a secret key that changes automatically at regular intervals. WPA also uses TKIP (Temporal Key Integrity Protocol) and AES (Advanced Encryption Standard) for data encryption.

Wireless network setup

- 9 The window shows the wireless network settings and checks if the settings are correct. Click **Next**.
- For the DHCP method
If the IP address assignment method is DHCP, check if DHCP is shown in the window. If it shows Static, click **Change TCP/IP** to change the assignment method to DHCP.
 - For the Static method
If the IP address assignment method is Static, check if Static is shown in the window. If it shows DHCP, click **Change TCP/IP** to enter the IP address and other network configuration values for the machine. Before entering the IP address for the machine, you must know the computer's network configuration information. If the computer is set to DHCP, you must contact the network administrator to get the static IP address.

For example,

If the computer's network information is as shown below,

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

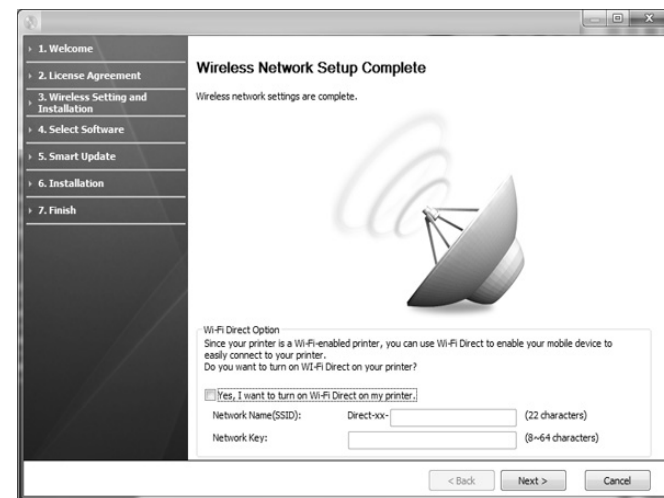
Then, the machine's network information should be as follows:

- IP address: 169.254.133.**43**
- Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)
- Gateway: 169.254.133.**1**

- 10 When the window that tells you that the network cable connection is confirmed appears, disconnect the network cable and click **Next**.

If the network cable is connected, it may have trouble finding the machine when configuring the wireless network.

- 11 Wireless network setting is completed. To print from a Wi-Fi Direct supported mobile device, set the Wi-Fi Direct Option (see "Setting up Wi-Fi Direct" on page 44).



Wi-Fi Direct Option:

- Wi-Fi Direct option appears on the screen only if your printer supports this feature.
- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 44).

Wireless network setup

- **Network Name(SSID):** The default Network Name is the model name and the maximum length is 22 characters (not including "Direct-xx-").
- **Network Key** is the numeric string, and the size is 8 ~ 64 characters.

- 12 When the wireless network set up is completed, disconnect the USB cable between the computer and machine. Click **Next**.
- 13 Click **Next** when the **Confirm Printer Connection** window appears.
- 14 Select the components to be installed. Click **Next**.
- 15 After selecting the components, you can also change the machine name, set the machine to be shared on the network, set the machine as the default machine, and change the port name of each machine. Click **Next**.
- 16 After installation is finished, a window asking you to print a test page appears. If you want to print a test page, click **Print a test page**.
Otherwise, just click **Next** and go to step 18.
- 17 If the test page prints out correctly, click **Yes**.
If not, click **No** to reprint it.
- 18 If you want to register your machine with the Samsung web site and receive useful information, click **On-line Registration**. If not, click **Finish**.

Access point via WPS button (without a USB cable connection)

For models that have a WPS button, you can set the wireless network using the WPS button (without a USB connection) and access point (or a router) WPS button.

Items to prepare

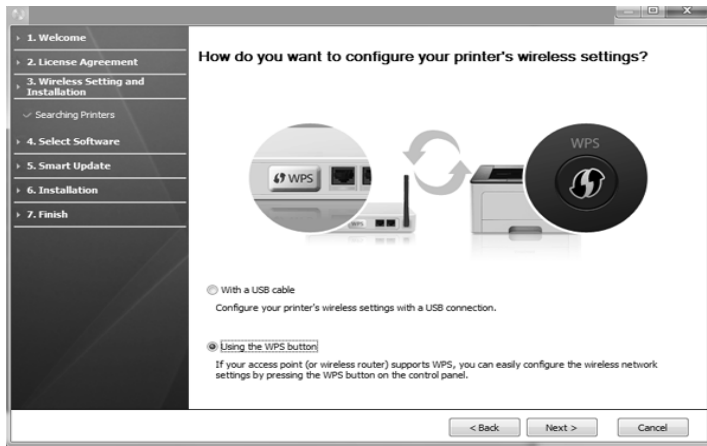
- Access point (or wireless router)
- Network-connected computer
- Software CD that was provided with your machine
- The machine installed with a wireless network interface

Creating the infrastructure network

- 1 Turn on your computer, access point, and machine.
- 2 Insert the supplied software CD into your CD-ROM drive.
- 3 Select the **Wireless Setting and Installation** option.
- 4 Read the **License Agreement**, and select **I accept the terms of the License Agreement**. Then, click **Next**.

Wireless network setup

- 5 Select **Using the WPS button** and click **Next**.




- For models that support WPS button, the above window appears.
- If your machine is connected with a USB cable, the above window does not appear. Disconnect the USB cable if you want to set up the wireless network using the WPS button.
- If you want to set up the wireless network using the USB cable, refer to "Access point via USB cable" on page 24.

- 6 The next window asks you to check if your access point (or wireless router) supports WPS or not.

If the access point (or wireless router) has a WPS button, select **Yes** and click **Next**.

- 7 Follow the instructions on the window to set up the wireless network.

- For models with a display screen, follow the steps below.

- a Press and hold the  (WPS) button on the control panel for about 2-4 seconds.


The machine waits up to 2 minutes for the WPS button on the access point (or a router) to be pressed.

- b Press the **WPS (PBC)** button on the access point (or wireless router).

The messages are displayed on the display screen in the order below:

- **Connecting:** The machine is connecting to the access point (or wireless router).
- **Connected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.

Wireless network setup

- **SSID Type:** After completing the wireless network connection process, the AP's SSID information appears on the display.
- For models without a display screen, follow the steps below.
 - a Press and hold the  (WPS) button on the control panel for about 2 - 4 seconds until the status LED blinks quickly.

The machine starts connecting to the wireless network. The LED blinks slowly for up to two minutes until you press the PBC button on the access point (or wireless router).
 - b Press the **WPS (PBC)** button on the access point (or wireless router).
 - The light blinks fast on the WPS LED while it is connecting to the access point (or wireless router).
 - When the machine is successfully connected to the wireless network, the WPS LED light stays on.

8 The **Wireless Network Setting Complete** window appears. Click **Next**.

9 Click **Next** when the **Confirm Printer Connection** window appears.

10 Select the components to be installed. Click **Next**.

11 After selecting the components, you can also change the machine name, set the machine to be shared on the network, set the machine as the default machine, and change the port name of each machine. Click **Next**.

12 After the installation is finished, a window asking you to print a test page appears. If you want to print a test page, click **Print a test page**.

Otherwise, just click **Next** and go to step 14.

13 If the test page prints out correctly, click **Yes**.
If not, click **No** to reprint it.

14 If you want to register your machine with the Samsung web site and receive useful information, click **On-line Registration**. If not, click **Finish**.

Ad hoc via USB cable

If you do not have an access point (AP), you may still connect the machine wirelessly to your computer by setting up an ad-hoc wireless network by following the simple steps below.


Items to prepare

- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

Wireless network setup

Creating the ad hoc network in Windows

- 1 Check whether the USB cable is connected to the machine.
- 2 Turn on your computer and the wireless network machine.
- 3 Insert the supplied software CD into your CD-ROM drive.
- 4 Select the **Wireless Setting and Installation** option.
- 5 Read the **License Agreement**, and select **I accept the terms of the License Agreement**. Then, click **Next**.
- 6 The software searches the wireless network.

 If the software has failed to search the network, check if the USB cable is connected properly between the computer and machine, and follow the instructions in the window.

- 7 After searching the wireless networks, a list of wireless networks your machine has searched appears.

If you want to use the Samsung default ad hoc setting, select the last wireless network on the list, **Network Name(SSID)** is **Portthru** and **Signal** is **Printer Self Network**.

Then, click **Next**.

If you want to use other ad hoc settings, select another wireless network from the list.



If you want to change the ad hoc settings, click the **Advanced Setting** button.

- **Enter the wireless Network Name:** Enter the SSID name you want (SSID is case-sensitive).
- **Operation Mode:** Select ad hoc.
- **Channel:** Select the channel. (**Auto Setting** or 2412 MHz to 2467 MHz).
- **Authentication:** Select an authentication type.
Open System: Authentication is not used, and encryption may or may not be used, depending on the need for data security.
Shared Key: Authentication is used. A device that has a proper WEP key can access the network.
- **Encryption:** Select the encryption (None, WEP64, WEP128).
- **Network Key:** Enter the encryption network key value.
- **Confirm Network Key:** Confirm the encryption network key value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.

The wireless network security window appears when the ad hoc network has security enabled.

Select **Open System** or **Shared Key** for the authentication and click **Next**.

- WEP (Wired Equivalent Privacy) is a security protocol preventing unauthorized access to your wireless network. WEP encrypts the data portion of each packet exchanged on a wireless network using a 64-bit or 128-bit WEP encryption key.

8

The window showing the wireless network setting appears. Check the settings and click **Next**.

Wireless network setup



Before entering the IP address for the machine, you must know the computer's network configuration information. If the computer's network configuration is set to DHCP, the wireless network setting should also be DHCP. Likewise, if the computer's network configuration is set to Static, the wireless network setting should also be Static.

If your computer is set to DHCP and you want to use the Static wireless network setting, you must contact the network administrator to get the static IP address.

- **For the DHCP method**

If the IP address assignment method is DHCP, check if DHCP is shown in the **Wireless Network Setting Confirm** window. If it shows Static, click **Change TCP/IP** to change the assignment method to **Receive IP address automatically (DHCP)**.

- **For the Static method**

If the IP address assignment method is Static, check if Static is shown in the **Wireless Network Setting Confirm** window. If it shows DHCP, click **Change TCP/IP** to enter the IP address and other network configuration values for the machine.

For example,

If the computer's network information is as shown follows:

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

Then, the machine's network information should be as below:

- IP address: 169.254.133.**43**
- Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)
- Gateway: 169.254.133.**1**

9 The **Wireless Network Setting Complete** window appears. Click **Next**.

10 When the wireless network settings are completed, disconnect the USB cable between the computer and machine. Click **Next**.



If the **Change PC Network Setting** window appears, follow the steps in the window.

Click **Next** if you are finished with the computer's wireless network settings.

If you set the computer's wireless network to DHCP, it will take several minutes to receive the IP address.

11 Click **Next** when the **Confirm Printer Connection** window appears.

12 Select the components to be installed. Click **Next**.

13 After selecting the components, you can also change the machine name, set the machine to be shared on the network, set the machine as the default machine, and change the port name of each machine. Click **Next**.

14 After the installation is finished, a window asking you to print a test page appears. If you want to print a test page, click **Print a test page**.

