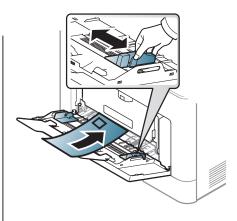
Types	Tray 1	Optional tray ^a	Manual feeder/ Multi- purpose tray
Thin	٠	•	•
Cotton	•		٠
Color	•		٠
Preprinted	٠		•
Recycled	٠	•	٠
Envelope	٠		٠
Transparency	٠		٠
Labels	٠		•
CardStock	٠	•	٠
Bond	٠	•	•
Archive	٠	•	•
Letterhead	٠	•	•
Punched	٠	•	•
Glossy Photo	•	•	•

a. CLP-68xND Series/CLP-68xDW Series only.

(•: Supported, Blank: Not supported)

Envelope

Printing successfully on envelopes depends upon the quality of the envelopes. To print an envelope, place it as shown in the following figure.

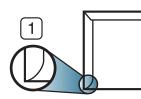


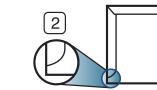
CLP-41xN Series/CLP-41xNW Series

CLP-68xND Series/ CLP-68xDW Series

- When selecting envelopes, consider the following factors:
 - **Weight:** should not exceed 90 g/m² otherwise; jams may occur.
 - **Construction:** should lie flat with less than 6 mm curl and should not contain air.
 - **Condition:** should not be wrinkled, nicked, nor damaged.
 - **Temperature:** should resist the heat and pressure of the machine during operation.
- Use only well-constructed envelopes with sharp and well-creased folds.
- Do not use stamped envelopes.

- Do not use envelopes with clasps, snaps, windows, coated lining, selfadhesive seals, or other synthetic materials.
- Do not use damaged or poorly made envelopes.
- Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope.



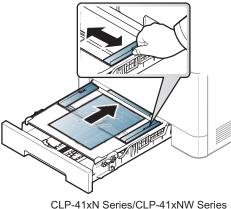


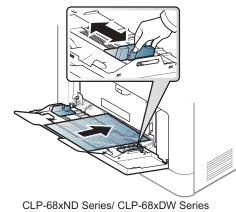
- 1 Acceptable
- 2 Unacceptable
- Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the machine's fusing temperature for 0.1 second about 170°C (338 °F). The extra flaps and strips might cause wrinkling, creasing, or jams, and may even damage the fuser.
- For the best print quality, position margins no closer than 15 mm from the edges of the envelope.
- Avoid printing over the area where the envelope's seams meet.

Transparency

In case of color printing using transparencies, the picture quality would be lower than mono printing when the printouts are used on the overhead projector.

To avoid damaging the machine, use only transparencies designed for use in laser printers.



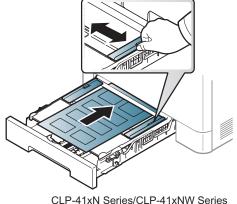


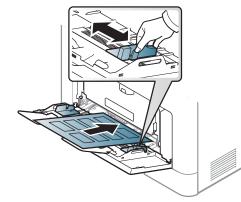
- CLP-41xN Series/CLP-41xNW Series CL
- Must withstand the machine's fusing temperature.
- Place them on a flat surface after removing them from the machine.
- Do not leave unused transparencies in the paper tray for long. Dust and dirt may accumulate on them, resulting in spotty printing.
- To avoid smudging caused by fingerprints, handle them carefully.

- To avoid fading, do not expose printed transparencies to prolonged sunlight.
- Ensure that transparencies are not wrinkled, curled, or have any torn edges. •
- Do not use transparencies that separate from the backing sheet.
- To prevent transparencies from sticking to each other, do not let the printed sheets stack up as they are being printed out.
- Recommended media: Transparency for a color laser printer by Xerox, such as 3R 91331(A4), 3R 2780 (Letter).

Labels

To avoid damaging the machine, use only labels designed for use in laser printers.



