

Clearing paper jams

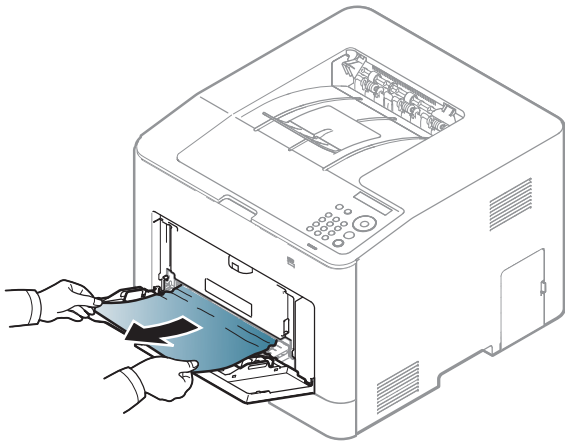
CLP-68xND Series/CLP-68xDW Series



Click this link to open an animation about clearing a jam.

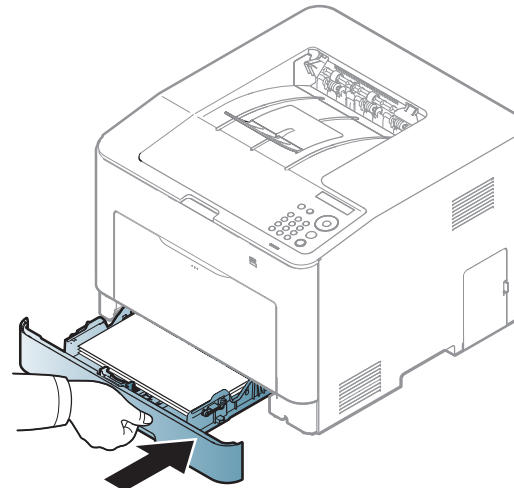
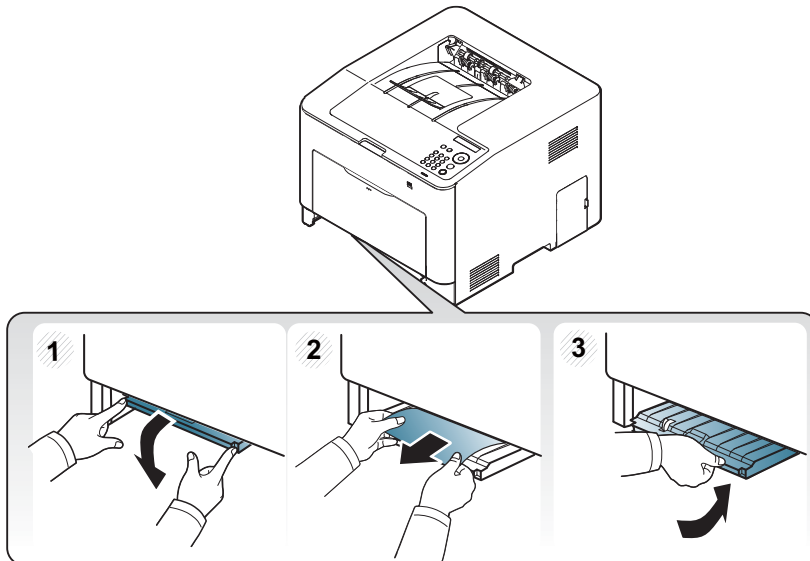
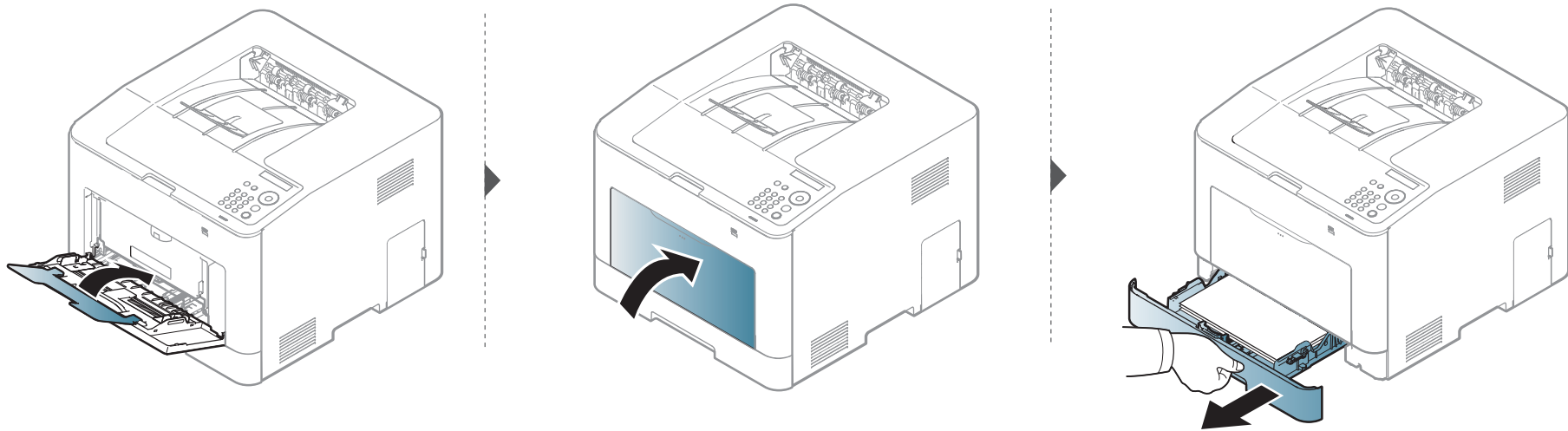


When you print using the multi-purpose tray and the machine detects that there is either no paper or that the paper has been improperly loaded, follow the next steps to release the jammed paper.



Clearing paper jams

If you do not see the paper in this area, stop and go to next step:



Clearing paper jams

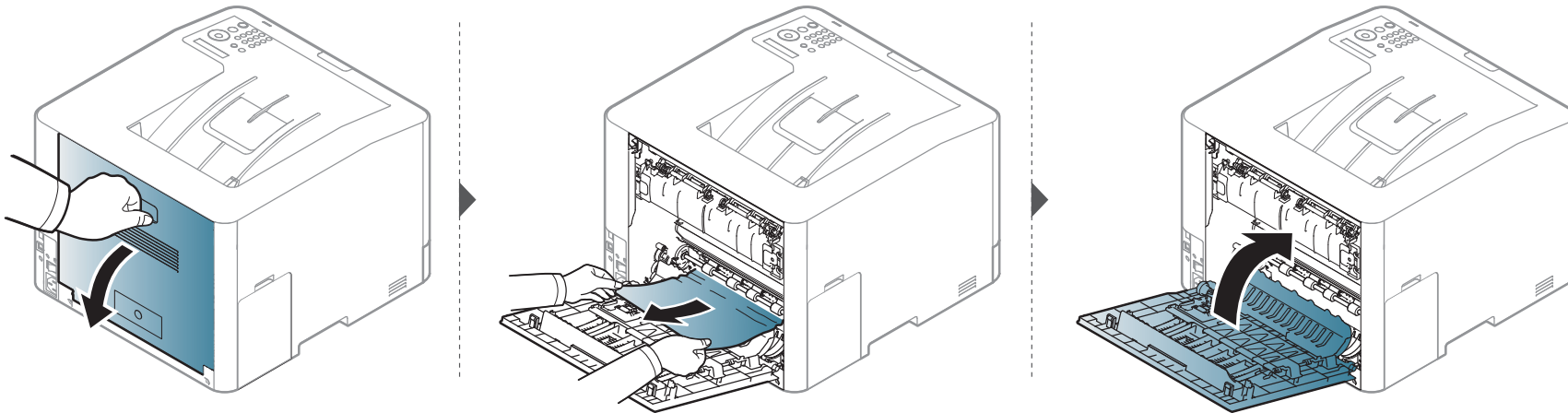
Inside the machine



Click this link to open an animation about clearing a jam.



- The fuser area is hot. Take care when removing paper from the machine.
- Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 17).



Clearing paper jams

In exit area

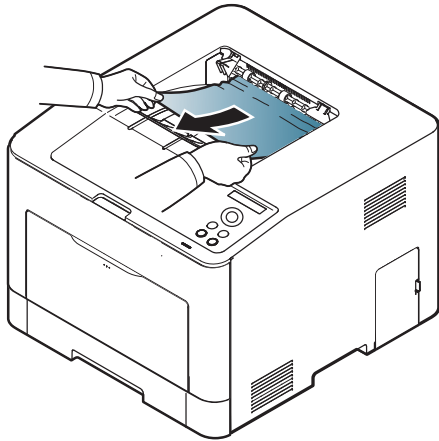
CLP-41xN Series/CLP-41xNW Series



Click this link to open an animation about clearing a jam.