Otherwise, just click **Next** and go to step 16.

15 If the test page prints out correctly, click **Yes**.

If not, click **No** to reprint it.

Wireless network setup

- 16 If you want to register your machine with the Samsung web site and receive useful information, click **On-line Registration**. If not, click **Finish**.

Setup using Macintosh

Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

Access point via USB cable

- 1 Check whether the USB cable is connected to the machine.
- 2 Turn on your computer, access point, and machine.
- 3 Insert the supplied software CD into your CD-ROM drive.
- 4 Double-click the CD-ROM icon that appears on your Macintosh desktop.

- 5 Double-click the **MAC_Installer** folder > **Installer OS X** icon.
- 6 Click **Continue**.
- 7 Read the license agreement and click **Continue**.
- 8 Click **Agree** to agree to the license agreement.
- 9 When the message that warns that all applications will close on your computer appears, click **Continue**.
- 10 Click **Wireless Network Setting** button on the **User Options Pane**.
- 11 The software searches the wireless network.
If the software has failed to search the network, check if the USB cable is connected properly between the computer and machine, and follow the instructions in the window.

Wireless network setup

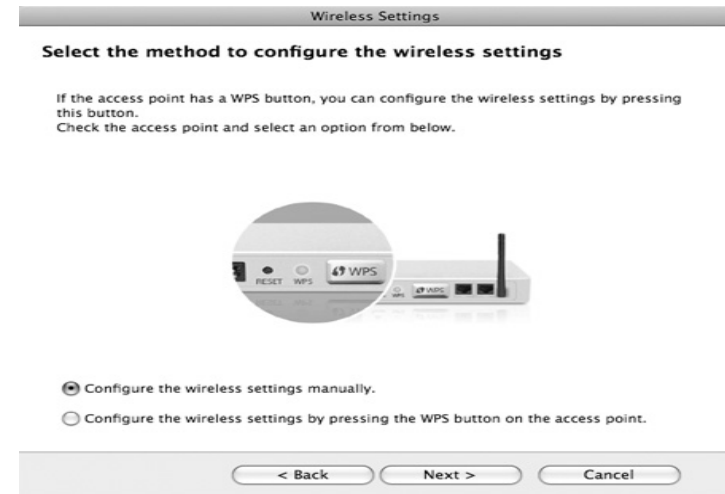


- If wireless network setting has been set before, **Wireless Network Setting Information** window appears. If you want to reset the wireless settings, check the check box and click **Next**.
- For models that support the WPS button (without a USB cable connection), the window shown below will appear.



- **With a USB Cable:** Connect the USB cable and click Next, then go to step 7.
- **Using the WPS Button:** See "Access point via WPS button (without a USB cable connection)" on page 28.

- 12** Select the method to use from the wireless set up method window.



- **Configure the wireless settings manually.:** Go to step 13.
- **Configure the wireless settings by pressing the WPS button on the access point.:** Connect to the wireless network by press the WPS button on the access point (or a wireless router).
 - Follow the instructions in the window. When you are done setting the wireless network settings, go to step 16.

- 13** After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you are using and click **Next**.



When you set the wireless configuration manually, click **Advanced Setting**.

- **Enter the wireless Network Name:** Enter the SSID of the access point (SSID is case-sensitive).
- **Operation Mode:** Select **Infrastructure**.

Wireless network setup

- **Authentication:** Select an authentication type.
 - Open System:** Authentication is not used, and encryption may or may not be used, depending on the need for data security.
 - Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.
 - WPA Personal or WPA2 Personal:** Select this option to authenticate the print server based on the WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase) that is manually configured on the access point and each of its clients.
- **Encryption:** Select the encryption. (None, WEP64, WEP128, TKIP, AES, TKIP, AES)
- **Network Key:** Enter the encryption network key value.
- **Confirm Network Key:** Confirm the encryption network key value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.

The wireless network security window appears when the access point has security enabled.

The wireless network security window appears. The window may differ according to its security mode: WEP or WPA.

- **WEP**
 - Select **Open System** or **Shared Key** for the authentication and enter the WEP security key. Click **Next**.
 - WEP (Wired Equivalent Privacy) is a security protocol preventing unauthorized access to your wireless network. WEP encrypts the data portion of each packet exchanged on a wireless network using a 64-bit or 128-bit WEP encryption key.
- **WPA**
 - Enter the WPA shared key and click **Next**.
 - WPA authorizes and identifies users based on a secret key that changes automatically at regular intervals. WPA also uses TKIP (Temporal Key Integrity Protocol) and AES (Advanced Encryption Standard) for data encryption.

Wireless network setup

14 The window shows the wireless network settings and check if settings are right. Click **Next**.

- **For the DHCP method**

If the IP address assignment method is DHCP, check if DHCP is shown in the window. If it shows Static, click **Change TCP/IP** to change the assignment method to DHCP.

- **For the Static method**

If the IP address assignment method is Static, check if Static is shown in the window. If it shows DHCP, click **Change TCP/IP** to enter the IP address and other network configuration values for the machine. Before entering the IP address for the machine, you must know the computer's network configuration information. If the computer is set to DHCP, you must contact the network administrator to get the static IP address.

For example:

If the computer's network information is shown as follows:

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

Then, the machine's network information should be as shown below:

- IP address: 169.254.133.**43**
- Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)
- Gateway: 169.254.133.1

15 When the window that tells you that the network cable connection is confirmed appears, disconnect the network cable and click **Next**.

If the network cable is connected, it may have trouble finding the machine when configuring the wireless network.

16 Wireless network setting is completed. To print from a Wi-Fi Direct supported mobile device, set the Wi-Fi Direct Option (see "Setting up Wi-Fi Direct" on page 44).



Wi-Fi Direct Option:

- Wi-Fi Direct Option appears on the screen only if your printer supports this feature.
- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 44).

Wireless network setup

- **Network Name(SSID):** The default Network Name is the model name and the maximum length is 22 characters (not including "Direct-xx-").
- **Network Key** is the numeric string, and the size is 8 ~ 64 characters.

17 When the wireless network settings are completed, disconnect the USB cable between the computer and machine.

18 Wireless network set up is completed. After the installation is finished, click **Quit**.



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 2).

Setting the access point using the WPS button

For models that have a WPS button, you can set the wireless network using the WPS button (without a USB connection) and access point (or a router) WPS button.

Items to prepare

- Access point (or wireless router)
- Network-connected computer

- Software CD that was provided with your machine
- A machine installed with a wireless network interface

Creating the infrastructure network

- 1** Turn on your computer, access point, and machine.
- 2** Insert the supplied software CD into your CD-ROM drive.
- 3** Double-click the CD-ROM icon that appears on your Macintosh desktop.
- 4** Double-click the **MAC_Installer** folder > **Installer OS X** icon.
- 5** Click **Continue**.
- 6** Read the license agreement and click **Continue**.
- 7** Click **Agree** to agree to the license agreement.
- 8** When the message that warns that all applications will close on your computer appears, click **Continue**.
- 9** Click the **Wireless Network Setting** button on the **User Options Pane**.

Wireless network setup

- 10** Select **Using the WPS button** and click **Next**.




- For models that support the WPS button, the above window appears.
- If your machine is connected with a USB cable, the above window does not appear. Disconnect the USB cable if you want to set up the wireless network using the WPS button.
- If you want to set up the wireless network using the USB cable, refer to "Access point via USB cable" on page 33.

- 11** The next window asks you to check if your access point (or wireless router) supports WPS or not.

If the access point (or wireless router) has a WPS button, select **Yes** and click **Next**.

- 12** Follow the instructions in the window to set up the wireless network.


- For models with a display screen, follow the steps below:
 - a Press and hold the  (WPS) button on the control panel for about 2-4 seconds.

The machine waits up to 2 minutes for the WPS button on the access point (or a router) to be pressed.
 - b Press the **WPS (PBC)** button on the access point (or wireless router).

The messages are displayed on the display screen in the order below:

- **Connecting:** The machine is connecting to the access point (or wireless router).
- **Connected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.

Wireless network setup

- **SSID Type:** After completing the wireless network connection process, the AP's SSID information appears on the display.
- For models without a display screen, follow the steps below:
 - a** Press and hold the  (WPS) button on the control panel for about 2 - 4 seconds until the status LED blinks quickly.

The machine starts connecting to the wireless network. The LED blinks slowly for up to two minutes until you press the PBC button on the access point (or wireless router).
 - b** Press the **WPS (PBC)** button on the access point (or wireless router).
 - The light blinks fast on the WPS LED. The machine is connecting to the access point (or wireless router).
 - When the machine is successfully connected to the wireless network, the WPS LED light stays on.

13 Wireless network set up is completed. After installation is finished, click **Quit**.



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Setup using Macintosh" on page 33).

Ad hoc via USB cable

If you do not have an access point (AP), you may still connect the machine wirelessly to your computer by setting up an ad hoc wireless network by following these simple directions.

Items to prepare


- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

Creating the ad hoc network in Macintosh

- 1** Check whether the USB cable is connected to the machine.
- 2** Turn on your computer and the wireless network machine.
- 3** Insert the supplied software CD into your CD-ROM drive.
- 4** Double-click the CD-ROM icon that appears on your Macintosh desktop.
- 5** Double-click the **MAC_Installer** folder > **Installer OS X** icon.
- 6** Click **Continue**.
- 7** Read the license agreement and click **Continue**.

Wireless network setup

- 8 Click **Agree** to agree to the license agreement.
- 9 When the message that warns that all applications will close on your computer appears, click **Continue**.
- 10 Click **Wireless Network Setting** button on the **User Options Pane**.
- 11 The software searches for wireless network devices.

 If the search has failed, check if the USB cable is connected between the computer and machine properly, and follow the instructions in the window.

- 12 After searching the wireless networks, a list of wireless networks your machine has searched appears.

If you want to use the Samsung default ad hoc setting, select the last wireless network on the list, which **Network Name(SSID)** is **Portthru** and **Signal** is **Printer Self Network**.

Then, click **Next**.

If you want to use other ad hoc settings, select another wireless network from the list.

 If you want to change ad hoc settings, click the **Advanced Setting** button.

- **Enter the wireless Network Name:** Enter the SSID name (SSID is case-sensitive).
- **Operation Mode:** Select ad hoc.
- **Channel:** Select the channel (**Auto Setting** or 2412 MHz to 2467 MHz).

- **Authentication:** Select an authentication type.
 - Open System:** Authentication is not used, and encryption may or may not be used, depending on the need for data security.
 - Shared Key:** Authentication is used. A device that has a proper WEP key can access the network.
- **Encryption:** Select the encryption (None, WEP64, WEP128).
- **Network Key:** Enter the encryption network key value.
- **Confirm Network Key:** Confirm the encryption network key value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.

The wireless network security window appears when the ad hoc network has security setting.

Select **Open System** or **Shared Key** for the authentication and click **Next**.

- WEP (Wired Equivalent Privacy) is a security protocol preventing unauthorized access to your wireless network. WEP encrypts the data portion of each packet exchanged on a wireless network using a 64-bit or 128-bit WEP encryption key.

- 13 The window showing the wireless network settings appears. Check the settings and click **Next**.

