

4. Alignment and Troubleshooting

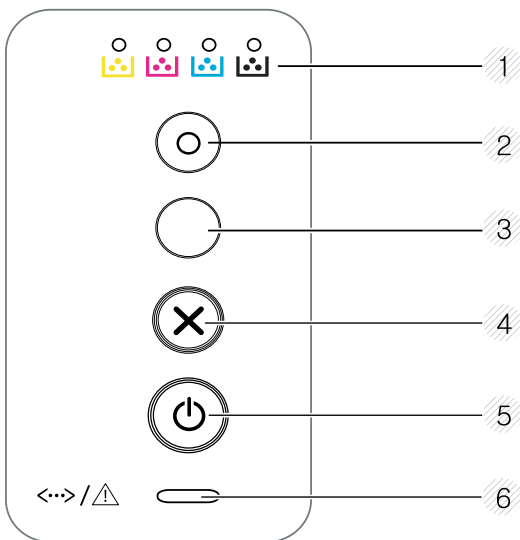
4.1. Alignment and Adjustments

This chapter describes the main functions for service, such as the product maintenance method, the test output related to maintenance and repair, Jam removing method, and so on. It includes the contents of user guide.


4.1.1. Control panel

NOTE

- This control panel may differ from your machine depending on its model. There are various types of control panels.



1	Toner LED	Shows the status of the toner.
2	Eco	Turn into eco mode to reduce toner consumption and paper usage when pc-printing only.
3	WPS (CLP-36xW only)	Configures the wireless network connection easily without a computer. <ul style="list-style-type: none"> Manual print <ul style="list-style-type: none"> Press this button each time you load a sheet of paper in the tray if you have selected Manual Feeder for Source in your printer driver.

3	Print screen (CLP-36x only)	<ul style="list-style-type: none"> • Prints the screen <ul style="list-style-type: none"> • Press this button and the green LED will start blinking. If you want to print only the active screen, release the button when the green LED stops blinking. If you want to print the whole screen, release the button while it's blinking. • Manual print <ul style="list-style-type: none"> - Press this button each time you load a sheet of paper in the tray if you have selected Manual Feeder for Source in your printer driver. <div style="background-color: #f0f0f0; padding: 10px; margin-top: 10px;"> <p> NOTE</p> <ul style="list-style-type: none"> - Print Screen can only be used in the Windows and Macintosh operating systems. - You can only use this function with USB-connected machine. - When printing the active window/whole monitor screen using the print screen button, the machine may use more toner depending on what is being printed. - You can only use this function if the machine's Easy Printer Manager program is installed if you are a macintosh OS user, you need to enable Screen Print Settings from the Easy Printer Manager to use the Print Screen feature. </div>
4	Cancel	<p>You can stop an operation at any time. You also can do the following functions.</p> <ul style="list-style-type: none"> • Configuration sheet <ul style="list-style-type: none"> • Press and hold this button for about 2 seconds until the green LED blinks slowly, and release. • Prints event log report / usage counter <ul style="list-style-type: none"> • Press and hold this button for about 4 seconds until the green LED blinks quickly, and release. • Prints supplies info report <ul style="list-style-type: none"> • Press and hold this button for about 6 seconds until the green LED on, and release.
5	Power/Wake Up	You can turn the power off or wake the machine up from the sleep mode with this button.
6	Status LED	Shows the status of your machine

4.1.2. Understanding the status LED

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



NOTE

- Some LEDs may not be available depending on model or country.
- To resolve the error, look at the error message and its instructions from the troubleshooting part.
- You also can resolve the error with the guideline from the computers's Samsung Printing Status window.