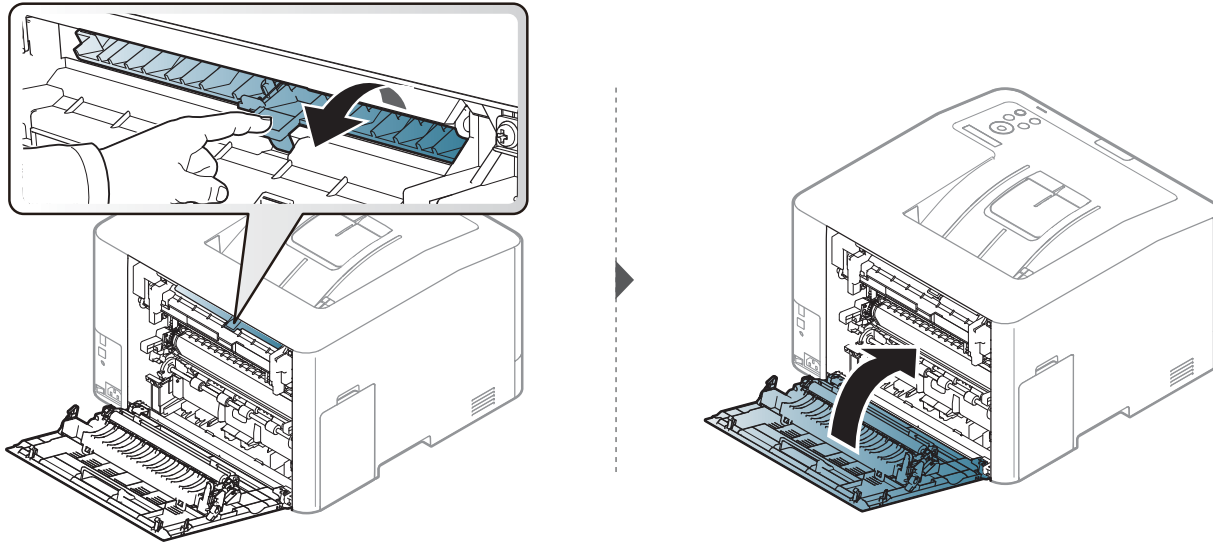
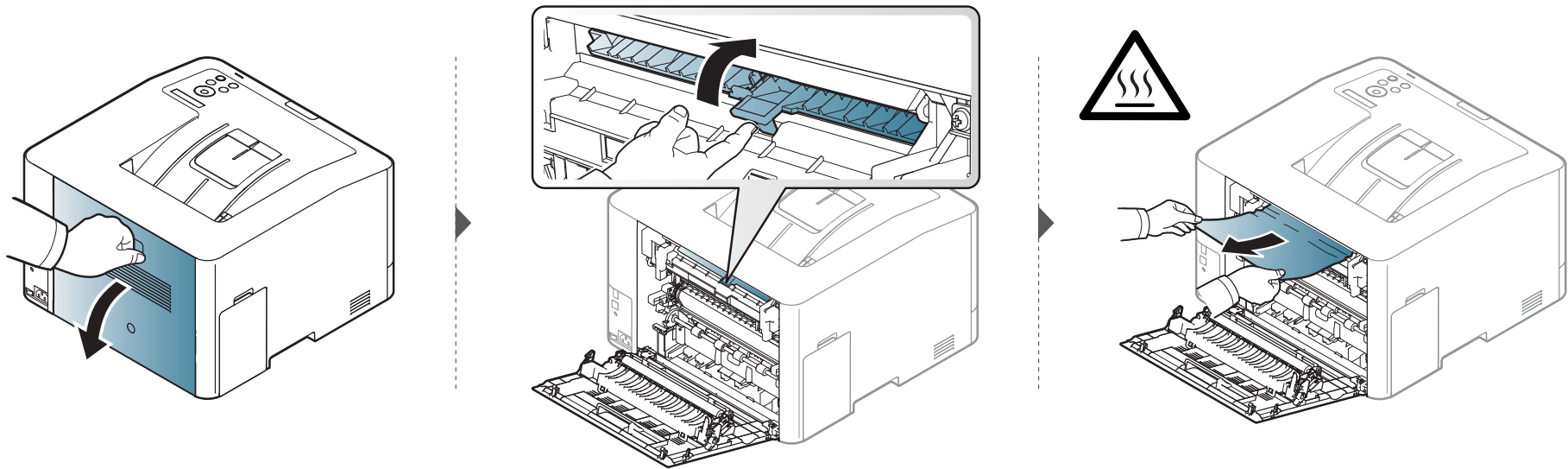


The fuser area is hot. Take care when removing paper from the machine.



Clearing paper jams

If you do not see the paper in this area, stop and go to next step:



Clearing paper jams

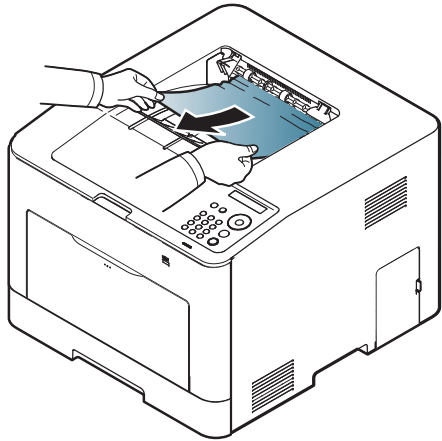
CLP-68xND Series/CLP-68xDW Series



Click this link to open an animation about clearing a jam.

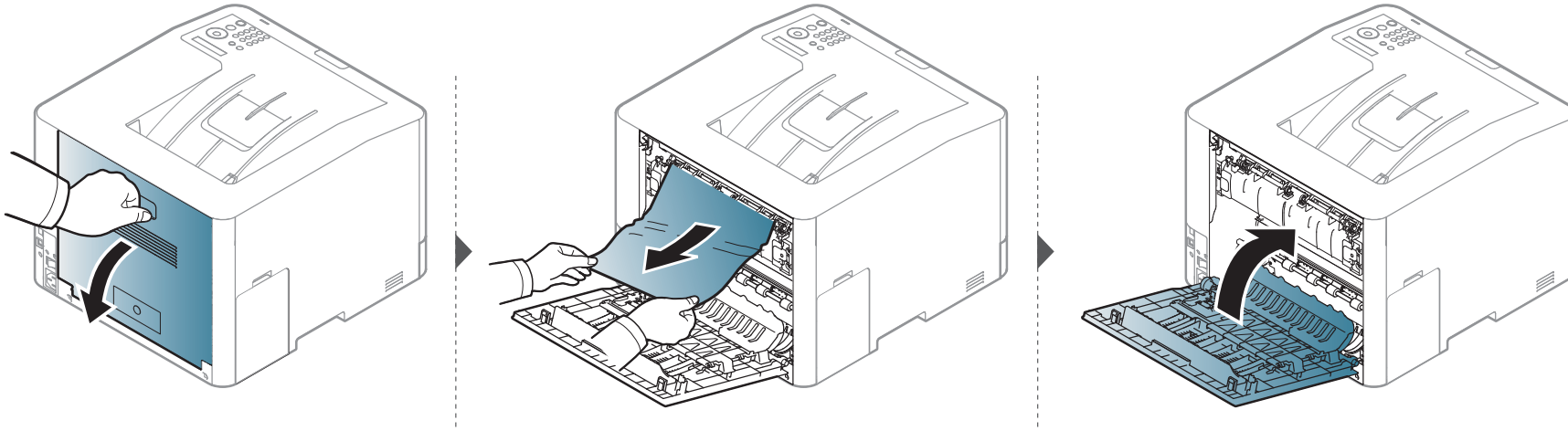


The fuser area is hot. Take care when removing paper from the machine.



Clearing paper jams

If you do not see the paper in this area, stop and go to next step:

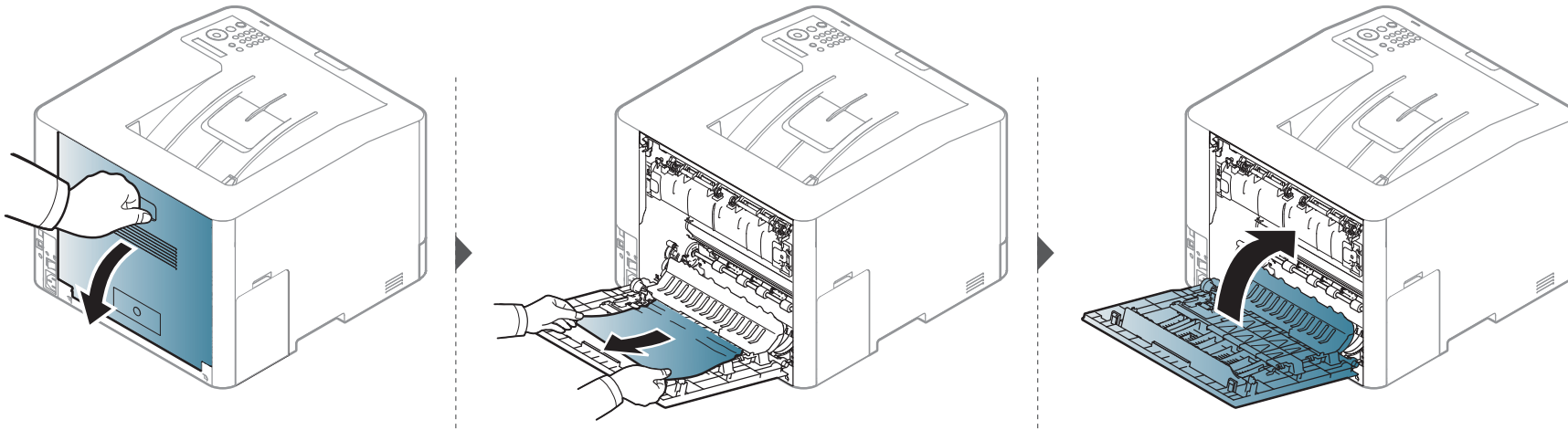


Clearing paper jams

In the duplex unit area (CLP-68xND Series/CLP-68xDW Series only)



Click this link to open an animation about clearing a jam.



Understanding the status LED

The color of the LED indicates the machine's current status.



- Some LEDs may not be available depending on model or country (see "Control panel overview" on page 19).
- To resolve the error, look at the error message and its instructions from the troubleshooting part (see "Understanding display messages" on page 96).
- You also can resolve the error with the guideline from the computers's Samsung Printing Status program window (see "Using Samsung Printer Status" on page 235).
- If the problem persists, call a service representative.

LED	Status		Description
(↔)/⚠ Status	Off		The machine is off-line.
	Green	Blinking	When the backlight blinks, the machine is receiving or printing data.
		On	• The machine is on-line and can be used.
	Red	Blinking	• A minor error has occurred and the machine is waiting for the error to be cleared. Check the display message. When the problem is cleared, the machine resumes. • Small amount of toner is left in the cartridge. The estimated cartridge life^a of toner is close. Prepare a new cartridge for replacement. You may temporarily increase the printing quality by redistributing the toner (see "Redistributing toner" on page 62).^b
		On	• A toner cartridge has almost reached its estimated cartridge life^a. It is recommended to replace the toner cartridge (see "Replacing the toner cartridge" on page 64). • The cover is opened. Close the cover. • There is no paper in the tray when receiving or printing data. Load paper in the tray. • The machine has stopped due to a major error. Check the display message (see "Understanding display messages" on page 96). • A paper jam has occurred (see "Clearing paper jams" on page 82).

Understanding the status LED

LED	Status		Description
 WPS^b  Wireless^b	Blue	Blinking	The machine is connecting to a wireless network.
		On	The machine is connected to a wireless network (see "Wireless network setup" on page 150).
		Off	The machine is disconnected from a wireless network.
 Power	Blue	On	The machine is in power save mode.
		Off	The machine is in ready mode or machine's power is off.
Eco	Green	On	Eco mode is on (see "Eco printing" on page 48).
		Off	Eco mode is off.

a. Estimated cartridge life means the expected or estimated toner cartridge life, which indicates the average capacity of print-outs and is designed pursuant to ISO/IEC 19798. The number of pages may be affected by operating environment, percentage of image area, printing interval, graphics, media and media size. Some amount of toner may remain in the cartridge even when red LED is on and the printer stops printing.

b. Some LEDs may not be available depending on model or country (see "Control panel overview" on page 19).

Understanding display messages

Messages appear on the control panel display to indicate the machine's status or errors. Refer to the tables below to understand the messages' and their meaning, and correct the problem, if necessary.



- You can resolve the error with the guideline from the computer's Printing Status program window (see "Using Samsung Printer Status" on page 235).
- If a message is not in the table, reboot the power and try the printing job again. If the problem persists, call a service representative.
- When you call for service, provide the service representative with the contents of display message.
- Some messages may not appear on the display depending on the options or models.
- [error number] indicates the error number.
- [tray type] indicates the tray number.
- [media type] indicates the media type.
- [media size] indicates the media size.
- [color] indicates the color of toner.