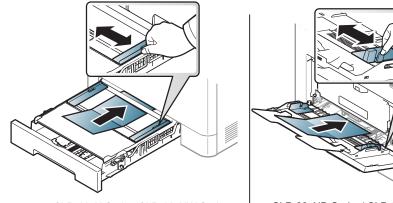


CLP-68xND Series/ CLP-68xDW Series

- When selecting labels, consider the following factors:
 - **Adhesives:** Should be stable at your machine's fusing temperature about 170°C (338°F).
 - Arrangement: Only use labels with no exposed backing between them. Labels can peel off sheets that have spaces between the labels, causing serious jams.
 - **Curl:** Must lie flat with no more than 13 mm of curl in any direction.
 - Condition: Do not use labels with wrinkles, bubbles, or other indications of separation.

- Make sure that there is no exposed adhesive material between labels. Exposed areas can cause labels to peel off during printing, which can cause paper jams. Exposed adhesive can also cause damage to machine components.
- Do not run a sheet of labels through the machine more than once. The adhesive backing is designed for only a single pass through the machine.
- Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or otherwise damaged.

Card stock/ Custom-sized paper



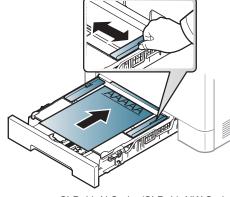
CLP-41xN Series/CLP-41xNW Series

CLP-68xND Series/ CLP-68xDW Series

• In the software application, set the margins to at least 6.4 mm (0.25 inches) away from the edges of the material.

Preprinted paper

When loading preprinted paper, the printed side should be facing up with an uncurled edge at the front. If you experience problems with paper feeding, turn the paper around. Note that print quality is not guaranteed.





CLP-41xN Series/CLP-41xNW Series

- Must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the machine's fusing temperature for 0.1 second (about 170°C (338°F)).
- Preprinted paper ink must be non-flammable and should not adversely affect machine rollers.
- Before you load preprinted paper, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper, reducing print quality.

Glossy Photo

- Recommended media: Glossy paper (Letter) for this machine by HP
 Brochure Paper (Product: Q6611A) only.
- Recommended media: Glossy paper (A4) for this machine by HP Superior
 Paper 160 glossy (Product: Q6616A).

Setting the paper size and type

After loading paper in the paper tray, set the paper size and type using the control panel buttons.

- You can set the machine's settings by using the **Device Settings** in Samsung Easy Printer Manager program.
 - For Windows and Macintosh users, you set from Samsung Easy
 Printer Manager > Samsung (Switch to advanced mode) > Device
 - Settings, see "Device Settings" on page 234.
 - It may be necessary to press **OK** to navigate to lower-level menus for some models.
- **1** Select 🞾 (**Menu**) button on the control panel.
- **7** Press **Paper** and select the tray you want.

- **?** Press **Paper Size** or **Paper Type**.
- Select the option you want.
- 5 Press **OK** to save the selection.
- 6 Press (Cancel) to return to ready mode.
 - The settings set from the machine driver override the settings on the control panel.
 - **a** To print from an application, open an application and start the print menu.
 - **b** Open **Printing Preferences** (see "Opening printing preferences" on page 46).
 - c Press the Paper tab and select an appropriate paper.
 - If you want to use special-sized paper such as billing paper, select the Paper tab > Size > Edit... and set Custom Paper Size Settings in the Printing Preferences (see "Opening printing preferences" on page 46).

Using the output support

The surface of the output tray may become hot if you print a large number of pages at once. Make sure that you do not touch the surface, and do not allow children near it.

The printed pages stack on the output support, and the output support will help the printed pages to align. Unfold the output support.



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).

For special printing features, refer to the Advanced Guide (see "Using advanced print features" on page 207).

Printing

If you are a Macintosh, Linux, or Unix operating systems user, refer to the Advanced Guide (see "Macintosh printing" on page 216, "Linux printing" on page 217, or "Unix printing" on page 219).

The following Printing Preferences window is for Notepad in Windows 7.

- 1 Open the document you want to print.
- **7** Select **Print** from the **File** menu.

