Regulatory information

No limitations at this time

Israel only

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Regulatory compliance statements

Wireless guidance

Low power, Radio LAN devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz/5 GHz Band, may be present (embedded) in your printer system. The following section is a general overview of considerations while operating a wireless device.

Additional limitations, cautions, and concerns for specific countries are listed in the specific country sections (or country group sections). The wireless devices in your system are only qualified for use in the countries identified by the Radio Approval Marks on the system rating label. If the country you will be using the wireless device in, is not listed, contact your local Radio Approval agency for requirements. Wireless devices are closely regulated and use may not be allowed.

The power output of the wireless device or devices that may be embedded in your printer is well below the RF exposure limits as known at this time. Because the wireless devices (which may be embedded into your printer) emit less energy than is allowed in radio frequency safety standards and recommendations, manufacturer believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on and transmitting.

This transmitter must not be collocated or operation in conjunction with any other antenna or transmitter.

Some circumstances require restrictions on wireless devices. Examples of common restrictions are listed below:

Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11 (also known as wireless Ethernet) and Bluetooth communication devices are examples of devices that provide wireless communication.

In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, Hospitals, and Oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.

Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.

If your system came equipped with an internal embedded wireless device, do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.

Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.

Only use drivers approved for the country in which the device will be used. See the manufacturer System Restoration Kit, or contact manufacturer Technical Support for additional information.

Regulatory information

China only

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{6+})	多溴联苯 (PBB)	多溴联苯醚 (PBDE)
塑料	O	O	O	O	O	O
金属 (机箱)	X	O	O	O	O	O
印刷电路部件 (PCA)	X	O	O	O	O	O
电缆 / 连接器	X	O	O	O	O	O
电源设备	X	O	O	O	O	O
电源线	X	O	O	O	O	O
机械部件	X	O	O	O	O	O
卡盒部件	X	O	O	O	O	O
定影部件	X	O	O	O	O	O
扫描仪部件 - CCD (如果有)	X	X	O	O	O	O
扫描仪部件 - 其它 (如果有)	X	O	O	O	O	O
印刷电路板部件 (PBA)	X	O	O	O	O	O
墨粉	O	O	O	O	O	O
滚筒	O	O	O	O	O	O

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REV. 1.00

User's Guide

C267x series

ADVANCED

This guide provides information about installation, advanced configuration, operation and troubleshooting on various OS environments.

Some features may not be available depending on models or countries.

BASIC

This guide provides information concerning installation, basic operation and troubleshooting on Windows.

1. Software Installation

This chapter provides instructions for installing essential and helpful software for use in an environment where the machine is connected via a cable. A locally connected machine is a machine directly attached to your computer using the cable. If your machine is attached to a network, skip the following steps below and go on to installing a network connected machine's driver (see "Installing driver over the network" on page 166).

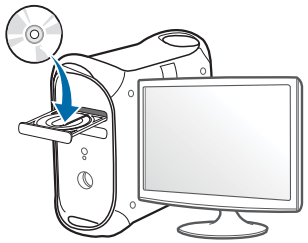
- **Installation for Mac** 157
- **Reinstallation for Mac** 158
- **Installation for Linux** 159
- **Reinstallation for Linux** 160

- If you are a Windows OS user, refer to the Basic Guide for installing the machine's driver (see "Installing the driver locally" on page 26).
- Only use a USB cable no longer then 3 meter (118 inches).

Installation for Mac

1 Make sure that the machine is connected to your computer and powered on.

2 Insert the supplied software CD into your CD-ROM drive.



3 Double-click the CD-ROM icon that appears on your Mac desktop.

- For Mac OS X 10.8, double-click the CD-ROM that appears on **Finder**.

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 Click **Install**. All components necessary for machine operations will be installed.

If you click **Customize**, you can choose individual components to install.

9 Enter the password and click **OK**.

10 Select **USB Connected Printer** on the **Printer Connection Type** and click **Continue**.

11 Click **Add Printer** button to select your printer and add it to your printer list.

If your machine supports fax, click **Add Fax** button to select your fax and add it to your fax list

12 After the installation is finished, click **Close**.

Reinstallation for Mac

If the printer driver does not work properly, uninstall the driver and reinstall it.

1. Open the **Applications** folder > **Samsung** > **Printer Software Uninstaller**.
2. To uninstall printer software, click **Continue**.
3. Check the program you want to delete and click **Uninstall**.
4. Enter the password and click **OK**.
5. After the uninstallation is finished, click **Close**.

If a machine has already been added, delete it from the **Print Setup Utility** or **Print & Fax**.

Installation for Linux

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

Installing the Unified Linux Driver

You must log in as a super user (root) to install the machine software. If you are not a super user, ask your system administrator.

1. Make sure that the machine is connected to your computer and powered on.
2. Copy the **Unified Linux Driver** package to your system.
3. Open Terminal program and go to the folder that you copied the package to.
4. Extract the package.
5. Move to **uld** folder.
6. Execute "./**install.sh**" command (If you're not logged in as a root, execute the command with "**sudo**" as "**sudo ./install.sh**")
7. Proceed with the installation.
8. When the installation is finished, launch printing utility(Go to **System** > **Administration** > **Printing** or execute "**system-config-printer**" command in Terminal program).
9. Click **Add** button.
10. Select your printer.
11. Click the **Forward** button and add it to your system.

Reinstallation for Linux

If the printer driver does not work properly, uninstall the driver and reinstall it.

1. Open **Terminal** program.
2. Move to **uld** folder extracted from **Unified Linux Driver** package.
3. Execute "./**uninstall.sh**" command (If you're not logged in as root, execute the command with "**sudo**" as "**sudo ./uninstall.sh**")
4. Proceed with the uninstallation.

2. Using a Network-Connected Machine

This chapter gives you step-by-step instructions for setting up a network connected machine and software.

- Useful network programs 162
- Wired network setup 163
- Installing driver over the network 166
- IPv6 configuration 174
- Wireless network setup 177
- Samsung Mobile Print 203
- Using the NFC feature 204
- AirPrint 210
- Google Cloud Print™ 212

Supported optional devices and features may differ according to your model (see "Features by model" on page 6).

Useful network programs

There are several programs available to setup the network settings easily in a network environment. For the network administrator especially, managing several machines on the network is possible.

- Before using the programs below, set the IP address first.
- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 6).

SyncThru™ Web Service

The web server embedded on your network machine allows you to do the following tasks (see "Using SyncThru™ Web Service" on page 300).

- Check the supplies information and status.
- Customize machine settings.
- Set the email notification option. When you set this option, the machine status (toner cartridge shortage or machine error) will be sent to a certain person's email automatically.
- Configure the network parameters necessary for the machine to connect to various network environments.

SyncThru™ Web Admin Service

Web-based machine management solution for network administrators. SyncThru™ Web Admin Service provides you with an efficient way of managing network devices and lets you remotely monitor and troubleshoot network machines from any site with corporate internet access.

- Download this program from Samsung website (http://www.samsung.com > find your product > Support or Downloads).

SetIP wired network setup

This utility program allows you to select a network interface and manually configure the IP addresses for use with the TCP/IP protocol.

- See "IPv4 configuration using SetIP (Windows)" on page 163.
- See "IPv4 configuration using SetIP (Mac)" on page 164.
- See "IPv4 configuration using SetIP (Linux)" on page 165.

- The machine that does not support the network port, it will not be able to use this feature (see "Rear view" on page 22).
- TCP/IPv6 is not supported by this program.

Wired network setup

Printing a network configuration report

You can print **Network Configuration Report** from the machine's control panel that will show the current machine's network settings. This will help you to set up a network.

- Accessing menus may differ from model to model (see "Menu overview" on page 30).
- It may be necessary to press **OK** to navigate to lower-level menus for some models.

- **The machine has the display screen:** Press the (**Menu**) button on the control panel and select **Network** > **Network Configuration**.
- **The machine has the touch screen:** Press **Setup** from the **Main** screen > **Machine Setup** > **Next** > **Reports** > **Network Configuration**.

Using this **Network Configuration Report**, you can find your machine's MAC address and IP address.

For example:

- MAC Address: 00:15:99:41:A2:78
- IP Address: 169.254.192.192

Setting IP address

- The machine that does not support the network interface, it will not be able to use this feature (see "Rear view" on page 22).
- TCP/IPv6 is not supported by this program.

First, you have to set up an IP address for network printing and managements. In most cases a new IP address will be automatically assigned by a DHCP (Dynamic Host Configuration Protocol) server located on the network.

IPv4 configuration using SetIP (Windows)

Before using the SetIP program, disable the computer firewall from **Control Panel** > **Security Center** > **Windows Firewall**.

The following instructions may differ for your model.

1. Download the software from the Samsung website then unpack and install it: (http://www.samsung.com > find your product > Support or Downloads).
2. Follow the instructions in the installation window.
3. Connect your machine to the network with a network cable.

Wired network setup

4 Turn on the machine.

5 From the Windows **Start** menu, select **All Programs** > **Samsung Printers** > **SetIP** > **SetIP**.

6 Click the icon (third from left) in the SetIP window to open the TCP/IP configuration window.

7 Enter the machine's new information into the configuration window. In a corporate intranet, you may need to have this information assigned by a network manager before proceeding.

Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 163) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

8 Click **Apply**, and then click **OK**. The machine will automatically print the **Network Configuration Report**. Confirm that all the settings are correct.

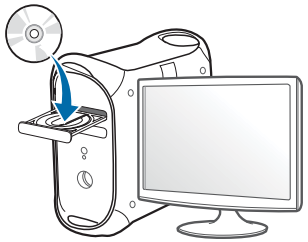
IPv4 configuration using SetIP (Mac)

Before using the SetIP program, disable the computer firewall from **System Preferences** > **Security** > **Firewall**.

The following instructions may vary from your model.

1 Connect your machine to the network with a network cable.

2 Insert the supplied software CD into your CD-ROM drive.



3 Double-click the CD-ROM icon that appears on your Mac desktop.

- For Mac OS X 10.8, Double-click the CD-ROM that appears on Finder.

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 Click **Install**. All components necessary for machine operations will be installed.

If you click **Customize**, you can choose individual components to install.

9 Enter the password and click **OK**.

10 When the message that warns that all applications will close on your computer appears, click **Continue**.

11 Select **Network Connected Printer(Wired or Wireless)** on the **Printer Connection Type** and click **Set IP Address** button.

12 Click the icon (third from left) in the SetIP window to open the TCP/IP configuration window.

13 Enter the machine's new information into the configuration window. In a corporate intranet, you may need to have this information assigned by a network manager before proceeding.

Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 163) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

14 Click **Apply**, and then click **OK**. The machine will automatically print the **Network Configuration Report**. Confirm that all the settings are correct.

IPv4 configuration using SetIP (Linux)

Before using the SetIP program, disable the computer firewall from **System Preferences** or **Administrator**.

The following instructions may vary from your model or operating systems.

1 Download the SetIP program from the Samsung web site and extract it.

2 Double-click the **SetIPApplet.html** file in **cdroot/Linux/noarch/at_opt/share/utils** folder.

3 Click to open the TCP/IP configuration window.

4 Enter the machine's new information into the configuration window. In a corporate intranet, you may need to have this information assigned by a network manager before proceeding.

Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 163) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

5 The machine will automatically print the **Network Configuration Report**.

Installing driver over the network

- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 6).
- The machine that does not support the network interface, it will not be able to use this feature (see "Rear view" on page 22).
- You can install the printer driver and software when you insert the software CD into your CD-ROM drive.
  For windows, select the printer driver and software in the **Select Software to Install** window.

Windows

The firewall software might be blocking network communication. efore connecting the device to the network, disable the computer's firewall.

1 Make sure that the machine is connected to the network and powered on. Also, your machine's IP address should have been set (see "Setting IP address" on page 163).

2 Insert the supplied software CD into your CD-ROM drive.

If the installation window does not appear, click **Start** > **All programs** > **Accessories** > **Run**.

X:**Setup.exe** replacing "X" with the letter, which represents your CD-ROM drive and click **OK**.

- For Windows 8,

  If the installation window does not appear, from **Charms**, select **Search** > **Apps** and search for **Run**. Type in X:\Setup.exe, replacing "X" with the letter that represents your CD-ROM drive and click **OK**.

  If "**Tap to choose what happens with this disc**." pop-up window appears, click the window and select **Run Setup.exe**.

3 Review and accept the installation agreements in the installation window. Then, click **Next**.

4 Select **Network connection** on the **Printer Connection Type** screen.

Installing driver over the network

5 Follow the instructions in the installation window.

From the Windows 8 Start Screen

- The V4 driver is automatically downloaded from the Windows Update if your computer is connected to the Internet. If not, you can manually download the V4 driver from Samsung website, www.samsung.com > find your product > Support or downloads.
- You can download **Samsung Printer Experience** app from the **Windows Store**. You need have a Microsoft account to use the Windows **Store**.
  - **a** From **Charms**, select **Search**.
  - **b** Click **Store**.
  - **c** Search and click **Samsung Printer Experience**.
  - **d** Click **Install**.
- If you install the driver using the supplied software CD, V4 driver is not installed. If you want to use the V4 driver in the **Desktop** screen, you can download from the Samsung website, www.samsung.com >find your product > Support or downloads.
- If you want to install Samsung's printer management tools, you need to install them using the supplied software CD.

1 Make sure that the machine is connected to the network and powered on. Also, your machine's IP address should have been set (see "Setting IP address" on page 163).

2 From **Charms**, select **Settings** > **Change PC settings** > **Devices**.

3 Click **Add a device**.

Discovered machines will be shown on the screen.

4 Click the model name or host name you wish to use.

You can print a Network Configuration Report from the machine's control panel that will show the current machine's host name (see "Printing a network configuration report" on page 194).

5 The driver is automatically installed from the **Windows Update**.

Silent installation Mode

Silent installation mode is an installation method that does not require any user intervention. Once you start the installation, the machine driver and software are automatically installed on you computer. You can start the silent installation by typing **/s** or **/S** in the command window.

Command-line Parameters

Following table shows commands that can be used in the command window.

Following command-line are effective and operated when command is used with **/s** or **/S**. But **/h**, **/H** or **/?** are exceptional commands that can be operated solely.

Installing driver over the network

Command- line	Definition	Description
/s or /S	Starts silent installation.	Installs machine drivers without prompting any UIs or user intervention.

Command- line	Definition	Description
/p”<port name>” or /P”<port name>”	Specifies printer port. Network Port will be created by use of Standard TCP/IP Port monitor. For local port, this port must exist on system before being specified by command.	Printer port name can be specified as IP address, hostname, USB local port name, IEEE1284 port name or network path. For example: • /p”xxx.xxx.xxx.xxx” in where, “xxx.xxx.xxx.xxx” means IP address for network printer. /p”USB001”, /P”LPT1:”, /p”hostname” • /p"\\computer_name\shared_printer" or "\\xxx.xxx.xxx.xxx\shared_printer" in where, "\\computer_name\shared_printer" or "\\xxx.xxx.xxx.xxx\shared_printer" means the network path to the printer by entering two slashes, the computer name or local IP address of the PC sharing the printer, and then the share name of the printer.

Installing driver over the network

Command- line	Definition	Description
/a”<dest_path>” or /A”<dest_path>”	Specifies destination path for installation. The destination path should be a fully qualified path.	Since machine drivers should be installed on the OS specific location, this command applies to only application software.
/n”<Printer name>” or /N”<Printer name>”	Specifies printer name. Printer instance shall be created as specified printer name.	With this parameter, you can add printer instances as your wishes.
/nd or /ND	Commands not to set the installed driver as a default machine driver.	It indicates installed machine driver will not be the default machine driver on your system if there are one or more printer drivers installed. If there is no installed machine driver on your system, then this option won’t be applied because Windows OS will set installed printer driver as a default machine driver.

Command- line	Definition	Description
/x or /X	Uses existing machine driver files to create printer instance if it is already installed.	This command provides a way to install a printer instance that uses installed printer driver files without installing an additional driver.
/up”<printer name>” or /UP”<printer name>”	Removes only specified printer instance and not the driver files.	This command provides a way to remove only specified printer instance from your system without effecting other printer drivers. It will not remove printer driver files from your system.
/d or /D	Uninstalls all device drivers and applications from your system.	This command will remove all installed device drivers and application software from your system.
/v”<share name>” or /V”<share name>”	Shares installed machine and add other available platform drivers for Point & Print.	It will install all supported Windows OS platform’s machine drivers to system and share it with specified <share name> for point and print.

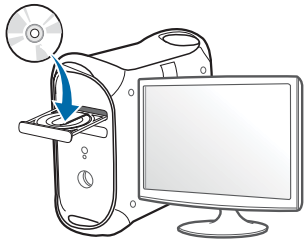
Installing driver over the network

Command- line	Definition	Description
/o or /O	Opens **Printers and Faxes** folder after installation.	This command will open **Printers and Faxes** folder after the silent installation.
/h, /H or /?	Shows Command-line Usage.	

Mac

1 Make sure that the machine is connected to your network and powered on.

2 Insert the supplied software CD into your CD-ROM drive.



3 Double-click the CD-ROM icon that appears on your Mac desktop.

- For Mac OS X 10.8, double-click the CD-ROM that appears on **Finder**.

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 Click **Install**. All components necessary for machine operations will be installed.

If you click **Customize**, you can choose individual components to install.

9 Enter the password and click **OK**.

10 Select **Network Connected Printer(Wired or Wireless)** on the **Printer Connection Type** and click **Continue**.

11 Click **Add Printer** button to select your printer and add it to your printer list.

12 Click **IP** and select **HP Jetdirect - Socket** in **Protocol**.

13 Enter the machine's IP address in the **Address** input field.

14 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.

15 If Auto Select does not work properly, choose **Select Printer Software** and your machine name in **Print Using**.

16 Click **Add**.

17 After the installation is finished, click **Close**.

Linux

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

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 Copy the Unified Linux Driver package to your system.

3 Open Terminal program and go to the folder that you copied the package to.

4 Extract the package.

5 Move to **uld** folder.

6 Execute "**./install.sh**" command (If you're not logged in as root, execute the command with "**sudo**" as "**sudo ./install.sh**")

7 Proceed with the installation.

8 When the installation is finished, launch **Printing** utility(Go to **System** > **Administration** > **Printing** menu or execute "**system-config-printer**" command in Terminal program).

9 Click the **Add** button.

10 Select **AppSocket/HP JetDirect** and enter your machine's IP address.

11 Click the **Forward** button and add it to your system.

UNIX

- Make sure your machine supports the UNIX operating system before installing the UNIX printer driver (see "Operating System" on page 6).
- The commands are marked with "", when typing the commands, do not type "".
- Some features and optional goods may not be available depending on model or country (see "Operating System" on page 6).

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 (http://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.

Installing driver over the network

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 –i**"

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>**"

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 –i**" to reinstall the binaries.

Installing driver over the network

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.

- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 6 or "Menu overview" on page 30).
- If the IPv6 network seems to not be working, set all the network setting to the factory defaults and try again using **Clear Setting**.

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.

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

From the control panel

Activating IPv6

- Accessing menus may differ from model to model (see "Menu overview" on page 30).
- It may be necessary to press **OK** to navigate to lower-level menus for some models.

1. Select (**Menu**) > **Network** > **TCP/IP (IPv6)** > **IPv6 Activate** on the control panel.

   Or select **Setup**> **Machine Setup** > **Next** > **Network Setup** > **TCP/IP (IPv6)** > **IPv6 Activate** on the touch screen.

2. Select **On** and press **OK**.

3. Turn the machine off and turn it on again.

When you install the printer driver, do not configure both IPv4 and IPv6. We recommend to configure either IPv4 or IPv6.

IPv6 configuration

DHCPv6 address configuration

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

- Accessing menus may differ from model to model (see "Menu overview" on page 30).
- It may be necessary to press **OK** to navigate to lower-level menus for some models.

1 Select (**Menu**) > **Network** > **TCP/IP (IPv6)** > **DHCPv6 Config** on the control panel.

Or select **Setup**> **Machine Setup** > **Next** > **Network Setup** > **TCP/IP (IPv6)** > **DHCPv6 Config** on the touch screen.

2 Press **OK** to select the required value you want.

- **DHCPv6 address**: 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

Activating 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. We recommend you to change the default password for security reasons.

- **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 Click the **Apply** button.

7 Turn the machine off and turn it on again.

IPv6 configuration

- You can also set the DHCPv6.
- To manually set the IPv6 address:
  Check the **Manual Address** check box. Then, the **Address/Prefix** text box is activated. Enter the rest of the address (e.g.,:3FFE:10:88:194::**AAAA**. “A” is the hexadecimal 0 through 9, A through F).

Address must be enclosed in '[ ]' brackets.

IPv6 address configuration

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 163).

- **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.

3 Enter the IPv6 addresses (e.g.,: http://[FE80::215:99FF:FE66:7701]).

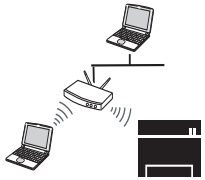
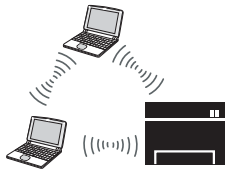
Wireless network setup

- Make sure your machine supports wireless networking. Wireless networking may not be available depending on the model (see "Features by model" on page 6).
- 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 password

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 Password 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.
- If problems occur during wireless set up or driver installation, refer to the troubleshooting chapter (see "Troubleshooting for wireless network" on page 198).
- It is strongly recommended that you set the password on Access Points. If you do not set the password on Acess Points, they might be exposed to illegal access from unknown machine including PCs, smart phones and printers. Refer to the Access Point user guide for password settings.

Set up method	Connecting method	Description & Reference
With Access Point	**From the computer**	Windows user, see "Access point via USB cable (recommended)" on page 183.
		Mac user, see "Access point via USB cable (recommended)" on page 188.
		See "Using a network cable" on page 193.
	From the machine's control panel	• See "Machines with a display (or touch) screen" on page 180. • See "Machines without a display screen" on page 181.
		See "Using the menu button or touch screen" on page 182.
Without Access Point	**From the computer**	Windows user, see "Ad hoc via USB cable" on page 186.
		Mac user, see "Ad hoc via USB cable" on page 191.
	Wi-Fi Direct setup	See "Setting the Wi-Fi Direct for mobile printing" on page 196.

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.

For models that have the touch screen on the control panel, follow the next procedure:

a Press **Setup** from the **Main** screen.

b Press **Machine Setup** > **Next** > **Network Setup** > **Wireless** > **WPS Settings**.

c Select the setup method you want.

Wireless network setup

Machines with a display (or touch) screen

Connecting in PBC mode

1 For models that have the touch screen on the control panel, press **Setup** > **Machine Setup** > **Next** > **Network Setup** > **Wireless** > **WPS Settings**.