Wireless network setup



Before entering the IP address for the machine, you must know the computer's network configuration information. If the computer's network configuration is set to DHCP, the wireless network setting should also be DHCP. Likewise, if the computer's network configuration is set to Static, the wireless network setting should also be Static.

If your computer is set to DHCP and you want to use Static wireless network setting, you must contact the network administrator to get the static IP address.

- **For the DHCP method**

If the IP address assignment method is DHCP, check if DHCP is shown in the **Wireless Network Setting Confirm** window. If it shows Static, click **Change TCP/IP** to change the assignment method to **Receive IP address automatically (DHCP)**.

- **For the Static method**

If the IP address assignment method is Static, check if Static is shown in the **Wireless Network Setting Confirm** window. If it shows DHCP, click **Change TCP/IP** to enter the IP address and other network configuration values for the machine.

For example,

If the computer's network information is shown as follows:

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

Then, the machine's network information should be as shown below:

- IP address: 169.254.133.**43**
- Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)
- Gateway: 169.254.133.**1**

14 When the window that tells you that the network cable connection is confirmed appears, disconnect the network cable and click **Next**.

If the network cable is connected, it may have trouble finding the machine when configuring the wireless network.

15 The wireless network connects according to the network configuration.

16 Wireless network set up is completed. After installation is finished, click **Quit**.



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 2).

Using a network cable



Machines that do not support the network interface will not be able to use this feature (see "Rear view" on page 15).

Your machine is a network compatible machine. To enable your machine to work with your network, you will need to perform some configuration procedures.

Wireless network setup



- After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installing driver over the network" on page 6).
- See your network administrator, or the person that set up your wireless network, for information about your network configuration.

Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- Network cable

Printing a network configuration report

You can identify the network settings of your machine by printing a network configuration report.

See "Printing a network configuration report" on page 3.

IP setting using SetIP Program (Windows)

This program is used to manually set the network IP address of your machine using its MAC address to communicate with the machine. The MAC address is the hardware serial number of the network interface and can be found in the **Network Configuration Report**.

See "Setting IP address" on page 3.

Configuring the machine's wireless network

Before starting you will need to know the network name (SSID) of your wireless network and the network key if it is encrypted. This information was set when the access point (or wireless router) was installed. If you do not know about your wireless environment, please ask the person who set up your network.

To configure wireless parameters, you can use **SyncThru™ Web Service**.

Using SyncThru™ Web Service

Before starting wireless parameter configuration, check the cable connection status.

Wireless network setup

1 Check whether or not the network cable is connected to the machine. If not, connect the machine with a standard network cable.

2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.

For example,



http://192.168.1.133/


3 Click **Login** on the upper right of the SyncThru™ Web Service website.

4 Type in the **ID** and **Password** then click **Login**.

- **ID: admin**
- **Password: sec00000**

5 When the **SyncThru™ Web Service** window opens, click **Network Settings**.

6 Click **Wireless > Wizard**.



Wizard will help you setup the wireless network configuration. However, if you want to set the wireless network directly, select **Custom**.

7 Select the one **Network Name(SSID)** in the list.

- **SSID:** SSID (Service Set Identifier) is a name that identifies a wireless network, access points, and wireless devices attempting to connect to a specific wireless network must use the same SSID. The SSID is case sensitive.
- **Operation Mode: Operation Mode** refers to the type of wireless connections (see "Wireless network name and network key" on page 17).
 - **Ad-hoc:** Allows wireless devices to communicate directly with each other in a peer-to-peer environment.
 - **Infrastructure:** Allows wireless devices to communicate with each other through an access point.



If your network's **Operation Mode** is **Infrastructure**, select the SSID of the access point. If the **Operation Mode** is **Ad-hoc**, select the machine's SSID. Note that "portthru" is the default SSID of your machine.

8 Click **Next**.

If the wireless security setting window appears, enter the registered password (network key) and click **Next**.

9 The confirmation window appears, please check your wireless setup. If the setup is right, click **Apply**.

Wireless network setup



Disconnect the network cable (standard or network). Your machine should then start communicating wirelessly with the network. In case of Ad-hoc mode, you can use a wireless LAN and wired LAN simultaneously.

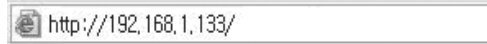
Turning the Wi-Fi network on/off



If your machine has a display, you can also turn on/off the Wi-Fi from the machine's control panel using the **Network** menu.

- 1 Check whether the network cable is connected to the machine. If not, connect the machine with a standard network cable.
- 2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.

For example,



- 3 Click **Login** on the upper right of the SyncThru™ Web Service website.
- 4 Type in the **ID** and **Password**, then click **Login**.
 - **ID: admin**
 - **Password: sec00000**

- 5 When the **SyncThru™ Web Service** window opens, click **Network Settings**.

- 6 Click **Wireless > Custom**.

You can also turn the Wi-Fi network on/off.

Setting the Wi-Fi Direct for mobile printing

Wi-Fi Direct is an easy-to-setup peer-to-peer connecting between method for your printer and a mobile device that provides a secure connection and better throughput than ad hoc mode.

With Wi-Fi Direct, you can connect your printer to a Wi-Fi Direct network while concurrently connecting to an access point, You can also use a wired network and a Wi-Fi Direct network simultaneously so multiple users can access and print documents both from Wi-Fi Direct and from a wired network.



- You cannot connect to the internet through the printer's Wi-Fi Direct.
- The supported protocol list may differ from your model, Wi-Fi Direct networks do NOT support IPv6, network filtering, IPSec, WINS, and SLP services.

Setting up Wi-Fi Direct

You can enable Wi-Fi Direct feature by one of the following methods.

Wireless network setup

From the USB cable-connected computer(recommended)

- When setting from the supplied software CD, see the access point via USB cable.
 - Windows user, see "Access point via USB cable" on page 24.
 - Macintosh user, see "Access point via USB cable" on page 33.
- After the driver installation is complete, Samsung Easy Printer Manager can be set and changes in the Wi-Fi Direct can be made.



Samsung Easy Printer Manager is Available for Windows and Macintosh OS users only.

- From the **Start** menu, select **Programs** or **All Programs** > **Samsung Printers** > Samsung Easy Printer Manager > **Device Settings** > **Network**.
 - **Wi-Fi Direct On/Off:** Select **On** to enable.
 - **Device Name:** Enter the printer's name for searching for your printer on a wireless network. By default, the device name is the model name.
 - **IP Address:** Enter the IP address of the printer. This IP address is used only for the local network and not for the infrastructure wired or wireless network. We recommend using the default local IP address (the default local IP address of the printer for Wi-Fi Direct is 192.168.3.1)

- **Group Owner:** Activate this option to assign the printer the Wi-Fi Direct group's owner. The **Group Owner** acts similar to a wireless access point. We recommend activating this option.
- **Network Key:** If your printer is a **Group Owner**, a **Network Key** is required for other mobile devices to connect to your printer. You can configure a network key yourself, or can remember the given Network Key that is randomly generated by default.

From the machine (Machines with a display screen)

- Select **Network** > **Wireless** > **Wi-Fi Direct** from the control panel.
- Enable **Wi-Fi Direct**.

From the network-connected computer

If your printer is using a network cable or a wireless access point, you can enable and configure Wi-Fi Direct from SyncThru™ Web Service.

- Access **SyncThru™ Web Service**, select **Settings** > **Network Settings** > **Wireless** > **Wi-Fi Direct**.
- Enable or disable **Wi-Fi Direct** and set other options.



- For Linux OS users,
 - Print an IP network configuration report to check the output (see "Printing a network configuration report" on page 3).

Wireless network setup

- Access **SyncThru Web Service**, select **Settings > Network Settings > Wireless > Wi-Fi Direct**.
- Enable or disable **Wi-Fi Direct**.

Setting up the mobile device

- After setting up Wi-Fi Direct from the printer, refer to the user manual of the mobile device you are using to set its Wi-Fi Direct.
- After setting up Wi-Fi Direct, you need to download the mobile printing application (For example: Samsung Mobile printer) to print from your smartphone.



- When you have found the printer you want to connect to from your mobile device, select the printer and the printer's LED will blink. Press the WPS button on the printer and it will be connected to your mobile device.
- If your mobile device does not support WPS, you need to enter the "Network Key" of a printer instead of pushing the WPS button.

Troubleshooting

Problems during setup or driver installation

Printers Not Found

- Your machine may not be turned on. Turn on your computer and the machine.
- USB cable is not connected between your computer and machine. Connect the machine to your computer using the USB cable.
- The machine does not support wireless networking. Check the machine's user's guide included on the software CD supplied with your machine and prepare a wireless network machine.

Connecting Failure - SSID Not Found

- The machine is unable to find the network name (SSID) you have selected or entered. Check the network name (SSID) on your access point and try connecting again.
- Your access point is not turned on. Turn on your access point.

Wireless network setup

Connecting Failure - Invalid Security

- Security is not configured correctly. Check the configured security on your access point and machine.

Connecting Failure - General Connection Error

- Your computer is not receiving a signal from your machine. Check the USB cable and your machine's power.

Connecting Failure - Connected Wired Network

- Your machine is connected with a wired network cable. Remove the wired network cable from your machine.

PC Connection Error

- The configured network address is unable to connect between your computer and machine.
 - For a DHCP network environment
The receives the IP address automatically (DHCP) when computer is configured to DHCP.
 - For a Static network environment
The machine uses the static address when the computer is configured to static address.

For example,
If the computer's network information is as shown below:
 - IP address: 169.254.133.42

- Subnet Mask: 255.255.0.0

Then the machine's network information should be as below:

- IP address: 169.254.133.**43**
- Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.)
- Gateway: 169.254.133.**1**

Other problems

If problems occur while using the machine on a network, check the following:



For information on the access point (or wireless router), refer to its own user's guide.

- Your computer, access point (or wireless router), or machine may not be turned on.
- Check the wireless reception around the machine. If the router is far from the machine or there is an obstacle, you might have difficulty receiving the signal.
- Cycle the power for the access point (or wireless router), machine, and computer. Sometimes cycling the power can recover network communication.

Wireless network setup

- Check whether firewall software (V3 or Norton) is blocking the communication.

If the computer and the machine are connected on the same network and it cannot be found when searching, firewall software might be blocking the communication. Refer to the user's guide for the software to turn it off and try searching for the machine again.

- Check whether the machine's IP address is allocated correctly. You can check the IP address by printing the network configuration report.
- Check whether the access point (or wireless router) has a configured security (password). If it has a password, refer to the access point (or wireless router) administrator.
- Check the machine's IP address. Reinstall the machine driver and change the settings to connect to the machine on the network. Due to the characteristics of DHCP, the allocated IP address could change if the machine is not used for a long time or if the access point has been reset.
Register the product's MAC address when you configure the DHCP server on the access point (or wireless router). Then you can always use the IP address that is set with the MAC address. You can identify the Mac address of your machine by printing a network configuration report (see "Printing a network configuration report" on page 3).
- Check the wireless environment. You might not be able to connect to the network in the infrastructure environment where you need to type in a user's information before connecting to the access point (or wireless router).
- This machine only supports IEEE 802.11 b/g/n and Wi-Fi. Other wireless communication types (e.g., Bluetooth) are not supported.