LED	Status		Description
Status	Off		The machine is off-line or save mode.
	Green	Blinking	<ul style="list-style-type: none"> • The machine is receiving data from the computer. • The machine is printing data.
		On	<ul style="list-style-type: none"> • The machine is on-line and can be used.
	Red	Blinking	The machine is on manual printing or manual duplex printing.
		On	<ul style="list-style-type: none"> • 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.
	Orange	Blinking	Upgrading firmware.
		On	A paper jam has occurred.
Toner LED	Orange	Blinking	Small amount of toner is left in the cartridge. The estimated cartridge life of toner is close. Prepare a new cartridge for replacement. You may temporarily increase the printing quality by redistributing the toner.
		On	<ul style="list-style-type: none"> • A toner cartridge has almost reached its estimated cartridge life. It is recommended to replace the toner cartridge. • The toner cartridge is not installed or the wrong toner cartridge is installed.
		Off	All toner cartridges are at normal capacity.
WPS LED	Blue	Blinking	The machine is connecting to a wireless network.
		On	The machine is connected to a wireless network.
		Off	The machine is disconnected from a wireless network.
Power LED	Blue	On	The machine is in power save mode.
		Off	The machine is in ready mode or the machine's power is off.
Eco	Green	On	Eco mode is on.
		Off	Eco mode is off.

* 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.

** Some LEDs may not be available depending on model or country.

4.1.3. Clearing paper jams

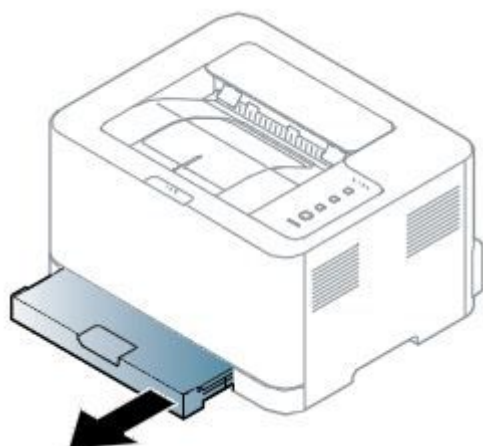


NOTE

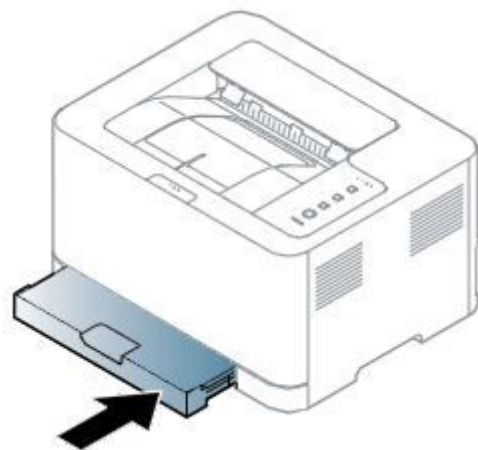
To avoid tearing the paper, pull the jammed paper out slowly and gently.

In tray1

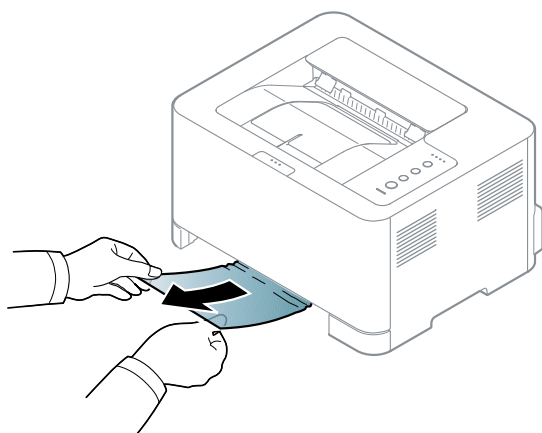
1) Take off the cassette.



3) Reinstall the cassette.



2) Remove the jammed paper by gently pulling it straight out.