2 Press **PBC** (or **Connect via PBC**).

3 Press **OK** when the confirmation window appears.

Information window appears showing 2 minutes connection processing time.

4 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.

5 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

Connecting in PIN mode

1 For models that have the touch screen on the control panel, press **Setup** > **Machine Setup** > **Next** > **Network Setup** > **Wireless** > **WPS Settings**.

2 Press **PIN** (or **Connect via PIN**).

3 Press **OK** when the confirmation window appears.

4 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.

5 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

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.

3 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

Connecting in PIN mode

1 The network configuration report, including PIN, must be printed (see "Printing a network configuration report" on page 163).

In ready mode, press and hold the (**Stop** or **Stop/Clear**) button on the control panel for about 5 seconds. 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.

4 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

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 (**Stop** or **Stop/Clear**) 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 or touch screen

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

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 166).

1 Select **Setup**> **Machine Setup** >**Next** > **Network Setup** > **Wireless** > **WLAN Settings** on the touch screen.

2 Press the **OK** to select the setup method you want.

- **Search List** (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 **Samsung Easy Wireless Setup** program without the CD: If you have installed the printer driver once, you can access the **Samsung Easy Wireless Setup** program without the CD(see "Accessing management tools" on page 295).

Access point via USB cable (recommended)

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 wheter the USB cable is connected to the machine.

2 Turn on your computer, access point, and machine.

Wireless network setup

3 Insert the supplied software CD into your CD-ROM drive.

If the installation window does not appear, click **Start** > **All programs** > **Accessories** > **Run**.

X:**Setup.exe** replacing "X" with the letter, which represents your CD-ROM drive and click **OK**.

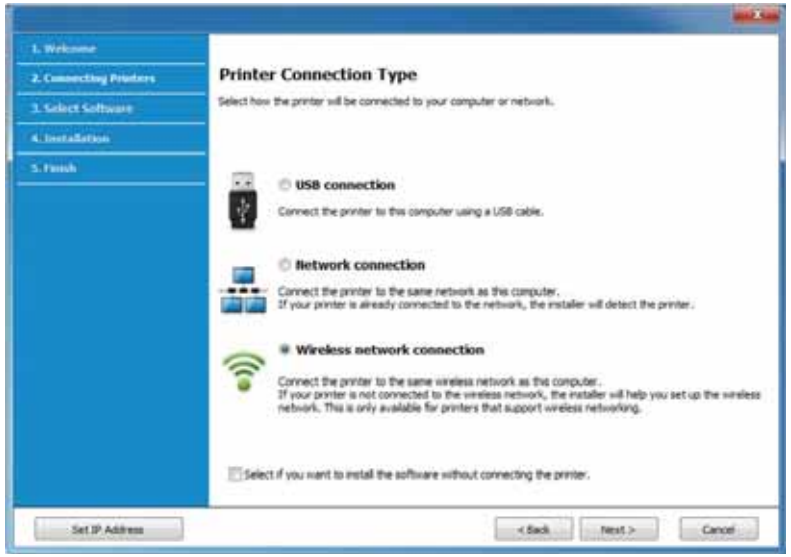
- For Windows 8,

  If the installation window does not appear, from **Charms**, select **Search** > **Apps** and search for **Run**. Type in X:\Setup.exe, replacing "X" with the letter that represents your CD-ROM drive and click **OK**.

  If "**Tap to choose what happens with this disc**." pop-up window appears, click the window and select **Run Setup.exe**.

4 Review and accept the installation agreements in the installation window. Then, click **Next**.

5 Select **Wireless network connection** on the **Printer Connection Type** screen. Then, click **Next**.



6 On the **Are you setting up your printer for the first time?** screen, select **Yes, I will set up my printer's wireless network.** Then, click **Next**.

If your printer is already connected on the network, select **No, my printer is already connected to my network**.

7 After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you want to use 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 Password:** Enter the encryption network password value.
- **Confirm Network Password:** Confirm the encryption network password 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.

Enter the Network Password of the access point (or router).

8 When the network connection window appears, disconnect the network cable. Then, click **Next**. The network cable connection can interfere with searching for wireless devices.

9 If your printer supports Wi-Fi Direct and this function is disabled, its corresponding screen will appear.

If you want to enable Wi-Fi Direct, check the checkbox, and click Next. If not, click just **Next**.

- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 197).
- **Wi-Fi Direct Name**: The default Wi-Fi Direct Name is the model name and the maximum length is 22 characters.
- **Password setting** is the numeric string, and the size is 8 ~ 64 characters.

10 When the wireless network set up is completed, disconnect the USB cable between the computer and machine. Click **Next**.

11 Follow the instructions in the installation window.

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

Creating the ad hoc network in Windows

1 Check wheter 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.

If the installation window does not appear, click **Start** > **All programs** > **Accessories** > **Run**.

X:**Setup.exe** replacing “X” with the letter, which represents your CD-ROM drive and click **OK**.

- For Windows 8,

  If the installation window does not appear, from **Charms**, select **Search** > **Apps** and search for **Run**. Type in X:\Setup.exe, replacing “X” with the letter that represents your CD-ROM drive and click **OK**.

  If “**Tap to choose what happens with this disc**.” pop-up window appears, click the window and select **Run Setup.exe**.

4 Review and accept the installation agreements in the installation window. Then, click **Next**.

Wireless network setup

5 Select **Wireless network connection** on the **Printer Connection Type** screen. Then, click **Next**.

6 On the **Are you setting up your printer for the first time?** screen, select **Yes, I will set up my printer's wireless network.** Then, click **Next**.

If your printer is already connected on the network, select **No, my printer is already connected to my network**.

7 After searching the wireless networks, a list of wireless networks your machine has searched appears. Click **Advanced Setting**.

- **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 Password:** Enter the encryption network password value.
- **Confirm Network Password:** Confirm the encryption network password 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**.

11 Follow the instructions in the installation window.

Setup using Mac

Access point via USB cable (recommended)

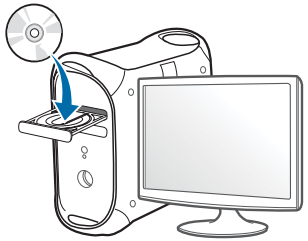
Items to prepare

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

Wireless network setup

1 Make sure that the machine is connected to your computer and powered on.

2 Insert the supplied software CD into your CD-ROM drive.



3 Double-click the CD-ROM icon that appears on your Mac desktop.

- For Mac OS X 10.8, double-click the CD-ROM that appears on **Finder**.

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 Click **Install**. All components necessary for machine operations will be installed.

If you click **Customize**, you can choose individual components to install.

9 Enter the password and click **OK**.

10 Select **Configuration of Wireless network** on the **Printer Connection Type** and click **Continue**.

11 After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you want to use 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**.

- **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.

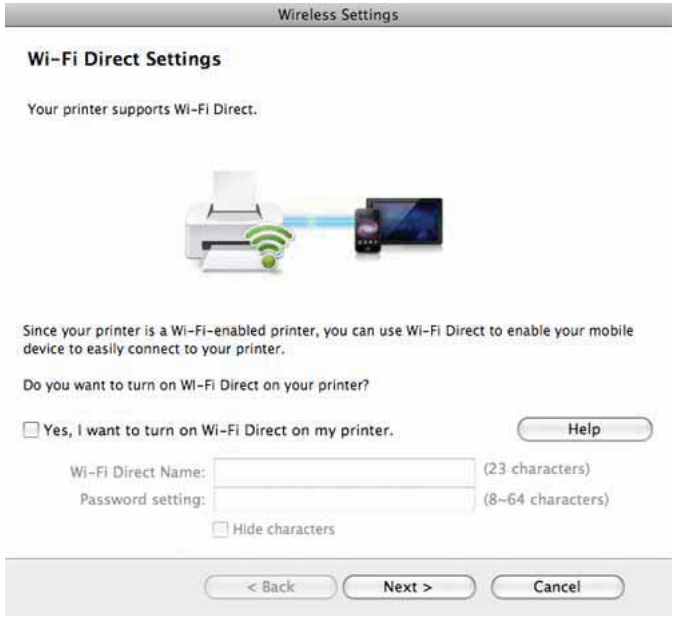
  WPA Personal or WPA2 Personal: Select this option to authenticate the print server based on the WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase) that is manually configured on the access point and each of its clients.
- **Encryption:** Select the encryption. (None, WEP64, WEP128, TKIP, AES, TKIP, AES)
- **Network Password:** Enter the encryption network password value.
- **Confirm Network Password:** Confirm the encryption network password 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.

Enter the Network Password of the access point (or router).

12 If your printer supports Wi-Fi Direct and this function is disabled, its corresponding screen will appears.

If you want to enable Wi-Fi Direct, check the checkbox, and click Next. If not, click just **Next**.



- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 197).
- **Wi-Fi Direct Name**: The default Wi-Fi Direct Name is the model name and the maximum length is 22 characters.
- **Password setting** is the numeric string, and the size is 8 ~ 64 characters.

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

14 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 Mac" on page 157).

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.

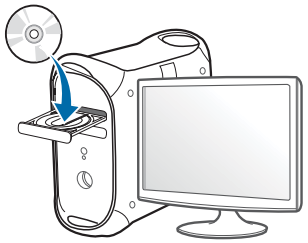
Items to prepare

- 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 Mac

1 Make sure that the machine is connected to your computer and powered on.

2 Insert the supplied software CD into your CD-ROM drive.



3 Double-click the CD-ROM icon that appears on your Mac desktop.

- For Mac OS X 10.8, double-click the CD-ROM that appears on **Finder**.

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 Click **Install**. All components necessary for machine operations will be installed.

If you click **Customize**, you can choose individual components to install.

9 Enter the password and click **OK**.

Wireless network setup

10 Select **Configuration of Wireless network** on the **Printer Connection Type** and click **Continue**.

11 After searching the wireless networks, a list of wireless networks your machine has searched appears. Click **Advanced Setting**.

- **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 Password:** Enter the encryption network password value.
- **Confirm Network Password:** Confirm the encryption network password 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.

12 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**

13 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.

14 The wireless network connects according to the network configuration.

15 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 Mac" on page 157).

Using a network cable

Machines that do not support the network port will not be able to use this feature (see "Rear view" on page 22).

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 166).
- 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 163.

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 163.

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,

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

4 Type in the **ID** and **Password** then click **Login**. We recommend you to change the default password for security reasons.

- **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 password" on page 177).
  - **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.

8 Click **Next**.

If the wireless security setting window appears, enter the registered password (network password) 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.

10 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

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,

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**. We recommend you to change the default password for security reasons.

- **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 connection method between the Wi-Fi Direct certified 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.

Wireless network setup

- You cannot connect your mobile device 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.
- The maximum number of devices that can be connected via Wi-Fi Direct is 3.

Setting up Wi-Fi Direct

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

From the USB cable-connected computer(recommended)

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 Mac 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 Password**: If your printer is a **Group Owner**, a **Network Password** is required for other mobile devices to connect to your printer. You can configure a network password yourself, or can remember the given Network Password that is randomly generated by default.

From the machine (Machines with a display screen)

Accessing menus may differ from model to model (see "Menu overview" on page 30).

- Select **Setup**> **Machine Setup** >**Next** > **Network Setup** > **Wireless** > **Wi-Fi Direct** on the touch screen.
- Enable **Wi-Fi Direct**.

Wireless network setup

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 163).
  - 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 Wi-Fi Direct, you need to enter the "Network Key" of a printer instead of pushing the WPS button.

Troubleshooting for wireless network

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.

Wireless network setup

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.

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.

Connecting Failure - Assigning the IP address

- Cycle the power for the access point (or wireless router) and machine.

PC Connection Error

- The configured network address is unable to connect between your computer and machine.
  - For a DHCP network environment

    The machine receives the IP address automatically (DHCP) when computer is configured to DHCP.

If the printing job is not working in DHCP mode, the problem may be caused by the automatically changed IP address. Compare the IP address between the product's IP address and the printer port's IP address.

How to compare:

1 Print the network information report of your printer, and then check the IP address (see "Printing a network configuration report" on page 163).

2 Check the printer port's IP address from your computer.

a Click the Windows **Start** menu.

- For Windows 8, from **Charms**, select **Search** > **Settings**.

b For Windows XP/Server 2003, select **Printer and Faxes**.

- For Windows Server 2008/Vista, select **Control Panel** > **Hardware and Sound** > **Printers**.
- For Windows 7/8, select **Control Panel** > **Devices and Printers**.
- For Windows Server 2008 R2, select **Control Panel** > **Hardware** > **Devices and Printers**.

c Right-click your machine.

d For Windows XP/2003/2008/Vista, press **Properties**.

For Windows 7/8 and Windows Server 2008 R2, from context menus, select the **Printer properties**.

If **Printer properties** item has ► mark, you can select other printer drivers connected with selected printer.

e Click **Port** tab.

f Click **Configure Port...** button.

g Check if **Printer Name or IP Address**: is the IP address on the network configuration Sheet.

3 Change the printer port's IP address if it is different from the network information report's.

If you want to use the software installation CD to change the port IP, Connect to a network printer. Then reconnect the IP address.

- 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.

- You cannot enable wired and wireless networks at the same time.
- 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.
- 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 163).

Wireless network setup

- 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.
- The maximum number of devices that can be connected via Wi-Fi Direct is 3.
- If Wi-Fi Direct is ON, this machine only supports IEEE 802.11 b/g.
- If the access point is set to work with the 802.11n standard only, it may not connect to your machine.

Samsung Mobile Print

What is Samsung Mobile Print?

Samsung Mobile Print is a free application that enables users to print photos, documents, and web pages directly from your smartphone or tablet. **Samsung Mobile Print** is not only compatible with your Android 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 Mobile Print** application, and it will automatically detect compatible Samsung printers. Besides printing photos, web pages, and PDFs, scanning is also supported. If you have a Samsung multifunction printer, scan any document into a JPG, PDF, or PNG format for quick and easy viewing on your mobile device.

Downloading Samsung Mobile Print

To download **Samsung Mobile Print**, go to the application store (Samsung Apps, Play Store, App Store) on your mobile device, and just search for "**Samsung Mobile Print**." You can also visit iTunes for Apple devices on your computer.

Android iOS

Supported Mobile OS

- Android OS 2.3 or higher
- iOS 4.0 or higher

Using the NFC feature

The NFC (Near Field Communication) printer allows you to directly print/scan/fax from your mobile device just by holding your mobile device over the NFC tag on your printer. It does not require installing print driver or connecting to an access point. You just need NFC supported mobile device. In order to use this feature, Samsung Mobile Print app needs to be installed on your mobile device.

- Depending on the material of the mobile device cover, NFC recognition may not work properly.
- Depending on the mobile device you are using, the transmission speed may differ.
- This feature is available only for the model with a NFC tag (see "Machine overview" on page 20).
- Using a cover or a battery other than the ones that came with the mobile device, or a metal cover/sticker can block NFC.
- If NFC devices keep failing to communicate, remove and reinstall the battery from the mobile device, then try again.

Requirements

- NFC and Wi-Fi Direct enabled, Samsung Mobile Print app installed mobile device with Android OS 4.0 or higher.

Only Android OS 4.1 or higher will automatically enable the Wi-Fi Direct feature on your mobile device when you enable the NFC feature. We recommend you to upgrade your mobile device to Android OS 4.1 or higher to use the NFC feature.

- Wi-Fi Direct feature enabled printer (see "Setting up Wi-Fi Direct" on page 197).

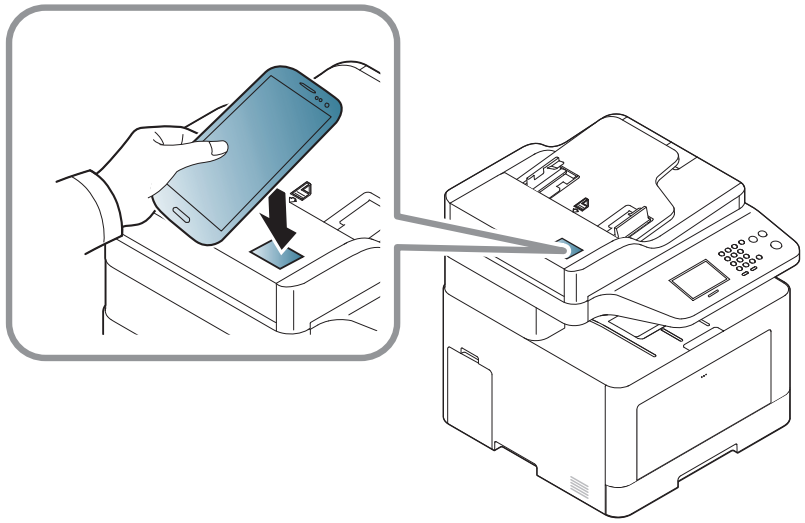
Using the NFC feature

Printing

1 Check that NFC and Wi-Fi Direct features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer (see "Setting the Wi-Fi Direct for mobile printing" on page 196).

2 Tag the NFC tag on your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the **Samsung Mobile Print** app to start.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- If error message about changed PIN number appears, enter a changed PIN number and press **OK**. Follow the instruction on the app screen to update the PIN number.
- If your do not have **Samsung Mobile Print** app installed on your mobile devices, it automatically connects to **Samsung Mobile Print** app download page. Download the app and try again.

3 Select print mode.

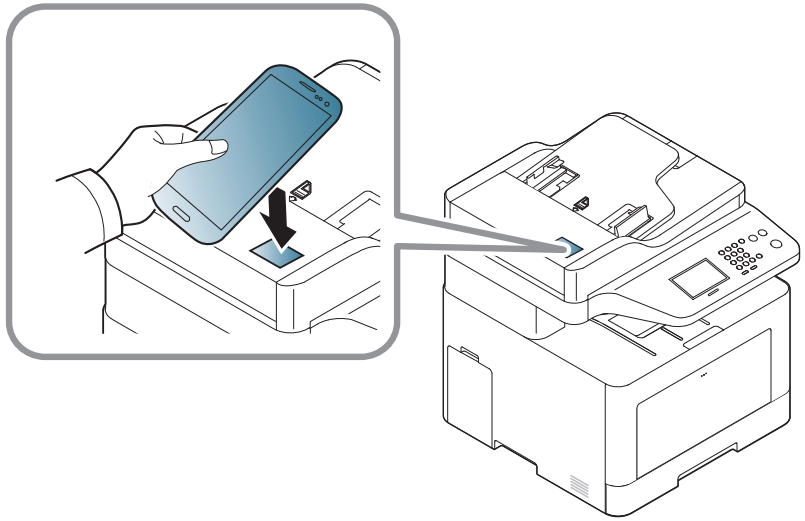
4 Select the content you want to print.

If neccessary, change the print option by pressing the .

Using the NFC feature

5 Tag the NFC tag on your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the mobile device to connect to the printer.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- If error message about changed PIN number appears, enter a changed PIN number and press **OK**. Follow the instruction on the app screen to update the PIN number.

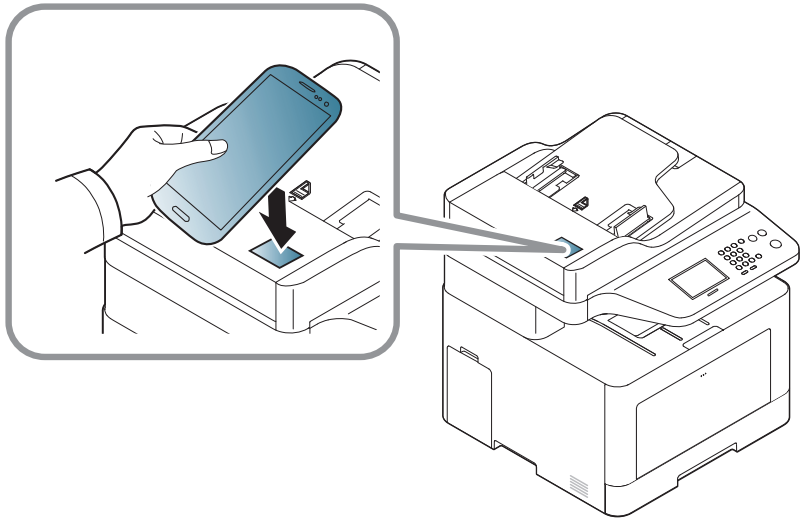
6 The printer starts printing.

Scanning

1 Check that NFC and Wi-Fi Direct features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer (see "Setting the Wi-Fi Direct for mobile printing" on page 196).

2 Tag the NFC tag on your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the **Samsung Mobile Print** app to start.



Using the NFC feature

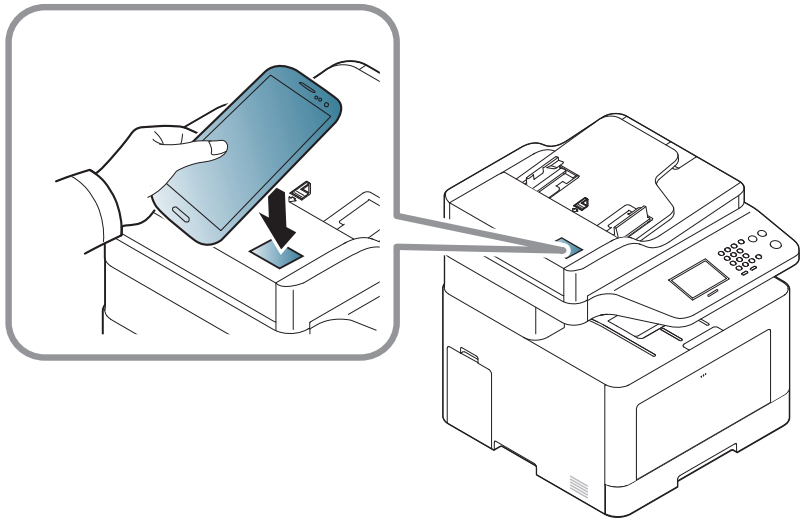
- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- If error message about changed PIN number appears, enter a changed PIN number and press **OK**. Follow the instruction on the app screen to update the PIN number.
- If your do not have **Samsung Mobile Print** app installed on your mobile devices, it automatically connects to **Samsung Mobile Print** app download page. Download the app and try again.

3 Select scan mode.

4 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

If necessary, change the scan option by pressing the .

5 Tag the NFC tag on your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- If error message about changed PIN number appears, enter a changed PIN number and press **OK**. Follow the instruction on the app screen to update the PIN number.

6 The printer starts scanning the content.

The scanned data is saved on your mobile device.