Paper Jam-related messages

Message	Meaning	Suggested solutions
Paper Jam in exit area	Paper has jammed in the exit area.	Clear the jam (see "In exit area" on page 89).
Paper Jam inside machine	Paper has jammed in the inside machine.	Clear the jam (see "Inside the machine" on page 88).
Paper Jam in Tray1	Paper has jammed in the tray.	Clear the jam (see "In tray 1" on page 82).
Paper Jam in Tray2	Paper has jammed in the optional tray.	Clear the jam (see "In optional tray (CLP-68xND Series/CLP-68xDW Series only)" on page 83).
Paper Jam in MP tray	Paper has jammed in the multi-purpose tray.	Clear the jam (see "In the manual feeder/ multi-purpose tray" on page 85).

Understanding display messages

Message	Meaning	Suggested solutions
Paper Jam or empty in tray	• Paper has jammed in manual feeder. • There is no paper in tray.	• Clear the jam (see "CLP-41xN Series/ CLP-41xNW Series" on page 85). • Load paper in tray (see "Multi-purpose (or Manual feeder) tray" on page 35).
Paper Jam bottom of duplex	Paper has jammed during duplex printing. This is applicable only to machines with this feature.	Clear the jam (see "In the duplex unit area (CLP-68xND Series/ CLP-68xDW Series only)" on page 93).

Understanding display messages

Toner-related messages

Message	Meaning	Suggested solutions
Install [color] toner cartridge	A toner cartridge is not installed.	Reinstall the toner cartridge.
	A toner cartridge is not being detected	Reinstall the toner cartridge two or three times to confirm it is seated properly. If the problem persists, contact the service representatives.
	Not remove protective film from toner.	Remove the protective film from the toner cartridge. Refer to Quick Installation Guide provided with your machine.
Not Compatible [color] toner cart.	The indicated toner cartridge is not suitable for your machine.	Install the corresponding toner cartridge with a Samsung-genuine cartridge (see "Replacing the toner cartridge" on page 64).
Prepare Toner ▼	Small amount of toner is left in the indicated cartridge. The estimated cartridge life ^a of toner is close.	Prepare a new cartridge for a replacement. You may temporarily increase the printing quality by redistributing the toner (see "Redistributing toner" on page 62).

Message	Meaning	Suggested solutions
Replace Toner ▼	The indicated toner cartridge has almost reached its estimated cartridge life ^a .	- You can choose Stop or Continue as shown on the control panel. If you select Stop, the printer stops printing. If you select Continue, the printer keeps printing but the printing quality cannot be guaranteed. - Replace the toner cartridge for the best print quality when this message appears. Using a cartridge beyond this stage can result in printing quality issues (see "Replacing the toner cartridge" on page 64).
	The indicated toner cartridge has reached its estimated cartridge life ^a .	Replace the toner cartridge (see "Replacing the toner cartridge" on page 64).

a. Estimated cartridge life means the expected or estimated toner cartridge life, which indicates the average capacity of print-outs and is designed pursuant to ISO/IEC 19798 (see "Available consumables" on page 56). The number of pages may be affected by operating environment, percentage of image area, printing interval, media, percentage of image area, and media size. Some amount of toner may remain in the cartridge even when replace new cartridge appears and the machine stops printing.

Understanding display messages



Samsung does not recommend using a non-genuine Samsung toner cartridge such as refilled or remanufactured. Samsung cannot guarantee a non-genuine Samsung toner cartridge's quality. Service or repair required as a result of using non-genuine Samsung toner cartridges will not be covered under the machine warranty.

Tray-related messages

Message	Meaning	Suggested solutions
Paper Empty in [tray number]	There is no paper in the indicated tray.	Load paper in the tray (see "Loading paper in the tray" on page 33).
Paper Jam or empty in tray	- Paper has jammed in manual feeder. - There is no paper in tray.	- Clear the jam (see "CLP-41xN Series/CLP-41xNW Series" on page 85). - Load paper in tray (see "Multi-purpose (or Manual feeder) tray" on page 35).

Network-related messages

Message	Meaning	Suggested solutions
Network Problem: IP Conflict	The IP address is used elsewhere.	Check the IP address or obtain a new IP address.
Wireless Network Error	Wireless module is not installed.	Reboot the power and try the printing job again. If the problem persists, please call for service.
BOOTP problem: Auto IP Run DHCP problem: Auto IP Run	There is a problem with the network.	Change the Auto IP.
BOOTP problem: Reconfigure BOOTP DHCP problem: Reconfigure DHCP	The IP address assignment is failed. This happens, when IP for BOOTP/DHCP is set in SyncThru™ Web Service.	Change the IP address assignment method to DHCP/BOOTP or Static. If you do not change this option, the BOOTP/DHCP server continually asks to assign the IP Address.

Understanding display messages

Message	Meaning	Suggested solutions
802.1x Network Error	Fail to authenticate.	Check the network authentication protocol. If the problem persists, contact your network administrator.

Misc. messages

Message	Meaning	Suggested solutions
Adjusting Color Registration	The machine is adjusting the color registration.	Wait a few minutes.
Calibrating image density...	The machine is calibrating the image density.	Wait a few minutes.
Door Open Close it	The cover is not securely latched.	Close the cover until it locks into place.
Error [error number] Install [color] toner	The indicated toner cartridge is installed improperly, or the connector is polluted.	Reinstall the Samsung-genuine toner cartridge two or three times to confirm it is seated properly. If the problem persists, contact the service representatives.

Message	Meaning	Suggested solutions
Error [error number] Turn off then on Error [error number] Call for service	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
Install TR. belt unit.		
Not compatible transfer belt	The transfer belt of the machine is not for your machine.	Install the a Samsung-genuine part designed for your machine.
Not installed Waste tank	The is waste toner container not installed.	Install a Samsung-genuine waste toner container.
Not proper room temp. Move set	The machine is in a room with improper room temperature.	Move the machine to a room with proper room temperature.
Output bin Full Remove paper	The output tray is full. Or the sensor is not facing down.	Remove papers from the output tray, the machine resumes printing. Or make sure the sensor is facing down. If the problem persists, call for service.

Understanding display messages

Message	Meaning	Suggested solutions
Prepare new Transfer belt	The life of the transfer belt will expired soon.	Replace the transfer belt with a new one. Contact the service representatives.
Replace new Transfer belt	The life of the transfer belt has expired.	
Replace Fuser Soon	The life of the fuser unit will be expired soon.	Replace the fuser unit with a new one. If the problem persists, please call for service.
Replace new Fuser unit	The life of the fuser unit will be expired.	
• Replace new Tray1 roller • Replace new Tray2 roller	The life of the tray pick-up roller will expired soon. The life of the tray pick-up roller will expired.	Replace the tray pick-up roller with a new one. If the problem persists, please call for service.
Transfer Belt Error	The transfer belt cannot be controlled.	
Waste toner Full Replace new one	The waste toner container is full.	Replace the waste toner container.



5. Appendix

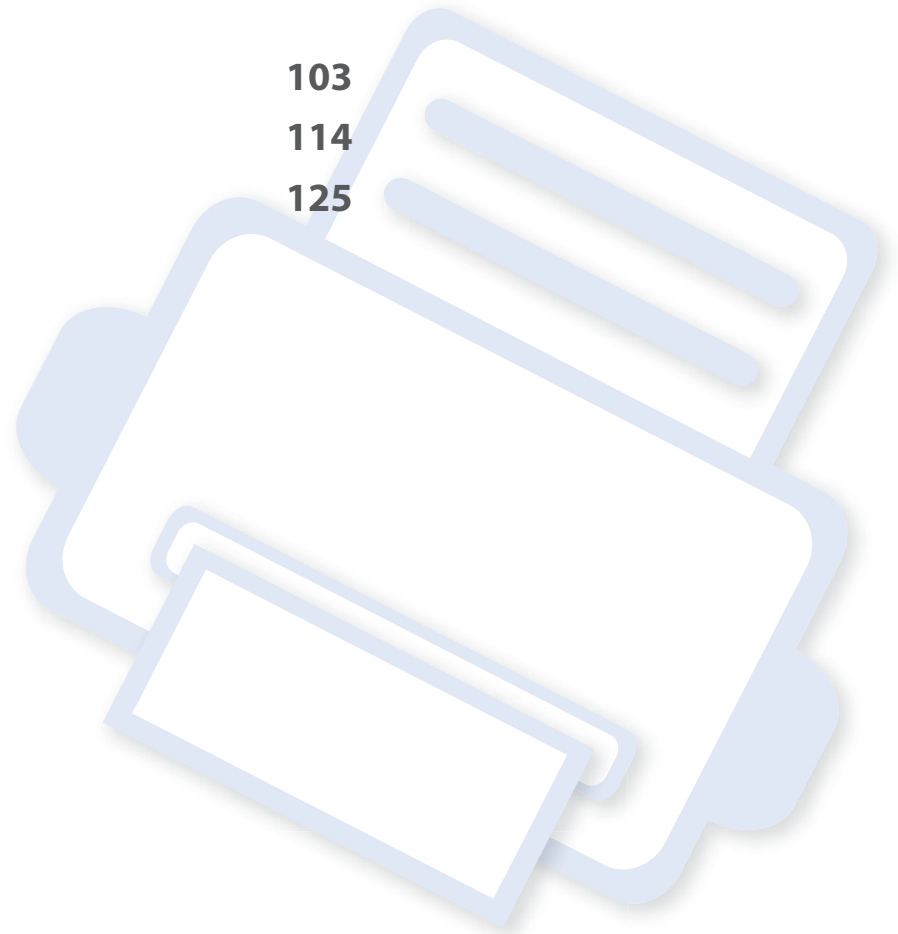
This chapter provides product specifications and information concerning applicable regulations.

- **Specifications**
- **Regulatory information**
- **Copyright**

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Specifications

General specifications



The specification values listed below are subject to change without notice. See www.samsung.com for possible changes in information.