Select your machine from the Select Printer list.

select Printer	
Status: Offline Location: Comment:	Print to file Preferences Find Printer
Page Range All Selection Pages: Current Page	Number of <u>c</u> opies: 1

- **4** The basic print settings including the number of copies and print range are selected within the **Print** window.
 - To take advantage of the advanced printing features, click **Properties** or **Preferences** from the **Print** window (see "Opening printing preferences" on page 46).
- To start the print job, click **OK** or **Print** in the **Print** window.

Canceling a print job

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

You can access this window by simply double-clicking the machine icon ٠



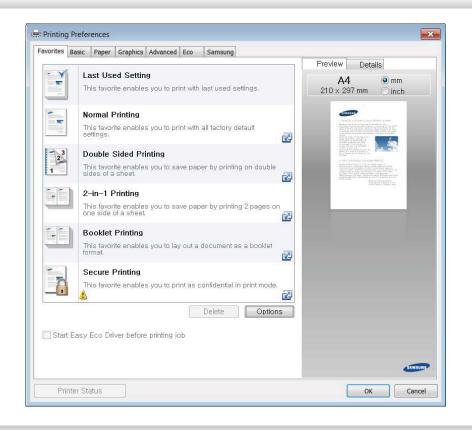
(🎃) in the Windows task bar.

You can also cancel the current job by pressing (x) (**Cancel**) on the control ٠ panel.

Opening printing preferences

- The **Printing Preferences** window that appears in this user's guide may differ depending on the machine in use.
- When you select an option in **Printing Preferences**, you may see a warning mark or 1. An 1. mark means you can select that certain option but it is not recommended, and an or mark means you cannot select that option due to the machine's setting or environment.
- 1 Open the document you want to print.
- **7** Select **Print** from the file menu. The **Print** window appears.
- **2** Select your machine from the **Select Printer**.
- **Click Properties** or **Preferences**.

The screenshot may differ depending on model.



- You can apply **Eco** features to save paper and toner before printing (see "Easy Eco Driver" on page 227).
- You can check the machine's current status pressing the **Printer Status** button (see "Using Samsung Printer Status" on page 235).

Using a favorite setting

The **Favorites** option, which is visible on each preferences tab except for the **Samsung** tab, allows you to save the current preferences for future use.

To save a **Favorites** item, follow these steps:

- 1 Change the settings as needed on each tab.
- 2 Enter a name for the item in the **Favorites** input box.



- Click Save.
- **I** Enter name and description, and then select the desired icon.
- **5** Click **OK**. When you save **Favorites**, all current driver settings are saved.

To use a saved setting, select it in the Favorites tab. The machine is now set to print according to the settings you have selected.

To delete saved settings, select it in the **Favorites** tab and click **Delete**.

Using help

Click the option you want to know on the **Printing Preferences** window and press **F1** on your keyboard.

Eco printing

The **Eco** function cuts toner consumption and paper usage. The **Eco** function allows you to save print resources and lead you to eco-friendly printing.

If you press the **Eco** button from the control panel, eco mode is enabled. The default setting of Eco mode is duplex (CLP-68xND Series/CLP-68xDW Series only), Multiple Pages per Side (2-up), skip blank pages.

You can set the machine's settings by using the **Device Settings** in Samsung Easy Printer Manager program.

• For Windows and Macintosh users, you set from Samsung Easy Printer

Manager > A (Switch to advanced mode) > Device Settings, see "Device Settings" on page 234.

Setting Eco mode on the control panel

- The settings set from the machine's driver override the settings on the control panel.
- It may be necessary to press **OK** to navigate to lower-level menus for some models.