Using the NFC feature

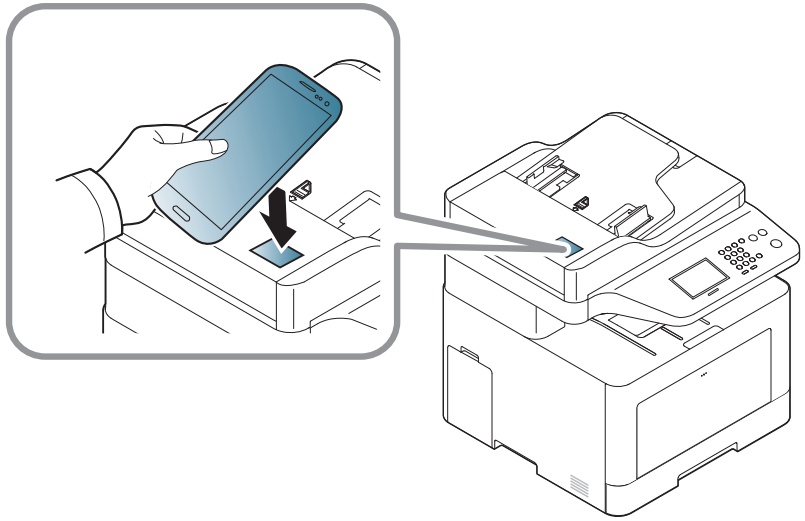
If you want to continue scanning, follow the instruction on the app screen.

Sending Fax

1 Check that NFC and Wi-Fi Direct features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer (see "Setting the Wi-Fi Direct for mobile printing" on page 196).

2 Tag the NFC tag on your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the **Samsung Mobile Print** app to start.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- If error message about changed PIN number appears, enter a changed PIN number and press **OK**. Follow the instruction on the app screen to update the PIN number.
- If your do not have **Samsung Mobile Print** app installed on your mobile devices, it automatically connects to **Samsung Mobile Print** app download page. Download the app and try again.

3 Select fax mode.

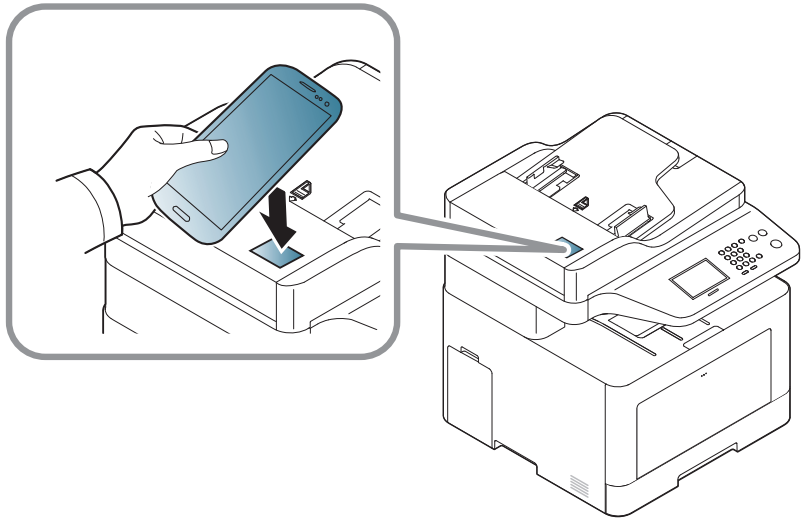
4 Select the content you want to send fax.

If necessary, enter the fax number and change the fax option by pressing the .

Using the NFC feature

5 Tag the NFC tag on your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the mobile device to connect to the printer.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- If error message about changed PIN number appears, enter a changed PIN number and press **OK**. Follow the instruction on the app screen to update the PIN number.

6 The printer starts faxing the content.

AirPrint

Only AirPrint certified machines can use the AirPrint feature. Check the box your machine came in for the AirPrint certified mark.

AirPrint allows you to wirelessly print directly from an iPhone, iPad, and iPod touch running the latest version of iOS.

Setting up AirPrint

Bonjour(mDNS) and IPP protocols are required on your machine to use the **AirPrint** feature. You can enable the **AirPrint** feature by one of the following methods.

1. Check whether the machine is connected to the network.
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** in the upper right of the SyncThru™ Web Service website.
4. Type in the **ID** and **Password**, then click **Login**. If it's your first time logging into SyncThru™ Web Service, type in the below default ID and password. We recommend you to change the default password for security reasons.
   - **ID: admin**
   - **Password: sec00000**
5. When the **SyncThru™ Web Service** window opens, click **Settings** > **Network Settings**.
6. Click **Raw TCP/IP, LPR, IPP** or **mDNS** .

   You can enable the IPP protocol or mDNS protocol.

Printing via AirPrint

For example, the iPad manual provides these instructions:

1. Open your email, photo, web page, or document you want to print.
2. Touch the action icon( ).
3. Select **your printer driver name** and option menu to set up.
4. Touch **Print** button. Print it out.

AirPrint

Cancelling print job: To cancel the printing job or view the print summary, click the print center icon ( ) in multitasking area. You can click cancel in the print center.

Google Cloud Print™

Google Cloud Print™ is a service that allows you to print to a printer using your smart phone, tablet, or any other web-connected devices. Just register your Google account with the printer, and you are ready to use the Google Cloud Print™ service. You can print your document or email with Chrome OS, Chrome browser, or a Gmail™/ Google Docs™ application on your mobile device, so you don't need to install the printer driver on the mobile device. Refer to the Google website (http://www.google.com/cloudprint/learn/ or http://support.google.com/cloudprint) for more information about Google Cloud Print™.

Registering your Google account to the printer

Registering from Samsung Mobile Print app

In order to use this feature, Samsung Mobile Print app needs to be installed on your cell phone.

1 Open Samsung Mobile Print app from your mobile device.

2 Select device setting.

3 Select **Google Cloud Print**.

4 Enter your printer's name and description.

If the network environment is using a proxy server, you need to configure the proxy's IP and port number from **Proxy Setting**. Contact your network service provider or network administrator for more information.

5 Click **Register** .

Confirm your printer in the pop-up window..

6 Click **Finish**.

Now your printer is registered with Google Cloud Print™ service.

Registering from the Chrome Browser

- Make sure the printer machine is turned on and connected to a wired or wireless network that has access to the Internet.
- You should create your Google account in the advance.

1 Open the Chrome browser.

2 Visit www.google.com.

3 Sign in to the Google website with your Gmail™ address.

4 Enter your printer's IP address in the address field and press the Enter key or click **Go**.

5 Click **Login** in the upper right corner of the SyncThru™ Web Service website.

6 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**. We recommend you to change the default password for security reasons.

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

If the network environment is using a proxy server, you need to configure the proxy's IP and port number from **Settings** > **Network Settings** > **Google Cloud Print** > **Proxy Setting**. Contact your network service provider or network administrator for more information.

7 When the **SyncThru™ Web Service** window opens, click **Settings** > **Network Settings** > **Google Cloud Print**.

8 Enter your printer's name and description.

9 Click **Register**.

The confirmation pop-up window appears.

If you set the browser to block pop-ups, the confirmation window will not appear. Allow the site to show pop-ups.

10 Click **Finish printer registration**.

11 Click **Manage your printers**.

Now your printer is registered with Google Cloud Print™ service.

Google Cloud Print™-ready devices will appear in the list.

Printing with Google Cloud Print™

The printing procedure varies depending on the application or the device you are using. You can see the application list that supports Google Cloud Print™ service.

Make sure the printer is turned on and connected to a wired or wireless network that has access to the Internet.

Printing from an application on mobile device

The following steps are an example of using the Google Docs™ app from Android mobile phone.

Google Cloud Print™

1 Install the Cloud Print application on your mobile device.

If you do not have the application, download it from the application store such as Android Market or App Store.

2 Access the Google Docs™ application from your mobile device.

3 Tap the option button of the document that you want to print.

4 Tap the send button.

5 Tap the Cloud Print button.

6 Set the printing options if you want.

7 Tap **Click here to Print**.

Printing from the Chrome browser

The following steps are an example of using the Chrome browser.

1 Run Chrome.

2 Open the document or email that you want to print.

3 Click the wrench icon in the browser's top right corner.

4 Click **Print**. A new tab for printing appears.

5 Select **Print with Google Cloud Print**.

6 Click the **Print** button.

3. Useful Setting Menus

This chapter explains how to browse the current status of your machine, and the method of setting for advanced machine setup.

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Before you begin reading a chapter

This chapter explains all the features available for this series' models to help users easily understand the features.

You can check the features available for each model in the Basic Guide (see "Menu overview" on page 30).

The following are tips for using this chapter

- The control panel provides access to various menus to set up the machine or use the machine's functions. These menus can be accessed by pressing (**Menu**) or from the touch screen.
- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- For models that do not have the (**Menu**) on the control panel, this feature is not applicable (see "Control panel overview" on page 23).
- Some menu names may differ from your machine depending on its options or the models.

Print

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **Print Setup** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Print Setup** on the touch screen.

Item	Description
Orientation	Selects the direction in which information is printed on a page. • **Portrait** • **Landscape**
Copies	You can enter the number of copies using the number keypad.
Resolution	Specifies the number of dots printed per inch (dpi). The higher the setting, the sharper printed characters and graphics.
Clear Text	Prints text darker than on a normal document.
Emulation	Sets the emulation type and option. • **Emulation Type:** The machine language defines how the computer communicates with the machine. • **Setup:** Sets the detailed settings for the selected emulation type.
Edge Enhance	It allows user to enhance sharpness of text and graphics for improving readability.
Trapping	It reduces the white gap caused by misalignment of color channels in color printing mode. Also black text will be overprinted on other colors.
Screen	This option affect the resolution and clarity of your color output. • **Normal:** This mode will generate printouts with smooth tone over the entire page. • **Enhanced:** This mode will generate printouts with sharp texts and smooth graphic/photo objects in the page. • **Detailed:** This mode will generate printouts with sharp details over the entire page.
Select Tray	Sets the select tray type.

Copy

Copy feature

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

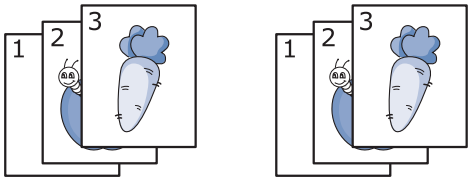
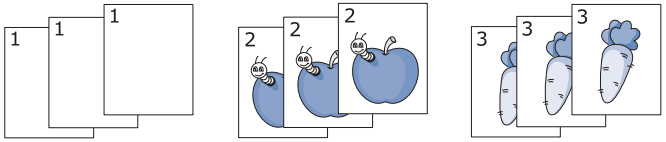
- Press (copy) > (**Menu**) > **Copy Feature** on the control panel.

  Or (**Menu**) > **Copy Feature** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Copy Default** on the touch screen.
- Or press **Copy** > select the menu item you want on the touch screen.

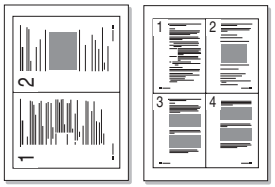
Item	Description
Original Size	Sets the image size.
Copies	You can enter the number of copies using the number keypad.
Reduce/Enlarge	Reduces or enlarges the size of a copied image (see "Reduced or enlarged copy" on page 61). If the machine is set to Eco mode, reduce and enlarge features are not available.
Darkness	Adjusts the brightness level to make a copy that is easier to read, when the original contains faint markings and dark images (see "Darkness" on page 60)
Original Type	Improves the copy quality by selecting the document type for the current copy job (see "Original Type" on page 61)
Auto Color	You can sets whether to use Auto color on or off. • **On:** Select this setting to automatically detect whether the scanned document is in color or black and white, and then select an appropriate color setting.
Basic Copy	Copies can be started quickly.
Custom Copy	Copies can be customized through detailed options.

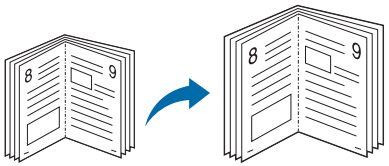
Copy

Item	Description
Color Mode	You can select the default color mode to use for copy jobs. • **Auto:** Select this setting to automatically detect whether the scanned document is in color or black and white, and then select an appropriate color setting. • **Color:** Select this setting to print the same as the original image color. • **Mono:** Select this setting to print the copy in black and white, regardless whether the scanned document is in color or in black and white.
Tray	Allows you to check the current tray settings and change the settings if necessary. **Auto:** You can set the machine to automatically to the tray with the same sized paper when the tray in use is empty.
Stamp	You can apply the stamp feature. • **Item**: Prints the time and date, IP address, page number, device information, comment, or user ID, to the copy output. • **Opacity**: You can select the transparency. • **Position**: Sets the position.

Item	Description
Auto Fit Copy	Copies image to fit automatically to the paper size.
Layout	Adjusts the layout format such as ID copy, 2/4-up, etc.
ID Copy	This feature is helpful for copying a small-sized item such as business card (see "ID card copying" on page 62).
• **Collation** • **Collation Copy**	Set the machine to sort the copy job. For example, if you make 2 copies of a 3 page original, one complete 3 page document will print followed by a second complete document. • **On:** Prints output in sets to match the sequence of originals.  • **Off:** Prints output sorted into stacks of individual pages. 

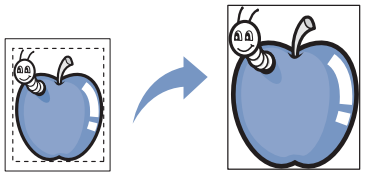
Copy

Item	Description
• **2-up** or **4-up** • **N-up Copy**	Reduces the size of the original images and prints 2 or 4 pages onto one sheet of paper. 

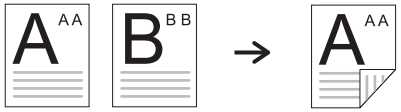
Item	Description
Book Copy	The Book Copy feature allows you to copy an entire book. If the book is too thick, lift the cover until its hinges are caught by the stopper and then close the cover. If the book or magazine is thicker than 30 mm, start copying with the cover open.  • **Off:** Does not use this feature. • **Left Page:** Use this option to print left page of the book. • **Right Page:** Use this option to print right page of the book. • **Both Page:** Use this option to print both pages of the book. This copy feature is available only when you place originals on the scanner glass.

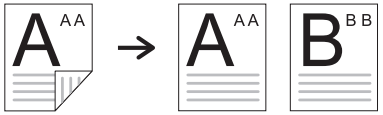
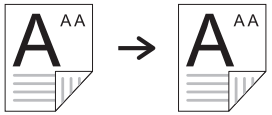
Copy

Item	Description
• **Adjust Bkgd.** • **Adjust Background**	Prints an image without its background. This copy feature removes the background color and can be helpful when copying an original containing color in the background, such as a newspaper or a catalog. • **Off:** Does not use this feature. • **Auto:** Optimizes the background. • **Enhance Lev.1~2:** The higher the number is, the more vivid the background is. • **Erase Lev.1~4:** The higher the number is, the lighter the background is.

Item	Description
Edge Erase	Allows you to erase spots, drill holes, fold creases and staple marks along any of the four edges of a document.  • **Off:** Does not use this feature. • **SmallOriginal:** rases the edge of the original if it is small. This feature is available only when you place originals on the scanner glass. • **Hole Punch:** Erases the marks of bookbinding holes. • **Book Center:** Erases the middle part of the paper which is black and horizontal, when you copy a book. This feature is available only when you place originals on the scanner glass. • **Border Erase:** Enter the left, right, top, bottom margin using Number keypad.

Copy

Item	Description
Watermark	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.
Duplex	You can set the machine to print copies on both sides of paper. • **1 Sided:** Scans one side of an original and prints it on one side of the paper. • **1->2Sided**  • **1->2Sided Rotated**

Item	Description
Duplex (continue)	• **2->1Sided**  • **2->2Sided**  • **2->1Sided Rotated**

Copy

Copy Setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

Press (copy) > (**Menu**) > **Copy Setup** on the control panel.

Or (**Menu**) > **Copy Setup** on the control panel.

Item	Description
Change Default	The copy options can be set to those most frequently used.

Fax

Fax Feature

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (fax) > (**Menu**)> **Fax Feature** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Fax Default** on the touch screen.
- Or press **Fax** > select the menu item you want on the touch screen.
- Or press **Setup** > **Machine Setup** > **Next** > **Fax Setup** on the touch screen.

Item	Description
Original Size	Sets the image size.
Original Type	Enhances the fax quality based on the type of the original document being scanned.
Darkness	Adjusts the brightness level to scan an original that is easier to read, when the original contains faint markings and dark images (see "Darkness" on page 69).
Resolution	The default document settings produce good results when using typical text-based originals. However, if you send originals that are of poor quality, or contain photographs, you can adjust the resolution to produce a higher quality fax (see "Resolution" on page 68).
Color Mode	Selects the color mode in which you want to send the fax. • **Mono:** Transmits a fax in black and white. • **Color:** Transmits a fax in color.
Duplex	This function is especially intended for two-sided originals. You can select whether the machine sends the fax on one side or both sides of the paper. • **1 Sided:** For originals that are printed on one side only. • **2 Sided:** For originals that are printed on both sides. • **2 Sided Rotated:** For originals that are printed on both sides, but the back is rotated 180 degrees. To use **2 Sided** and **2 Sided, Rotated**, load the originals on the DADF. If the machine cannot detect the original on the DADF, it automatically changes the option to **1 Sided**.
Memory Send	Fax can be customized through detailed options.

Fax

Item	Description
On Hook Dial	Access a dial tone to send fax.
Speed Dial Send	Fax image to destination from speed dial list.
Group Dial Send	Fax image to destination from group dial list.
Redial	Redials the recently sent fax number or received caller ID in ready mode, or inserts a pause(-) into a fax number in edit mode (see "Redialing the fax number" on page 282).
Multi Send	Sends a fax to multiple destinations (see "Sending a fax to multiple destinations" on page 67). You cannot send a color fax using this feature.
• **Delay Send** • **Delayed Send**	Sets your machine to send a fax at a later time when you will not be present (see "Delaying a fax transmission" on page 283). You cannot send a color fax using this feature.

Item	Description
Send Forward **Receive Forward**	Forwards the received or sent fax to other destination by a fax or PC. If you are out of office but have to receive the fax, this feature may be useful. • See "Forwarding a sent fax to another destination" on page 284. • See "Forwarding a received fax" on page 285.
Secure Receive	Stores the received fax in memory without printing out. To print received documents, you need to enter the password. You can prevent your received faxes from being accessed by unauthorized people (see "Receiving in secure receiving mode" on page 289).
Cancel Job	Cancels the delayed fax job which is saved in memory (see "Canceling a reserved fax job" on page 284).

Sending setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Fax

To change the menu options:

- Press (fax) > (**Menu**) > **Fax Setup** > **Sending** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Fax Default** on the touch screen.
- Or press **Setup** > **Machine Setup** > **Next** > **Fax Setup** on the touch screen.

Item	Description
Redial Times	Sets the number of redial attempts. If you enter 0, the machine will not redial.
Redial Term	Sets the time interval before automatic redialling.
Prefix Dial	Sets a prefix of up to five digits. This number dials before any automatic dial number is started. It is useful for accessing a PABX exchange.
ECM Mode	Sends faxes using error correction mode (ECM) to makes sure the faxes are sent smoothly without any error. It may take more time.
• **Fax Confirmation** • **Fax Send Confirmation**	Sets the machine to print a report whether a fax transmission was successfully completed or not. If you select **On-Error**, the machine prints a report only when a transmission is not successful.
Modem speed	Select the maximum modem speed you want if the phone line fails to sustain a higher modem speed. You can select 33.6, 28.8, 14.4, 12.0, 9.6 or 4.8 kbps.
Image TCR	Prints a transmission report with a minimized image of the first page of the fax sent.
Dial Mode	Sets the dialing mode to either tone or pulse. This setting may not be available depending on your country.
Toll Save	Sends faxes at a preset toll-saving time to save on call costs. This setting may not be available depending on your country.
Setup Wizard	Makes it easy to configure the necessary fax options such as machine ID, fax number, etc.

Receiving setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Fax

To change the menu options:

- Press (fax) > (**Menu**) > **Fax Setup** > **Receiving** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Fax Default** on the touch screen.
- Or press **Setup** > **Machine Setup**> **Next** > **Fax Setup** on the touch screen.

Item	Description
Receive Mode	Selects the default fax receiving mode（see "Changing the receive modes" on page 287）.
Ring To Answer	Specifies the number of times the machine rings before answering an incoming call.
Stamp RCV Name	Automatically prints the page number, and the date and time of reception at the bottom of each page of a received fax.
Rcv Start Code	Initiates fax reception from an extension phone plugged into the EXT socket on the back of the machine. If you pick up the extension phone and hear fax tones, enter the code. It is preset to *9* at the factory.
Auto Reduction	Automatically reduces an incoming fax page to fit the size of the paper loaded in the machine.
Discard Size	Discards a specific length from the end of the received fax.

Item	Description
DRPD Mode	Enables a user to use a single telephone line to answer several different telephone numbers. You can set the machine to recognize different ring patterns for each number. This setting may not be available depending on your country (see "Receiving faxes using DRPD mode" on page 288).
Duplex Print	Prints the received fax data on both sides of the paper. You can save the paper usage. • **Off:** Prints only one side of the paper. • **Long Edge:** Prints both sides of the paper; however, the binding will be the long edge. • **Short Edge:** Prints both sides of the paper; however, the binding will be the short edge.

Fax

Change Default setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

Press (fax) > (**Menu**) > **Fax Setup** > **Change Default** on the control panel.

Item	Description
Change Default	The fax options can be set to those most frequently used.

Scan

Scan feature

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (scan) > (**Menu**) > **Scan Feature** on the control panel.

  Or **Scan to** > (**Menu**) > **Scan Feature** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Scan Default** on the touch screen.
- Or press **Scan** > select the menu item you want on the touch screen.

Item	Description
• **USB Default** • **USB Feature** • **USB**	Sets scan destination to a USB. You scan the originals and save the scanned image to a USB device.
• **Email Default** • **Custom Email** • **Scan to Email**	Sets scan destination to an email. You scan the originals and email the scanned image to destinations (see "Scanning to email" on page 276).
• **FTP Feature** • **FTP Default** • **FTP**	Sets scan destination to an FTP server. You scan the originals and send the scanned image to an FTP server (see "Scanning to FTP/SMB server" on page 277).
• **SMB Feature** • **SMB Default** • **SMB**	Sets scan destination to an SMB server. You scan the originals and send the scanned image to an SMB server (see "Scanning to FTP/SMB server" on page 277).
Local PC	Sets scan destination to a usb-connected computer. You scan the originals and save the scanned image to a directory such as **My Documents** (see "Basic Scanning" on page 65).
Network PC	Sets scan destination to a network-connected computer. You scan the originals and save the scanned image to a directory such as **My Documents** (see "Scanning from network connected machine" on page 275).