Items		Description
Dimension	Width x Length x Height	• CLP-41xN Series/CLP-41xNW Series: 389 x 274 x 249 mm (15.31 x 10.79 x 9.80 inches)
		• CLP-68xND Series/CLP-68xDW Series: 389 x 274 x 249 mm (15.31 x 10.79 x 9.80 inches)
Weight	Machine with consumables	• CLP-41xN Series/CLP-41xNW Series: 6.65 Kg (14.66 lbs)
		• CLP-68xND Series/CLP-68xDW Series: 6.65 Kg (14.66 lbs)
Noise Level ^a	Ready mode	Less than 37 dB (A)
	Print mode	• CLP-41xN Series/CLP-41xNW Series: Less than 50 dB (A) • CLP-68xND Series/CLP-68xDW Series: Less than 52 dB (A)
Temperature	Operation	15 to 30 °C (59 to 86 °F)
	Storage (packed)	-20 to 50 °C (-4 to 122 °F)
Humidity	Operation	20 to 80% RH
	Storage (packed)	10 to 90% RH
Power rating ^b	110 volt models	AC 110 - 127 V
	220 volt models	AC 220 - 240 V

Specifications

Items		Description
Power consumption	Average operating mode	Less than 850 W
	Ready mode	Less than 12 W
	Power save mode	Less than 1.0 W
	Power off mode	Less than 0.1 W
Wireless ^c	Module	SPW-B4319U

a. Sound Pressure Level, ISO 7779. Configuration tested: basic machine installation, A4 paper, simplex printing.

b. See the rating label on the machine for the correct voltage (V), frequency (hertz) and of current (A) for your machine.

c. Wireless models only (see "Features by models" on page 7).

Specifications

Print media specifications

Type	Size	Dimensions	Weight/Capacity ^a			
			CLP-41xN Series CLP-41xNW Series		CLP-68xND Series CLP-68xDW Series	
			Tray1	Manual feeder	Tray1/ Optional tray	Multi-purpose tray
Plain paper ^b	Letter	216 x 279 mm (8.5 x 11 inches)	70 to 89 g/m ² (19 to 24 lbs bond) • 250 sheets of 80 g/m ² (21 lbs bond)	70 to 89 g/m ² (19 to 24 lbs bond) • 1 sheet	70 to 90 g/m ² (19 to 24 lbs bond) • Tray1: 250 sheets of 80 g/m ² (21 lbs bond) • Optional tray: 500 sheets of 80 g/m ² (20 lbs bond)	70 to 90 g/m ² (20 to 24 lbs bond) • 50 sheets
	Legal	216 x 356 mm (8.5 x 14 inches)				
	US Folio	216 x 330 mm (8.5 x 13 inches)				
	A4	210 x 297 mm (8.27 x 11.69 inches)				
	Oficio	216 x 343 mm (8.5 x 13.5 inches)				
	JIS B5	182 x 257 mm (7.17 x 10.12 inches)				
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)				
	Executive	184 x 267 mm (7.25 x 10.5 inches)				
	Statement	140 x 216 mm (5.5 x 8.5 inches)				
	A5	148 x 210 mm (5.83 x 8.27 inches)				
	A6	105 x 148 mm (4.13 x 5.83 inches)	70 to 89 g/m ² (19 to 24 lbs bond) • 150 sheets of 80 g/m ² (21 lbs bond)		70 to 90 g/m ² (19 to 24 lbs bond) • 150 sheets of 80 g/m ² (21 lbs bond) Not available in optional tray.	

Specifications

Type	Size	Dimensions	Weight/Capacity ^a			
			CLP-41xN Series CLP-41xNW Series		CLP-68xND Series CLP-68xDW Series	
			Tray1	Manual feeder	Tray1/ Optional tray	Multi-purpose tray
Envelope	Envelope Monarch	98 x 191 mm (3.87 x 7.5 inches)	75 to 90 g/m ² (20 to 24 lbs bond) • 20 sheets	75 to 90 g/m ² (20 to 24 lbs bond) • 1 sheet	75 to 90 g/m ² (20 to 24 lbs bond) • 20 sheets Not available in optional tray.	75 to 90 g/m ² (20 to 24 lbs bond) • 5 sheets
	Envelope No. 10	105 x 241 mm (4.12 x 9.5 inches)				
	Envelope No. 9	98 x 225 mm (3.87 x 8.87 inches)				
	Envelope DL	110 x 220 mm (4.33 x 8.66 inches)				
	Envelope C5	162 x 229 mm (6.38 x 9.02 inches)				
	Envelope C6	114 x 162 mm (4.49 x 6.38 inches)				
Thick paper ^b	Refer to the Plain paper section	Refer to the Plain paper section	90 to 105 g/m ² (24 to 28 lbs bond) • 50 sheets of 105 g/m ² (28 lbs bond)	90 to 105 g/m ² (24 to 28 lbs bond) • 1 sheet	91 to 105 g/m ² (24 to 28 lbs bond) • 50 sheets of 105 g/m ² (28 lbs bond)	91 to 105 g/m ² (24 to 28 lbs bond) • 10 sheets
Thicker paper ^b	Refer to the Plain paper section	Refer to the Plain paper section	164 to 220 g/m ² (43 to 59 lbs bond) • 50 sheets of 220 g/m ² (59 lbs bond)	164 to 220 g/m ² (43 to 59 lbs bond) • 1 sheet	164 to 220 g/m ² (43 to 59 lbs bond) • 50 sheets of 220 g/m ² (59 lbs bond) Not available in optional tray.	164 to 220 g/m ² (43 to 59 lbs bond) • 10 sheets
Thin paper	Refer to the Plain paper section	Refer to the Plain paper section	60 to 69 g/m ² (16 to 19 lbs bond) • 250 sheets of 70 g/m ² (19 lbs bond)	60 to 69 g/m ² (16 to 19 lbs bond) • 1 sheet	60 to 70 g/m ² (16 to 19 lbs bond) • 250 sheets of 70 g/m ² (19 lbs bond)	60 to 70 g/m ² (16 to 19 lbs bond) • 50 sheets

Specifications

Type	Size	Dimensions	Weight/Capacity ^a			
			CLP-41xN Series CLP-41xNW Series		CLP-68xND Series CLP-68xDW Series	
			Tray1	Manual feeder	Tray1/ Optional tray	Multi-purpose tray
Cotton, Color, Pre-printed	Refer to the Plain paper section	Refer to the Plain paper section	75 to 90 g/m ² (20 to 24 lbs bond) • 250 sheets of 80 g/m ² (21 lbs bond)	75 to 90 g/m ² (20 to 24 lbs bond) • 1 sheet	75 to 90 g/m ² (20 to 24 lbs bond) • 250 sheets of 80 g/m ² (21 lbs bond) Not available in optional tray.	75 to 90 g/m ² (20 to 24 lbs bond) • 50 sheets
Recycled	Refer to the Plain paper section	Refer to the Plain paper section	70 to 90 g/m ² (19 to 24 lbs bond) • 250 sheets of 80 g/m ² (21 lbs bond)	70 to 90 g/m ² (19 to 24 lbs bond) • 1 sheet	70 to 90 g/m ² (19 to 24 lbs bond) • 250 sheets of 80 g/m ² (21 lbs bond)	70 to 90 g/m ² (19 to 24 lbs bond) • 50 sheets
Transparency	Letter, Legal, A4	Refer to the Plain paper section	138 to 146 g/m ² (35 to 39 lbs bond) • 50 sheets	138 to 146 g/m ² (35 to 39 lbs bond) • 1 sheet	138 to 146 g/m ² (35 to 39 lbs bond) • 50 sheets Not available in optional tray.	138 to 146 g/m ² (35 to 39 lbs bond) • 10 sheets
Labels ^c	Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5	Refer to the Plain paper section	120 to 150 g/m ² (32 to 40 lbs bond) • 50 sheets	120 to 150 g/m ² (32 to 40 lbs bond) • 1 sheet	120 to 150 g/m ² (32 to 40 lbs bond) • 50 sheets Not available in optional tray.	120 to 150 g/m ² (32 to 40 lbs bond) • 10 sheets

Specifications

Type	Size	Dimensions	Weight/Capacity ^a			
			CLP-41xN Series CLP-41xNW Series		CLP-68xND Series CLP-68xDW Series	
			Tray1	Manual feeder	Tray1/ Optional tray	Multi-purpose tray
Card stock^b	Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5	Refer to the Plain paper section	121 to 163 g/m ² (32 to 43 lbs bond) • 50 sheets	121 to 163 g/m ² (32 to 43 lbs bond) • 1 sheet	121 to 163 g/m ² (32 to 43 lbs bond) • 50 sheets	121 to 163 g/m ² (32 to 43 lbs bond) • 10 sheets
Bond paper	Refer to the Plain paper section	Refer to the Plain paper section	105 to 120 g/m ² (28 to 32 lbs bond) • 50 sheets	105 to 120 g/m ² (28 to 32 lbs bond) • 1 sheet	105 to 120 g/m ² (28 to 32 lbs bond) • 50 sheets	105 to 120 g/m ² (28 to 32 lbs bond) • 10 sheets
Archive, Punched paper, Letterhead	Refer to the Plain paper section	Refer to the Plain paper section	• 250 sheets	• 1 sheet	• 250 sheets	• 50 sheets
Glossy Photo^b	Letter, A4, Postcard 4x6	Refer to the Plain paper section	111 to 130 g/m ² (30 to 35 lbs bond) • 30 sheets	111 to 130 g/m ² (30 to 35 lbs bond) • 1 sheet	111 to 130 g/m ² (30 to 35 lbs bond) for tray1 • Tray1: 30 sheets • Optional tray: 50 sheets	111 to 130 g/m ² (30 to 35 lbs bond) • 5 sheets
		Refer to the Plain paper section	131 to 175 g/m ² (35 to 47 lbs bond) • 30 sheets	131 to 175 g/m ² (35 to 47 lbs bond) • 1 sheet	131 to 175 g/m ² (35 to 47 lbs bond) • Tray1: 30 sheets • Optional tray: 50 sheets	131 to 175 g/m ² (35 to 47 lbs bond) • 5 sheets
		Refer to the Plain paper section	176 to 220 g/m ² (47 to 59 lbs bond) • 30 sheets	176 to 220 g/m ² (47 to 59 lbs bond) • 1 sheet	176 to 220 g/m ² (47 to 59 lbs bond) • Tray1: 30 sheets • Optional tray: 50 sheets	176 to 220 g/m ² (47 to 59 lbs bond) • 5 sheets

Specifications

Type	Size	Dimensions	Weight/Capacity ^a			
			CLP-41xN Series CLP-41xNW Series		CLP-68xND Series CLP-68xDW Series	
			Tray1	Manual feeder	Tray1/ Optional tray	Multi-purpose tray
Minimum size (custom)		• Tray1: 98 x 127 mm (3.86 x 5 inches) • Optional tray: 148.5 x 210 mm (5.85 x 8.27inches) • Multi-Purpose tray/ Manual Feeder: 76 x 127 mm (3 x 5 inches)	60 to 220 g/m ² (16 to 59 lb bond)	60 to 220 g/m ² (16 to 59 lb bond)	• 60 to 220 g/m² (16 to 59 lb bond) for tray1 • 60 to 163 g/m² (16 to 43 lb bond) for optional tray.	60 to 220 g/m ² (16 to 59 lb bond)
Maximum size (custom)		216 x 356 mm (8.5 x 14 inches)				

a. Maximum capacity may differ depending on media weight, thickness, and environmental conditions.

b. Post card 4 x 6 is supported for tray1, Manual feeder, or Multi-purpose tray.

c. The smoothness of the labels used in this machine is 100 to 250 (sheffield). This means the numeric level of smoothness.