- Select 🖅 (**Menu**) > **System Setup** > **Eco Setup** on the control panel.
- **7** Select the option you want and press **OK**.
 - **Default Mode:** Select this to turn on or off the eco mode.
 - **Off**: Set the eco mode off.
 - **On**: Set the eco mode on.
 - If you set the eco mode on with a password from the SyncThru[™] Web Service (**Settings** tab > **Machine Settings** > **System** > **Eco** > **Settings**) or Samsung Easy Printer Manager (**Device Settings** > **Eco**), the **On force** message appears. You have to enter the password to change the eco mode status.
 - Change Temp.: Follow the settings from Syncthru[™] Web Service or Samsung Easy Printer Manager. Before you select this item, you must set the eco function in SyncThru[™] Web Service (Settings tab > Machine Settings > System > Eco > Settings) or Samsung Easy Printer Manager (Device Settings > Eco).
 - Default Eco: The machine is set to Default Eco mode.
 - Custom Eco: Change any necessary values.
- Press **OK** to save the selection.

Setting eco mode on the driver

Open the **Eco** tab to set Eco mode. When you see the eco image (**\\$**), that means the eco mode is currently enabled.

Eco options

- **Printer Default:** Follows the settings from the machine's control panel.
- None: Disables Eco mode.
- Eco Printing: Enables eco mode. Activate the various Eco items you want to use.
- **Password:** If the administrator fixed to enable the Eco mode, you have to enter the password to change the status.

Result simulator

Result Simulator shows the results of reduced emission of carbon dioxide, used electricity, and the amount of saved paper in accordance with the settings you selected.

- The results are calculated on the basis that the total number of printed paper is one hundred without a blank page when the Eco mode is disabled.
- Refers to the calculation coefficient about CO2, energy, and paper from **IEA**, the index of Ministry of Internal Affairs and Communication of Japan and www.remanufacturing.org.uk. Each model has a different index.
- The power consumption in printing mode refers to the average printing power consumption of this machine.

The actual amount displayed is only an estimate as the actual amount may differ depending on the operating system used, computing performance, application software, connection method, media type [thickness], media size, job complexity, etc.

CLP-68xND Series/ CLP-68xDW Series only.

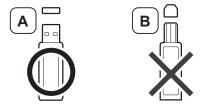
About USB memory device

USB memory devices are available with a variety of memory capacities to give you more room for storing documents, presentations, music and videos, high resolution photographs, or whatever other files you want to store or move.

Your machine supports USB memory devices with FAT16/FAT32 and sector size of 512 bytes.

Check your USB memory device's file system from your dealer.

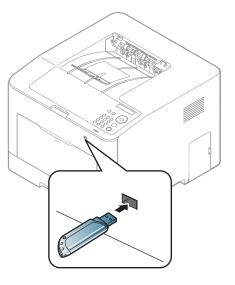
You must use only an authorized USB memory device with an A plug type connector.



Use only a USB memory device with metal-shielded connector.



Insert a USB memory device into the USB memory port on your machine.



- Do not remove the USB memory device while it is in use. The machine warranty does not cover damage caused by user's misuse.
- If your USB memory device has certain features such as security settings and password settings, your machine may not automatically detect it. For details about these features, see the user's guide of the USB memory device.

Printing from a USB memory device

You can directly print files stored on a USB memory device.

Direct Print option supported file types:

- **PRN:** Only files created by provided driver with your machine are compatible.
 - If you print PRN files created from other machine, the printout would be different.
- **BMP:** BMP Uncompressed
- TIFF: TIFF 6.0 Baseline
- JPEG: JPEG Baseline
- **PDF:** PDF 1.4 and below
- XPS

To print a document from a USB memory device:

- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select 😭 (Menu) button on the control panel.
- **?** Press **Direct USB** > **USB Print**.

- Press the arrow until the folder or file you want and press OK.
- If you see [+] or [D] in the front of a folder name, there are one or more files or folders in the selected folder.
- **S** Press the number of copies to be printed or enter the number.
- 6 Press OK.

Managing USB memory

You can delete image files stored on a USB memory device one by one or all at once by reformatting the device.

- Insert a USB memory device into the USB memory port on your machine.
- **7** Select **(Menu**) button on the control panel.
- **Press Direct USB > File Manage**.
- Press the arrow until **Delete** or **Format** you want and press **OK**.
- **5** Press the folder or file you want and press **OK**.

If you see [+] or [D] in the front of a folder name, there are one or more files or folders in the selected folder.