Scan

Item	Description
File Format	Sets the file format in which the image is to be saved. If you select JPEG, TIFF, XPS or PDF, you can select to scan multiple pages. Depending on the selected scan type, this option may not appear. • **Single-TIFF**: Scans the originals in TIFF (Tagged Image File Format), and several originals are scanned as an each individual TIFF file. • **Multi-TIFF**: Scans originals in TIFF (Tagged Image File Format), but several originals are scanned as one file. • **Single-PDF**: Scans the originals in PDF, and several originals are scanned as an each individual TIFF file. • **Multi-PDF**: Scans originals in PDF, but several originals are scanned as one file. • **Single-XPS**: Scans the originals in XPS, and several originals are scanned as an each individual TIFF file. • **Multi-XPS**: Scans originals in XPS, but several originals are scanned as one file. • **JPEG**: Scans original in JPEG format. • **XPS**: This feature is only supported for the devices that have mass storage. • The file format **JPEG** cannot be selected in the File Format option, if **Mono** has been selected for **Color Mode**.

Item	Description
Shared Folder	Sets scan destination to a shared folder. You can create and use the shared folder (see "Using shared folder features" on page 291).

Scan setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (scan) > (**Menu**) > **Scan Setup** on the control panel.

  Or **Scan to** > (**Menu**) > **Scan Setup** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Scan Default** on the touch screen.
- Or press **Scan** > select the menu item you want on the touch screen.

Item	Description
Destination	Enter the destination's information.

Scan

Item	Description
Change Default	The scan options can be set to those most frequently used.
Original Size	Sets the image size.
Original Type	Sets the original document's type.
Resolution	Sets the image resolution.
Color Mode	You can select the color options of scan outputs. • **Color:** Uses color to display an image. 24 bits per pixel, 8 bits for each RGB, is used for 1 pixel. • **Gray:** Uses the black gradation to display an image. 8 bits per pixel. • **Mono:** Displays an image in black and white. 1 bit per pixel.
Darkness	Adjusts the brightness level to scan.

Item	Description
Duplex	Selects if the machine scans one side of the paper (1 Sided), both sides of the paper (2 Sided), or both sides of the paper (2 Sided Rotated). • **1 Sided:** For originals that are printed on one side only. • **2 Sided:** For originals that are printed on both sides. • **2 Sided Rotated:** For originals that are printed on both sides, but the back is rotated 180 degrees. If an original is placed on the scanner glass, the machine shows the window asking to place another page. Load another original and press Yes. When you finish, select No for this option.
File Policy	You can choose the policy for generating file name before you proceed with the scan job through server or USB memory device. If the server or the USB memory device already has the same name you enter, you can change the name, cancel the job, or overwrite it. • **Rename:** The sent file is saved as a different file name that is automatically programmed. • **Overwrite:** Overwrites the existing the file.
File Name	Makes a file name to store the scan data.

Scan

Item	Description
Server Confirmation	You can set the machine to print server confirmation result report. If you select **On-Error**, the machine prints a report only when a transmission is not successful.
Email Confirmation	You can set the machine to print email confirmation result report. • If you select **On-Error**, the machine prints a report only when a transmission is not successful. • If a report contains characters or fonts that the machine does not support, **Unknown** could be printed instead of the characters/ fonts in the report.
PDF Encryption	Encrypts the PDF files when you scan the originals in PDF format. Select **On** to encrypt the PDF file, and set up a password. To open the file, users need to enter the password
Subject	Sets an email's subject.
From	Sets a sender's email address.

Item	Description
CC	Sends the copy of the email to an additional recipient.
BCC	The same as **CC** but the recipient's name is not displayed.
WSD	Scans the originals and saves the scanned data on the connected computer if it supports the WSD (Web Service for Device) feature.

System setup

Machine setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **System Setup** > **Machine Setup** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Initial Setup** on the touch screen.
- Or press **Setup** > **Machine Setup** > select the menu item you want on the touch screen.

Item	Description
Machine ID	Sets the machine ID which will be printed at the top of each fax page that you send.
Fax Number	Sets the fax number which will be printed at the top of each fax page that you send.
Date & Time	Sets the date and time.
Clock Mode	Selects the format for displaying time between 12 hr. and 24 hr.

Item	Description
Receive Mode	Selects the default fax receiving mode.
Receive code	This feature works best when you are using an extension telephone connected to the EXT socket on the back of your machine. You can receive a fax from someone you are talking to on the extension telephone, without going to the fax machine. *9* is the remote receive code preset at the factory (see "Receiving faxes with an extension telephone" on page 288).
Select Country	Selects the country.
Sound/Volume	Sets the sound/volume option.
Toner Status Alert	If toner in the cartridge has run out, a message informing the user to change the toner cartridge appears. You can set the option for this message to appear or not.

System setup

Item	Description
ImageOverwrite	You can set the machine to overwrite data stored in the memory. The machine overwrites the data with different patterns eliminating the possibilities of recovery. • **Manual:** When printing, copying, scanning, and faxing, the machine temporarily uses memory space. For security reasons, you can set the machine to manually overwrite secure non-volatile memory. If you want to secure memory space, you can manually overwrite secure non-volatile memory. • **Automatic:** When a job is completed, there are temporary images left in the memory. For security reasons, you can set the machine to automatically overwrite secure non-volatile memory. If you want to secure memory space, you can set the machine to automatically overwrite secure non-volatile memory
Language	Sets the language of the text that appears on the control panel display.
Default Mode	Sets the machine's default mode among fax mode, copy mode, or scan mode.
Default Paper Size	You can set the default paper size to use.
Power Save	Sets how long the machine waits before going to power save mode. When the machine does not receive data for an extended period of time, power consumption is automatically lowered.

Item	Description
System Timeout	Sets the time that the machine remembers previously used copy settings. After the timeout, the machine restores the default copy settings.
Job Timeout	Sets the length of time the printer waits before printing the last page of a print job that does not end with a command to print the page.
Wakeup Event	When this option is "**On**", you can wake up the machine from the power saving mode with the following actions: • pressing any button on the control panel • loading paper in a tray • opening or closing the front cover • pulling a tray out or pushing a tray in • connecting a USB memory device (only for the models that support USB memory devices) If the machine does not have the touch screen, you can wake up the machine from the power saving mode by pressing any button on the control panel regardless of this option's setting.

System setup

Item	Description
Auto Continue	Determine whether or not the machine continues printing when it detects the paper does not match the paper settings. • **0 Sec:** This option allows you to continue printing when the paper size you have set is mismatched with the paper in the tray. • **30 Sec:** If a paper mismatch occurs, an error message will display. The machine waits for about 30 second, then automatically clear the message and continue printing. • **Off:** If a paper mismatch occurs, the machine waits until you insert the correct paper.
Altitude Adjustment	Optimize print quality according to the machine's altitude.
Humidity	Optimizes print quality according to the humidity in the environment.
Auto CR	Allows you to append the required carriage return to each line feed, which is useful for Unix or DOS users.
Firmware Version	Shows the product's firmware version.

Item	Description
Auto Tray Switch	Determine whether or not the machine continues printing when it detects the paper does not match. For example, if both tray 1 and tray 2 are filled with the same size paper, the machine automatically prints from tray 2 after the tray 1 runs out of paper. This option does not appear if you selected **Auto** for **Paper Source** from printer driver.
Paper Substitution	Automatically substitutes the printer driver's paper size to prevent the paper mismatch between Letter and A4. For example, if you have A4 paper in the tray but you set the paper size to Letter in the printer driver, the machine prints on A4 paper and vice versa.
Skip Blank Pages	The printer detects the printing data from computer whether a page is empty or not. You can set to print or skip the blank page.
Tray Protection	Decides to use or not use the **Auto tray switch** feature. If you set tray 1 to **On**, for example, then tray 1 is excluded during tray switching. This setting works for copy or print jobs: It doesn't affect fax jobs.

System setup

Item	Description
PDF Type	Allows you to select the PDF type when saving the data as a PDF file. • **Standard**: Saves the data as a regular PDF. • **PDF/A**: Saves the data as a PDF that has the necessary information to render itself in any environment. PDF/A file must be self-contained: it cannot rely on another application to render fonts, open hyperlinks, or execute scripts, audio files, or video files.
Stamp	You can apply the stamp feature. • **Item**: Prints the time and date, IP address, page number, device information, or user ID, to the copy output. • **Opacity**: You can select the transparency. • **Position**: Sets the position.
Address Book	Views or prints the phone book or email address list.
Import Setting	Imports data stored on a USB memory stick to the machine.
Export Setting	Exports data stored on the machine stick to a USB memory.

Item	Description
CLR Empty Msg	When toner cartridge is empty, this option appears. You can clear the empty message.
Troubleshooting	Helpful information for what to do if you encounter an error.
Eco Settings	Allows you to save print resources and enables eco-friendly printing. • **Default Mode:** Select whether to turn the Eco mode on or off. **On force** (**On-Forced**): Sets the Eco mode on with password. If a user wants to turn the Eco mode on/off, the user needs to enter the password. • **Select Template:** Selects the eco template set from the SyncThru™ Web Service.
Vapor Mode	You can reduce the amount of water vapor produced during printing. • **Off:** Disables vapor mode. • **On:** Enables vapor mode. • **Auto:** Automatically enters vapor mode according to time in high humidity environments.

Item	Description
Auto Power Off	Turns power off automatically when the machine has been in power save mode for the length of time set in **Auto Power Off** > **On** > **Timeout**. • To turn the machine on again, press the (**Power/Wake Up**) button on the control panel (make sure the main power switch is on). • If you run the printer driver or **Samsung Easy Printer Manager**, the time automatically extends. • While the machine is connected to the network or working on a print job, **Auto Power Off** feature doesn't work.
• **Image Management** • **Image Mgr.**	Allows you to adjust the color setting such as color registration, color density, etc.
Custom Color	This menu allows you to adjust contrast, color by color. • **Default:** Optimizes colors automatically. • **Print Density:** Allows you to manually adjust the color density for print. Adjust the print density. It is recommended to use the **Default** setting for best color quality.

Item	Description
• **Auto Color Reg.** • **Auto Color Registration**	The machine virtually prints certain patterned image to calibrate the color printing position. This feature enhances the colored image sharper and clearer, which means the machine prints the colored image on the paper more like the one in the monitor. If you have moved the machine, it is strongly recommended to operate this menu manually.
Tone Adjustment	• **Default**: The machine automatically calibrates the toner density of machine for the best possible color print quality. If you select Off, the machine is calibrated by the factory default toner density. • **Auto Tone Adjustment** (**Auto Tone Adj.**): Allows you to automatically adjust tone for the best possible print quality. • **Calibrating ID Sensor** (**Cal. ID Sensor**): Automatically calculates the reduced or worn out supplies like toner or machine parts and uses this information to adjust the color density. For example, if the yellow toner is running out, the machine calculates the amount of remaining yellow toner and adjusts color density so the printouts are fine.

System setup

Paper setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **System Setup** > **Paper Setup** on the control panel.
- Or press **Setup** > **Machine Setup** > **Next** > **Paper Setup** on the touch screen.

Item	Description
Paper Size	Sets the paper size as A4, Letter, or other paper sizes, according to your requirements.
Paper Type	Chooses the type of the paper for each tray.
Paper Source	Selects from which tray the paper is used.
Margin	Sets the margins for the document.

Item	Description
Common Margin	• **Simplex Margin:** Sets the margin for one-sided printing. • **Duplex Margin:** Sets the margin for double-sided printing. • **Binding:** When printing on both sides of the paper, side A's margin closest to the binding will be the same as side B's margin closest to the binding. Likewise, the sides' margins farthest from the binding will be the same. • **Top Margin:** Sets the top margin. • **Left Margin:** Sets the left margin.
Emulation Margin	Sets the paper margins for emulation print page. • **Top Margin:** Sets the top margin. • **Left Margin:** Sets the left margin.
MP Tray	Sets the paper margins in multi-purpose tray. • **Simplex Margin:** Sets the margin for one-sided printing. • **Duplex Margin:** Sets the margins for double-sided printing. • **Top Margin:** Sets the top margin. • **Left Margin:** Sets the left margin.
Manual Feeder	Sets the paper margins in manual feeder tray.

Item	Description
Tray Confirm	Activates the tray confirmation message. If you open and close a tray, a window asking you whether to set the paper size and type for the tray just opened appears.
<Tray X>	Sets the paper margins for the paper trays. • **Simplex Margin:** Sets the margin for one-sided printing. • **Duplex Margin:** Sets the margins for double-sided printing. • **Top Margin:** Sets the top margin. • **Left Margin:** Sets the left margin.

Sound / Volume

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **System Setup** > **Sound** on the control panel.
- Or press **Setup** > **Machine Setup**> **Next** > **Initial Setup** > **Sound/Volume** on the touch screen.

Item	Description
Key Sound	Turns the key sound on or off. A tone sounds each time a key is pressed if this option is on.
Alarm Sound	Turns the alarm sound on or off. An alarm tone sounds when an error occurs or fax communication ends if this option is on.
Speaker Volume	Turns on or off the sounds from the telephone line through the speaker, such as a dial tone or a fax tone. With this option set to **Comm.** which means the speaker is on until the remote machine answers. You can adjust the volume level using **On Hook Dial**. You can adjust the speaker volume only when the telephone line is connected. **a** Press (fax) on the control panel. **b** Press **On Hook Dial**. A dial tone sounds from the speaker. **c** Press the arrows until you hear the volume you want. **d** Press **On Hook Dial** to save the change and return to ready mode.
Dial Tone volume	Adjusts the dial tone volume. You can select different levels.
Ring Volume	Adjusts the ring volume. You can select different levels.

System setup

Report

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **System Setup** > **Report** on the control panel.
- Or press **Setup** > **Machine Setup**> **Next** > **Reports** on the touch screen.

Item	Description
Configuration	Prints a report on the machine's overall configuration.
• **Supplies Info.** • **Supplies Information**	Prints supplies' information page.
Address Book	Prints all of the email addresses currently stored in the machine's memory.
Demo Page	Prints the demo page to check whether your machine is printing properly or not.
Fax Send Confirmation	Prints fax confirmation result.

Item	Description
Fax Sent	Prints information on the faxes you have recently sent.
Fax Received	Prints information on the faxes you have recently received.
Email Sent	Prints information on the emails you have recently sent.
• **Fax Scheduled Jobs** • **Fax Schedule Jobs**	Prints the document list currently stored for delayed faxes along with the starting time and type of each operation.
Network Configuration	Prints information on your machine's network connection and configuration.
PCL Font List	Prints the PCL font list.
PS Font List	Prints the PS/PS3 font list.
Usage Counter	Prints a usage page. The usage page contains the total number of pages printed.
Fax Options	Prints the information of a fax reports.
Account	This is only available when Job Accounting is enabled from the SyncThru™ Web Admin Service. You can print a report of printout counts for each user.

System setup

Maintenance

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **System Setup** > **Maintenance** on the control panel.

Item	Description
CLR Empty Msg.	When toner cartridge is empty, this option appears. You can clear the empty message.
Supplies Life	Shows the supply life indicators (see "Monitoring the supplies life" on page 95.)
Image Mar.	Allows you to adjust the color setting such as color registration, color density, etc.
TonerLow Alert	Customizes the level to alert toner low or toner empty (see "Setting the toner low alert" on page 96).
Serial Number	Shows the machine's serial number. When you call for service or register as a user on the Samsung website, you can find this.
Paper Stacking	If you use a machine in a humid area, or you are using the damp print media caused by a high humidity, the print-outs on the output tray may be curled and may not be stacked properly. In this case, you can set the machine to use this function to let print-outs be stacked firmly. But, using this function will make the print speed slow.
Ram Disk	Enables/disables Ram disk to manage jobs.

Job manage

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press (**Menu**) > **System Setup** > **Job Manage** on the control panel.

Item	Description
Active Job	Shows the print job lists that are waiting to be printed.
Stored Job	Shows the print job lists that are stored on the disk.

Item	Description
Secured Job	Shows the print job lists that are secured on the disk.

Address book setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

- Press **Setup** > **Machine Setup** > **Next** > **Address Book** on the touch screen.

Option	Description
PhoneBook	Adds, views, prints or deletes the phone book list. You also can create a group.
Email	Adds, views, prints or deletes the email list. You also can create a group.
Print	Prints the address book.
Reset	Resets the current address book.

Document box

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Press **Document Box** > **Next** > select the menu item you want on the touch screen.

Option	Description
System Boxes	Stores the printing data or prints the secure page. • **Stored Print:** Prints out the stored data without entering password. • **Secured Print:** Prints out the stored data with entering password.
Shared Folder	Show the shared folders on your network and save your jobs there.

System setup

Network setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

You can also use this feature from the SyncThru™ Web Service. Open the Web browser from your networked computer and type the IP address of your machine. When SyncThru™ Web Service opens, click **Settings** > **Network Settings** (see "Using SyncThru™ Web Service" on page 300).

- Press (**Menu**)> **System Setup**> **Network** on the control panel,
- Or press **Setup** > **Machine Setup** > **Next** > **Network Setup** on the touch screen.

Option	Description
TCP/IP (IPv4)	Selects the appropriate protocol and configure parameters to use the network environment（see "Setting IP address" on page 163). There are lots of parameters to be set. If you are not sure, leave as is, or consult the network administrator.
TCP/IP (IPv6)	Selects this option to use the network environment through IPv6 (see "IPv6 configuration" on page 174).
Ethernet Speed	Configure the network transmission speed. Turn the power off and on after you change this option.
802.1x	You can selects the user authentication for network communication. For detailed information consult the network administrator.
Wireless	Selects this option to use the wireless network.

Option	Description
Clear Settings	Reverts the network settings to the default values. Turn the power off and on after you change this option.
Network Configuration	This list shows information on your machine's network connection and configuration.
• **Net. Activate** • **Ethernet Activate**	You can set whether to use Ethernet on or off. Turn the power off and on after you change this option.
Http Activate	You can set whether to use SyncThru™ Web Service or not. Turn the power off and on after you change this option.

Option	Description
WINS	You can configure the WINS server. WINS(Windows Internet Name Service) is used in the Windows operating system. Turn the power off and on after you change this option.
SNMP V1/V2	You can set SNMP (Simple Network Management Protocol). Administrator's can use SNMP to monitor and manage machines on the network.
SNTP	You can set SNTP (Simple Network Time Protocol) settings. SNTP synchronizes the clocks of the computer systems through the Internet (NTP) so there would not be a time difference when exchanging data.
UPnP(SSDP)	You can set UPNP protocol. Turn the power off and on after you change this option.
MDNS	You can set mDNS (Multicast Domain Name System) settings.
SetIP	You can set SetIP settings.

Option	Description
SLP	You can configure SLP (Service Location Protocol) settings. This protocol allows host applications to find services in a local area network without prior configuration. Turn the power off and on after you change this option.

Admin setup

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

Press **Setup** > **Admin Setup** > **Next** on the touch screen.

Item	Description
User Access Control	You can control user access to a machine. You can assign different levels of permissions to use the machine to each user. You can also use this feature from the SyncThru™ Web Service. Open the Web browser from your networked computer and type the IP address of your machine. When SyncThru™ Web Service opens, click the **Security** tab > **User Access Control** (see "Registering authorized users" on page 258).
Change Admin. Password	Changes the machine's password for accessing the **Admin Setup**.
Firmware Upgrade	To upgrade the latest firmware, turn this option "**On**" and then download the firmware file.
Stamp	Sets the stamp feature to access the Admin Setup menu.

Eco

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press **Eco** > select the menu item you want on the touch screen.

Item	Description
Eco-On	Select eco mode and change on/off or on-forced option.
Settings	Sets eco-related settings and change default settings. • **Default Mode:** Select this to turn on or off the default mode. • **Feature Configuration:** Select the **Default** mode or **Custom** mode.

Direct USB

Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 30).

To change the menu options:

- Press **Direct USB** > select the menu item you want on the touch screen.

Item	Description
Print From	Views the file list from the **File Navigation**. Select a file to print.
Scan to USB	Sets scan destination to a USB. You scan the originals and save the scanned image to a USB device.
File Manage	Views the file list from the **File Navigation**. Select a file to delete. You can format the USB device.
Show Space	Shows the remaining space.

4. Special Features

This chapter explains special copying, scanning, faxing, and printing features.

- Altitude adjustment 250
- Storing email address 251
- Entering various characters 253
- Setting up the fax address book 254
- Registering authorized users 258
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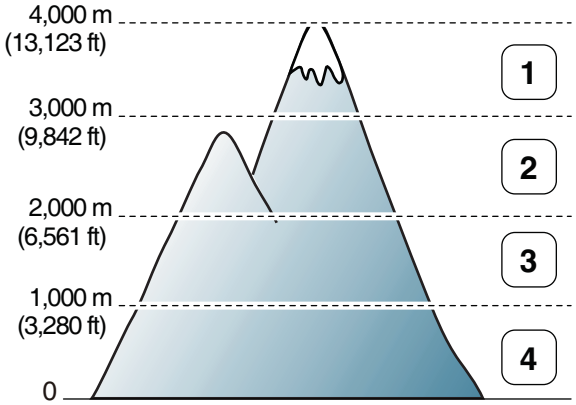
- Using optional device features 292

- The procedures in this chapter are mainly based on Windows 7.
- It may be necessary to press **OK** to navigate to lower-level menus for some models.

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.



1 **High 3**
2 **High 2**
3 **High 1**
4 **Normal**

You can set the altitude value from **Device Settings** in Samsung Easy Printer Manager program.

- For Windows and Mac users, you set from **Samsung Easy Printer Manager** > **(Switch to advanced mode)** > **Device Settings**, see "Device Settings" on page 307.

- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).
- You can also set the altitude in **System Setup** option on the machine's display (see "Machine's basic settings" on page 37).

Storing email address

This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

You can set up address book with the email addresses you use frequently via SyncThru™ Web Service and then easily and quickly enter email addresses by entering the location numbers assigned to them in address book.

Storing on your machine

To scan and send an image as an email attachment, you need to set up email address using SyncThru™ Web Service.

1 Access the SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).

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

3 Type in the **ID** and **Password** then click **Login**. We recommend you to change the default password for security reasons.

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

4 Click **Address Book** > **Individual** > **Add**.

5 Select the **Speed No.** and enter e-mail address and fax number.

If you need to set SMB or FTP sever information, check SMB or FTP and set the information.

6 Click **Apply**.

If you make a group,

1 Click **Address Book** > **Group** > **Add Group**.

2 Select the **Speed No.** and enter **Group Name**.
You can easily add individual address if you check **Yes** for **Add individual(s) after this group is created**.

3 Click **Apply**.

Storing email address

Searching for an email address

Searching sequentially through memory

1 Select (scan) > (**Address Book**) > **Search&Send** > Select an address group > **All** on the control panel.

Or select **Scan to** > (**Address Book**) > **Search&Send** > Select an address group > **All** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Address Book** > **Email** > **View List** > **Individual** or **Group** on the touch screen.

2 Search through the entire memory in index (numerical) order, and select the name and address you want.

Searching with a particular first letter

1 Select (scan) > (**Address Book**) > **Search&Send** > Select an address group > **ID** on the control panel.

Or select **Scan to** > (**Address Book**) > **Search&Send** > Select an address group > **ID** on the control panel.