System requirements

Microsoft® Windows®

Operating system	Requirement (recommended)		
	CPU	RAM	free HDD space
Windows® 2000	Intel® Pentium® II 400 MHz (Pentium III 933 MHz)	64 MB (128 MB)	600 MB
Windows® XP	Intel® Pentium® III 933 MHz (Pentium IV 1 GHz)	128 MB (256 MB)	1.5 GB

Specifications

Operating system	Requirement (recommended)		
	CPU	RAM	free HDD space
Windows Server® 2003	Intel® Pentium® III 933 MHz (Pentium IV 1 GHz)	128 MB (512 MB)	1.25 GB to 2 GB
Windows Server® 2008	Intel® Pentium® IV 1 GHz (Pentium IV 2 GHz)	512 MB (2 GB)	10 GB
Windows Vista®	Intel® Pentium® IV 3 GHz	512 MB (1 GB)	15 GB
Windows® 7	Intel® Pentium® IV 1 GHz 32-bit or 64-bit processor or higher	1 GB (2 GB)	16 GB
	• Support for DirectX® 9 graphics with 128 MB memory (to enable the Aero theme). • DVD-R/W Drive		
Windows Server® 2008 R2	Intel® Pentium® IV 1 GHz (x86) or 1.4 GHz (x64) processors (2 GHz or faster)	512 MB (2 GB)	10 GB



- Internet Explorer 6.0 or higher is the minimum requirement for all Windows operating systems.
- Users who have administrator rights can install the software.
- **Windows Terminal Services** is compatible with your machine.
- For **Windows 2000, Services Pack 4** or higher is required.

Specifications

Macintosh

Operating system	Requirements (Recommended)		
	CPU	RAM	Free HDD space
Mac OS X 10.4	• Intel® processors • PowerPC G4/G5	• 128 MB for a powerPC based Mac (512 MB) • 512 MB for an Intel-based Mac (1 GB)	1 GB
Mac OS X 10.5	• Intel® processors • 867 MHz or faster Power PC G4/G5	512 MB (1 GB)	1 GB
Mac OS X 10.6	• Intel® processors	1 GB (2 GB)	1 GB
Mac OS X 10.7	• Intel® processors	2 GB	4 GB

Specifications

Linux

Items	Requirements
Operating system	Redhat® Enterprise Linux WS 4, 5 (32/64 bit) Fedora 5 ~ 13 (32/64 bit) SuSE Linux 10.1 (32 bit) OpenSuSE® 10.2, 10.3, 11.0, 11.1, 11.2 (32/64 bit) Mandriva 2007, 2008, 2009, 2009.1, 2010 (32/64 bit) Ubuntu 6.06, 6.10, 7.04, 7.10, 8.04, 8.10, 9.04, 9.10, 10.04 (32/64 bit) SuSE Linux Enterprise Desktop 10, 11 (32/64 bit) Debian 4.0, 5.0 (32/64 bit)
CPU	Pentium IV 2.4GHz (Intel Core™2)
RAM	512 MB (1 GB)
Free HDD space	1 GB (2 GB)

Unix

Items	Requirements
Operating system	Sun Solaris 9, 10 (x86, SPARC) HP-UX 11.0, 11i v1, 11i v2, 11i v3 (PA-RISC, Itanium) IBM AIX 5.1, 5.2, 5.3, 5.4
Free HDD space	Up to 100 MB

Specifications

Network environment



Network and wireless models only (see "Features by models" on page 7).

You need to set up the network protocols on the machine to use it as your network machine. The following table shows the network environments supported by the machine.

Items	Specifications
Network interface	• Ethernet 10/100/1000 Base-TX Wired Lan • 802.11b/g/n Wireless LAN
Network operating system	• Windows® 2000, Windows® XP, Windows Server® 2003, Windows Vista®, Windows® 7, Windows Server® 2008 R2 • Various Linux OS • Mac OS X 10.4 ~10.7 • UNIX OS
Network protocols	• TCP/IPv4 • DHCP, BOOTP • DNS, WINS, Bonjour, SLP, UPnP • Standard TCP/IP Printing (RAW), LPR, IPP, WSD • SNMPv 1/2/3, HTTP, IPsec • TCP/IPv6 (DHCP, DNS, RAW, LPR, SNMPv 1/2/3, HTTP, IPsec)
Wireless security	• Authentication: Open System, Shared Key, WPA Personal, WPA2 Personal (PSK) • Encryption: WEP64, WEP128, TKIP, AES

Regulatory information

Regulatory information

This machine is designed for a normal work environment and certified with several regulatory statements.

Laser safety statement

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, chapter 1 Subchapter J for Class I(1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 60825-1 : 2007.

Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance or prescribed service condition.

Warning

Never operate or service the printer with the protective cover removed from laser/scanner assembly. The reflected beam, although invisible, can damage your eyes.

When using this product, these basic safety precautions should always be followed to reduce risk of fire, electric shock, and injury to persons:



CAUTION - CLASS 3B. INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO THE BEAM.

DANGER - INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

DANGER - KLASSE 3B. UNSICHTBARE LASERSTRAHLUNG, WENN OFFEN. STRAHLENAUSSETZUNG VERMEIDEN.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG KLASSE 3 B, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENZIONE - CLASSE 3B. RADIZIONI LASER INVISIBILI CON IL DISPOSITIVO APERTO. EVITARE L'ESPOSIZIONE AL RAGGIO.

PRECAUCIÓN - RADIACIÓN LÁSER INVISIBLE DE CLASE 3B PRESENTE AL ABRIR. EVITE LA EXPOSICIÓN AL HAZ.

PERIGO - CLASSE 3B. RADIAÇÃO LASER INVISÍVEL AO ABRIR. EVITE EXPOSIÇÃO DIRECTA AO FEIXE.

GEVAAR - KLASSE 3B. ONZICHTBARE LASERSTRALING INDIEN GEOPEND. VERMIJD BLOOTSTELLING AAN DE STRAAL.

ADVARSEL - KLASSE 3B. USYNLIG LASERSTRÅLING VED ÅBNING. UNNGÅ UDSÆTTELSE FOR STRÅLING.

ADVARSEL - KLASSE 3B. USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - KLASSE 3B OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÅR ÖPPNAD. STRÅLEN ÄR FARLIG.

VAROITUS - LUOKAN 3B NÄKYMÄTTÖMÄLLE LASER-SÄTEILYÄ AVATTUNA. VÄLTÄ ALTISTUMISTA SÄTEELLE.

注意 - CLASS 3B。严禁打开，以免被不可见激光辐射泄漏灼伤

주의 - 열리면 등급 3B 비가시 레이저 방사선 이 방출됩니다. 광선에 노출을 피하십시오.

Ozone safety



This product's ozone emission rate is under 0.1 ppm. Because ozone is heavier than air, keep the product in a place with good ventilation.

Power saver



This printer contains advanced energy conservation technology that reduces power consumption when it is not in active use.

When the printer does not receive data for an extended period of time, power consumption is automatically lowered.

ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

For more information on the ENERGY STAR program see <http://www.energystar.gov>

For ENERGY STAR certified models, the ENERGY STAR label will be on your machine. Check if your machine is ENERGY STAR certified.

Regulatory information

Recycling



Recycle or dispose of the packaging material for this product in an environmentally responsible manner.

China only

回收和再循环

为了保护环境，我公司已经为废弃的产品建立了回收和再循环系统。我们会为您无偿提供回收同类废旧产品的服务。
当您要废弃您正在使用的产品时，请您及时与授权耗材更换中心取得联系，我们会及时为您提供服务。

Correct disposal of this product (Waste electrical & electronic equipment)

(Applicable in the European Union and other European countries with separate collection systems)



This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Regulatory information

(The United States of America only)

Dispose unwanted electronics through an approved recycler. To find the nearest recycling location, go to our website: www.samsung.com/recyclingdirect Or call, (877) 278 - 0799

Taiwan only

警告

本電池如果更換不正確會有爆炸的危險
請依製造商說明書處理用過之電池

Radio frequency emissions

FCC information to the user

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio TV technician for help.



Change or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Regulatory information

Canadian radio interference regulations

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled “Digital Apparatus”, ICES-003 of the Industry and Science Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: “Appareils Numériques”, ICES-003 édictée par l’Industrie et Sciences Canada.

United States of America

Federal Communications Commission (FCC)

Intentional emitter per FCC Part 15

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. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the United States of America if an FCC ID number is on the system label.

The FCC has set a general guideline of 20 cm (8 inches) separation between the device and the body, for use of a wireless device near the body (this does not include extremities). This device should be used more than 20 cm (8 inches) from the body when wireless devices are on. The power output of the wireless device (or devices), which may be embedded in your printer, is well below the RF exposure limits as set by the FCC.

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

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.



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.

Regulatory information

FCC Statement for Wireless LAN use:



While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1m W/cm² may be exceeded at distances close to the antenna installed. Therefore, the user must maintain a minimum distance of 20cm from the antenna at all times. This device cannot be colocated with another transmitter and transmitting antenna.

Russia only



Germany only

Das Gerät ist nicht für die Benutzung am Bildschirmarbeitsplatz gemäß BildschirmarbeitsV vorgesehen.

Turkey only

• RoHS

EEE Yönetmeliğine Uygundur.
This EEE is compliant with RoHS.

- Bu ürünün ortalama yaşam süresi 7 yıl, garanti süresi 2 yıldır.

Replacing the Fitted Plug (for UK Only)

Important

The mains lead for this machine is fitted with a standard (BS 1363) 13 amp plug and has a 13 amp fuse. When you change or examine the fuse, you must re-fit the correct 13 amp fuse. You then need to replace the fuse cover. If you have lost the fuse cover, do not use the plug until you have another fuse cover.

Contact the people from you purchased the machine.

The 13 amp plug is the most widely used in the UK and should be suitable. However, some buildings (mainly old ones) do not have normal 13 amp plug sockets. You need to buy a suitable plug adaptor. Do not remove the moulded plug.

Regulatory information



If you cut off the moulded plug, get rid of it straight away.

You cannot rewire the plug and you may receive an electric shock if you plug it into a socket.

Important warning:



You must earth this machine.

The wires in the mains lead have the following color code:

- **Green and Yellow:** Earth
- **Blue:** Neutral
- **Brown:** Live

If the wires in the mains lead do not match the colors marked in your plug, do the following:

You must connect the green and yellow wire to the pin marked by the letter “E” or by the safety ‘Earth symbol’ or colored green and yellow or green.

You must connect the blue wire to the pin which is marked with the letter “N” or colored black.

You must connect the brown wire to the pin which is marked with the letter “L” or colored red.

You must have a 13 amp fuse in the plug, adaptor, or at the distribution board.