6 To delete or format, press **Yes** > **OK**.

After deleting files or reformatting a USB memory device, files cannot be restored. Therefore, confirm that you no longer need the data before deleting it.

Viewing the USB Memory Status

You can check the amount of memory space available for saving documents.

- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select 😭 (Menu) button on the control panel.
- **3** Press **Direct USB** > **Check Space**.

The available memory space appears on the display.

Backing up data

Data in the machine's memory can be accidentally erased due to power failure or storage failure. Backup helps you protect your the system settings by storing them as backup files on a USB memory device.

Backing up data

- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select 😭 (Menu) button on the control panel.
- **Press System Setup**.
- Press the arrow until Export Setting you want and press OK.
- 5 Press Setup Data > OK.

The data is backed up to the USB memory device.

Restoring data

- 1 Insert a USB memory device into the USB memory port on your machine.
- **7** Select **Genu**) button on the control panel.

3 Press **System Setup**.

- **4** Press the arrow until **Import Setting** you want and press **OK**.
- 5 Press Setup Data > OK.
- **6** To restore the backup file to the machine, press **Yes** > **OK**.



3. Maintenance

This chapter provides information about purchasing supplies, accessories and maintenance parts available for your machine.

•	Ordering supplies and accessories	55
•	Available consumables	56
•	Available maintenance parts	59
•	Storing the toner cartridge	60
•	Redistributing toner	62
•	Replacing the toner cartridge	64
•	Replacing the waste toner container	68
•	Installing accessories	69
•	Monitoring the supplies life	73
•	Setting the toner low alert	74
•	Cleaning the machine	75
•	Tips for moving & storing your machine	79

Ordering supplies and accessories



Available accessories may differ from country to country. Contact your sales representatives to obtain the list of available supplies, and maintenance parts.

To order Samsung-authorized supplies, accessories, and maintenance parts, contact your local Samsung dealer or the retailer where you purchased your machine. You can also visit **www.samsung.com/supplies**, and then select your country/region to obtain the contact information for service. When supplies reach the end of their life spans, you can order the followings of consumables for your machine:

Туре	Model	Average yield ^a	Part name
Toner cartridge	 CLP-41xN Series CLP-41xNW Series 	 Average continuous black cartridge yield: Approx. 2,500 standard pages (Black) Average continuous color cartridge yield: Approx. 1,800 standard pages (Yellow/Magenta/Cyan) 	 CLT-K504S: Black CLT-Y504S: Yellow CLT-M504S: Magenta CLT-C504S: Cyan
	 CLP-68xND Series CLP-68xDW Series 	 Average continuous black cartridge yield: Approx. 2,000 standard pages (Black) Average continuous color cartridge yield: Approx. 1,500 standard pages (Yellow/Magenta/Cyan) 	 CLT-K506S: Black CLT-Y506S: Yellow CLT-M506S: Magenta CLT-C506S: Cyan
		 Average continuous black cartridge yield: Approx. 6,000 standard pages (Black) Average continuous color cartridge yield: Approx. 3,500 standard pages (Yellow/Magenta/Cyan) 	 CLT-K506L: Black CLT-Y506L: Yellow CLT-M506L: Magenta CLT-C506L: Cyan
Waste toner container	 CLP-41xN Series CLP-41xNW Series CLP-68xND Series CLP-68xDW Series 	Approx. 12,000 images ^b	CLT-W504 CLT-W506

a. Declared yield value in accordance with ISO/IEC 19798. The number of pages may be affected by operating environment, printing interval, graphics, media type and media size. b. Image counts based on one color on each page. If you print documents in full color (Cyan, Magenta, Yellow, Black), the life of this item will be reduced by 25%.

Available consumables

Depending on the options, percentage of image area and job mode used, the toner cartridge's lifespan may differ.

When purchasing new toner cartridges or other consumables, these must be purchased in the same country as the machine you are using. Otherwise, new toner cartridges or other consumables will be incompatible with your machine due to different configurations of toner cartridges and other consumables according to the specific country conditions.