- When using the ad hoc mode, in operating systems such as Windows Vista, you might need to set the wireless connection setting every time you use the wireless machine.
- You cannot use infrastructure mode and ad hoc mode at the same time for Samsung wireless network machines.
- The machine is within the range of the wireless network.
- The machine is located away from obstacles that could block the wireless signal.
Remove any large metal objects between the access point (or wireless router) and the machine.
Make sure the machine and wireless access point (or wireless router) are not separated by poles, walls, or support columns containing metal or concrete.
- The machine is located away from other electronic devices that may interfere with the wireless signal.
Many devices can interfere with the wireless signal, including a microwave oven and some Bluetooth devices.
- Whenever the configuration of your access point (or wireless router) changes, you must do the product's wireless network setup again.

Samsung MobilePrint

What is Samsung MobilePrint?

Samsung MobilePrint is a free application that enables users to print photos, documents, and web pages directly from your smartphone or tablet. **Samsung MobilePrint** is not only compatible with your Android, Windows and iOS smart phones but also with your iPod Touch and tablet PC. It connects your mobile device to a network connected Samsung printer or to a wireless printer through a Wi-Fi access point. Installing a new driver or configuring network settings isn't necessary – just simply install the **Samsung MobilePrint** application, and it will automatically detect compatible Samsung printers. Besides printing photos, web pages, and PDFs, scanning is also supported. If you have Samsung multifunction printer, scan any document into a JPG, PDF, or PNG format for quick and easy viewing on your mobile device.

Downloading Samsung MobilePrint

To download **Samsung MobilePrint**, go to the application store (Samsung Apps, Android Market, App Store, Marketplace) on your mobile device, and just search for "**Samsung MobilePrint**." You can also visit iTunes for Apple devices or Marketplace for Windows devices on your computer.



Supported Mobile OS

- Android OS 2.1 or higher
- iOS 4.0 or higher
- Windows Phone 7 or higher

Supported devices

- **iOS 4.0 or higher:** iPod Touch, iPhone, iPad
- **Android 2.1 or higher:** Galxy S, Galaxy S2, Galaxy Tab, and Android mobile devices
- **Windows Phone 7 or higher:** Samsung Focus, Omnia7, and OminaW, and Windows mobile devices



3. Special features

This chapter explains special printing features.

- **Altitude adjustment** 2
- **Changing the default print settings** 3
- **Setting your machine as a default machine** 4
- **Using advanced print features** 5
- **Using Direct Printing Utility (Windows only)** 13
- **Using memory/hard drive features** 14
- **Macintosh printing** 15
- **Linux printing** 17
- **Unix printing** 19

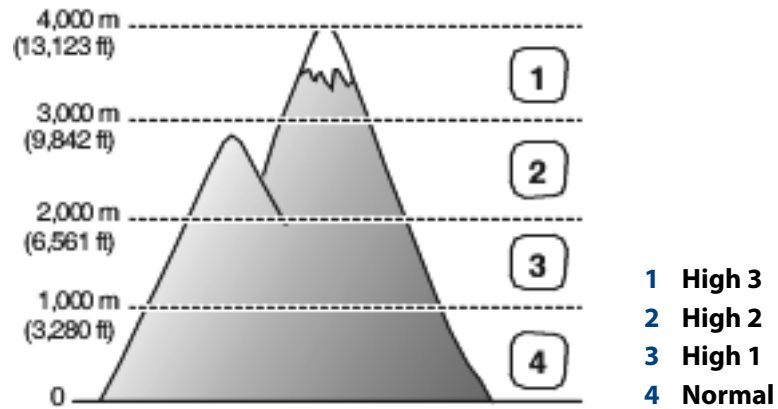


The procedures in this chapter are mainly based on Windows 7.

Altitude adjustment

Print quality is affected by atmospheric pressure, which is determined by the height of the machine above sea level. The following information will guide you on how to set your machine for the best print quality.

Before you set the altitude value, determine the altitude where you are.



- For Windows and Macintosh users, see "Device Settings" on page 9.
- For Linux users, see "Using Smart Panel" on page 13.



- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service.
- You can also set the altitude in **System Setup** option on the machine's display.

Changing the default print settings

- 1 Click the Windows **Start** menu.
- 2 For Windows Server 2000, select **Settings > Printers**.
 - For Windows XP/Server 2003, select **Printer and Faxes**.
 - For Windows Server 2008/Vista, select **Control Panel > Hardware and Sound > Printers**.
 - For Windows 7, select **Control Panel > Devices and Printers**.
 - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
- 3 Right-click on your machine.
- 4 For Windows XP/Server 2003/Server 2008/Vista, select **Printing Preferences**.
For Windows 7 or Windows Server 2008 R2, from context menus, select **Printing preferences**.
- 5 Change the settings on each tab.
- 6 Click **OK**.



If you want to change the settings for each print job, change it in **Printing Preferences**.



If **Printing preferences** has a ?, you can select other printer drivers connected to the selected printer.

Setting your machine as a default machine

- 1 Click the Windows **Start** menu.
- 2 For Windows Server 2000, select **Settings > Printers**.
 - For Windows XP/Server 2003, select **Printer and Faxes**.
 - For Windows Server 2008/Vista, select **Control Panel > Hardware and Sound > Printers**.
 - For Windows 7, select **Control Panel > Devices and Printers**.
 - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
- 3 Select your machine.
- 4 Right-click your machine and select **Set as Default Printer**.



For Windows 7 or Windows Server 2008 R2, if **Set as default printer** has a ?, you can select other printer drivers connected to the selected printer.

Using advanced print features



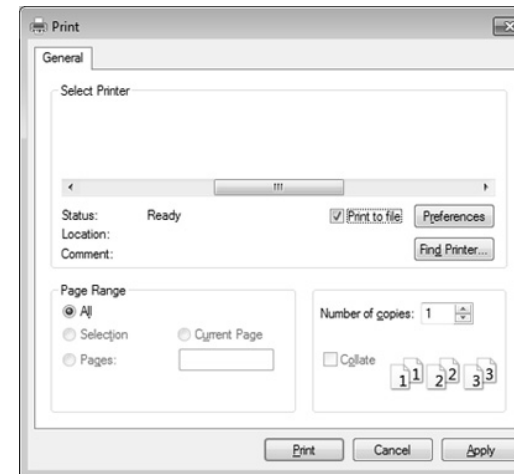
XPS printer driver: used to print XPS file format.

- See "Features by models" on page 4.
- The XPS printer driver can be installed only on Windows Vista OS or higher.
- Install optional memory when an XPS job does not print because the printer is out of memory.
- For models that provide XPS driver from the Samsung website, www.samsung.com > find your product > Support or Downloads.

Printing to a file (PRN)

You will sometimes need to save the print data as a file.

- 1 Check the **Print to file** box in the **Print** window.



- 2 Click **Print**.
- 3 Type in the destination path and the file name, and then click **OK**.
For example, **c:\Temp\file name**.



If you type in only the file name, the file is automatically saved in **My Documents**, **Documents and Settings**, or **Users**. The saved folder may differ, depending on your operating system or the application you are using.


Using advanced print features


Understanding special printer features

You can use advanced printing features when using your machine.

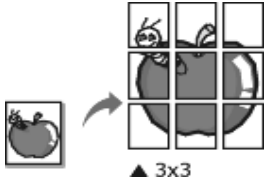





To take advantage of the printer features provided by your printer driver, click **Properties** or **Preferences** in the application's **Print** window to change the print settings. The machine name, that appears in the printer properties window may differ depending on the machine in use.





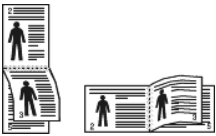
- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- Select the **Help** or click the  button from the window or press **F1** on your keyboard and click on any option you want to know about (see "Using help" on page 14).

Item	Description
Multiple Pages per Side 	Selects the number of pages to print on a single sheet of paper. To print more than one page per sheet, the pages will be reduced in size and arranged in the order you specify. You can print up to 16 pages on one sheet.



Using advanced print features

Item	Description
<p data-bbox="51 316 259 344">Poster Printing</p> 	<p data-bbox="463 272 2190 344">Prints a single-page document onto 4 (Poster 2x2), 9 (Poster 3x3), or 16 (Poster 4x4) sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.</p> <p data-bbox="463 368 2190 440">Select the Poster Overlap value. Specify Poster Overlap in millimeters or inches by selecting the radio button on the upper right of Basic tab to make it easier to paste the sheets together.</p> 
<p data-bbox="51 754 293 783">Booklet Printing¹</p> 	<p data-bbox="463 643 2175 715">Prints your document on both sides of a sheet of paper and arranges the pages so that the paper can be folded in half after printing to produce a booklet.</p> <p data-bbox="463 738 1800 767">If you want to make a booklet, you need to print on Letter, Legal, A4, US Folio, or Oficio sized print media.</p> <div data-bbox="483 823 2190 1082"><p data-bbox="483 855 2190 927"> The Booklet Printing option is not available for all paper sizes. Select the available paper Size option under the Paper tab to see what paper sizes are available.</p><p data-bbox="562 962 2190 1034">If you select an unavailable paper size, this option can be automatically canceled. Select only available paper (paper without  or  mark).</p></div>



Using advanced print features

Item	Description
<ul style="list-style-type: none">• Double-sided Printing¹• Double-sided Printing (Manual)¹	<p>Print on both sides of a sheet of paper (duplex). Before printing, decide how you want your document oriented.</p> <div data-bbox="465 352 2195 699" style="background-color: #f0f0f0; padding: 10px;"><ul style="list-style-type: none">• You can use this feature with Letter, Legal, A4, US Folio or Oficio sized paper• If your machine does not have a duplex unit, you should complete the printing job manually. The machine prints every other page of the document first. After that, a message appears on your computer.• Skip Blank Pages feature does not work when you select the duplex option.• We recommend not to print on both sides of the special media, such as labels, envelopes, or thick paper. It may cause a paper jam or damage the machine.</div> <ul style="list-style-type: none">• Printer Default: If you select this option, this feature is determined by the settings you have selected on the control panel of the machine. This option is available only when you use the PCL / XPS printer driver (see "Features by models" on page 4).• None: Disables this feature.• Long Edge: This option is the conventional layout used in bookbinding. • Short Edge: This option is the conventional layout used in calendars. • Reverse Double-Sided Printing: Check this option to reverse the print order when duplex printing. This option is not available when you use the Reverse Double-Sided Printing (Manual).

Using advanced print features

Item	Description
<p data-bbox="51 272 250 304">Paper Options</p> 	<p data-bbox="461 272 2130 344">Changes the size of a document to appear larger or smaller on the printed page by entering in a percentage by which to enlarge or decrease the document.</p>
<p data-bbox="51 501 210 533">Watermark</p> 	<p data-bbox="461 501 2190 574">The watermark option allows you to print text over an existing document. For example, you use it when you want to have large gray letters reading "DRAFT" or "CONFIDENTIAL" printed diagonally across the first page or all pages of a document.</p>
<p data-bbox="51 774 367 861">Watermark (Creating a watermark)</p>	<ul data-bbox="461 774 1944 938" style="list-style-type: none">a To change the print settings from your software application, access Printing Preferences.b Click the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears.c Enter a text message in the Watermark Message box. You can enter up to 256 characters. The message displays in the preview window.
<p data-bbox="51 971 349 1059">Watermark (Editing a watermark)</p>	<ul data-bbox="461 971 2069 1182" style="list-style-type: none">a To change the print settings from your software application, access Printing Preferences.b Click the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears.c Select the watermark you want to edit from the Current Watermarks list and change the watermark message and options.d Click Update to save the changes.e Click OK or Print until you exit the Print window.
<p data-bbox="51 1214 367 1302">Watermark (Deleting a watermark)</p>	<ul data-bbox="461 1214 1944 1378" style="list-style-type: none">a To change the print settings from your software application, access Printing Preferences.b Click the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears.c Select the watermark you want to delete from the Current Watermarks list and click Delete.d Click OK or Print until you exit the Print window.