Declaration of conformity (European countries)

Approvals and Certifications

Hereby, Samsung Electronics, declares that this [CLP-41xN Series/CLP-68xND Series] is in compliance with the essential requirements and other relevant provisions of Low Voltage Directive (2006/95/EC), EMC Directive (2004/108/EC).



Hereby, Samsung Electronics, declares that this [CLP-41xNW Series/CLP-68xDW Series] is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 1999/5/EC.

The declaration of conformity may be consulted at **www.samsung.com**, go to Support > Download center and enter your printer (MFP) name to browse the EuDoC.

January 1, 1995: Council Directive 2006/95/EC Approximation of the laws of the member states related to low voltage equipment.

January 1, 1996: Council Directive 2004/108/EC, approximation of the laws of the Member States related to electromagnetic compatibility.

March 9, 1999: Council Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity. A full declaration, defining the relevant Directives and referenced standards can be obtained from your Samsung Electronics Co., Ltd. representative.

Regulatory information

EC Certification

Certification to 1999/5/EC Radio Equipment & Telecommunications Terminal Equipment Directive (FAX)

This Samsung product has been self-certified by Samsung for pan-European single terminal connection to the analogue public switched telephone network (PSTN) in accordance with Directive 1999/5/EC. The product has been designed to work with the national PSTNs and compatible PBXs of the European countries:

In the event of problems, you should contact the Euro QA Lab of Samsung Electronics Co., Ltd. in the first instance.

The product has been tested against TBR21. To assist in the use and application of terminal equipment which complies with this standard, the European Telecommunication Standards Institute (ETSI) has issued an advisory document (EG 201 121) which contains notes and additional requirements to ensure network compatibility of TBR21 terminals. The product has been designed against, and is fully compliant with, all of the relevant advisory notes contained in this document.

European radio approval information (for products fitted with EU-approved radio devices)

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz/5 GHz band, may be present (embedded) in your printer system which is intended for home or office use. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.



Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark with a Notified Body Registration Number and the Alert Symbol is on the system label.

The power output of the wireless device or devices that may be embedded in your printer is well below the RF exposure limits as set by the European Commission through the R&TTE directive.

European states qualified under wireless approvals:

EU countries

European states with restrictions on use:

EU

In France, the frequency range is restricted to 2454-2483.5 MHz for devices above 10 mW transmitting power such as wireless

EEA/EFTA countries

Regulatory information

No limitations at this time

Israel only

מס' אישור אלחוטי של משרד התקשורת הוא 51-28466
אסור להחליף את האנטנה המקורית של המכשיר,
ולא לעשות בו כל שינוי טכני אחר.

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.

Regulatory information



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	○	○	○	○	○	○
金属 (机箱)	X	○	○	○	○	○
印刷电路部件 (PCA)	X	○	○	○	○	○
电缆 / 连接器	X	○	○	○	○	○
电源设备	X	○	○	○	○	○
电源线	X	○	○	○	○	○
机械部件	X	○	○	○	○	○
卡盒部件	X	○	○	○	○	○
定影部件	X	○	○	○	○	○
扫描仪部件 - CCD (如果有)	X	X	○	○	○	○
扫描仪部件 - 其它 (如果有)	X	○	○	○	○	○
印刷电路板部件 (PBA)	X	○	○	○	○	○
墨粉	○	○	○	○	○	○
滚筒	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

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Refer to the '**LICENSE.txt**' file in the provided CD-ROM for the open source license information.

REV.0.98

User's Guide

CLP-47xN/CLP-47xNW Series
CLP-68xND/CLP-68xDW 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.

ADVANCED



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ADVANCED

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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 139).

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- 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 21).
- Only use a USB cable no longer than 3 meter (118 inches).

Installation for Macintosh

- 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 Macintosh desktop.
- 4 Double-click the **MAC_Installer** folder > **Installer OS X** icon.
- 5 Click **Continue**.
- 6 Read the license agreement and click **Continue**.
- 7 Click **Agree** to agree to the license agreement.
- 8 When the message that warns that all applications will close on your computer appears, click **Continue**.
- 9 Click **Continue** on the **User Options Pane**.
- 10 Click **Install**. All components necessary for machine operations will be installed.
If you click **Customize**, you can choose individual components to install.
- 11 Enter the password and click **OK**.
- 12 Installing software requires you to restart your computer. Click **Continue Installation**.
- 13 After the installation is finished, click **Quit** or **Restart**.
- 14 Open the **Applications** folder > **Utilities** > **Print Setup Utility**.
 - For Mac OS X 10.5 -10.7, open the **Applications** folder > **System Preferences** and click **Print & Fax**.
- 15 Click **Add** on the **Printer List**.
 - For Mac OS X 10.5 -10.7, click the “+” folder icon; a display window will pop up.
- 16 Click **Default Browser** and find the USB connection.
 - For Mac OS X 10.5-10.7, click **Default** and find the USB connection.
- 17 For Mac OS X 10.4, if Auto Select does not work properly, select **Samsung** in **Print Using** and your machine name in **Model**.
 - For Mac OS X 10.5-10.7, if Auto Select does not work properly, select **Select a driver to use...** and your machine name in **Print Using**.Your machine appears on the **Printer List**, and is set as the default machine.
- 18 Click **Add**.

Reinstallation for Macintosh

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

- 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 Macintosh desktop.
- 4 Double-click the **MAC_Installer** folder > **Uninstaller OS X** icon.
- 5 Enter the password and click **OK**.
- 6 When the uninstall is done, click **OK**.



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

Installation for 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).

Installing the Unified Linux Driver

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 When the **Administrator Login** window appears, type "root" in the **Login** field and enter the system password.



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.

- 3 From the Samsung website, download the Unified Linux Driver package to your computer.
- 4 Right-click the **Unified Linux Driver** package and extract the package.
- 5 Double click **cdroot** > **autorun**.
- 6 When the welcome screen appears, click **Next**.
- 7 When the installation is complete, click **Finish**.

The installation program added the Unified Driver Configurator desktop icon and the Unified Driver group to the system menu for your convenience. If you have any difficulties, consult the on-screen help that is available through your system menu or from the driver package Windows applications, such as **Unified Driver Configurator** or **Image Manager**.

Reinstallation for Linux

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

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 When the **Administrator Login** window appears, type “root” in the **Login** field and enter the system password.

You must log in as a super user (root) to uninstall the printer driver. If you are not a super user, ask your system administrator.
- 3 Click the icon at the bottom of the desktop. When the Terminal screen appears, type in the following.


```
[root@localhost root]#cd /opt/Samsung/mfp/uninstall/
```



```
[root@localhost uninstall]#./uninstall.sh
```
- 4 Click **Uninstall**.
- 5 Click **Next**.
- 6 Click **Finish**.



2. Using a Network-Connected Machine

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

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Supported optional devices and features may differ according to your model (see "Features by models" on page 7).

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 models" on page 7).

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 228).

- 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 <http://solution.samsungprinter.com>.

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 136.
- See "IPv4 configuration using SetIP (Macintosh)" on page 137.
- See "IPv4 configuration using SetIP (Linux)" on page 138.



- The machine that does not support the network port, it will not be able to use this feature (see "Rear view" on page 18).
- 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.

Press the  (**Menu**) button on the control panel and select **Network > Network Conf.**

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 18).
- 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.

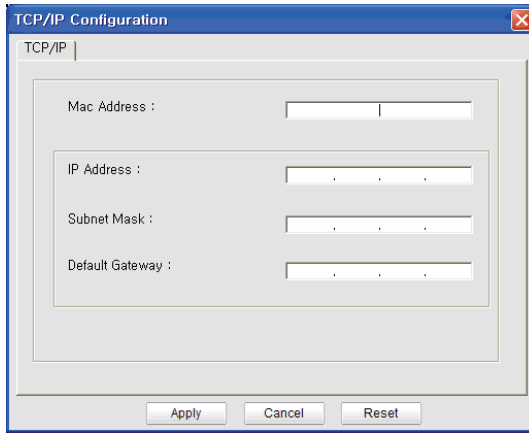
IPv4 configuration using SetIP (Windows)

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

- 1 Install this program from the supplied CD-ROM by double-click **Application > SetIP > Setup.exe**.
- 2 Follow the instructions in the installation window.
- 3 Connect your machine to the network with a network cable.
- 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.

Wired network setup

- 7 Enter the machine's new information into the configuration window as follows. 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 136) 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 (Macintosh)

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 Installation CD-ROM, and open the disk window, select **MAC_Installer > MAC_Printer > SetIP > SetIPApplet.html**.
- 3 Double-click the file and **Safari** will automatically open, then select **Trust**. The browser will open the **SetIPApplet.html** page that shows the printer's name and IP address information.
- 4 Click the  icon (third from left) in the SetIP window to open the TCP/IP configuration window.
- 5 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.

Wired network setup



Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 136) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

6

Select **Apply**, then **OK**, and **OK** again.

7

Quit **Safari**.



Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 136) 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**.

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

Open **/opt/Samsung/mfp/share/utils/**.

2

Double-click the **SetIPApplet.html** file.

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.

Installing driver over the network



- Some features and optional goods may not be available depending on model or country (see "Features by models" on page 7).
- The machine that does not support the network interface, it will not be able to use this feature (see "Rear view" on page 18).
- Selecting **Custom Installation** allows you to choose which programs to install. When the installation window appears, select **Custom Installation**. You can select the XPS/PS printer driver or other software applications in the **Select Software** window.

Windows

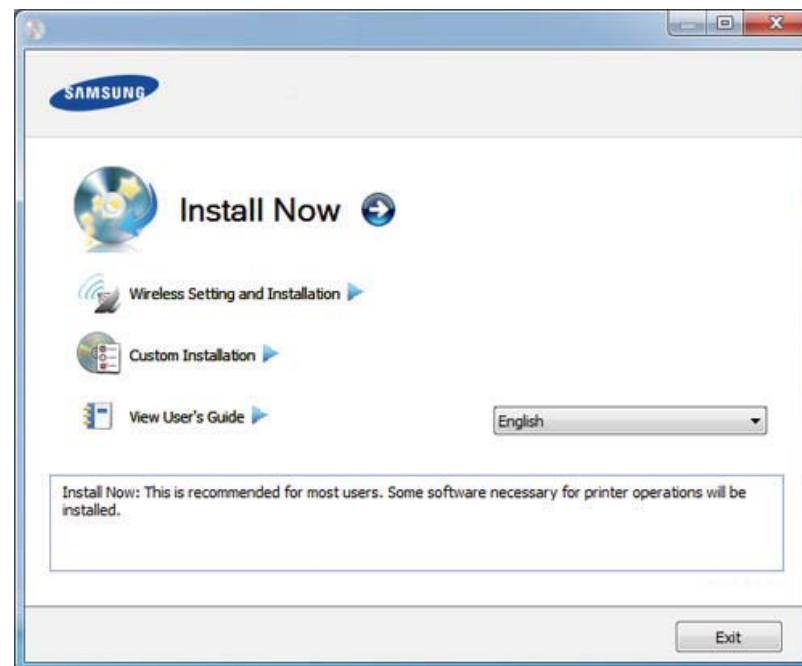
- 1 Make sure that the machine is connected to the network and powered on. Also, your machine's IP address should have been set (see "Setting IP address" on page 136).