Samsung does not recommend using non-genuine Samsung toner cartridge such as refilled or remanufactured toner. Samsung cannot guarantee 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's warranty.

Available accessories

You can purchase and install accessories to enhance your machine's performance and capacity.

Some features and optional goods may not be available depending on models or countries (see "Features by models" on page 7).

Accessory	Function	Part name
Memory module	Extends your machine's memory capacity.	ML-MEM370: 512 MB
IEEE 1284 parallel connector ^a	 Allows you to use various interface. When installing the printer driver with an IEEE1284 parallel connector, the machine might not be found and after installing the printer driver, only basic printing features are available. If you want to check the machine's status or set the settings, connect the machine to a computer with a USB cable or a network. If you use the IEEE 1284 parallel connector, you can not use the USB cable. 	ML-PAR100
Optional tray ^a	If you are experiencing frequent paper supply problems, you can attach an additional 500 ^b sheets tray.	CLP-S680A

a. CLP-68xND Series/CLP-68xDW Series only.

b. Plain paper 80 g/m² (20 lb bond).

Available maintenance parts

To purchase maintenance parts, contact the source where you bought the machine. Replacing maintenance parts can be performed only by an authorized service provider, dealer, or the retailer where you bought the machine. The warranty does not cover the replacement of any maintenance parts once it has reached its "Average yield".

Maintenance parts are replaced at specific intervals to avoid print quality and paper feed problems resulting from worn parts, see table below. The purpose of which is to maintain your machine in top working condition. The maintenance parts below should be replaced when the life span of each item has been met.

	Average yield ^a	
Parts	CLP-41xN Series CLP-41xNW Series	 CLP-68xND Series CLP-68xDW Series
Transfer roller	Approx. 100,000 pages	Approx. 100,000 pages
Fuser Unit	Approx. 50,000 pages	Approx. 100,000 pages
Pick-Up roller	Approx. 200,000 pages	Approx. 300,000 pages
Retard roller	Approx. 100,000 pages	Approx. 100,000 pages
Intermediate Transfer Belt (ITB)	Approx. 100,000 pages	Approx. 100,000 pages

a. It will be affected by the operating system used, computing performance, application software, connecting method, media, media size and job complexity.

Storing the toner cartridge

Toner cartridges contain components that are sensitive to light, temperature and humidity. Samsung suggests users follow these recommendations to ensure optimal performance, highest quality, and longest life from your new Samsung toner cartridge.

Store this cartridge in the same environment in which the printer will be used. This should be in controlled temperature and humidity conditions. The toner cartridge should remain in its original and unopened package until installation – if original packaging is not available, cover the top opening of the cartridge with paper and store in a dark cabinet.

Opening the cartridge package prior to use dramatically shortens its useful shelf and operating life. Do not store on the floor. If the toner cartridge is removed from the printer, follow the instructions below to store the toner cartridge properly.

- Store the cartridge inside the protective bag from the original package.
- Store lying flat (not standing on end) with the same side facing up as if it were installed in the machine.
- Do not store consumables in any of the following conditions:
 - Temperature greater than 40°C (104°F).
 - Humidity range less than 20% or greater than 80%.
 - An environment with extreme changes in humidity or temperature.
 - Direct sunlight or room light.
 - Dusty places.
 - A car for a long period of time.
 - An environment where corrosive gases are present.

- An environment with salty air.

Handling instructions

- Do not touch the surface of the photoconductive drum in the cartridge.
- Do not expose the cartridge to unnecessary vibrations or shock.
- Never manually rotate the drum, especially in the reverse direction; this can cause internal damage and toner spillage.

Toner cartridge usage

Samsung Electronics does not recommend or approve the use of non-Samsung brand toner cartridges in your printer including generic, store brand, refilled, or remanufactured toner cartridges.



Samsung's printer warranty does not cover damage to the machine caused by the use of a refilled, remanufactured, or non-Samsung brand toner cartridges.