2 Enter the first few letters of the name you want.

3 Press the arrows until the name and number you want appears.

Entering various characters

As you perform various tasks, you may need to enter names and numbers. For example, when you set up your machine, you enter your name or your company's name, and the fax number. When you store fax numbers or email addresses in memory, you may also enter the corresponding names.

Entering alphanumeric characters

Press the button until the correct letter appears on the display. For example, to enter the letter O, press 6, labeled with MNO. Each time you press 6, the display shows a different letter, M, N, O, m, n, o and finally 6. To find the letter that you want to enter, see "Keypad letters and numbers" on page 253.

- You can enter a space by pressing 1 twice.
- To delete the last digit or character, press the left/right or up/down arrow button.

Keypad letters and numbers

- Special character sets may differ from your machine depending on its options or the models.
- Some of the follow key values may not appear depending on the job you are doing.

Key	Assigned numbers, letters, or characters
1	@ / . ' 1
2	A B C a b c 2
3	D E F d e f 3
4	G H I g h i 4
5	J K L j k l 5
6	M N O m n o 6
7	P Q R S p q r s 7
8	T U V t u v 8
9	W X Y Z w x y z 9
0	& + - , 0
*	* % ^ _ ~ ! # $ ( ) [ ] (These symbols are available when you type for network authentication.)
#	# = | ? " : { } < > ; (These symbols are available when you type for network authentication.)

Setting up the fax address book

You can set up speed number with the fax numbers you use frequently via SyncThru™ Web Service and then easily and quickly enter fax numbers by entering the location numbers assigned to them in address book.

Registering a speed dial number

1 Select (fax) > (**Address Book**) > **New & Edit** > **Speed Dial** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Address Book** > **Phone Book** > **View List** > **Individual** > (options) > **Add** on the touch screen.

2 Enter a speed dial number and press **OK**.

If an entry is already stored in the number you choose, the display shows the message to allow you to change it. To start over with another speed dial number, press (**Back**).

3 Enter the name you want and press **OK**.

4 Enter the fax number you want and press **OK**.

5 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Using speed dial numbers

When you are prompted to enter a destination number while sending a fax, enter the speed dial number at which you stored the number you want.

- For a one-digit (0-9) speed dial number, press and hold the corresponding digit button on the number keypad for more than 2 seconds.
- For a two- or three-digit speed dial number, press the first digit button(s) and then hold down the last digit button for more than 2 seconds.

1 Press **Fax** > **Speed Dial Send** or **Group Dial Send** > **Next** on the touch screen.

2 Select the number you want.

3 Press **Send**.

Setting up the fax address book

Editing speed dial numbers

1 Select (fax) > (**Address Book**) > **New & Edit** > **Speed Dial** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Address Book** > **Phone Book** > **View List** > **Individual** on the touch screen.

2 Enter the speed dial number you want to edit and press **OK**.

3 Change the name and press **OK**.

4 Change the fax number and press **OK**.

5 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Registering a group dial number

1 Select (fax) > (**Address Book**) > **New & Edit** > **Group Dial** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** >**Address Book** > **Phone Book** > **View List** > **Group**> (options) > **Add** on the touch screen.

2 Enter a group dial number and press **OK**.

If an entry is already stored in the number you choose, the display shows the message to allow you to change it. To start over with another speed dial number, press (**Back**).

3 Search by entering the first few letters of the speed dial's name to put in the group.

4 Select the name and number you want and press **OK**.

5 Select **Yes** when **Add?** appears.

6 Repeat step 3 to include other speed dial numbers into the group.

7 When you have finished, select **No** when **Another No.?** appears and press **OK**.

8 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Setting up the fax address book

Editing group dial numbers

1 Select (fax) > (**Address Book**) > **New & Edit** > **Group Dial** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Address Book** > **Phone Book** > **View List** > **Group** on the touch screen.

2 Enter the group dial number you want to edit and press **OK**.

3 Enter a new speed dial number to add and press **OK**, then **Add?** appears.

Enter a speed dial number stored in the group and press **OK**, **Delete?** appears.

4 Press **OK** to add or delete the number.

5 Repeat step 3 to add or delete more numbers.

6 Select **No** at the **Another No.?** and press **OK**.

7 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Searching address book for an entry

There are two ways to search for a number in memory. You can either scan from A to Z sequentially, or you can search by entering the first letters of the name associated with the number.

1 Select ct (fax) > (**Address Book**) > **Search & Dial** > **Speed Dial** or **Group Dial** on the control panel.

2 Enter **All** or **ID** and press **OK**.

3 Press the name and number or the keypad button labeled with the letter you want to search.

For example, if you want to find the name “MOBILE,” press the **6** button, which is labeled with “MNO.”

4 Press (**Stop/Clear**) button to return to ready mode.

Printing address book

You can check your **Address Book** settings by printing a list.

Setting up the fax address book

1 Select ct (fax) > (**Address Book**) > **Print** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Reports** > **Address Book** on the touch screen.

2 Press **OK**.

The machine begins printing.

Registering authorized users

This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

To send a scanned image, copy image, or fax data through email or via network server safely, you must register account information of authorized users to your local machine using SyncThru™ Web Service.

1 Access the SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).

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

3 Type in the **ID** and **Password** then click **Login**. We recommend you to change the default password for security reasons.

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

4 Click **Security** > **User Access Control** > **Authentication**.

5 Select **Basic Authentication** in the **Authentication Mode**, and select **Local Authentication** in the **AA Method**, and click.

6 Click **Apply**.

7 Click **OK** in the confirmation pop-up window.

8 Click **User Profile** > **Add**.

9 Enter **User Name**, **Login ID**, **Password**, **Confirm Password**, **E-mail Address**, and **Fax Number**.

You can easily add individual address if you check **Yes** for **Add individual(s) after this group is created**.

10 Click **Apply**.

Printing features

- For basic printing features, refer to the Basic Guide (see "Basic printing" on page 53).
- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

Changing the default print settings

1 Click the Windows **Start** menu.

- For Windows 8, from the **Charms**, select **Search** > **Settings**.

2 For Windows XP/Server 2003, select **Printer and Faxes**.

- For Windows Server 2008/Vista, select **Control Panel** > **Hardware and Sound** > **Printers**.
- For Windows Server 2008 R2, select **Control Panel** > **Hardware** > **Devices and Printers**.
- For Windows 7/8, select **Control Panel** > **Devices and Printers**.

3 Right-click on your machine.

4 For Windows XP/Server 2003/Server 2008/Vista, select **Printing Preferences**.

For Windows 7/8 or Windows Server 2008 R2, from context menus, select **Printing preferences**.

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

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**.

Setting your machine as a default machine

1 Click the Windows **Start** menu.

- For Windows 8, from the **Charms**, select **Search** > **Settings**.

2 For Windows XP/Server 2003, select **Printer and Faxes**.

- For Windows Server 2008/Vista, select **Control Panel** > **Hardware and Sound** > **Printers**.
- For Windows Server 2008 R2, select **Control Panel** > **Hardware** > **Devices and Printers**.
- For Windows 7/8, select **Control Panel** > **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

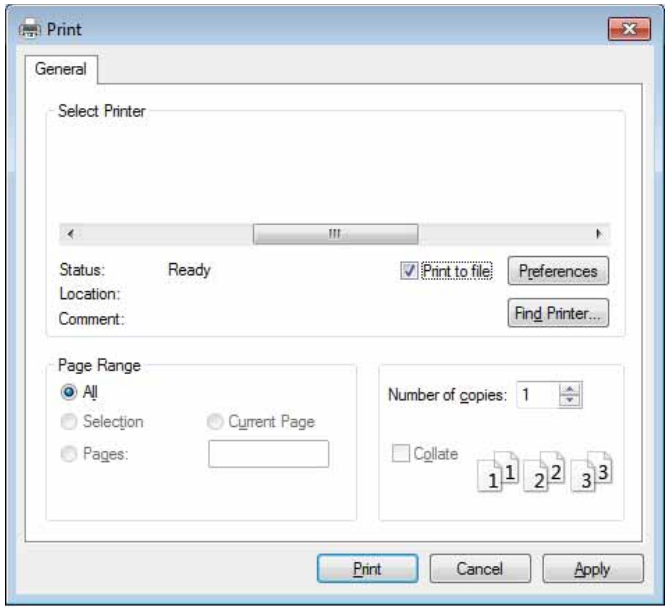
XPS printer driver: used to print XPS file format.

- See "Features by model" on page 6.
- 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.
- You can install the printer driver and software when you insert the software CD into your CD-ROM drive.
  For Windows, select the printer XPS driver in the **Select Software to Install** window.

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.

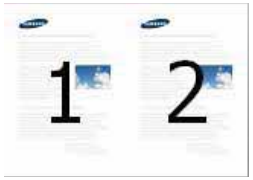
Printing features

Understanding special printer features

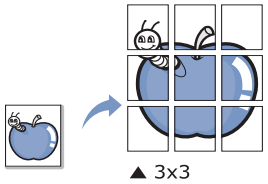
You can use advanced printing features when using your machine.

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.

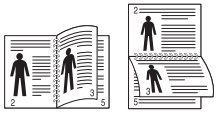
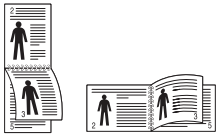
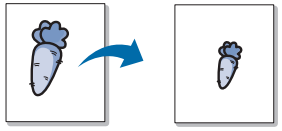
- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- Select the **Help** menu or click the ? button from the window or press **F1** on your keyboard and click on any option you want to know about (see "Using help" on page 56).

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.

Printing features

Item	Description
Poster Printing  	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. 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.
Booklet Printing[a] 	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. • If you want to make a booklet, you need to print on Letter, Legal, A4, US Folio, or Oficio sized print media. • 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. • If you select an unavailable paper size, this option can be automatically canceled. Select only available paper (paper without ⚠ or ⊗ mark).
• **Double-sided Printing** • **Double-sided Printing (Manual)**[a]	Print on both sides of a sheet of paper (duplex). Before printing, decide how you want your document oriented. • 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 **Double-sided Printing (Manual)** option.

Printing features

Item	Description
• **Double-sided Printing** • **Double-sided Printing (Manual)**[a]	• **Printer Default:** If you select this option, this feature is determined by the settings you have selected on the control panel of the machine. • **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 **Double-sided Printing (Manual)**.
Paper Options 	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.
Watermark 	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.

Printing features

Item	Description
Watermark **(Creating a watermark)**	**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.
Watermark **(Editing a watermark)**	**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.
Watermark **(Deleting a watermark)**	**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.
Overlay[a] 	This option is available only when you use the PCL/SPL printer driver (see "Software" on page 6). 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. To use a page overlay, you must create a new page overlay containing your logo or image. • 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.

Printing features

Item	Description
Overlay[a] **(Creating a new page overlay)**	**a** To save the document as an overlay, access **Printing Preferences**. **b** Click the **Advanced** tab, and select **Edit** from the **Text** drop-down list. **Edit Overlay** window appears. **c** In the **Edit Overlay** window, click **Create**. **d** 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). **e** Click **Save**. The name appears on the **Overlay List**. **f** Click **OK** or **Print** until you exit the **Print** window. The file is not printed. Instead, it is stored on your computer hard disk drive.
Overlay[a] **(Using a page overlay)**	**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[a] **(Deleting a page overlay)**	**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.

Printing features

Item	Description
Print Mode	• This feature is available only if you have installed the mass device or optional memory (see "Variety feature" on page 8). • Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine. • You need to check **Storage Options** to use this feature (see "Setting Device Options" on page 91). • Without installing the mass storage device in the machine, the Ram Disk feature provides only 3 options: **Normal**, **Proof**, and **Confidential**. • **Print Mode:** The default **Print Mode** is **Normal**, which is for printing without saving the printing file in the memory. - **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 mass storage device 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 mass storage device and then prints it from the mass storage device queue, decreasing the computer's work load. - **Print Schedule:** Select this setting to print the document at a specified time. • **Job Name:** This option is used when you need to find a stored file using the control panel. • **User ID:** This option is used when you need to find a stored file using the control panel. The user name automatically appears as the user name that you use to log on Windows. • **Enter Password:** If the **Property** of the document box you selected is **Secured**, you have to enter the password for the document box. This option is used for loading a stored file using the control panel. • **Confirm Password:** Re-enter the password to confirm it.

Printing features

Item	Description
Job Accounting	This option allows you to print with the given permission. • **User permission**: If you check this option, only users with user permission can start a print job. • **Group permission**: If you check this option, only groups with group permission can start a print job. • Click the question mark( ) from the upper-right corner of the window and click on any option you want to know about. • Administrators can enable job accounting and configure permissions in the control panel or SyncThru™ Web Service.
Job Encryption	Encrypts printing data first, and transmits it to the machine. This feature protects the printing information even though the data is snatched on a network. **Job Encryption** feature is enabled only when the mass storage device is installed. The mass storage device is used to decrypt the printing data (see "Variety feature" on page 8).

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

Printing features

Using Direct Printing Utility

- Available for Windows OS users only.
- Direct Printing Utility may not be available depending on model or optional goods (see "Software" on page 6).

What is Direct Printing Utility?

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

To install this program:

Download the software from the Samsung website then unpack and install it: (http://www.samsung.com > find your product > Support or Downloads).

- Optional memory or mass storage device should be installed on your machine, to print files using this program. (see "Variety feature" on page 8).
- 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** .

   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.

Printing features

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.

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

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.

Printing features

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.

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 (see "Variety feature" on page 8).

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 Mac 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.

Printing features

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 the document to print.
2. Open the **File** menu and click **Page Setup** (**Print Setup** for some applications).
3. Choose your paper size, orientation, and make sure that your machine is selected. Click **Apply**.
4. Open the **File** menu and click **Print**.
5. Select your machine to print.
6. Choose the number of copies and indicate which pages to print.
7. Change other printing options in each tab, if necessary.
8. Click **Print**.

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 (see "Features by model" on page 6).

Printing files

You can print text, image, pdf files on your machine using the standard

CUPS directly from the command line interface. The CUPS lp or lpr utility allows you to do that. You can print these files by using below command format.

"**lp -d <printer name> -o <option> <file name>**"

Please refer to lp or lpr man page on your system for more details.

Configuring Printer Properties

You can change the default printing options or connection type with Printing utility supplied by the OS.

Printing features

1 Launch Printing utility(Go to **System** > **Administration** > **Printing** menu or execute "**system-config-printer**" command in Terminal program).

2 Select your printer and double-click it.

3 Change default printing options or connection type.

4 Click **Apply** button.

Unix printing

Some features may not be available depending on models or options. It means that the features are not supported (see "Features by model" on page 6).

Proceeding the print job

After installing the printer, choose any of the image, text, or PS 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**.

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**.

Printing features

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.

> 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.

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.

Scan features

- For basic scanning features, refer to the Basic Guide (see "Basic scanning" on page 65).
- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).
- The maximum resolution that can be achieved depends upon various factors, including computer speed, available disk space, memory, the size of the image being scanned, and bit depth settings. Thus, depending on your system and what you are scanning, you may not be able to scan at certain resolutions, especially using enhanced dpi.

Basic scanning method

This feature may not be available depending on model or optional goods (see "Variety feature" on page 8).

You can scan the originals with your machine via an USB cable or the network. The following methodoloqies can be used for scanning your documents:

- **Scan to PC:** Scan the originals from the control panel. Then, the scanned data will be stored in the connected computers **My Documents** folder (see "Basic Scanning" on page 65).
- **TWAIN:** TWAIN is one of the a preset imaging applications. Scanning an image launches the selected application, enabling you to control the scanning process. This feature can be used via the local connection or the network connection (see "Scanning from image editing program" on page 278).
- **Samsung Easy Document Creator:** You can use this program to scan images or documents. **We recommend using scan features with the Samsung Easy Document Creator program provided in the supplied sofware CD.**
  - See "Using Samsung Easy Document Creator" on page 304.
- **WIA:** WIA stands for Windows Images Acquisition. To use this feature, your computer must be connected directly with the machine via an USB cable (see "Scanning using the WIA driver" on page 279).
- **USB Memory:** You can scan a document and save the scanned image onto an USB memory device.
- **Email:** You can send the scanned image as an email attachment (See "Scanning to email" on page 276).
- **FTP/SMB:** You can scan an image and upload it to an FTP/SMB server (see "Scanning to FTP/SMB server" on page 277).

Scan features

Setting the scan settings in the computer

This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

1 Open **Samsung Easy Printer Manager** (see "Using Samsung Easy Printer Manager" on page 305).

2 Select the appropriate machine from the **Printer List**.

3 Select **Scan to PC Settings** menu.

4 Select the option you want.

- **Scan Activation:** Determines whether or not scanning is enabled on the device.
- **Basic** tab**:** Contains settings related to general scan and device settings.
- **Image** tab**:** Contains settings related to image altering.

5 Press **Save** > **OK**.

Scanning from network connected machine

This feature is not available for the machine that does not support the network interface (see "Features by model" on page 6).

Make sure the printer driver is installed on your computer using the software CD, since the printer driver includes the scan program (see "Installing the driver locally" on page 26).

1 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

2 Select (Scan) > **Scan To PC** > **Network PC** on the control panel.

Or select **Scan** > **Network PC** on the touch screen.

If you see **Not Available** message, check the port connection.

3 Select your registered computer **ID**, and enter the **Password** if necessary.

Scan features

- **ID** is the same ID as the registered scan ID for **Samsung Easy Printer Manager** > Switch to advanced mode > **Scan to PC Settings**.
- **Password** is the 4 digit number registered password for **Samsung Easy Printer Manager** > Switch to advanced mode > **Scan to PC Settings**.

4 Select the option you want and press **OK**.

5 Scanning begins.

Scanned image is saved in computer's **C:\Users\users name\My Documents**. The saved folder may differ, depending on your operating system or the application you are using.

Scanning to email

This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

Setting up an email account

1 Access the SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).

2 Select **Settings** > **Network Settings** and **Outgoing Mail Server(SMTP)**.

3 Enter the IP address in dotted decimal notation or as a host name.

4 Enter the server port number, from 1 to 65535.

5 Check the box next to **SMTP Requires Authentication** to require authentication.

6 Enter the SMTP server login name and password.

7 Press **Apply**.

- If the authentication method of SMTP server is POP3 before SMTP, put a check mark of **SMTP Requires POP Before SMTP Authentication**.
- Enter the IP address and port number.

Scan features

Scanning and sending an email

1 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

2 Select (scan) > **Scan To Email** on the control panel.

Or select **Scan** > **Send Email** on the touch screen.

3 Enter the login name and password if you configured on SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).

4 Enter the sender's and recipient's email address.

You can send an email to yourself by activating the **Auto Send To Self** option in the **Settings** > **Scan** > **Scan To E-mail** on SyncThru™ Web Service.

5 Enter an email subject and press **OK**.

6 Select the file format to scan, and press **OK**.

7 Enter the SMTP server login name and password.

8 The machine begins scanning and then sends the email.

Scanning to FTP/SMB server

This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

Setting up an FTP/SMB server

1 Access the SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).

2 Select **Address Book** > **Individual** > **Add**.

3 Check the box next to **Add FTP** or **Add SMB**.

4 Enter the IP address in dotted decimal notation or as a host name.

5 Enter the server port number, from 1 to 65535.

6 Check the box next to **Anonymous**, then the server permits the access of unauthorized people.

7 Enter the login name and password.

8 Enter the domain name if your server is joined to the certain domain, otherwise just enter your computer name which is registered to the SMB server.

9 Enter the path for saving the scanned image.

- The folder to save the scanned image must be on the root.
- The folder properties need to be setup as a share.
- Your user name should have the rights to read and write the folder.

10 Press **Apply**.

Scanning and sending to FTP/SMB server

1 Make sure that your machine is connected to a network.

2 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

3 Select (scan) > **Scan To SMB** or **Scan To FTP** on the control panel.

Or select **Scan** > **SMB** or **FTP** on the touch screen.

4 Select a server and scan format you want.

5 The machine begins scanning and then sends the scanned image to the specified server.

Scanning from image editing program

You can scan and import documents in the image editing software such as Adobe Photoshop, if the software is TWAIN-compliant. Follow the steps below to scan with TWAIN-compliant software:

1 Make sure that the machine is connected to your computer and powered on.

2 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

3 Open an application, such as Adobe Photoshop.

4 Click **File** > **Import**, and select the scanner device.

5 Set the scan options.

6 Scan and save your scanned image.

Scan features

Scanning using the WIA driver

Your machine supports the Windows Image Acquisition (WIA) driver for scanning images. WIA is one of the standard components provided by Microsoft Windows 7 and works with digital cameras and scanners. Unlike the TWAIN driver, the WIA driver allows you to scan and easily adjust images without using additional software:

The WIA driver works only on Windows OS with a USB port.

1. Make sure that the machine is connected to your computer and powered on.
2. Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).
3. Click **Start** > **Control Panel** > **Hardware and Sound** > **Devices and Printers**.
4. Right-click on device driver icon in **Printers and Faxes** > **Start Scan**.
5. **New Scan** application appears.
6. Choose your scanning preferences and click **Preview** to see how your preferences affect the picture.
7. Scan and save your scanned image.

Scanning with Samsung Easy Document Creator

Samsung Easy Document Creator is an application to help users scan, compile, and save documents in multiple formats, including .epub format.

- Availabe for Windows OS users only.
- Windows XP or higher and Internet Explorer 6.0 or higher is the minimum requirement for Samsung Easy Document Creator.
- Samsung Easy Document Creator is installed automatically when you install the machine software (see "Using Samsung Easy Document Creator" on page 304).

1. Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).
2. From the **Start** menu select **Programs** or **All Programs**.
3. Click **Samsung Printers**, and start Samsung Easy Document Creator.

   Click **Scan** ( ) from the home screen.
4. Select the type of scanning or a favorites then click **Start**.

5 Make adjustments to the image (**Scan Settings** and **More Options**).

6 Click **Scan** to scan a final image or **Prescan** to get another preview image.

7 Select to **Save to Location**, **Send to E-mail**, or **Send to SNS**.

8 Click on **Save** (Saving a Scan), **Send** (E-mailing a Scan), or **Share** (Uploading).

If there is room on the document glass, more than one item can be scanned at the same time. Use the tool to make multiple selection areas.

Mac scanning

Scanning from USB connected machine

1 Make sure that the machine is connected to your computer and powered on.

2 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

3 Start **Applications** and click **Image Capture**.

If **No Image Capture device connected** message appears, disconnect the USB cable and reconnect it. If the problem continues, refer to the **Image Capture**'s help.

4 Select the option you want.

5 Scan and save your scanned image.

If scanning does not operate in Image Capture, update Mac OS to the latest version.

Scanning from network connected machine

Network or wireless model only (see "Features by model" on page 6).