If the "**Found New Hardware Wizard**" appears during the installation procedure, click **Cancel** to close the window.

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

- 3 Select **Install Now**.



The **Custom Installation** allows you to select the machine's connection and choose individual components to install. Follow the instructions on the window.

- 4 Read **License Agreement**, and select **I accept the terms of the License Agreement**. Then, click **Next**.

The program searches for the machine.

Installing driver over the network

 If your machine is not found on the network or locally, an error message appears. Select the option you want and click **Next**.

5 The searched machines will be shown on the screen. Select the one you wish to use and click **OK**.

 If the driver searched only one machine, the confirmation window appears.

6 Follow the instructions in the installation window to complete the installation process.

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.

Command- line	Definition	Description
/s or /S	Starts silent installation.	Installs machine drivers without prompting any UIs or user intervention.
/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 or IEEE1284 port name. 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"

Installing driver over the network

Command- line	Definition	Description
<code>/a"<dest_path>"</code> or <code>/A"<dest_path>"</code>	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.
<code>/i"<scriptfilename>"</code> or <code>/l"<script filename>"</code>	Specifies customized install script file for custom operation.  The script filename should be a fully qualified filename.	Customized script file can be assigned for customized silent installation. This script file can be created or modified through provided installer customizing utility or by text editor.  This customized script file is prior than default installer setting in setup package but not prior than command-line parameters.

Command- line	Definition	Description
<code>/n"<Printer name>"</code> or <code>/N"<Printer name>"</code>	Specifies printer name. Printer instance shall be created as specified printer name.	With this parameter, you can add printer instances as your wishes.
<code>/nd</code> or <code>/ND</code>	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.
<code>/x</code> or <code>/X</code>	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.

Installing driver over the network

Command- line	Definition	Description
/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.
/o or /O	Opens Printers and Faxes folder after installation.	This command will open Printers and Faxes folder after the silent installation.
/f"<log filename>" or /F"<log filename>"	Specifies log filename. The default log file is created in the system temp folder if not specified.	It will create a log file to a specified folder.

Command- line	Definition	Description
/h, /H or /?		Shows Command-line Usage.

Macintosh

- 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 Macintosh desktop.
- 4 Double-click the **MAC_Installer** folder > **Installer OS X** icon.
- 5 Click **Continue**.
- 6 Read the license agreement and click **Continue**.
- 7 Click **Agree** to agree to the license agreement.
- 8 When the message which warns that all applications will close on your computer appears, click **Continue**.
- 9 Click **Continue** on the **User Options Pane**.

Installing driver over the network



If you have not set the IP address yet, click Set IP address and refer to "IPv4 configuration using SetIP (Macintosh)" on page 137. If you want to set the wireless setting, refer to "Setup using Macintosh" on page 165.

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



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

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

Linux

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

Installing driver over the network

Install the Linux driver and add network printer

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

Add a network printer

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

UNIX



- Make sure your machine supports the UNIX operating system before installing the UNIX printer driver (see "Operating System" on page 7).
- 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 7).

Installing driver over the network

To use the UNIX printer driver, you have to install the UNIX printer driver package first, then setup the printer. You can download the UNIX printer driver package from the Samsung website ((<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.

- 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>"`

Installing driver over the network

Uninstalling the printer driver package



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

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

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

Setting up the printer

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

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

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

IPv6 configuration



IPv6 is supported properly only in Windows Vista or higher.



- Some features and optional goods may not be available depending on model or country (see "Features by models" on page 7 or "Menu overview" on page 27).
- If the IPv6 network seems to not be working, set all the network setting to the factory defaults and try again using **Clear Setting**.

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

From the control panel

- 1 Connect your machine to the network with a network cable.
- 2 Turn on the machine.
- 3 Print a **Network Configuration Report** that will check IPv6 addresses (see "Printing a network configuration report" on page 136).
- 4 Select **Start > Control Panel > Printers and Faxes**.
- 5 Click **Add a printer** in the left pane of the **Printers and Faxes** windows.
- 6 Click **Add a local printer** in the **Add Printer** windows.

7

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



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

Activating IPv6

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

IPv6 configuration

Setting IPv6 addresses

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

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

DHCPv6 address configuration (Stateful)

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

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

From the SyncThru™ Web Service

- 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 Check the **Manual Address** check box. Then, the **Address/Prefix** text box is activated.
- 7 Enter the rest of the address (e.g.,:3FFE:10:88:194::AAAA. "A" is the hexadecimal 0 through 9, A through F).
- 8 Choose the DHCPv6 configuration.

IPv6 configuration

- 9 Click the **Apply** button.

Using SyncThru™ Web Service

- 1 Start a web browser, such as Internet Explorer, that supports IPv6 addressing as a URL.
- 2 Select one of the IPv6 addresses (**Link-local Address, Stateless Address, Stateful Address, Manual Address**) from **Network Configuration Report** (see "Printing a network configuration report" on page 136).
- 3 Enter the IPv6 addresses (e.g.,: http://[FE80::215:99FF:FE66:7701]).



Address must be enclosed in '[']' brackets.

Wireless network setup



- Make sure your machine supports wireless networking. Wireless networking may not be available depending on the model (see "Features by models" on page 7).
- If the IPv6 network seems to not be working, set all the network settings to the factory defaults and try again using **Clear Setting**.

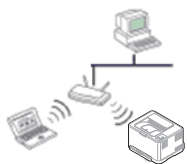
Wireless network name and network key

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

Getting started

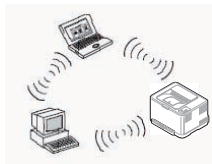
Understanding your network type

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 setup

Introducing wireless set up methods

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



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

Set up method	Connecting method	Description & Reference
From the machine's control panel 	Using the WPS (recommended) ()	• See "Machines with a display screen" on page 153. • See "Machines without a display screen" on page 154.
	Using the menu button ()	• See "Using the menu button" on page 155.
From the computer 	Access point via USB cable (recommended) ()	• Windows user, see "Access point via USB cable" on page 156. • Macintosh user, see "Access point via USB cable" on page 165.
	Access point via WPS button (without a USB cable connection) ( , )	• Windows user, see "Access point via WPS button (without a USB cable connection)" on page 160. • Macintosh user, see "Setting the access point using the WPS button" on page 169.
	Ad hoc via USB cable ()	• Windows user, see "Ad hoc via USB cable" on page 162. • Macintosh user, see "Ad hoc via USB cable" on page 171.
	Using a network cable	• See "Using a network cable" on page 173.
Other set up methods	Setting the Wi-Fi Direct for mobile printing	• See "Setting up Wi-Fi Direct" on page 177.



If problems occur during wireless set up or driver installation, refer to the troubleshooting chapter (see "Troubleshooting for wireless network" on page 179).

Wireless network setup

Using the WPS button

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



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

Items to prepare

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

Choosing your type

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

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

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

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



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

Wireless network setup

Machines with a display screen

Connecting in PBC mode

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

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

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

Connecting in PIN mode

- 1 Press and hold the  (WPS) button on the control panel for more than 2 seconds.
- 2 The eight-digit PIN appears on the display.

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

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

Wireless network setup

Machines without a display screen

Connecting in PBC mode

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

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

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

Connecting in PIN mode

- 1 The network configuration report, including PIN, must be printed (see "Printing a network configuration report" on page 136).

In ready mode, press and hold the  (**Cancel** 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.

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.

Wireless network setup

Canceling the connection process

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

Disconnecting from a network

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

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

Using the menu button



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 27).

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.



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 139).

- 1 Press the  (**Menu**) button on the control panel.
- 2 Press **Network** > **Wireless** > **WLAN Settings**.

Wireless network setup

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

Setup using Windows



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

Access point via USB cable

Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine

- A machine installed with a wireless network interface
- USB cable

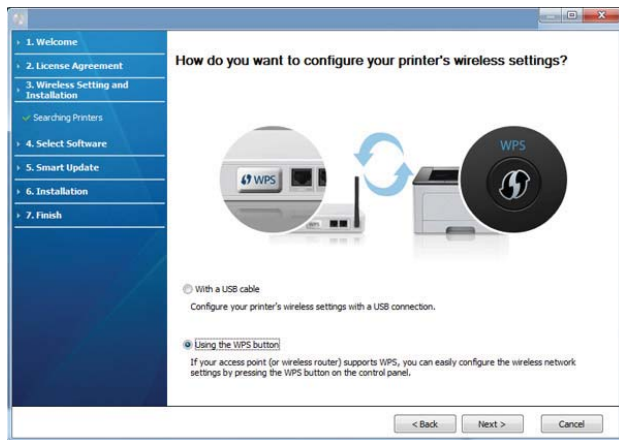
Creating the infrastructure network

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

Wireless network setup



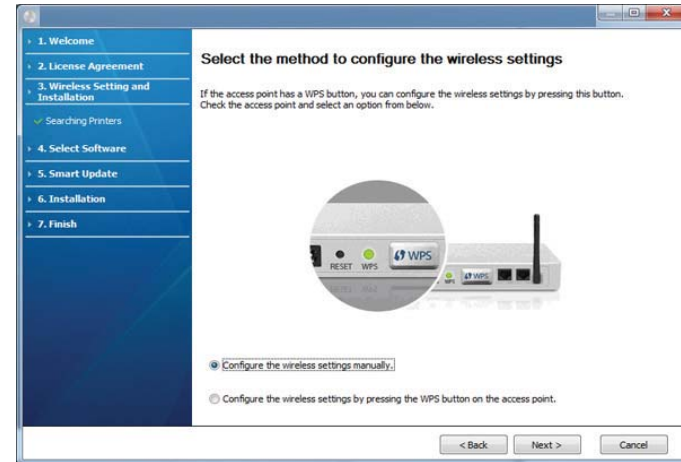
- If wireless network set up has been set before, the **Wireless Network Setting Information** window appears.
If you want to reset the wireless settings, check the check box and click **Next**.
- For models that support the WPS button (without a USB cable connection), the window shown below will appear.



- **With a USB Cable:** Connect the USB cable and click Next, then go to step 7.
- **Using the WPS button:** See "Access point via WPS button (without a USB cable connection)" on page 160.