Using advanced print features

Item	Description
<p>Overlay¹</p> 	<p>This option is available only when you use the PCL/SPL printer driver (see "Software" on page 4).</p> <p>An overlay is text and/or images stored in the computer hard disk drive (HDD) as a special file format that can be printed on any document. Overlays are often used to take the place of letterhead paper. Rather than using preprinted letterhead, you can create an overlay containing exactly the same information that is currently on your letterhead. To print a letter with your company's letterhead, you do not need to load preprinted letterhead paper in the machine: just print the letterhead overlay on your document.</p> <p>To use a page overlay, you must create a new page overlay containing your logo or image.</p> <div data-bbox="465 592 2197 788" style="background-color: #f0f0f0; padding: 10px;"><ul style="list-style-type: none">• The overlay document size must be the same as the document you print with the overlay. Do not create an overlay with a watermark.• The resolution of the overlay document must be the same as that of the document you will print with the overlay.</div>
<p>Overlay (Creating a new page overlay)</p>	<ol style="list-style-type: none">To save the document as an overlay, access Printing Preferences.Click the Advanced tab, and select Edit from the Text drop-down list. Edit Overlay window appears.In the Edit Overlay window, click Create.In the Save As window, type a name up to eight characters in the File name box. Select the destination path, if necessary (The default is C:\Formover).Click Save. The name appears on the Overlay List.Click OK or Print until you exit the Print window. <p>The file is not printed. Instead, it is stored on your computer hard disk drive.</p>

Using advanced print features

Item	Description
Overlay (Using a page overlay)	<ul style="list-style-type: none">a Click the Advanced tab.b Select the desired overlay from the Text drop-down list.c If the overlay file you want does not appear in the Text drop-down list, select Edit... from the list and click Load. Select the overlay file you want to use. If you have stored the overlay file you want to use in an external source, you can also load the file when you access the Open window. After you select the file, click Open. The file appears in the Overlay List box and is available for printing. Select the overlay from the Overlay List box.d If necessary, check Confirm Page Overlay When Printing box. If this box is checked, a message window appears each time you submit a document for printing, asking you to confirm printing an overlay on your document. If this box is not checked and an overlay has been selected, the overlay automatically prints with your document.e Click OK or Print until you exit the Print window.
Overlay (Deleting a page overlay)	<ul style="list-style-type: none">a In the Printing Preferences window, click the Advanced tab.b Select Edit in the Text drop down list.c Select the overlay you want to delete from the Overlay List box.d Click Delete.e When a confirming message window appears, click Yes.f Click OK or Print until you exit the Print window. You can delete page overlays that you no longer use.

Using advanced print features

Item	Description
Print Mode	<div data-bbox="481 311 537 367"></div> <ul style="list-style-type: none">• This feature is available only if you have installed the optional memory or mass storage device (HDD).• Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine. <ul style="list-style-type: none">• Print Mode: The default Print Mode is Normal, which is for printing without saving the printing file in the memory.<ul style="list-style-type: none">- Normal: This mode prints without storing your document in the optional memory.- Proof: This mode is useful when you print more than one copy. You can print one copy first to check, then print the rest of the copies later.- Confidential: This mode is used for printing confidential documents. You need to enter a password to print.- Store: Select this setting to save a document in the hard disk without printing.- Store and Print: This mode is used when printing and storing document at the same time.- Spool: This option can be useful when handling large amounts of data. If you select this setting, the printer spools the document into the hard disk and then prints it from the hard disk queue, decreasing the computer's work load.- Print Schedule: Select this setting to print the document at a specified time.• User ID: This option is used when you need to find a saved file using the control panel.• Job Name: This option is used when you need to find a saved file using the control panel.

1. This option is not available when you use XPS driver.

Using Direct Printing Utility (Windows only)

What is Direct Printing Utility?

Direct Printing Utility is a program that sends PDF files directly to your machine to print without having to opening the file.

To install this program, select **Advanced Installation > Custom Installation** and put a check mark in this program when you install the printer driver.



- Mass storage device (HDD) should be installed on your machine, to print files using this program.
- You cannot print PDF files that are restricted. Deactivate the printing restriction feature and retry printing.
- You cannot print PDF files that are restricted by a password. Deactivate the password feature, and retry printing.
- Whether or not a PDF file can be printed using the Direct Printing Utility program depends on how the PDF file was created.?
- The Direct Printing Utility program supports PDF version 1.7 and below. For higher versions, you must open the file to print it.

Printing

There are several ways you can print using the Direct Printing Utility.

- 1** From the **Start** menu select **Programs** or **All Programs > Samsung Printers > Direct Printing Utility > Direct Printing Utility**.
The Direct Printing Utility window appears.
- 2** Select your machine from the **Select Printer** drop-down list and click **Browse**.
- 3** Select the file you wish to print and click **Open**.
The file is added in the **Select Files** section.
- 4** Customize the machine settings for your needs.
- 5** Click **Print**. The selected PDF file is sent to the machine.

Using the right-click menu

- 1** Right-click on the PDF file to print and select **Direct Printing**.
The Direct Printing Utility window appears with the PDF file is added.
- 2** Select the machine to use.
- 3** Customize the machine settings.
- 4** Click **Print**. The selected PDF file is sent to the machine.

Using memory/hard drive features



Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.

From the printer driver

After installing the optional memory, you can use advanced printing features, such as proofing a job and specifying of printing a private job in the **Print** window. Select **Properties** or **Preference**, and configure the printing mode.

From the control panel

If your machine has optional memory or an optional hard drive, you can use these features from the **Job Management** menu.

- **Active Job:** All of the print jobs waiting to be printed are listed in the active job queue in the order you sent them to the printer. You can delete a job from the queue before printing, or promote a job to print sooner.
- **File Policy:** You can choose the file policy for generating file name before you proceed with the job through optional memory. If the optional memory already has the same name when you entered a new file name, you can rename or overwrite it.
- **Stored Job:** You can print or delete a stored job.

- **Held Job Timeout:** The machine can automatically delete a stored job after a certain period of time. You can set the time the machine will wait before deleting the stored job.
- **Image Overwrite:** Image Overwrite is a security measure for customers who are concerned about unauthorized access and duplication of classified or private document.



After installing the hard drive, you can also print the predefined document templates from the **Form Menu**.

Macintosh printing



Some features may not be available depending on models or options. It means that the features are not supported.

Printing a document

When you print with a Macintosh, you need to check the printer driver settings in each application you use. Follow the steps below to print from a Macintosh:

- 1 Open the document to print.
- 2 Open the **File** menu and click **Page Setup** (**Document Setup** in some applications).
- 3 Choose your paper size, orientation, scaling, other options, and make sure that your machine is selected. Click **OK**.
- 4 Open the **File** menu and click **Print**.
- 5 Choose the number of copies and indicate which pages to print.
- 6 Click **Print**.

Changing printer settings

You can use advanced printing features when using your machine.

Open an application and select **Print** from the **File** menu. The machine name, which appears in the printer properties window, may differ depending on the machine in use. Except for the name, the composition of the printer properties window is similar to the following.

Printing multiple pages on one sheet

You can print more than one page on a single sheet of paper. This feature provides a cost-effective way to print draft copies.

- 1 Open an application, and select **Print** from the **File** menu.
- 2 Select **Layout** from the drop-down list under **Orientation**. In the **Pages per Sheet** drop-down list, select the number of pages you want to print on one sheet of paper.
- 3 Select the other options to use.
- 4 Click **Print**.
The machine prints the selected number of pages to print on one sheet of paper.

Macintosh printing

Printing on both sides of the paper



Some features may not be available depending on models or options. It means that the features are not supported.

Before printing in the duplex mode, decide on which edge you will be binding your finished document. The binding options are, as follows:

- **Long-Edge Binding:** This option is the conventional layout used in book binding.
- **Short-Edge Binding:** This option is the type often used with calendars.

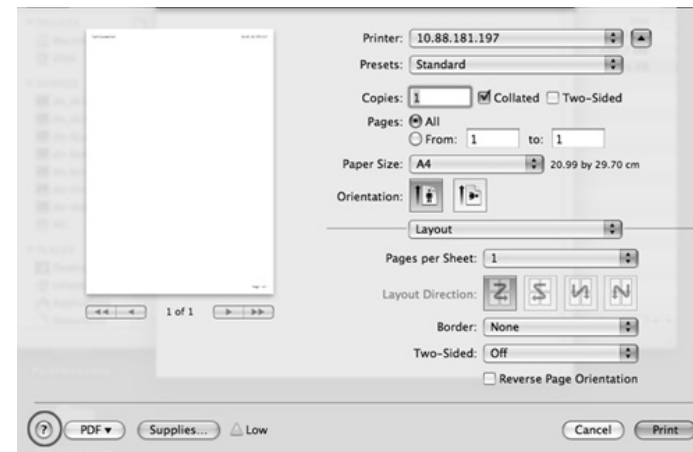
- 1 From your Macintosh application, select **Print** from the **File** menu.
- 2 Select **Layout** from the drop-down list under **Orientation**.
- 3 Select a binding orientation from the **Two-Sided** option.
- 4 Select the other options to use.
- 5 Click **Print** and the machine prints on both sides of the paper.



If you print more than 2 copies, the first copy and the second copy might print on the same sheet of paper. Avoid printing on both sides of paper when you are printing more than 1 copy.

Using help

Click the question mark on the bottom-left corner of the window and click on the topic you want to know about. A pop-up window appears with information about that option's feature, which is provided from the driver.



Linux printing



Some features may not be available depending on models or options. It means that the features are not supported.

Printing from applications

There are a lot of Linux applications that allow you to print using Common UNIX Printing System (CUPS). You can print on your machine from any such application.

- 1 Open an application, and select **Print** from the **File** menu
- 2 Select **Print** directly using `lpr`.
- 3 In the LPR GUI window, select the model name of your machine from the printer list and click **Properties**.

4 Change the print job properties using the following four tabs displayed at the top of the window.

- **General:** Changes the paper size, the paper type, and the orientation of the documents. It enables the duplex feature, adds start and end banners, and changes the number of pages per sheet.



Automatic/manual duplex printing may not be available depending on models. You can alternatively use the `lpr` printing system or other applications for odd-even printing.

- **Text:** Specifies the page margins and set the text options, such as spacing or columns.
- **Graphics:** Sets image options that are used when printing image files, such as color options, image size, or image position.
- **Advanced:** Sets the print resolution, paper source, and destination.