1 Make sure that your machine is connected to a network.

2 Place a single document face down on the document glass, or load the documents face up into the document feeder (see "Loading originals" on page 50).

3 Start **Applications** and click **Image Capture**.

4 According to OS, follow steps below.

- For 10.5
  - Click **Devices** > **Browse Devices** on Menu bar.
  - Make sure that **Connected** checkbox is checked beside your machine in **Bonjour Devices**.
- For 10.6 -10.9, select your device below **SHARED**.

5 Set the scan options on this program.

6 Scan and save your scanned image.

- If scanning does not operate in Image Capture, update Mac OS to the latest version.
- For more information, refer to the **Image Capture**'s help.
- You can also scan using TWAIN-compliant software, such as Adobe Photoshop.
- You can scan using Samsung Scan Assistant software. Open the **Applications** folder > **Samsung folder** > **Samsung Scan Assistant**.

Linux scanning

1 Make sure that the machine is connected to your computer and powered on.

2 Launch a scan application such as xsane or simple-scan(If it's not installed, please install it manually to use scan features. For example, you may use "yum install xsane" for rpm package systems and "apt-get install xsane" for deb package systems to install xsane).

3 Select your device from the list and set the scan options to apply.

4 Click the **Scan** button.

Fax features

For basic faxing features, refer to the Basic Guide (see "Basic faxing" on page 66).

Automatic redialing

When the number you have dialed is busy or there is no answer when you send a fax, the machine automatically redials the number. The redial time depends on the country's factory default setting.

When the display shows **Retry Redial?**, press (**Start**) button to redial the number without waiting. To cancel the automatic redialing, press (**Stop** or **Stop/Clear**) button.

To change the time interval between redials and the number of redial attempts.

1. Press (fax) > (**Menu**)> **Fax Setup** > **Sending** on the control panel.
2. Select **Redial Times** or **Redial Term** you want.
3. Select the option you want.

Redialing the fax number

1. Press (**Redial/Pause**) button on the control panel.
2. Select the fax number you want.

   Ten recently sent fax numbers with ten received Caller IDs are shown.
3. When an original is loaded in the document feeder, the machine automatically begins to send.

   If an original is placed on the scanner glass, select **Yes** to add another page. Load another original and press **OK**. When you have finished, select **No** when **Another Page?** appears.

Confirming a transmission

When the last page of your original has been sent successfully, the machine beeps and returns to ready mode.

When something goes wrong while sending your fax, an error message appears on the display. If you receive an error message, press (**Stop** or **Stop/Clear**) to clear the message and try to send the fax again.

Fax features

You can set your machine to print a confirmation report automatically each time sending a fax is completed. Press (fax) > (**Menu**) > **Fax Setup** > **Sending** > **Fax Confirmation** on the control panel.

Sending a fax in the computer

- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

You can send a fax from your computer without going to the machine.

To send a fax from your computer, the **Samsung Network PC Fax** program must be installed. This program will be installed when you installed the printer driver.

1. Open the document to be sent.
2. Select **Print** from the **File** menu.

   The **Print** window will be displayed. It may look slightly different depending on your application.
3. Select **Samsung Network PC Fax** from the **Print** window
4. Click **Print** or **OK**.
5. Enter the recipients' numbers and select the option

   Select the **Help** menu or click the button from the window and click on any option you want to know about.
6. Click **Send**.

Delaying a fax transmission

You can set your machine to send a fax at a later time when you will not be present. You cannot send a color fax using this feature.

1. Place a single document face down on the document glass, or load the documents face up into the document feeder.
2. Press (fax) on the control panel.
3. Adjust the resolution and the darkness to suit your fax needs.
4. Press (**Menu**) > **Fax Feature** > **Delay Send** on the control panel.

   Or select **Fax** > **Delayed Send** on the touch screen.
5. Enter the number of the receiving fax machine and press **OK**.
6. The display asks you to enter another fax number to send the document.

7 To enter more fax numbers, press **OK** when **Yes** highlights and repeat steps 5.

- You can add up to 10 destinations.
- Once you entered a group dial number, you cannot enter another group dial numbers anymore.

8 Enter the job name and the time.

If you set a time earlier than the current time, the fax will be sent at that time on the following day.

9 The original is scanned into memory before transmission.

The machine returns to ready mode. The display reminds you that you are in ready mode and that a delayed fax is set.

You can check the list of delayed fax jobs.

Press (**Menu**) > **System Setup** > **Report** > **Fax Scheduled Jobs** on the control panel.

Canceling a reserved fax job

1 Press (fax) > (**Menu**) > **Fax Feature** > **Cancel Job** on the control panel.

2 Select the fax job you want and press **OK**.

3 Press **OK** when **Yes** highlights.

The selected fax is deleted from memory.

4 Press (**Stop/Clear**) button to return to ready mode.

Forwarding a sent fax to another destination

You can set the machine to forward the received or sent fax to other destination by a fax, an email or a server. If you are out of office but have to receive the fax, this feature may be useful.

- When you forward a fax by an email, you must first set the mail server and IP address in SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 300).
- Though you sent or received a color fax, the data is forwarded in grayscale.

Fax features

1 Place a single document face down on the document glass, or load the documents face up into the document feeder.

2 Press (fax) > (**Menu**) > **Fax Feature** > **Send Forward** > **Forward to Fax**, **Forward to Email** or **Forward to Server** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Send Forward** > **Forward to Fax**, **Forward to Email** or **Forward to Server** on the touch screen.

Forward options may not be available depending on model or optional goods (see "Variety feature" on page 8).

3 Enter the destination fax number, email address, or server address and press **OK**.

4 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Subsequent sent faxes will be forwarded to the specified fax machine.

Forwarding a received fax

You can set the machine to forward the received or sent fax to other destination by a fax, an email or a server. If you are out of office but have to receive the fax, this feature may be useful.

Though you sent or received a color fax, the data is forwarded in grayscale.

1 Press (fax) > (**Menu**) > **Fax Feature** > **Receive Forward** > **Forward to Fax**, **Forward to PC** , **Forward to Email** or **Forward to Server** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Receive Forward** > **Forward to Fax**, **Forward to PC** , **Forward to Email** or **Forward to Server** on the touch screen.

- **Forward** options may not be available depending on model or optional goods (see "Variety feature" on page 8).
- To set the machine to print out a fax when fax forwarding has been completed, select **Forward&Print**.

2 Enter the destination fax number, email address, or server address and press **OK**.

3 Enter the starting tim and ending time, then press **OK**.

4 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Subsequent sent faxes will be forwarded to the specified fax machine.

Fax features

Sending faxes on both sides of paper

- This is available only when you load originals into the document feeder.
- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

1 Place a single document face down on the document glass, or load the documents face up into the document feeder.

2 Press (fax) > **Fax Feature** > **Duplex** on the control panel.

Or select **Fax** > Select the menu you want > Select **Duplex** from the sub-menus > on the touch screen.

- **1 Sided:** For originals that are printed on one isde only.
- **2 Sided:** For originals that are printed on both sides.
- **2 Sided Rotated:** For originals that are printed on both sides, but the back is rotated 180°.

To use **2 Sided** and **2 Sided, Rotated**, load the originals on the DADF. If the machine cannot detect the original on the DADF, it automatically changes the option to **1 Sided**.

3 Press **OK**.

Receiving a fax in the computer

- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).
- To use this feature, set the option on the control panel:

  Press (fax) > (**Menu**) > **Fax Feature** > **Receive Forward** > **Forward to PC** > **Forward** the control panel.
  Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Receive Forward** > **Forward to PC** > **Forward** on the touch screen.

1 Open the Samsung Easy Printer Manager.

2 Select the appropriate machine from the **Printer List**.

3 Select **Fax to PC Settings** menu.

4 Use **Enable Fax Receiving from Device** to change the fax settings.

- **Image Type:** Convert the received faxes to PDF or TIFF.
- **Save Location:** Select location to save the converted faxes.
- **Prefix:** Select prefix.

- **Print received fax:** Set to print information for the received fax after receiving the fax.
- **Notify me when complete:** Set to show the popup window to notify receiving a fax.
- **Open with default application:** After receiving the fax, open it with default application.
- **None:** After receiving a fax, the machine does not notify the user or opens the application.

5 Press **Save** > **OK**.

Changing the receive modes

1 Press (fax) > (**Menu**) > **Fax Setup** > **Receiving** > **Receive Mode** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Fax Default** > **Common** > **Receive Mode** on the touch screen.

2 Select the option you want.

- **Fax:** Answers an incoming fax call and immediately goes into the fax reception mode.
- **Tel:** Receives a fax by pressing (**On Hook Dial**) and then (**Start**) button.
- **Ans/Fax:** Is for when an answering machine is attached to your machine. Your machine answers an incoming call, and the caller can leave a message on the answering machine. If the fax machine senses a fax tone on the line, the machine automatically switches to Fax mode to receive the fax.

To use the **Ans/Fax** mode, attach an answering machine to the EXT socket on the back of your machine.

- **DRPD:** You can receive a call using the Distinctive Ring Pattern Detection (DRPD) feature. Distinctive Ring is a telephone company service which enables an user to use a single telephone line to answer several different telephone numbers. For further details, see "Receiving faxes using DRPD mode" on page 288.

This setting may not be available depending on your country.

3 Press **OK**.

4 Press (**Stop/Clear**) button or home( ) icon to return to ready mode.

Fax features

Receiving manually in Tel mode

You can receive a fax call by pressing (**On Hook Dial**) button and then pressing (**Start**) when you hear a fax tone. If your machine has a handset, you can answer calls using the handset (see "Features by model" on page 6).

Receiving in Answering Machine/Fax mode

To use this mode, you must attach an answering machine to the EXT socket on the back of your machine. If the caller leaves a message, the answering machine stores the message. If your machine detects a fax tone on the line, it automatically starts to receive the fax.

- If you have set your machine to this mode and your answering machine is switched off, or no answering machine is connected to EXT socket, your machine automatically goes into Fax mode after a predefined number of rings.
- If the answering machine has a user-selectable ring counter, set the machine to answer incoming calls within 1 ring.
- If the machine is in Tel mode, disconnect or switch off the answering machine with the fax machine. Otherwise, the outgoing message from the answering machine will interrupt your phone conversation.

Receiving faxes with an extension telephone

When you are using an extension telephone connected to the EXT socket, you can receive a fax from someone you are talking to on the extension telephone, without going to the fax machine.

When you receive a call on the extension phone and hear fax tones, press the keys ***9*** on the extension phone. The machine receives the fax.

9 is the remote receive code preset at the factory. The first and the last asterisks are fixed, but you can change the middle number to whatever you want.

While you are talking over the telephone connected to the EXT socket, copy and scan features are not available.

Receiving faxes using DRPD mode

This setting may not be available depending on your country. Distinctive Ring is a telephone company service which enables an user to use a single telephone line to answer several different telephone numbers. This feature is often used by answering services who answer telephones for many different clients and need to know which number someone is calling in on to properly answer the phone.

Fax features

This setting may not be available depending on your country.

1 Select (fax) > (**Menu**) > **Fax Setup** > **Receiving** > **Receive Mode** > **DRPD** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Default Setting** > **Fax Default** > **Common** > **Receive Mode** > **DRPD** on the touch screen.

2 Call your fax number from another telephone.

3 When your machine begins to ring, do not answer the call. The machine requires several rings to learn the pattern.

When the machine completes learning, the display shows **Completed DRPD Setup**. If the DRPD setup fails, **Error DRPD Ring** appears.

4 Press **OK** when DRPD appears and start over from step 2.

- DRPD must be set up again if you re-assign your fax number, or connect the machine to another telephone line.
- After DRPD has been set up, call your fax number again to verify that the machine answers with a fax tone. Then have a call placed to a different number assigned to that same line to be sure the call is forwarded to the extension telephone or answering machine plugged into the EXT socket.

Receiving in secure receiving mode

This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

You may need to prevent your received faxes from being accessed by unauthorized people. Turn on secure receiving mode, then all incoming faxes go into memory. You can print the incoming faxes by entering the password.

To use the secure receiving mode, activate the menu from (fax) > (**Menu**) > **Fax Feature** > **Secure Receive** > **On** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Secure Receive** on the touch screen.

Printing received faxes

1 Select (fax) > (**Menu**) > **Fax Feature** > **Secure Receive** > **Print** on the control panel.

Or select **Setup** > **Machine Setup** > **Next** > **Fax Setup** > **Secure Receive** > **Print** on the touch screen.

2 Enter a four-digit password and press **OK**.

3 The machine prints all of the faxes stored in memory.

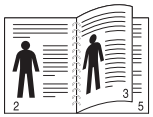
Printing faxes on both sides of the paper

- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).

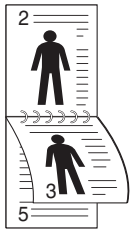
1 Place a single document face down on the document glass, or load the documents face up into the document feeder.

2 Press (fax) > (**Menu**) > **Fax Setup** > **Receiving** > **Duplex Print** on the control panel.

- **Off:** Prints in Normal mode.
- **Long Edge:** Prints pages to be read like a book.



- **Short Edge:** Prints pages to be read by flipping like a note pad.



3 Press **OK**.

4 Press (**Stop/Clear**)button to return to ready mode.

Receiving faxes in memory

Since your machine is a multi-tasking device, it can receive faxes while you are making copies or printing. If you receive a fax while you are copying or printing, your machine stores incoming faxes in its memory. Then, as soon as you finish copying or printing, the machine automatically prints the fax.

If fax is received and being printed, other copy and print jobs cannot be processed at the same time.

Using shared folder features

This feature allows you to use the machine's memory as a shared folder. The advantage of this feature is that you can conveniently use the shared folder through your computer's window.

- This feature may not be available depending on model or optional goods (see "Features by model" on page 6).
- You can use this feature in the models that have a mass storage device (see "Variety feature" on page 8).
- The administrator can set the ID and password to restrict the user' s access and also set the maximum number of simultaneous users.

Creating a shared folder

1 Open the Windows Explore window from the computer.

2 Enter the printer's **₩₩[ip address]** (example: ₩₩169.254.133.42) in the address field, and press the Enter key or click **Go**.

3 Create a new folder under **nfsroot** directory.

Using the shared folder

You can use the shared folder exactly like the normal computer. Create, edit and delete the folder or file as a normal Windows folder. You also store the scanned data in the shared folder. You can directly print files stored on a the shared folder. You can print TIFF, JPEG and PRN files.

Using optional device features

Some features may not be available depending on models or options. It means that the features are not supported (see "Variety feature" on page 8).

From the printer driver

If you install the optional device, you can use advanced printing features, such as proofing a job and printing a private job in the **Print** window. Check the mass storage or RAM disk option in **Device Options**, then you can select the various features from **Print Mode** (see "Setting Device Options" on page 91).

1 Open the document you want to print.

2 Select **Print** from the **File** menu. The **Print** window appears.

3 Select your printer driver from the **Select Printer** list.

4 Click **Properties** or **Preferences** .

5 Click the each tab then select **Print Mode**.

6 Select the option you want (see "Understanding special printer features" on page 261).

7 Select **OK**.

From the control panel

If your machine has optional memory or an optional hard drive, you can use these features from the (**Menu**) button> **System Setup** > **Job Manage.**.

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

- **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.
- **Secured Job:** You can print or delete a secured job. Shows the list of secured jobs the user has set in the printer driver. You need to enter the user name and password set in the printer driver.
- **Stored Job:** You can print or delete a stored job.

- **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.

5. Useful Management Tools

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

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- Easy Capture Manager 296
- Samsung Easy Color Manager 297
- Samsung AnyWeb Print 298
- Easy Eco Driver 299
- Using SyncThru™ Web Service 300
- Using Samsung Easy Document Creator 304
- Using Samsung Easy Printer Manager 305
- Using Samsung Printer Status 308
- Using Samsung Printer Experience 310

Accessing management tools

Samsung provides a variety of management tools for Samsung printers.

1 Make sure that the machine is connected to your computer and powered on.

2 From the **Start** menu, select **Programs** or **All Programs**.

- For Windows 8, from the **Charms**, select **Search** > **Apps**.

3 Find **Samsung Printers**.

4 Under **Samsung Printers**, you can see installed management tools.

5 Click the management tool you want to use.

- After installing the driver, for some management tools, you can access them directly from the **Start** menu > **Programs** or **All Programs**.
- For Windows 8, after installing the driver, for some management tools, you can access them directly from the **Start** screen by clicking on the corresponding tile.

Easy Capture Manager

- Available for Windows OS users only.
- This feature may not be available depending on model or optional goods (see "Software" on page 6).

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

Samsung Easy Color Manager

Samsung Easy Color Manager helps users do fine adjustments with 6 color tones and other properties, such as brightness, contrast, and saturation. Color tone change can be saved as a profile and can be used from the driver or from inside of the machine.

- Available for Windows and Mac OS users only.
- This feature may not be available depending on model or optional goods (see "Software" on page 6).

Helps Samsung color laser printer users to adjust color as they like.

Download the software from the Samsung website then unpack and install it: (http://www.samsung.com > find your product > Support or Downloads).

Samsung AnyWeb Print

- Available for Windows OS users only.
- This feature may not be available depending on model or optional goods (see "Software" on page 6).

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

Download the software from the Samsung website then unpack and install it: (http://www.samsung.com > find your product > Support or Downloads).

Easy Eco Driver

- This feature may not be available depending on model or optional goods (see "Software" on page 6).
- Available for Windows OS users only (see "Software" on page 6).

With the Easy Eco Driver, you can apply Eco features to save paper and toner before printing. To use this application, **Printer Properties** > **Basic** tab > **Start Easy Eco Driver before printing job** checkbox should be checked.

If you did not check **Start Easy Eco Driver before printing job** checkbox in the printer properties but want to use Easy Eco Driver, select **Eco Printing Preview** in the **Favorites** tab each time you print.

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

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**.

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 (see "Software" on page 6).

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**. We recommend you to change the default password for security reasons.

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

SyncThru™ Web Service overview

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.

- **Usage Counters:** Shows the usage count by print types: simplex and duplex.
- **Current Settings:** Shows the machine's and network's information.
- **Security Information:** Shows the machine's security information.
- **Print information:** Prints reports such as system related reports, e-mail address, 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, 802.1x, and Authentication servers.
- **User Access Control:** Classifies users into several groups according to each user's role. Each user's authorization, authentication and accounting will be controlled by the group's role definition.
- **System Log:** The System Log contains settings related to logs of device events.
  - **Log Configuration:** The Log Configuration section contains settings related to saving logs.
  - **Log Viewer:** The Log Viewer section contains options to view logs stored locally on the device.

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.
- **License Management:** License Management provides settings for installed applications and application licenses.
- **Cloning:** You can import or export (transfer) various settings (machine setting, network information, address book, etc.) between devices that have the **Cloning** feature in SyncThru™ Web Service.

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.

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

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**.

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 a network administrator.

Setting the system administrator's information

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

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

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 Document Creator

Samsung Easy Document Creator is an application to help users scan, compile, and save documents in multiple formats, including .epub format. These documents can be shared via social networking sites or fax. Whether you're a student needing to organize research from the library or a stay-at-home mom sharing scanned pictures from last year's birthday party, Samsung Easy Document Creator will provide you with the necessary tools.

The Samsung Easy Document Creator provides features below:

- **Image Scanning:** Use for scanning single or mulitple pictures.
- **Document Scanning:** Use for scanning documents with text or text and images.
- **Text Converting:** Use for scanning documents that need to be saved in an editable text format.
- **Book Scanning:** Use for scanning books with the flatbed scanner.
- **SNS Upload:** Provides an easy and quick way to upload scanned image or existing images to a variety of social networking sites (SNS).
- **E-Book Conversion:** Provides the ability to scan multiple documents in as one e-book or convert existing files into an e-book format.
- **Plug-in:** Scan, fax, and convert to E-Book directly from the Microsoft Office program.

Click the **Help** ( ) button from the window and click on any option you want to know about.

Using Samsung Easy Printer Manager

- This feature may not be available depending on model or optional goods (see "Software" on page 6).
- Available for Windows and Mac OS users only (see "Software" on page 6).
- For Windows, Internet Explorer 6.0 or higher is the minimum requirement for 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 a button.

Understanding Samsung Easy Printer Manager

To open the program:

For Windows,

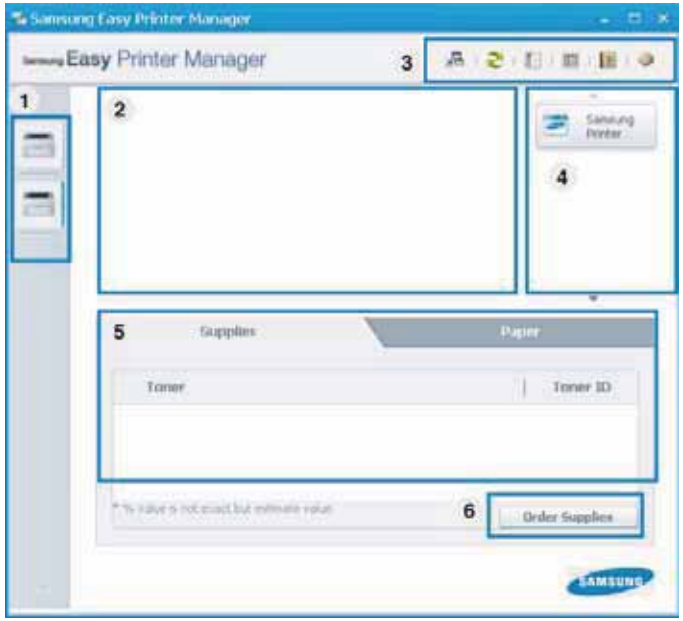
Select **Start** > **Programs** or **All Programs** > **Samsung Printers** > **Samsung Easy Printer Manager** > **Samsung Easy Printer Manager**.

For Mac,

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 the operating system you are using.



1	Printer list	The Printer List displays printers installed on your computer and network printers added by network discovery (Windows only).

2	Printer information	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. You can view the online **User's Guide**. **Troubleshooting button:** This button opens the **Troubleshooting Guide** when an error occurs. You can directly open the necessary section in the user's guide.
3	Application information	Includes links for changing to the advanced settings (switching UI), refresh, preference setting, summary, help, and about. The button is used to change the user interface to the **advanced settings user interface** (see "Advanced settings user interface overview" on page 306).
4	Quick links	Displays **Quick links** to machine specific functions. This section also includes links to applications in the advanced settings. If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.
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.

Select the **Help** menu or click the button from 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.

Using Samsung Easy Printer Manager

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

Device Settings

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

Scan to PC Settings

This menu includes settings to create or delete scan to PC profiles.

- **Scan Activation:** Determines whether or not scanning is enabled on the device.
- **Basic** tab**:** Contains general scan and device settings.
- **Image** tab**:** Contains settings related to image altering.

Fax to PC Settings

This menu includes settings related to the basic fax functionality of the selected device.