Storing the toner cartridge

Estimated cartridge life

Estimated cartridge life (the life of the toner cartridge yield) depends on the amount of toner that print jobs require. The actual print yield may vary depending on the print density of the pages you print on, operating environment, percentage of image area, printing interval, media type and/or media size. For example, if you print a lot of graphics, the consumption of the toner is higher and you may need to change the cartridge more often.

Redistributing toner

When the toner cartridge is near the end of its life:

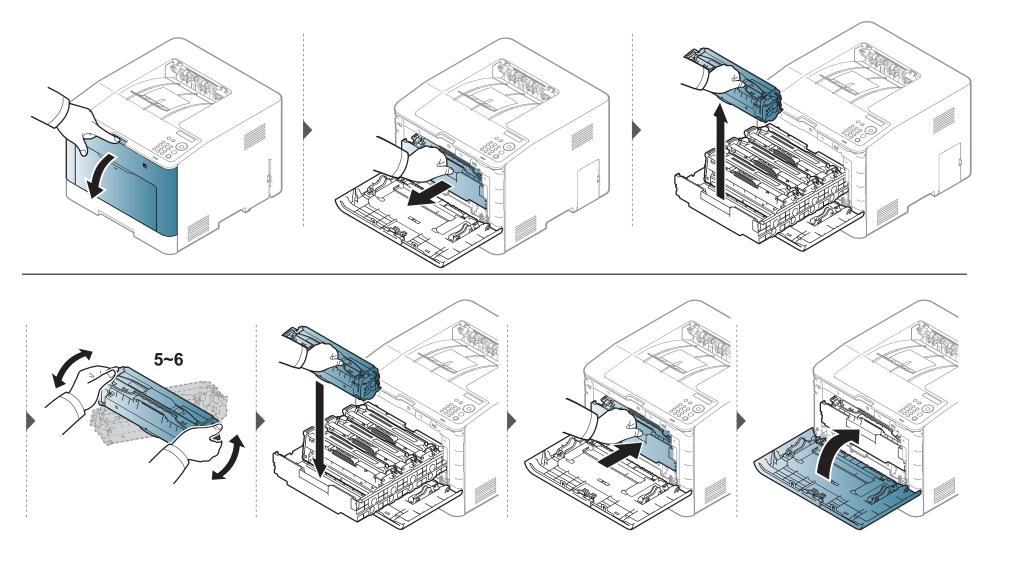
- White streaks or light printing occurs and/or density variation side to side.
- The **Status** LED blinks red. The toner-related message saying that the toner is low may appear on the display.
- The computers's Samsung Printing Status program window appears on the computer telling you which color cartridge is low on toner (see "Using Samsung Printer Status" on page 235).

If this happens, you can temporarily improve print quality by redistributing the remaining toner in the cartridge. In some cases, white streaks or light printing will still occur even after you have redistributed the toner. Check the type of the toner cartridge for your machine (see "Available consumables" on page 56).

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).

- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green area of the toner cartridge. Use the handle on the cartridge to avoid touching this area.
- Do not use sharp objects such as a knife or scissors to open the toner cartridge package. They might scratch the drum of the cartridge.
- If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.

Redistributing toner



Replacing the toner cartridge

For CLP-41xN Series/CLP-41xNW Series:



For CLP-68xND Series/CLP-68xDW Series:



Click this link to open an animation about replacing a toner cartridge.

The machine uses four colors and has a different toner cartridge for each one: yellow (Y), magenta (M), cyan (C), and black (K).

- The status LED and the toner-related message on the display indicate when each individual toner cartridges should be replaced.
- The computers's Samsung Printing Status program window appears on the computer telling you which color cartridge is empty on toner (see "Using Samsung Printer Status" on page 235).

Check the type of the toner cartridge for your machine (see "Available consumables" on page 56).

- Shake the toner cartridge thoroughly, it will increase the initial print quality.
 - 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).
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
 - Do not touch the green area of the toner cartridge. Use the handle on the cartridge to avoid touching this area.
 - Do not use sharp objects such as a knife or scissors to open the toner cartridge package. They might scratch the drum of the cartridge.
 - If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.

Replacing the toner cartridge