5 Click **Apply** to apply the changes and close the **Properties** window.

6 Click **OK** in the **LPR GUI** window to start printing.

7 The Printing window appears, allowing you to monitor the status of your print job.

To abort the current job, click **Cancel**.

Linux printing

Printing files

You can print many different types of files on your machine using the standard CUPS, directly from the command line interface. The CUPS lpr utility allows you to do that, but the driver's package replaces the standard lpr tool by a much more user-friendly LPR GUI program.

To print any document file:

- 1 Enter `lpr <file_name>` from the Linux shell command line and press Enter. The **LPR GUI** window appears.

When you type only `lpr` and press **Enter**, the **Select file(s) to print** window appears first. Just select any files you want to print and click **Open**.

- 2 In the **LPR GUI** window, select your machine from the list, and change the print job properties.
- 3 Click **OK** to start printing.

Configuring Printer Properties

Using the **Printer Properties** window provided by the **Printers configuration**, you can change the various properties for your machine as a printer.

- 1 Open the **Unified Driver Configurator**.
If necessary, switch to **Printers configuration**.
- 2 Select your machine on the available printers list and click **Properties**.
- 3 The **Printer Properties** window appears.
The following five tabs display at the top of the window:
 - **General:** Allows you to change the printer location and name. The name entered in this tab displays on the printer list in **Printers configuration**.
 - **Connection:** Allows you to view or select another port. If you change the machine port from USB to parallel or vice versa while in use, you must re-configure the machine port in this tab.
 - **Driver:** Allows you to view or select another machine driver. By clicking **Options**, you can set the default device options.
 - **Jobs:** Shows the list of print jobs. Click **Cancel job** to cancel the selected job and select the **Show completed jobs** check box to see previous jobs on the job list.
 - **Classes:** Shows the class that your machine is in. Click **Add to Class** to add your machine to a specific class or click **Remove from Class** to remove the machine from the selected class.
- 4 Click **OK** to apply the changes and close the **Printer Properties** window.

Unix printing



Some features may not be available depending on models or options. It means that the features are not supported.

Proceeding the print job

After installing the printer, choose any of the image, text, PS or HPGL files to print.

1

Execute "**printui <file_name_to_print>**" command.

For example, if you are printing "**document1**"

```
printui document1
```

This will open the UNIX Printer Driver **Print Job Manager** in which the user can select various print options.

2

Select a printer that has been already added.

3

Select the printing options from the window such as **Page Selection**.

4

Select how many copies are needed in **Number of Copies**.



To take advantage of the printer features provided by your printer driver, press **Properties** (see "Changing printer settings" on page 15).

5

Press **OK** to start the print job.

Changing the machine settings

The UNIX printer driver **Print Job Manager** in which the user can select various print options in printer **Properties**.

The following hot keys may also be used: "H" for **Help**, "O" for **OK**, "A" for **Apply**, and "C" for **Cancel**.

General tab

- **Paper Size:** Set the paper size as A4, Letter, or other paper sizes, according to your requirements.
- **Paper Type:** Choose the type of the paper. Options available in the list box are **Printer Default**, **Plain**, and **Thick**.
- **Paper Source:** Select from which tray the paper is used. By default, it is **Auto Selection**.
- **Orientation:** Select the direction in which information is printed on a page.
- **Duplex:** Print on both sides of paper to save paper.

Unix printing



Automatic/manual duplex printing may not be available depending on models. You can alternatively use the lpr printing system or other applications for odd-even printing.

- **Multiple pages:** Print several pages on one side of the paper.
- **Page Border:** Choose any of the border styles (e.g., **Single-line hairline**, **Double-line hairline**)

Image tab

In this tab, you can change the brightness, resolution, or image position of your document.

Text tab

Set the character margin, line space, or the columns of the actual print output.

HPGL/2 tab

- **Use only black pen:** To print all graphics in black.
- **Fit plot to page:** Fit the entire graphic into a single page.

Margins tab

- **Use Margins:** Set the margins for the document. By default, margins are not enabled. The user can change the margin settings by changing the values in the respective fields. Set by default, these values depend on the page size selected.
- **Unit:** Change the units to points, inches, or centimeters.

Printer-Specific Settings tab

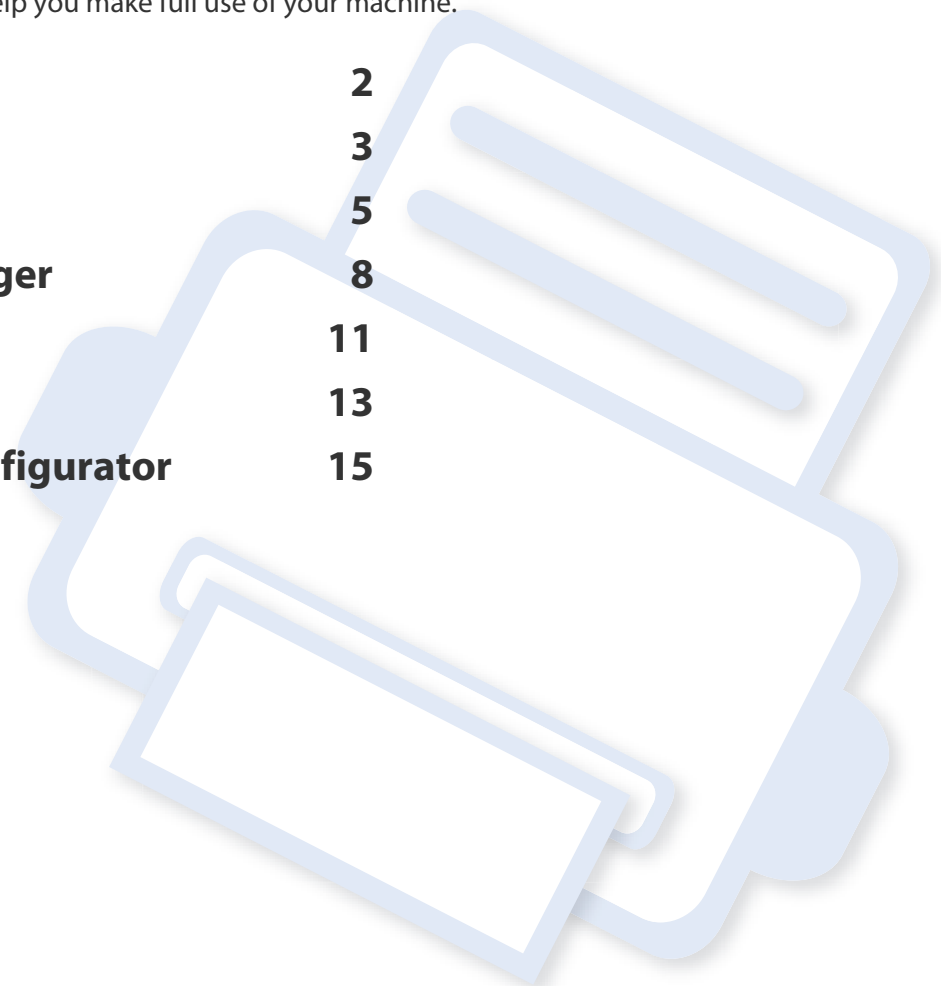
Select various options in the **JCL** and **General** frames to customize various settings. These options are specific to the printer and depend on the PPD file.



4. Useful management tools

This chapter introduces management tools provided to help you make full use of your machine.

- **Samsung AnyWeb Print** 2
- **Easy Eco Driver** 3
- **Using SyncThru™ Web Service** 5
- **Using Samsung Easy Printer Manager** 8
- **Using Samsung Printer Status** 11
- **Using Smart Panel** 13
- **Using the Linux Unified Driver Configurator** 15



Samsung AnyWeb Print



Available for Windows and Macintosh OS users only.

This tool helps you screen-capture, preview, scrap, and print pages more easily, than when you use an ordinary program.

To open the Program:

- **For Windows:** Select **Start > All Programs > Samsung Printers > Samsung AnyWeb Print** > Download the latest version.
- **For Macintosh:** Open the **Applications** folder > **Samsung** folder > **Samsung AnyWeb Print**.

Easy Eco Driver

With the Easy Eco Driver, you can apply Eco features to save paper and toner before printing. To use this application, **Start Easy Eco Driver before printing job** checkbox in the printer properties should be checked.

Easy Eco Driver also allows you simple editing such as removing images and texts, changing fonts, and more. You can save frequently used settings as a preset.



Available for Windows OS users only.

How to use:

- 1 Open a document to print.
- 2 Print the document.
A preview window appears.
- 3 Select the options you want to apply to the document.
You can see the preview of the applied features.
- 4 Click **Print**.

Understanding Easy Capture Manager

Capture your screen and launch Easy Capture Manager by simply pressing the Print Screen key on the keyboard. Now you can easily print your captured screen as captured or edited.

Using SyncThru™ Web Service



- Internet Explorer 6.0 or higher is the minimum requirement for SyncThru™ Web Service.
- SyncThru™ Web Service explanation in this user's guide may differ from your machine depending on its options or models.
- Network model only.

Accessing SyncThru™ Web Service

- 1 Access a web browser, such as Internet Explorer, from Windows.
Enter the machine IP address of your printer (<http://xxx.xxx.xxx.xxx>) in the address field and press the Enter key or click **Go**.
- 2 Your machine's embedded website opens.

Logging into SyncThru™ Web Service

Before configuring options in SyncThru™ Web Service, you need to log-in as an administrator. You can still use SyncThru™ Web Service without logging in but you won't have access to **Settings** tab and **Security** tab.

- 1 Click **Login** on the upper right of the SyncThru™ Web Service website.
- 2 Type in the **ID** and **Password** then click **Login**.
 - **ID: admin**
 - **Password: sec00000**

SyncThru™ Web Service overview



Information

Settings

Security

Maintenance



Some tabs may not appear depending on your model.

Information tab

This tab gives you general information about your machine. You can check things, such as remaining amount of toner. You can also print reports, such as an error report.

- **Active Alerts:** Shows the alerts that have occurred in the machine and their severity.
- **Supplies:** Shows how many pages are printed and amount of toner left in the cartridge.

Using SyncThru™ Web Service

- **Usage Counters:** Shows the usage count by print types: simplex and duplex.
- **Current Settings:** Shows the machine's and network's information.
- **Print information:** Prints reports such as system related reports and font reports.

Settings tab

This tab allows you to set configurations provided by your machine and network. You need to log-in as an administrator to view this tab.

- **Machine Settings** tab: Sets options provided by your machine.
- **Network Settings** tab: Shows options for the network environment. Sets options such as TCP/IP and network protocols.

Security tab

This tab allows you to set system and network security information. You need to log-in as an administrator to view this tab.

- **System Security:** Sets the system administrator's information and also enables or disables machine features.
- **Network Security:** Sets settings for HTTPs, IPSec, IPv4/IPv6 filtering, and 802.1x.

Maintenance tab

This tab allows you to maintain your machine by upgrading firmware and setting contact information for sending emails. You can also connect to Samsung website or download drivers by selecting the **Link** menu.

- **Firmware Upgrade:** Upgrade your machine's firmware.
- **Contact Information:** Shows the contact information.
- **Link:** Shows links to useful sites where you can download or check information.