- **Disable:** If **Disable** is **On**, incoming faxes will not be received on this device.
- **Enable Fax Receiving from Device:** Enables faxing on the device and allows more options to be set.

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.
- **Alert History:** 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.

- 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 "Specifications" on page 129).
- Available for Windows OS users only (see "Software" on page 6).

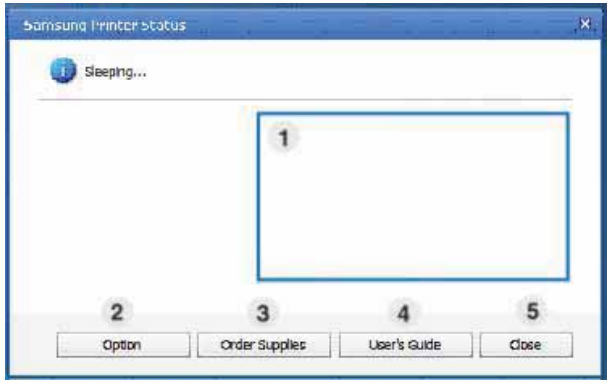
Samsung Printer Status overview

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.

3	**Order Supplies**	You can order replacement toner cartridge(s) from online.
4	**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.
5	**Close**	Close the window.

Using Samsung Printer Experience

Samsung Printer Experience is a Samsung application that combines Samsung machine settings and machine management into one location. You can set device settings, order supplies, open troubleshooting guides, visit Samsung's web site, and check connected machine information. This application will be automatically downloaded from the Windows **Store** if the machine is connected to a computer with an Internet connection.

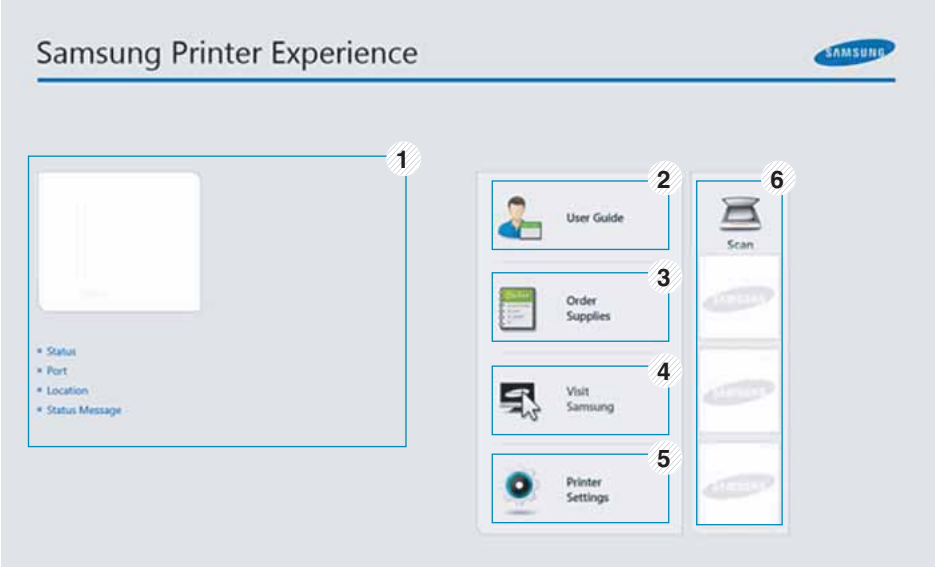
Understanding the Samsung Printer Experience

To open the application,

From the **Start** screen, select the **Samsung Printer Experience** ( ) tile.

The **Samsung Printer Experience** interface comprises various useful features as described in the following table:

The screenshot may differ depending on the model you are using.



1	**Printer Information**	This area gives you general information about your machine. You can check information, such as the machine's status, location, IP address, and remaining toner level.

2	**User Guide**	You can view the online User's Guide. You need to be connected to the Internet to use this feature. This button opens the **Troubleshooting Guide** when an error occurs. You can directly open the troubleshooting section in the user's guide.
3	**Order Supplies**	Click on this button to order replacement toner cartridges online. You need to be connected to the Internet to use this feature.
4	**Visit Samsung**	Links to Samsung printer website. You need to be connected to the Internet to use this feature.
5	**Printer Settings**	You can configure various machine settings such as machine setup, paper, layout, emulation, networking, and print information through **SyncThru™ Web Service**. Your machine needs to be connected to a network. This button will be disabled if your machine is connected via USB cable.
6	**Device List** & **Latest Scanned Image**	The scan list displays devices that supports **Samsung Printer Experience**. Under the device, you can see the latest scanned images. Your machine needs to be connected to a network to scan from here. This section is for the users with multi-functional printers.

Adding/Deleting Printers

If you do not have any printer added to the **Samsung Printer Experience**, or if you want to add/delete a printer, follow the instructions below.

You can only add/delete network connected printers.

Adding a printer

1. From the **Charms**, select **Settings**.

   Or, right-click the **Samsung Printer Experience** page and select **Settings**.

2. Select **Add Printer**

3. Select the printer you want to add.

   You can see the added printer.

If you see ⊕ mark, you can also click ⊕ mark to add printers.

Using Samsung Printer Experience

Deleting a printer

1 From the **Charms**, select **Settings**.

Or, right-click the **Samsung Printer Experience** page and select **Settings**.

2 Select **Remove Printer**

3 Select the printer you want to delete.

4 Click **Yes**.

You can see that the deleted printer is removed from the screen.

Printing from Windows 8

This section explains common printing tasks from the **Start** screen.

Basic printing

1 Open the document to print.

2 From the **Charms**, select **Devices**.

3 Select your printer from the list

4 Select the printer settings, such as the number of copies and orientation.

5 Click the **Print** button to start the print job.

Using Samsung Printer Experience

Cancelling a print job

If the printing job is waiting in the print queue or print spooler, cancel the job as follows:

- You can access this window by simply double-clicking the machine icon ( ) in the Windows task bar.
- You can also cancel the current job by pressing (**Stop/Clear**) button on the control panel.

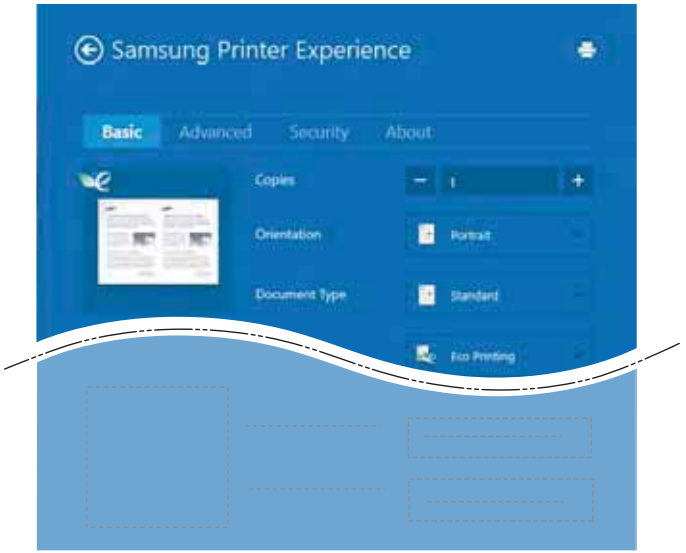
Opening more settings

The screen may appear somewhat different depending on the model or options.

You can set up more printing parameters.

1. Open the document you want to print.
2. From the **Charms**, select **Devices**.
3. Select your printer from the list
4. Click **More settings**.

Basic tab



Basic

This option allows you to choose the basic printing settings such as copies, orientation, and document type.

Eco settings

This option allows you to choose multiple pages per side to save media.

Using Samsung Printer Experience

Advanced tab

Paper settings

This option allows you to set the basic paper handling specifications.

Layout settings

This option allows you to set the various ways to layout your documents.

Security tab

Some features may not be available depending on the model or options. If this tab is not shown or disabled, it means that these features are not supported.

Job Accounting

This option allows you to print with the given permission.

Confidential Printing

This option is used for printing confidential documents. You need to enter a password to print using it.

Using Samsung Printer Experience

Scanning from Windows 8

This section is for the users with multi-functional printers.

Scanning with your machine lets you turn pictures and text into digital files that can be stored on your computer.

Scanning from Samsung Printer Experience

The most frequently used printing menus are displayed for quick scanning.

1. Place a single document face down on the document glass, or load the documents face up into the document feeder.
2. Click the **Samsung Printer Experience** tile on the **Start** screen.
3. Click **Scan** ( ).
4. Set up the scanning parameters such as image type, document size, and resolution.
5. Click **Prescan** ( )to check the image.
6. Adjust the prescanned image with scanning operation functions such as rotate and mirror.
7. Click **Scan** ( )and save the image.

- When you place the originals in the ADF (or DADF), **Prescan** ( ) is not available.
- You can skip step 5, if the Prescan option is selected.

6. Troubleshooting

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

- Paper feeding problems 317
- Power and cable connecting problems 318
- Printing problems 319
- Printing quality problems 323
- Copying problems 331
- Scanning problems 332
- Faxing problems 334
- Operating system problems 336

For errors that occur during the wireless software installation and settings, refer to the troubleshotting section in the wireless setting chapter (see "Troubleshooting for wireless network" on page 198).

Paper feeding problems

Condition	Suggested solutions
Paper jams during printing.	Clear the paper jam.
Paper sticks together.	• 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.	• 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.	• There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the manual feeding in 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 front 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.	• Connect the machine to the electricity supply first. If the machine has a (**Power/Wake Up**) button on the control, press it. • 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.	Connect the machine to the electricity supply first. If the machine has a ⏻ (**Power/ Wake Up**) button on the control, press it.
	The machine is not selected as the default machine.	Select your machine as your default machine in Windows.
	Check the machine for the following: • The cover is not closed. Close the cover. • Paper is jammed. Clear the paper jam (see "Clearing paper jams" on page 111). • No paper is loaded. Load paper (see "Loading paper in the tray" on page 40). • The toner cartridge is not installed. Install the toner cartridge (see "Replacing the toner cartridge" on page 86). • Make sure the protect cover and sheets are removed from the toner cartridge (see "Replacing the toner cartridge" on page 86). 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 22).
	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.

Printing problems

Condition	Possible cause	Suggested solutions
The machine does not print.	The machine may be configured incorrectly.	Check the **Printing Preferences** to ensure that all of the print settings are correct.
	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 55). Select the correct paper source. See the printer driver help screen (see "Using help" on page 56).
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 55). See the printer driver help screen (see "Using help" on page 56).
	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 55).
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.

Printing problems

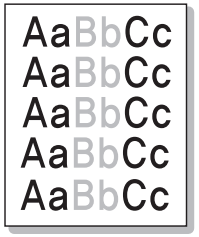
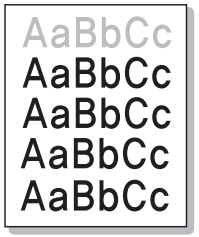
Condition	Possible cause	Suggested solutions
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	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. • See "Redistributing toner" on page 84. • See "Replacing the toner cartridge" on page 86.
	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.
Before printing, the machine emits vapor near the output tray.	Using damp/wet paper can cause vapor [white smoke] during printing.	This is not a problem, just keep printing. If you are bothered by the smoke [vapor], then replace the paper with fresh paper from an unopened ream.

Printing problems

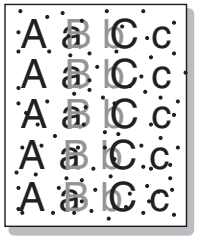
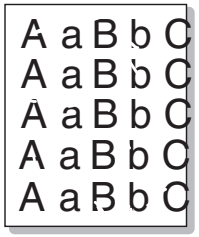
Condition	Possible cause	Suggested solutions
The machine does not print special-sized paper, such as billing paper.	Paper size and paper size setting do not match.	Set the correct paper size in the **Custom** in **Paper** tab in **Printing Preferences** (see "Opening printing preferences" on page 55).
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 **Thin** (see "Opening printing preferences" on page 55).

Printing quality problems

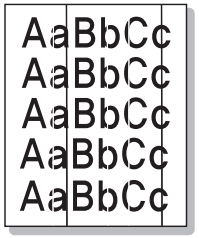
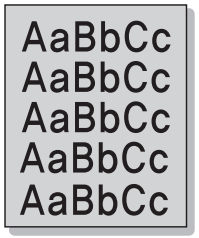
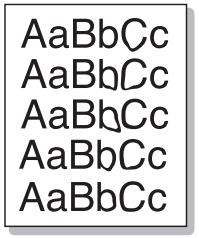
If the inside of the machine is dirty or paper has been loaded improperly, there might be a reduction in print quality. See the table below to clear the problem.

Condition	Suggested solutions
Light or faded print  	• 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 86). • 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 97). • The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 97). If these steps do not correct the problem, contact a service representative.
The top half of the paper is printed lighter than the rest of the paper  	**The toner might not adhere properly to this type of paper.** • 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 55).

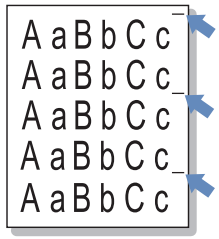
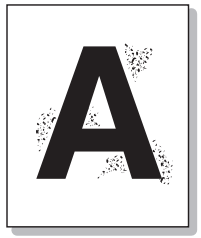
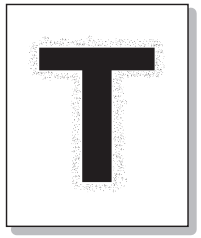
Printing quality problems

Condition	Suggested solutions
Toner specks 	• The paper may not meet specifications; for example, the paper may be too moist or rough. • The transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 97). • The paper path may need cleaning. Contact a service representative (see "Cleaning the machine" on page 97).
Dropouts 	If faded areas, generally rounded, occur randomly on the page: • A single sheet of paper may be defective. Try reprinting the job. • The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper. • The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. • Change the printer option and try again. Go to **Printing Preferences**, click the **Paper** tab, and set type to **Thick** (see "Opening printing preferences" on page 55). If these steps do not correct the problem, contact a service representative.
White Spots 	If white spots appear on the page: • The paper is too rough and a lot of dirt from paper falls to the inner components within the machine, so the transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 97). • The paper path may need cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 97). If these steps do not correct the problem, contact a service representative.

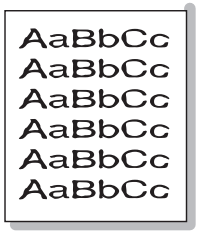
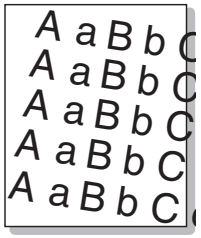
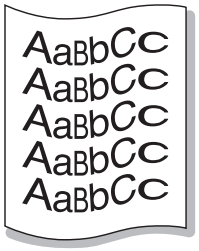
Printing quality problems

Condition	Suggested solutions
Vertical lines  	If black vertical streaks appear on the page: • The surface (drum part) of the toner cartridge inside the machine has probably been scratched. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 86). If white vertical streaks appear on the page: • The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 97). If these steps do not correct the problem, contact a service representative.
Black or color background  	If the amount of background shading becomes unacceptable: • Change to a lighter weight paper. • Check the environmental conditions: very dry conditions or a high level of humidity (higher than 80% RH) can increase the amount of background shading. • Remove the old toner cartridge and install a new one (see "Replacing the toner cartridge" on page 86). • Thoroughly redistribute the toner (see "Redistributing toner" on page 84).
Toner smear  	• Clean the inside of the machine (see "Cleaning the machine" on page 97). • Check the paper type and quality. • Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 86).

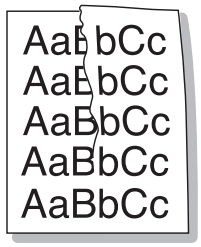
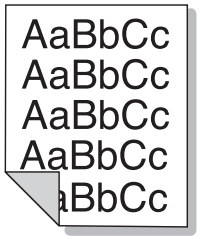
Printing quality problems

Condition	Suggested solutions
Vertical repetitive defects 	If marks repeatedly appear on the printed side of the page at even intervals: • The toner cartridge may be damaged. If you still have the same problem, remove the toner cartridge and, install a new one (see "Replacing the toner cartridge" on page 86). • Parts of the machine may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages. • The fusing assembly may be damaged. Contact a service representative.
Background scatter 	Background scatter results from bits of toner randomly distributed on the printed page. • The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. • If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. Or select **Thick** from the **Printing Preferences** window (see "Opening printing preferences" on page 55). • If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or in **Printing Preferences** (see "Opening printing preferences" on page 55). Ensure the correct paper type is selected. For example: If Thicker Paper is selected, but Plain Paper actually used, an overcharging can occur causing this copy quality problem. • If you are using a new toner cartridge, redistribute the toner first (see "Redistributing toner" on page 84).
Toner particles are around bold characters or pictures 	The toner might not adhere properly to this type of paper. • 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 55). • Ensure the correct paper type is selected. For example: If Thicker Paper is selected, but Plain Paper actually used, an overcharging can occur causing this copy quality problem.

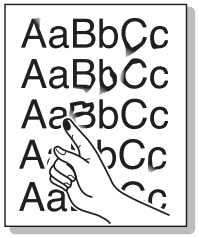
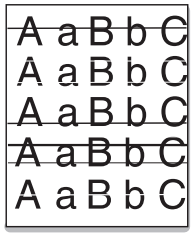
Printing quality problems

Condition	Suggested solutions
Misformed characters 	• If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try different paper.
Page skew 	• Ensure that the paper is loaded properly. • Check the paper type and quality. • Ensure that the guides are not too tight or too loose against the paper stack.
Curl or wave 	• Ensure that the paper is loaded properly. • Check the paper type and quality. Both high temperature and humidity can cause paper curl. • Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.

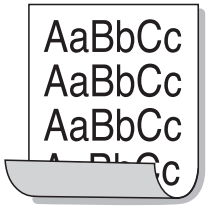
Printing quality problems

Condition	Suggested solutions
Wrinkles or creases 	• Ensure that the paper is loaded properly. • Check the paper type and quality. • Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.
Back of printouts are dirty 	• Check for leaking toner. Clean the inside of the machine (see "Cleaning the machine" on page 97).
Solid color or black pages	• The toner cartridge may not be installed properly. Remove the cartridge and reinsert it. • The toner cartridge may be defective. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 86). • The machine may require repairing. Contact a service representative.

Printing quality problems

Condition	Suggested solutions
Loose toner 	• Clean the inside of the machine (see "Cleaning the machine" on page 97). • Check the paper type, thickness, and quality. • Remove the toner cartridge and then, install a new one (see "Replacing the toner cartridge" on page 86). If the problem persists, the machine may require repair. Contact a service representative.
Character voids 	Character voids are white areas within parts of characters that should be solid black: • You may be printing on the wrong surface of the paper. Remove the paper and turn it around. • The paper may not meet paper specifications.
Horizontal stripes 	If horizontally aligned black streaks or smears appear: • The toner cartridge may be installed improperly. Remove the cartridge and reinsert it. • The toner cartridge may be defective. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 86). If the problem persists, the machine may require repairing. Contact a service representative.

Printing quality problems

Condition	Suggested solutions
Curl  	If the printed paper is curled or paper does not feed into the machine: • Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray. • Change the printer's paper option and try again. Go to **Printing Preferences**, click the **Paper** tab, and set type to **Thin** (see "Opening printing preferences" on page 55).
• An unknown image repetitively appears on a few sheets • Loose toner • Light print or contamination occurs	Your machine is probably being used at an altitude of 1,000 m (3,281 ft) or above. The high altitude may affect the print quality, such as loose toner or light imaging. Change the altitude setting for your machine (see "Altitude adjustment" on page 250).

Copying problems

Condition	Suggested solutions
Copies are too light or too dark.	Adjust the darkness in copy feature to lighten or darken the backgrounds of copies (see "Changing the settings for each copy" on page 60).
Smears, lines, marks, or spots appear on copies.	• If the defects are on the original, adjust darkness in copy feature to lighten the background of your copies. • If there are no defects on the original, clean the scan unit (see "Cleaning the scan unit" on page 101).
Copy image is skewed.	• Ensure that the original is aligned with the registration guide. • The transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 97).
Blank copies print out.	Ensure that the original is face down on the scanner glass or face up in the document feeder. If these steps do not correct the problem, contact a service representative.
Image rubs off the copy easily.	• Replace the paper in the tray with paper from a new package. • In high humidity areas, do not leave paper in the machine for extended periods of time.
Frequent copy paper jams occur.	• Fan the paper, then turn it over in the tray. Replace the paper in the tray with a fresh supply. Check/adjust the paper guides, if necessary. • Ensure that the paper is the proper type and weight (see "Print media specifications" on page 131). • Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Toner cartridge produces fewer copies than expected before running out of toner.	• Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner. • The scanner lid may be left open while copies are being made. • Turn the machine off and back on.

Scanning problems

Condition	Suggested solutions
The scanner does not work.	• Make sure that you place the original to be scanned face down on the scanner glass, or face up in the document feeder (see "Loading originals" on page 50). • There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate. • Check that the machine printer cable is connected properly. • Make sure that the machine printer cable is not defective. Switch the printer cable with a known good cable. If necessary, replace the printer cable. • Check that the scanner is configured correctly. Check scan setting in the application you want to use to make certain that the scanner job is being sent to the correct port (for example, USB001).
The unit scans very slowly.	• Check if the machine is printing received data. If so, scan the document after the received data has been printed. • Graphics are scanned more slowly than text. • Communication speed slows in scan mode because of the large amount of memory required to analyze and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer user's guide.

Scanning problems

Condition	Suggested solutions
Message appears on your computer screen: • Device can't be set to the H/W mode you want. • Port is being used by another program. • Port is disabled. • Scanner is busy receiving or printing data. When the current job is completed, try again. • Invalid handle. • Scanning has failed.	• There may be a copying or printing job in progress. Try your job again when that job is finished. • The selected port is currently being used. Restart your computer and try again. • The machine printer cable may be improperly connected or the power may be off. • The scanner driver is not installed or the operating environment is not set up properly. • Ensure that the machine is properly connected and the power is on, then restart your computer. • The USB cable may be improperly connected or the power may be off.

Faxing problems

Condition	Suggested solutions
The machine is not working, there is no display, or the buttons are not working.	• Unplug the power cord and plug it in again. • Ensure that there is power being supplied to the electrical outlet. • Ensure that the power is turned on.
No dial tone.	• Check that the phone line is properly connected (see "Rear view" on page 22). • Check that the phone socket on the wall is working by plugging in another phone.
The numbers stored in memory do not dial correctly.	Make sure that the numbers are stored in memory correctly. To check that, print an address book list.
The original does not feed into the machine.	• Make sure that the paper is not wrinkled and you are inserting it in correctly. Check that the original is the right size, not too thick or thin. • Make sure that the document feeder is firmly closed. • The document feeder rubber pad may need to be replaced. Contact a service representative (see "Available maintenance parts" on page 81).
Faxes are not received automatically.	• The receiving mode should be set to fax (see "Changing the receive modes" on page 287). • Make sure that there is paper in the tray (see "Print media specifications" on page 131). • Check to see if the display shows any error message. If it does, clear the problem.
The machine does not send.	• Make sure that the original is loaded in the document feeder or on the scanner glass. • Check the fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank spaces or is of poor-quality.	• The fax machine sending you the fax may be faulty. • A noisy phone line can cause line errors. • Check your machine by making a copy. • A toner cartridge has almost reached its estimated cartridge life. Replace the toner cartridge (see "Replacing the toner cartridge" on page 86).