7

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



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

8

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

Wireless network setup



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

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



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

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

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

Wireless network setup

9 The window shows the wireless network settings and checks if the settings are correct. Click **Next**.

- For the DHCP method

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

- For the Static method

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

For example,

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

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

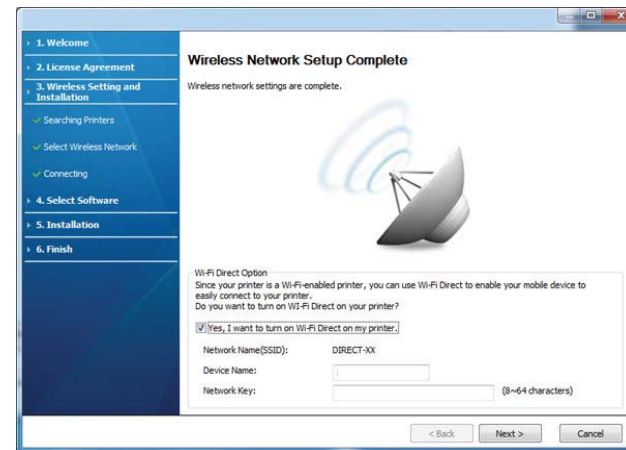
Then, the machine's network information should be as follows:

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

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

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

11 Wireless network setting is completed. To print from a Wi-Fi Direct supported mobile device, set the Wi-Fi Direct Option (see "Setting up Wi-Fi Direct" on page 177).



Wi-Fi Direct Option:

- Wi-Fi Direct option appears on the screen only if your printer supports this feature.
- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 177).

Wireless network setup

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

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

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

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

Items to prepare

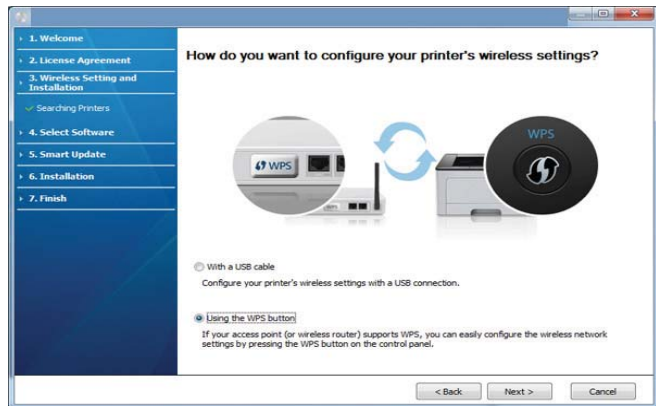
- Access point (or wireless router)
- Network-connected computer
- Software CD that was provided with your machine
- The machine installed with a wireless network interface

Creating the infrastructure network

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

Wireless network setup

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



- For models that support WPS button, the above window appears.
- If your machine is connected with a USB cable, the above window does not appear. Disconnect the USB cable if you want to set up the wireless network using the WPS button.
- If you want to set up the wireless network using the USB cable, refer to "Access point via USB cable" on page 156.

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

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

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

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

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

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

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

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

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

Wireless network setup

- **SSID Type:** After completing the wireless network connection process, the AP's SSID information appears on the display.

- For models without a display screen, follow the steps below.

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

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

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

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

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

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

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

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

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

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

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

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

Ad hoc via USB cable

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

Items to prepare

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

Wireless network setup

Creating the ad hoc network in Windows

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



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

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

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

Then, click **Next**.

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



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

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

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

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

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

8

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

Wireless network setup



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

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

- **For the DHCP method**

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

- **For the Static method**

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

For example,

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

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

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

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

9

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

10

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



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

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

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

11

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

12

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

13

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

14

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

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

15

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

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

Wireless network setup

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

Setup using Macintosh

Items to prepare

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

Access point via USB cable

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

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

Wireless network setup



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



- **With a USB Cable:** Connect the USB cable and click Next, then go to step 7.
- **Using the WPS Button:** See "Access point via WPS button (without a USB cable connection)" on page 160.

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



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

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



- When you set the wireless configuration manually, click **Advanced Setting**.
- **Enter the wireless Network Name:** Enter the SSID of the access point (SSID is case-sensitive).
 - **Operation Mode:** Select **Infrastructure**.

Wireless network setup

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

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

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

- **WEP**

Select **Open System** or **Shared Key** for the authentication and enter the WEP security key. Click **Next**.

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

Enter the WPA shared key and click **Next**.

WPA authorizes and identifies users based on a secret key that changes automatically at regular intervals. WPA also uses TKIP (Temporal Key Integrity Protocol) and AES (Advanced Encryption Standard) for data encryption.

Wireless network setup

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

- **For the DHCP method**

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

- **For the Static method**

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

For example:

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

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

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

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

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

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

- 16** Wireless network setting is completed. To print from a Wi-Fi Direct supported mobile device, set the Wi-Fi Direct Option (see "Setting up Wi-Fi Direct" on page 177).



Wi-Fi Direct Option:

- Wi-Fi Direct Option appears on the screen only if your printer supports this feature.
- Can start to build Wi-Fi Direct by using Samsung Easy Printer Manager (see "Setting up Wi-Fi Direct" on page 177).

Wireless network setup

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

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

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



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 130).

Setting the access point using the WPS button

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

Items to prepare

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

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

Creating the infrastructure network

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

Wireless network setup

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



- For models that support the WPS button, the above window appears.
- If your machine is connected with a USB cable, the above window does not appear. Disconnect the USB cable if you want to set up the wireless network using the WPS button.
- If you want to set up the wireless network using the USB cable, refer to "Access point via USB cable" on page 165.

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

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

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

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

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

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

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

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

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

Wireless network setup

- **SSID Type:** After completing the wireless network connection process, the AP's SSID information appears on the display.
- For models without a display screen, follow the steps below:
 - a** Press and hold the  (WPS) button on the control panel for about 2 - 4 seconds until the status LED blinks quickly.
The machine starts connecting to the wireless network. The LED blinks slowly for up to two minutes until you press the PBC button on the access point (or wireless router).
 - b** Press the **WPS (PBC)** button on the access point (or wireless router).
 - The light blinks fast on the WPS LED. The machine is connecting to the access point (or wireless router).
 - When the machine is successfully connected to the wireless network, the WPS LED light stays on.

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



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 130).

Ad hoc via USB cable

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

Items to prepare

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

Creating the ad hoc network in Macintosh

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

Wireless network setup

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



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

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

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

Then, click **Next**.

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



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

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

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

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

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

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

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

Wireless network setup



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

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

- **For the DHCP method**

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

- **For the Static method**

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

For example,

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

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

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

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

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

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

- 15 The wireless network connects according to the network configuration.

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



After completing the wireless network connection, you need to install a machine driver to print from an application (see "Installation for Macintosh" on page 130).

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 18).

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 139).
- 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 136.

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 136.

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**. 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 **Wireless > Wizard**.



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

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

- **SSID:** SSID (Service Set Identifier) is a name that identifies a wireless network, access points, and wireless devices attempting to connect to a specific wireless network must use the same SSID. The SSID is case sensitive.
- **Operation Mode:** **Operation Mode** refers to the type of wireless connections (see "Wireless network name and network key" on page 150).
 - **Ad-hoc:** Allows wireless devices to communicate directly with each other in a peer-to-peer environment.
 - **Infrastructure:** Allows wireless devices to communicate with each other through an access point.



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

8 Click **Next**.

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

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

Wireless network setup



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

Turning the Wi-Fi network on/off



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

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

For example,



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

4

Type in the **ID** and **Password**, then click **Login**. 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 **Network Settings**.

6

Click **Wireless > Custom**.

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

Setting the Wi-Fi Direct for mobile printing

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

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

Wireless network setup



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

Setting up Wi-Fi Direct

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

From the USB cable-connected computer(recommended)

- When setting from the supplied software CD, see the access point via USB cable.
 - Windows user, see "Access point via USB cable" on page 156.
 - Macintosh user, see "Access point via USB cable" on page 165.
- After the driver installation is complete, Samsung Easy Printer Manager can be set and changes in the Wi-Fi Direct can be made.



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

- From the **Start** menu, select **Programs** or **All Programs** > **Samsung Printers** > Samsung Easy Printer Manager > **Device Settings** > **Network**.
 - **Wi-Fi Direct On/Off:** Select **On** to enable.
 - **Device Name:** Enter the printer's name for searching for your printer on a wireless network. By default, the device name is the model name.
 - **IP Address:** Enter the IP address of the printer. This IP address is used only for the local network and not for the infrastructure wired or wireless network. We recommend using the default local IP address (the default local IP address of the printer for Wi-Fi Direct is 192.168.3.1)
 - **Group Owner:** Activate this option to assign the printer the Wi-Fi Direct group's owner. The **Group Owner** acts similar to a wireless access point. We recommend activating this option.
 - **Network Key:** If your printer is a **Group Owner**, a **Network Key** is required for other mobile devices to connect to your printer. You can configure a network key yourself, or can remember the given Network Key that is randomly generated by default.

Wireless network setup

From the machine (Machines with a display screen)

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

From the network-connected computer

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

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



- For Linux OS users,
 - Print an IP network configuration report to check the output (see "Printing a network configuration report" on page 136).
 - 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.

Wireless network setup

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.

Connecting Failure - SSID Not Found

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

Wireless network setup

Connecting Failure - Invalid Security

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

Connecting Failure - General Connection Error

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

Connecting Failure - Connected Wired Network

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

PC Connection Error

- The configured network address is unable to connect between your computer and machine.
 - For a DHCP network environment
The 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 136).

- 2 Check the printer port's IP address from your computer.
 - a Click the Windows **Start** menu.
 - b For Windows Server 2000, select **Settings > Printers**.
 - For Windows XP/Server 2003, select **Printer and Faxes**.
 - For Windows Server 2008/Vista, select **Control Panel > Hardware and Sound > Printers**.
 - For Windows 7, select **Control Panel > Devices and Printers**.
 - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
 - c Right-click your machine.
 - d For Windows XP/2003/2008/Vista, press **Properties**.
For Windows 7 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.

Wireless network setup

- For a Static network environment

The machine uses the static address when the computer is configured to static address.

For example,

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

- IP address: 169.254.133.42
- Subnet Mask: 255.255.0.0

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

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

Other problems

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



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

- Your computer, access point (or wireless router), or machine may not be turned on.
- Check the wireless reception around the machine. If the router is far from the machine or there is an obstacle, you might have difficulty receiving the signal.

- Cycle the power for the access point (or wireless router), machine, and computer. Sometimes cycling the power can recover network communication.
- 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 136).
- 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).

Wireless network setup

- 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 device that can be connected via Wi-Fi Direct is 4.
- If Wi-Fi Direct is ON, the connection between the access point (or wireless router) and the machine will be the 802.11b/g interface.

Samsung MobilePrint

What is Samsung MobilePrint?

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

Downloading Samsung MobilePrint

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



Supported Mobile OS

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

Supported devices

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

AirPrint



AirPrint allows you to wirelessly print directly from an iPhone, iPad, or iPod touch running iOS 4.2 or later.

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,



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



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.



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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