E-mail notification setup

You can receive emails about your machine's status by setting this option. By setting information such as IP address, host name, e-mail address and SMTP server information, the machine status (toner cartridge shortage or machine error) will be sent to a certain person's e-mail automatically. This option may be used more frequently by a machine administrator.

- 1 Start a web browser, such as Internet Explorer, from Windows.
Enter the machine IP address (http://xxx.xxx.xxx.xxx) in the address field and press the Enter key or click **Go**.
- 2 Your machine's embedded website opens.
- 3 From the **Settings** tab, select **Machine Settings > E-mail Notification**.

Using SyncThru™ Web Service



If you have not configured outgoing server environment, go to **Settings > Network Settings > Outgoing Mail Server(SMTP)** to configure network environment before setting e-mail notification.

4 Select **Enable** check box to use the **E-mail Notification**.

5 Click **Add** button to add e-mail notification user.

Set the recipient name and e-mail address(es) with notification items you want to receive an alert for.

6 Click **Apply**.




If the firewall is activated, the e-mail may not be sent successfully. In that case, contact the a network administrator.

Setting the system administrator's information

This setting is necessary for using the e-mail notification option.

- 1** Start a web browser, such as Internet Explorer, from Windows.
Enter the machine IP address (http://xxx.xxx.xxx.xxx) in the address field and press the Enter key or click **Go**.
- 2** Your machine's embedded website opens.
- 3** From the **Security** tab, select **System Security > System Administrator**
- 4** Enter the name of the administrator, phone number, location, and email address.
- 5** Click **Apply**.

Using Samsung Easy Printer Manager

Samsung Easy Printer Manager is an application that combines Samsung machine settings into one location. Samsung Easy Printer Manager combines device settings as well as printing environments, settings/actions and launching. All of these features provide a gateway to conveniently use your Samsung machine. Samsung Easy Printer Manager provides two different user interfaces for the user to choose from: the basic user interface and the advanced user interface. Switching between the two interfaces is easy: just click  button.



- Available for Windows or Macintosh OS users only.
- For Windows, Internet Explorer 6.0 or higher is the minimum requirement for Samsung Easy Printer Manager.

Understanding Samsung Easy Printer Manager

To open the program:

For Windows,

Select **Start > Programs** or **All Programs > Samsung Printers > Samsung Easy Printer Manager > Samsung Easy Printer Manager**.

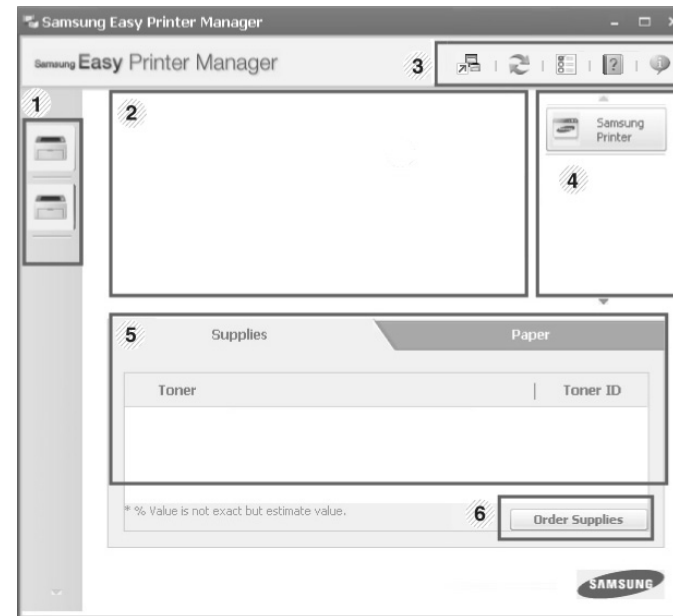
For Macintosh,

Open the **Applications** folder > **Samsung** folder > **Samsung Easy Printer Manager**.

The Samsung Easy Printer Manager interface is comprised of various basic sections as described in the table that follows:



The screenshot may differ depending on operating system you are using.







1

Printer List

The printer list displays the installed printer icons on your computer.

Using Samsung Easy Printer Manager

2	Printer Information	<p>This area gives you general information about your machine. You can check information, such as the machine's model name, IP address (or Port name), and machine status.</p> <p> User's Guide button: This button opens Troubleshooting Guide when an error occurs. You can directly open the necessary section in the user's guide.</p>
3	Application information	<p>Includes links for changing to the advanced settings, preference, help, and about.</p> <p> The  button is used to change the user interface to the advanced settings user interface.</p>
4	Quick links	<p>Displays Quick links to machine specific functions. This section also includes links to applications in the advanced settings.</p> <p> If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.</p>

5	Contents Area	Displays information about the selected machine, remaining toner level, and paper. The information will vary based on the machine selected. Some machines do not have this feature.
6	Order Supplies	Click on the Order button from the supply ordering window. You can order replacement toner cartridge(s) from online.



Click the **Help** (?) button from the upper-right corner of the window and click on any option you want to know about.

Advanced settings user interface overview

The advanced user interface is intended to be used by the person responsible for managing the network and machines.

Device Settings

You can configure various machine settings such as machine setup, paper, layout, emulation, network, and print information.

Using Samsung Easy Printer Manager

Alert Settings (Windows only)

This menu includes settings related to error alerting.

- **Printer Alert:** Provides settings related to when alerts will be received.
- **Email Alert:** Provides options relating to receiving alerts via email.
- **History Alert:** Provides a history of device and toner related alerts.

Job Accounting

Provides querying of quota information of the specified job accounting user. This quota information can be created and applied to devices by job accounting software such as SyncThru™ or CounThru™ admin software.

Using Samsung Printer Status

The Samsung Printer Status is a program that monitors and informs you of the machine status.






- Available for Windows users.
- The Samsung Printer Status window and its contents shown in this user's guide may differ depending on the machine or operating system in use.
- Check the operating system(s) that are compatible with your machine (see "System requirements" on page 7).

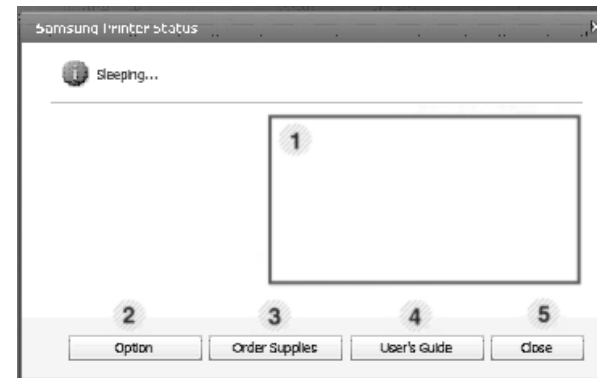
Samsung Printer Status overview

If an error occurs while operating, you can check the error from the Samsung Printer Status. Samsung Printer Status is installed automatically when you install the machine software.

You can also launch Samsung Printer Status manually. Go to the **Printing Preferences**, click the **Basic** tab > **Printer Status** button.

These icons appear on the Windows task bar:

Icon	Mean	Description
	Normal	The machine is in ready mode and experiencing no errors or warnings.
	Warning	The machine is in a state where an error might occur in the future. For example, it might be in toner low status, which may lead to toner empty status.
	Error	The machine has at least one error.



1	Toner Level	You can view the level of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. Some machines do not have this feature.
2	Option	You can set Printing Job Alert related settings.

Using Samsung Printer Status

3	Order Supplies	You can order replacement toner cartridge(s) from online.
4	Troubleshooting	You can directly open the troubleshooting section in the user's guide.
5	Close	Close the window.

Using Smart Panel

Smart Panel is a program that monitors and informs you of the machine's status, and allows you to customize the machine's settings. You can download Smart Panel from the Samsung website (see "Installing the Smart Panel" on page 4).





- Available for Linux OS users only.
- The Smart Panel window and its contents shown in this user's guide may differ depending on the machine or operating system in use.
- Check the operating system(s) that are compatible with your machine (see "Installing the driver locally" on page 19).

Smart Panel overview

If an error occurs while operating, you can check the error from the Smart Panel. You can also launch Smart Panel manually.

Double-click the Smart Panel icon() in the Notification Area.



1	Toner Level	You can view the level of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. If you cannot see this feature, it is not applicable to your machine.
2	Buy Now	You can order replacement toner cartridge(s) from online.
3	User's Guide	You can view the online User's Guide.  This button opens the Troubleshooting Guide when an error occurs. You can directly open the troubleshooting section in the user's guide.
4	Printer Setting	You can configure various machine settings in the Printer Settings Utility window. Some machines do not have this feature.  If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.

Using Smart Panel

Changing Smart Panel 's settings

Right-click on the Smart Panel icon and select **Configure Smart Panel**. Select the settings you want from the **Configure Smart Panel** window.

Using the Linux Unified Driver Configurator

The Unified Driver Configurator is a tool primarily intended for configuring machine devices. You need to install Unified Linux Driver to use Unified Driver Configurator (see "Installation for Linux" on page 4).

After the driver is installed on your Linux system, the Unified Driver Configurator icon will automatically be created on your desktop.

Opening Unified Driver Configurator

- 1 Double-click the **Unified Driver Configurator** on the desktop.
You can also click the **Startup** Menu icon and select **Samsung Unified Driver > Unified Driver Configurator**.
- 2 Click each button on the left to switch to the corresponding configuration window.



- 1 **Printer Configuration**
- 2 **Port Configuration**



To use the on screen help, click **Help**.

- 3 After changing the configurations, click **Exit** to close the **Unified Driver Configurator**.

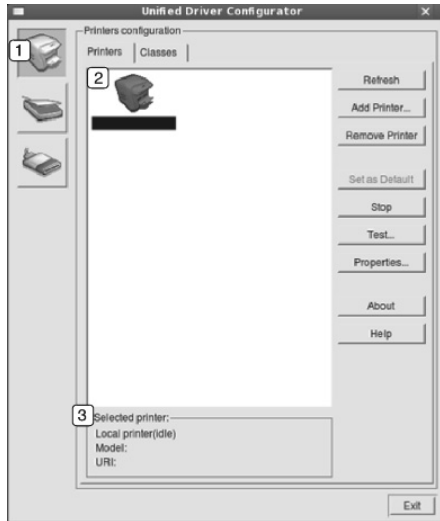
Printers configuration

Printers configuration has the two tabs: **Printers** and **Classes**.

Using the Linux Unified Driver Configurator

Printers tab

View the current system's printer configuration by clicking on the machine icon button on the left side of the **Unified Driver Configurator** window.



- | | |
|---|--|
| 1 | Switches to Printers configuration . |
| 2 | Shows all of the installed machines. |
| 3 | Shows the status, model name, and URI of your machine. |

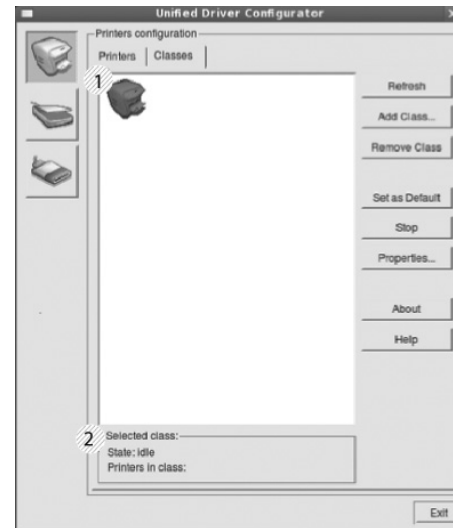
The printer control buttons are, as follows:

- **Refresh:** Renews the available machines list.
- **Add Printer:** Allows you to add a new machines.
- **Remove Printer:** Removes the selected machine.