Faxing problems

Condition	Suggested solutions
Some of the words on an incoming fax are stretched.	The fax machine sending the fax had a temporary document jam.
There are lines on the originals you sent.	Check your scan unit for marks and clean it (see "Cleaning the scan unit" on page 101).
The machine dials a number, but the connection with the other fax machine fails.	The other fax machine may be turned off, out of paper, or cannot answer incoming calls. Speak with the other machine operator and ask them to solve the problem on their side.
Faxes do not store in memory.	There may not be enough memory space to store the fax. If the display indicating the memory status shows, delete any faxes you no longer need from the memory, and then try to store the fax again. Call for service.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top.	You may have chosen the wrong paper settings in the user option setting. Check the paper size and type again.

Operating system problems

Common Windows problems

Condition	Suggested solutions
“File in Use” message appears during installation.	Exit all software applications. Remove all software from the startup group, then restart Windows. Reinstall the printer driver.
“General Protection Fault”, “Exception OE”, “Spool 32”, or “Illegal Operation” messages appear.	Close all other applications, reboot Windows and try printing again.
“Fail To Print”, “A printer timeout error occurred” message appear.	These messages may appear during printing. Just keep waiting until the machine finishes printing. If the message appears in ready mode or after printing has completed, check the connection and/or whether an error has occurred.
Samsung Printer Experience is not shown when you click more settings.	**Samsung Printer Experience** is not installed. Download the app from the Windows **Store** and install it.
Machine information is not displayed when you click the device in the Devices and Printers.	Check the **Printer properties**. Click the **Ports** tab. (**Control Panel** > **Devices and Printers** > Right-click on your printer icon and select **Printer properties**) If the port is set to File or LPT, uncheck them and select TCP/IP, USB, or WSD.

Refer to the Microsoft Windows User’s Guide that came with your computer for further information on Windows error messages.

Operating system problems

Common Mac problems

Condition	Suggested solutions
The machine does not print PDF files correctly. Some parts of graphics, text, or illustrations are missing.	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.
Some letters are not displayed normally during cover page printing.	Mac OS cannot create the font while printing the cover page. The English alphabet and numbers are displayed normally on the cover page.
When printing a document in Mac with Acrobat Reader 6.0 or higher, colors print incorrectly.	Make sure that the resolution setting in your machine driver matches the one in Acrobat Reader.

Refer to the Mac User's Guide that came with your computer for further information on Mac error messages.

Operating system problems

Common Linux problems

Condition	Suggested solutions
There is no xsane nor simple-scan application on my Linux machine.	For some Linux distributions, there might be no default scan application. To use scan features, install one of scan applications using download center supplied by the OS(ex. Ubuntu Software Center for Ubuntu, Install/Remove Software for openSUSE, Software for Fedora).
Scanner can not be found via network.	For some Linux distributions, strong firewall is enabled and it may block our installer from opening the necessary port for searching network devices. In such a case, open the snmp port - 22161 manually or disable the firewall temporarily while using the device.
When printing more than one copy, the second copy does not print.	The problem occurs on Ubuntu 12.04 due to the problem in standard CUPS filter 'pdftops'. Update 'cups-filters' package to version 1.0.18 to fix the problem ('pdftops' is a part of 'cups-filters' package).
Unchecking the collate option in the Print Dialog does not work.	For some distributions, GNOME Print Dialog has an issue handling the collate option. As workaround, set the default value of collate option to **False** using the system's printing utility(execute "system-config-printer" in the Terminal program).
Printing always works with duplex.	This duplex issue was in Ubuntu 9.10 CUPS package. Update CUPS version to 1.4.1-5ubuntu2.2.
Printer is not added through system's printing utility.	The problem occurs on Debian 7 due to the defect in 'system-config-printer' package of the Debian 7 (http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=662813 in Debian bug tracking system). Please use another way to add printer (CUPS WebUI for example)
Paper size and orientation are disabled in the Print Dialog when opening text files.	The problem occurs on Fedora 19 and it's related to 'leafpad' text editor on Fedora 19. Please use other text editors like 'gedit'.

Operating system problems

Refer to the Linux User's Guide that came with your computer for further information on Linux error messages.

Common PostScript problems

The following situations are PS language specific and may occur when several printer languages are used.

Problem	Possible cause	Solution
The PostScript file cannot be printed	The PostScript driver may not be installed correctly.	• Install the PostScript driver (see "Software Installation" on page 156). • Print a configuration page and verify that the PS version is available for printing. • If the problem persists, contact a service representative.
Limit Check Error report prints	The print job was too complex.	You might need to reduce the complexity of the page or install more memory.
A PostScript error page prints	The print job may not be PostScript.	Make sure that the print job is a PostScript job. Check to see whether the software application expected a setup or PostScript header file to be sent to the machine.
The optional tray is not selected in the driver	The printer driver has not been configured to recognize the optional tray.	Open the PostScript driver properties, select the **Device Options** tab, and set the tray option (see "Setting Device Options" on page 91).
When printing a document in Mac with Acrobat Reader 6.0 or higher, colors print incorrectly	The resolution setting in the printer driver may not be matched with the one in Acrobat Reader.	Make sure that the resolution setting in your printer driver matches the one in Acrobat Reader.

Operating system problems

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Glossary

The following glossary helps you get familiar with the product by understanding the terminologies commonly used with printing as well as mentioned in this user's guide.

802.11

802.11 is a set of standards for wireless local area network (WLAN) communication, developed by the IEEE LAN/MAN Standards Committee (IEEE 802).

802.11b/g/n

802.11b/g/n can share same hardware and use the 2.4 GHz band. 802.11b supports bandwidth up to 11 Mbps, 802.11n supports bandwidth up to 150 Mbps. 802.11b/g/n devices may occasionally suffer interference from microwave ovens, cordless telephones, and Bluetooth devices.

Access point

Access Point or Wireless Access Point (AP or WAP) is a device that connects wireless communication devices together on wireless local area networks (WLAN), and acts as a central transmitter and receiver of WLAN radio signals.

ADF

An Automatic Document Feeder (ADF) is a scanning unit that will automatically feed an original sheet of paper so that the machine can scan some amount of the paper at once.

AppleTalk

AppleTalk is a proprietary suite of protocols developed by Apple, Inc for computer networking. It was included in the original Mac (1984) and is now deprecated by Apple in favor of TCP/IP networking.

BIT Depth

A computer graphics term describing the number of bits used to represent the color of a single pixel in a bitmapped image. Higher color depth gives a broader range of distinct colors. As the number of bits increases, the number of possible colors becomes impractically large for a color map. 1-bit color is commonly called as monochrome or black and white.

BMP

A bitmapped graphics format used internally by the Microsoft Windows graphics subsystem (GDI), and used commonly as a simple graphics file format on that platform.

Glossary

BOOTP

Bootstrap Protocol. A network protocol used by a network client to obtain its IP address automatically. This is usually done in the bootstrap process of computers or operating systems running on them. The BOOTP servers assign the IP address from a pool of addresses to each client. BOOTP enables 'diskless workstation' computers to obtain an IP address prior to loading any advanced operating system.

CCD

Charge Coupled Device (CCD) is a hardware which enables the scan job. CCD Locking mechanism is also used to hold the CCD module to prevent any damage when you move the machine.

Collation

Collation is a process of printing a multiple-copy job in sets. When collation is selected, the device prints an entire set before printing additional copies.

Control Panel

A control panel is a flat, typically vertical, area where control or monitoring instruments are displayed. They are typically found in front of the machine.

Coverage

It is the printing term used for a toner usage measurement on printing. For example, 5% coverage means that an A4 sided paper has about 5% image or text on it. So, if the paper or original has complicated images or lots of text on it, the coverage will be higher and at the same time, a toner usage will be as much as the coverage.

CSV

Comma Separated Values (CSV). A type of file format, CSV is used to exchange data between disparate applications. The file format, as it is used in Microsoft Excel, has become a de facto standard throughout the industry, even among non-Microsoft platforms.

DADF

A Duplex Automatic Document Feeder (DADF) is a scanning unit that will automatically feed and turn over an original sheet of paper so that the machine can scan on both sides of the paper.

Default

The value or setting that is in effect when taking a printer out of its box state, reset, or initialized.

DHCP

A Dynamic Host Configuration Protocol (DHCP) is a client-server networking protocol. A DHCP server provides configuration parameters specific to the DHCP client host requesting, generally, information required by the client host to participate on an IP network. DHCP also provides a mechanism for allocation of IP addresses to client hosts.

DIMM

Dual Inline Memory Module (DIMM), a small circuit board that holds memory. DIMM stores all the data within the machine like printing data, received fax data.

DLNA

The Digital Living Network Alliance (DLNA) is a standard that allows devices on a home network to share information with each other across the network.

DNS

The Domain Name Server (DNS) is a system that stores information associated with domain names in a distributed database on networks, such as the Internet.

Dot Matrix Printer

A dot matrix printer refers to a type of computer printer with a print head that runs back and forth on the page and prints by impact, striking an ink-soaked cloth ribbon against the paper, much like a typewriter.

DPI

Dots Per Inch (DPI) is a measurement of resolution that is used for scanning and printing. Generally, higher DPI results in a higher resolution, more visible detail in the image, and a larger file size.

DRPD

Distinctive Ring Pattern Detection. Distinctive Ring is a telephone company service which enables a user to use a single telephone line to answer several different telephone numbers.

Duplex

A mechanism that will automatically turn over a sheet of paper so that the machine can print (or scan) on both sides of the paper. A printer equipped with a Duplex Unit can print on both sides of paper during one print cycle.

Duty Cycle

Duty cycle is the page quantity which does not affect printer performance for a month. Generally the printer has the lifespan limitation such as pages per year. The lifespan means the average capacity of print-outs, usually within the warranty period. For example, if the duty cycle is 48,000 pages per month assuming 20 working days, a printer limits 2,400 pages a day.

ECM

Error Correction Mode (ECM) is an optional transmission mode built into Class 1 fax machines or fax modems. It automatically detects and corrects errors in the fax transmission process that are sometimes caused by telephone line noise.

Emulation

Emulation is a technique of one machine obtaining the same results as another.

An emulator duplicates the functions of one system with a different system, so that the second system behaves like the first system. Emulation focuses on exact reproduction of external behavior, which is in contrast to simulation, which concerns an abstract model of the system being simulated, often considering its internal state.

Ethernet

Ethernet is a frame-based computer networking technology for local area networks (LANs). It defines wiring and signaling for the physical layer, and frame formats and protocols for the media access control (MAC)/data link layer of the OSI model. Ethernet is mostly standardized as IEEE 802.3. It has become the most widespread LAN technology in use during the 1990s to the present.

EtherTalk

A suite of protocols developed by Apple Computer for computer networking. It was included in the original Mac (1984) and is now deprecated by Apple in favor of TCP/IP networking.

FDI

Foreign Device Interface (FDI) is a card installed inside the machine to allow a third party device such as a coin operated device or a card reader. Those devices allow the pay-for-print service on your machine.

FTP

A File Transfer Protocol (FTP) is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet).

Fuser Unit

The part of a laser printer that fuses the toner onto the print media. It consists of a heat roller and a pressure roller. After toner is transferred onto the paper, the fuser unit applies heat and pressure to ensure that the toner stays on the paper permanently, which is why paper is warm when it comes out of a laser printer.

Gateway

A connection between computer networks, or between a computer network and a telephone line. It is very popular, as it is a computer or a network that allows access to another computer or network.

Grayscale

A shades of gray that represents light and dark portions of an image when color images are converted to grayscale; colors are represented by various shades of gray.

Halftone

An image type that simulates grayscale by varying the number of dots. Highly colored areas consist of a large number of dots, while lighter areas consist of a smaller number of dots.

Mass storage device

Mass storage device, commonly referred to as a hard drive or hard disk, is a non-volatile storage device which stores digitally-encoded data on rapidly rotating platters with magnetic surfaces.

IEEE

The Institute of Electrical and Electronics Engineers (IEEE) is an international non-profit, professional organization for the advancement of technology related to electricity.

IEEE 1284

The 1284 parallel port standard was developed by the Institute of Electrical and Electronics Engineers (IEEE). The term "1284-B" refers to a specific connector type on the end of the parallel cable that attaches to the peripheral (for example, a printer).

Intranet

A private network that uses Internet Protocols, network connectivity, and possibly the public telecommunication system to securely share part of an organization's information or operations with its employees. Sometimes the term refers only to the most visible service, the internal website.

IP address

An Internet Protocol (IP) address is a unique number that devices use in order to identify and communicate with each other on a network utilizing the Internet Protocol standard.

IPM

The Images Per Minute (IPM) is a way of measuring the speed of a printer. An IPM rate indicates the number of single-sided sheets a printer can complete within one minute.

IPP

The Internet Printing Protocol (IPP) defines a standard protocol for printing as well as managing print jobs, media size, resolution, and so forth. IPP can be used locally or over the Internet to hundreds of printers, and also supports access control, authentication, and encryption, making it a much more capable and secure printing solution than older ones.

IPX/SPX

IPX/SPX stands for Internet Packet Exchange/Sequenced Packet Exchange. It is a networking protocol used by the Novell NetWare operating systems. IPX and SPX both provide connection services similar to TCP/IP, with the IPX protocol having similarities to IP, and SPX having similarities to TCP. IPX/SPX was primarily designed for local area networks (LANs), and is a very efficient protocol for this purpose (typically its performance exceeds that of TCP/IP on a LAN).

ISO

The International Organization for Standardization (ISO) is an international standard-setting body composed of representatives from national standards bodies. It produces world-wide industrial and commercial standards.

ITU-T

The International Telecommunication Union is an international organization established to standardize and regulate international radio and telecommunications. Its main tasks include standardization, allocation of the radio spectrum, and organizing interconnection arrangements between different countries to allow international phone calls. A -T out of ITU-T indicates telecommunication.

ITU-T No. 1 chart

Standardized test chart published by ITU-T for document facsimile transmissions.

JBIG

Joint Bi-level Image Experts Group (JBIG) is an image compression standard with no loss of accuracy or quality, which was designed for compression of binary images, particularly for faxes, but can also be used on other images.

JPEG

Joint Photographic Experts Group (JPEG) is a most commonly used standard method of lossy compression for photographic images. It is the format used for storing and transmitting photographs on the World Wide Web.

LDAP

The Lightweight Directory Access Protocol (LDAP) is a networking protocol for querying and modifying directory services running over TCP/IP.

LED

A Light-Emitting Diode (LED) is a semiconductor device that indicates the status of a machine.

MAC address

Media Access Control (MAC) address is a unique identifier associated with a network adapter. MAC address is a unique 48-bit identifier usually written as 12 hexadecimal characters grouped in pairs (e. g., 00-00-0c-34-11-4e). This address is usually hard-coded into a Network Interface Card (NIC) by its manufacturer, and used as an aid for routers trying to locate machines on large networks.

MFP

Multi Function Peripheral (MFP) is an office machine that includes the following functionality in one physical body, so as to have a printer, a copier, a fax, a scanner and etc.

MH

Modified Huffman (MH) is a compression method for decreasing the amount of data that needs to be transmitted between the fax machines to transfer the image recommended by ITU-T T.4. MH is a codebook-based run-length encoding scheme optimized to efficiently compress white space. As most faxes consist mostly of white space, this minimizes the transmission time of most faxes.

MMR

Modified Modified READ (MMR) is a compression method recommended by ITU-T T.6.

Modem

A device that modulates a carrier signal to encode digital information, and also demodulates such a carrier signal to decode transmitted information.

MR

Modified Read (MR) is a compression method recommended by ITU-T T.4. MR encodes the first scanned line using MH. The next line is compared to the first, the differences determined, and then the differences are encoded and transmitted.

NetWare

A network operating system developed by Novell, Inc. It initially used cooperative multitasking to run various services on a PC, and the network protocols were based on the archetypal Xerox XNS stack. Today NetWare supports TCP/IP as well as IPX/SPX.

OPC

Organic Photo Conductor (OPC) is a mechanism that makes a virtual image for print using a laser beam emitted from a laser printer, and it is usually green or rust colored and has a cylinder shape.

An imaging unit containing a drum slowly wears the drum surface by its usage in the printer, and it should be replaced appropriately since it gets worn from contact with the cartridge development brush, cleaning mechanism, and paper.

Originals

The first example of something, such as a document, photograph or text, etc, which is copied, reproduced or translated to produce others, but which is not itself copied or derived from something else.

OSI

Open Systems Interconnection (OSI) is a model developed by the International Organization for Standardization (ISO) for communications. OSI offers a standard, modular approach to network design that divides the required set of complex functions into manageable, self-contained, functional layers. The layers are, from top to bottom, Application, Presentation, Session, Transport, Network, Data Link and Physical.

PABX

A private automatic branch exchange (PABX) is an automatic telephone switching system within a private enterprise.

PCL

Printer Command Language (PCL) is a Page Description Language (PDL) developed by HP as a printer protocol and has become an industry standard. Originally developed for early inkjet printers, PCL has been released in varying levels for thermal, dot matrix printer, and laser printers.

PDF

Portable Document Format (PDF) is a proprietary file format developed by Adobe Systems for representing two dimensional documents in a device independent and resolution independent format.

PostScript

PostScript (PS) is a page description language and programming language used primarily in the electronic and desktop publishing areas. - that is run in an interpreter to generate an image.

Printer Driver

A program used to send commands and transfer data from the computer to the printer.

Print Media

The media like paper, envelopes, labels, and transparencies which can be used in a printer, a scanner, a fax or, a copier.

PPM

Pages Per Minute (PPM) is a method of measurement for determining how fast a printer works, meaning the number of pages a printer can produce in one minute.

PRN file

An interface for a device driver, this allows software to interact with the device driver using standard input/output system calls, which simplifies many tasks.

Protocol

A convention or standard that controls or enables the connection, communication, and data transfer between two computing endpoints.

PS

See PostScript.

PSTN

The Public-Switched Telephone Network (PSTN) is the network of the world's public circuit-switched telephone networks which, on industrial premises, is usually routed through the switchboard.

RADIUS

Remote Authentication Dial In User Service (RADIUS) is a protocol for remote user authentication and accounting. RADIUS enables centralized management of authentication data such as usernames and passwords using an AAA (authentication, authorization, and accounting) concept to manage network access.

Resolution

The sharpness of an image, measured in Dots Per Inch (DPI). The higher the dpi, the greater the resolution.

SMB

Server Message Block (SMB) is a network protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network. It also provides an authenticated Inter-process communication mechanism.

SMTP

Simple Mail Transfer Protocol (SMTP) is the standard for e-mail transmissions across the Internet. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified, and then the message text is transferred. It is a client-server protocol, where the client transmits an email message to the server.

SSID

Service Set Identifier (SSID) is a name of a wireless local area network (WLAN). All wireless devices in a WLAN use the same SSID in order to communicate with each other. The SSIDs are case-sensitive and have a maximum length of 32 characters.

Subnet Mask

The subnet mask is used in conjunction with the network address to determine which part of the address is the network address and which part is the host address.

TCP/IP

The Transmission Control Protocol (TCP) and the Internet Protocol (IP); the set of communications protocols that implement the protocol stack on which the Internet and most commercial networks run.

TCR

Transmission Confirmation Report (TCR) provides details of each transmission such as job status, transmission result and number of pages sent. This report can be set to print after each job or only after failed transmissions.

TIFF

Tagged Image File Format (TIFF) is a variable-resolution bitmapped image format. TIFF describes image data that typically come from scanners. TIFF images make use of tags, keywords defining the characteristics of the image that is included in the file. This flexible and platform-independent format can be used for pictures that have been made by various image processing applications.

Toner Cartridge

A kind of bottle or container used in a machine like a printer which contains toner. Toner is a powder used in laser printers and photocopiers, which forms the text and images on the printed paper. Toner can be fused by a combination of heat/pressure from the fuser, causing it to bind to the fibers in the paper.

TWAIN

An industry standard for scanners and software. By using a TWAIN-compliant scanner with a TWAIN-compliant program, a scan can be initiated from within the program. It is an image capture API for Microsoft Windows and Apple Mac operating systems.

UNC Path

Uniform Naming Convention (UNC) is a standard way to access network shares in Window NT and other Microsoft products. The format of a UNC path is: \\<servername>\<sharename>\<Additional directory>

URL

Uniform Resource Locator (URL) is the global address of documents and resources on the Internet. The first part of the address indicates what protocol to use, the second part specifies the IP address or the domain name where the resource is located.

USB

Universal Serial Bus (USB) is a standard that was developed by the USB Implementers Forum, Inc., to connect computers and peripherals. Unlike the parallel port, USB is designed to concurrently connect a single computer USB port to multiple peripherals.

Watermark

A watermark is a recognizable image or pattern in paper that appears lighter when viewed by transmitted light. Watermarks were first introduced in Bologna, Italy in 1282; they have been used by papermakers to identify their product, and also on postage stamps, currency, and other government documents to discourage counterfeiting.

WEP

Wired Equivalent Privacy (WEP) is a security protocol specified in IEEE 802.11 to provide the same level of security as that of a wired LAN. WEP provides security by encrypting data over radio so that it is protected as it is transmitted from one end point to another.

WIA

Windows Imaging Architecture (WIA) is an imaging architecture that is originally introduced in Windows Me and Windows XP. A scan can be initiated from within these operating systems by using a WIA-compliant scanner.

WPA

Wi-Fi Protected Access (WPA) is a class of systems to secure wireless (Wi-Fi) computer networks, which was created to improve upon the security features of WEP.

WPA-PSK

WPA-PSK (WPA Pre-Shared Key) is special mode of WPA for small business or home users. A shared key, or password, is configured in the wireless access point (WAP) and any wireless laptop or desktop devices. WPA-PSK generates a unique key for each session between a wireless client and the associated WAP for more advanced security.

WPS

The Wi-Fi Protected Setup (WPS) is a standard for establishing a wireless home network. If your wireless access point supports WPS, you can configure the wireless network connection easily without a computer.

XPS

XML Paper Specification (XPS) is a specification for a Page Description Language (PDL) and a new document format, which has benefits for portable document and electronic document, developed by Microsoft. It is an XML-based specification, based on a new print path and a vector-based device-independent document format.