- **Set as Default:** Sets the current selected machine as a default machine.
- **Stop/Start:** Stops/starts the machine.
- **Test:** Allows you to print a test page to ensure the machine is working properly.
- **Properties:** Allows you to view and change the printer's properties.

Classes tab

The Classes tab shows a list of available machine classes.



Using the Linux Unified Driver Configurator

- | | |
|---|--|
| 1 | Shows all of the machine classes. |
| 2 | Shows the status of the class and the number of machines in the class. |

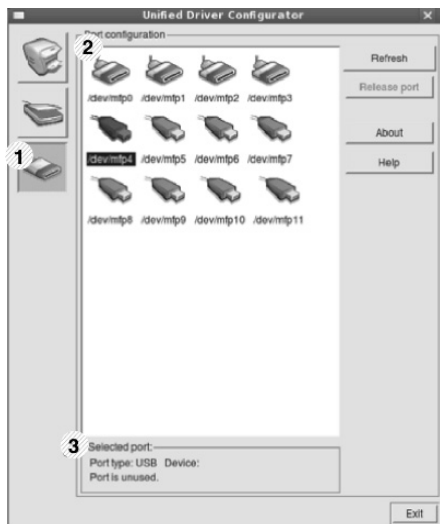
- **Refresh:** Renews the classes list.
- **Add Class:** Allows you to add a new machine class.
- **Remove Class:** Removes the selected machine class.

- | | |
|---|--|
| 1 | Switches to Ports configuration . |
| 2 | Shows all of the available ports. |
| 3 | Shows the port type, device connected to the port, and status. |

- **Refresh:** Renews the available ports list.
- **Release port:** Releases the selected port.

Ports configuration

In this window, you can view the list of available ports, check the status of each port and release a port that is stalled in a busy state when its owner has terminated the job for any reason.

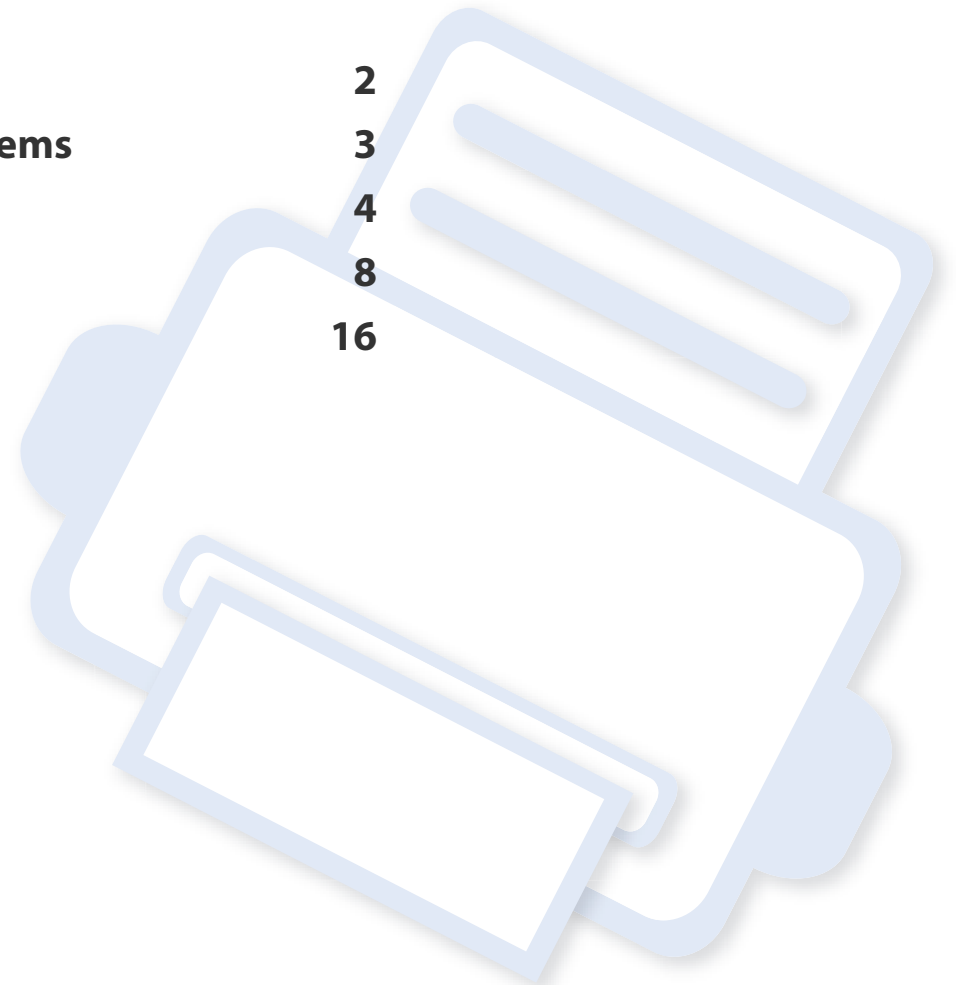




5. Troubleshooting

This chapter gives helpful information for what to do if you encounter an error.

- **Paper feeding problems** 2
- **Power and cable connecting problems** 3
- **Printing problems** 4
- **Printing quality problems** 8
- **Operating system problems** 16




Paper feeding problems

Condition	Suggested solutions
Paper jams during printing.	Clear the paper jam.
Paper sticks together.	<ul style="list-style-type: none">• Check the maximum paper capacity of the tray .• Make sure that you are using the correct type of paper.• Remove paper from the tray and flex or fan the paper.• Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight.
Paper does not feed into the machine.	<ul style="list-style-type: none">• Remove any obstructions from inside the machine.• Paper has not been loaded correctly. Remove paper from the tray and reload it correctly.• There is too much paper in the tray. Remove excess paper from the tray.• The paper is too thick. Use only paper that meets the specifications required by the machine.
The paper keeps jamming.	<ul style="list-style-type: none">• There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, feed manually in the tray.• An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine.• There may be debris inside the machine. Open the top cover and remove any debris.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.

Power and cable connecting problems



Click this link to open an animation about solving power problems.

Condition	Suggested solutions
The machine is not receiving power, or the connection cable between the computer and the machine is not connected properly.	<ul style="list-style-type: none">• Connect the machine to the electricity supply first and press the  (Power) button on the control panel.• Disconnect the machine's cable and reconnect it.


Printing problems

Condition	Possible cause	Suggested solutions
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default machine.	Select your machine as your default machine in Windows.
	Check the machine for the following: <ul style="list-style-type: none">• The top cover is not closed. Close the top cover.• Paper is jammed. Clear the paper jam (see "Clearing paper jams" on page 3).• No paper is loaded. Load paper (see "Loading paper in the tray" on page 4).• The toner cartridge is not installed. Install the toner cartridge (see "Replacing the toner cartridge" on page 8).• Make sure the protect cover and sheets are removed from the toner cartridge (see "Replacing the toner cartridge" on page 8). If a system error occurs, contact your service representative.	
	The connection cable between the computer and the machine is not connected properly.	Disconnect the machine cable and reconnect it (see "Rear view" on page 15).
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job. You can also try using a different machine cable.
	The port setting is incorrect.	Check the Windows printer settings to make sure that the print job is sent to the correct port. If the computer has more than one port, make sure that the machine is attached to the correct one.
	The machine may be configured incorrectly.	Check the Printing Preferences to ensure that all of the print settings are correct.

Printing problems

Condition	Possible cause	Suggested solutions
The machine does not print.	The printer driver may be incorrectly installed.	Uninstall and reinstall the machine's driver.
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error. Contact a service representative.
	The document size is so big that the hard disk space of the computer is insufficient to access the print job.	Get more hard disk space and print the document again.
	The output tray is full.	Once the paper is removed from the output tray, the machine resumes printing.
The machine selects print materials from the wrong paper source.	The paper option that was selected in the Printing Preferences may be incorrect.	For many software applications, the paper source selection is found under the Paper tab within the Printing Preferences (see "Opening printing preferences" on page 13). Select the correct paper source. See the printer driver help screen (see "Using help" on page 14).
A print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings.
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application (see "Opening printing preferences" on page 13). See the printer driver help screen (see "Using help" on page 14).
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use (see "Opening printing preferences" on page 13).

Printing problems



Condition	Possible cause	Suggested solutions
The machine prints, but the text is wrong, garbled, or incomplete.	The machine cable is loose or defective.	Disconnect the machine cable and reconnect. Try a print job that you have already printed successfully. If possible, attach the cable and the machine to another computer that you know works and try a print job. Finally, try a new machine cable.
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and back on again.
Pages print, but they are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. If necessary, replace the toner cartridge. <ul style="list-style-type: none">• See "Redistributing toner" on page 7.• See "Replacing the toner cartridge" on page 8.
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
The machine does not print PDF files correctly. Some parts of graphics, text, or illustrations are missing.	Incompatibility between the PDF file and the Acrobat products.	Printing the PDF file as an image may enable the file to print. Turn on Print As Image from the Acrobat printing options.  It will take longer to print when you print a PDF file as an image.
The print quality of photos is not good. Images are not clear.	The resolution of the photo is very low.	Reduce the photo size. If you increase the photo size in the software application, the resolution will be reduced.

Printing problems

Condition	Possible cause	Suggested solutions
Before printing, the machine emits vapor near the output tray.	Using damp paper can cause vapor during printing.	This is not a problem. Just keep printing.
The machine does not print special-sized paper, such as billing paper.	Paper size and paper size setting do not match.	Set the correct paper size in the Custom in Paper tab in Printing Preferences (see "Opening printing preferences" on page 13).
The printed billing paper is curled.	The paper type setting does not match.	Change the printer option and try again. Go to Printing Preferences , click Paper tab, and set type to Thick (see "Opening printing preferences" on page 13).

Printing quality problems

If the inside of the machine is dirty or paper has been loaded improperly, there might be a reduction in print quality. See the table below to clear the problem.

Condition	Suggested Solutions
<p data-bbox="51 357 322 389">Light or faded print</p> 	<ul data-bbox="506 357 2186 751" style="list-style-type: none">• If a vertical white streak or faded area appears on the page, the toner supply is low. Install a new toner cartridge (see "Replacing the toner cartridge" on page 8).• The paper may not meet paper specifications; for example, the paper may be too moist or rough.• If the entire page is light, the print resolution setting is too low or the toner save mode is on. Adjust the print resolution and turn the toner save mode off. See the help screen of the printer driver.• A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 11).• The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 11). If these steps do not correct the problem, contact a service representative.
<p data-bbox="51 786 472 903">The top half of the paper is printed lighter than the rest of the paper</p> 	<p data-bbox="506 786 1249 818">The toner might not adhere properly to this type of paper.</p> <ul data-bbox="506 842 2186 911" style="list-style-type: none">• Change the printer option and try again. Go to Printing Preferences, click the Paper tab, and set the paper type to Recycled (see "Opening printing preferences" on page 13).