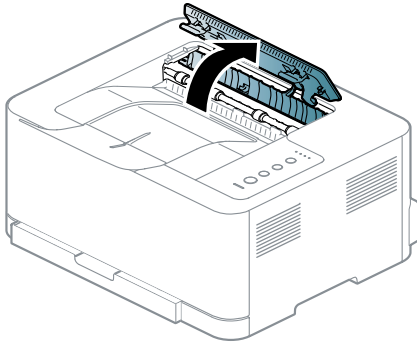
Inside the machine



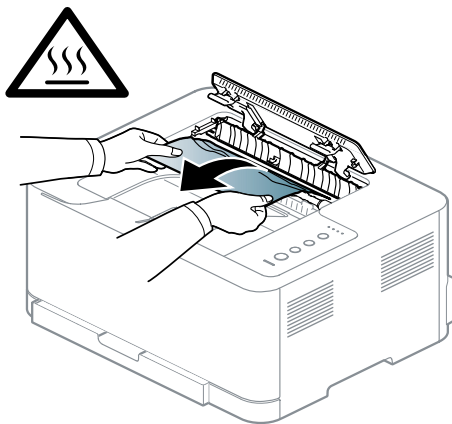
CAUTION

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

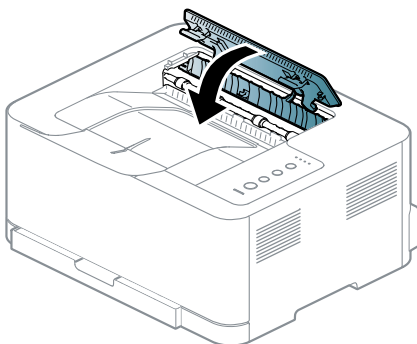
- 1) Open the exit top cover.



- 2) Remove the jammed paper by gently pulling it straight out.

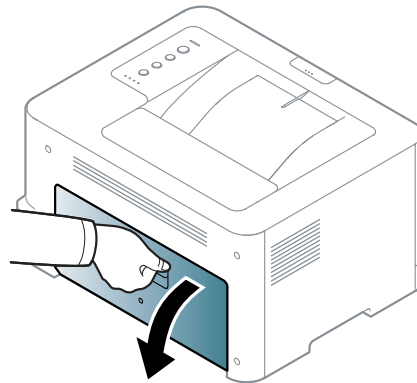


- 3) Close the exit top cover.

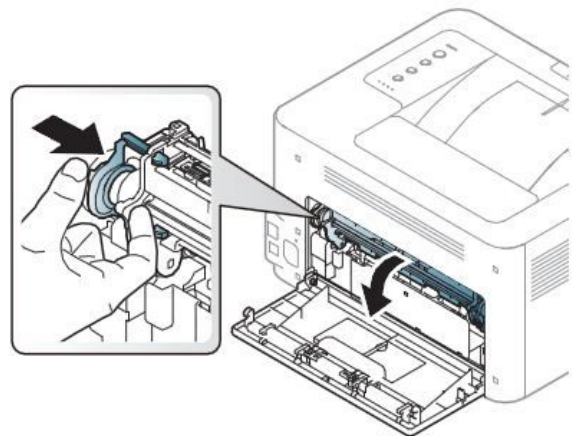


If you do not see the paper in this area, stop and go to next step:

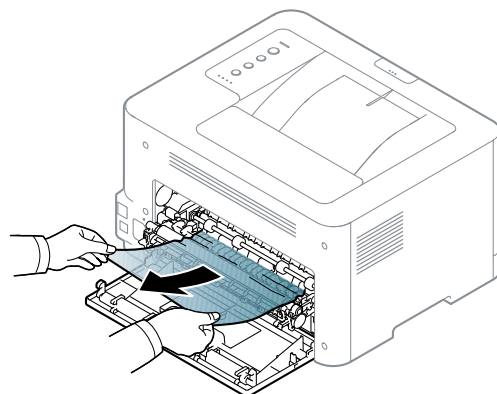
- 4) Open the rear cover door.



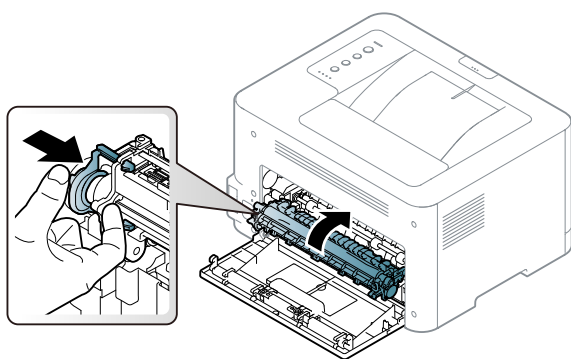
- 5) Open the FRAME-TRANSFER.



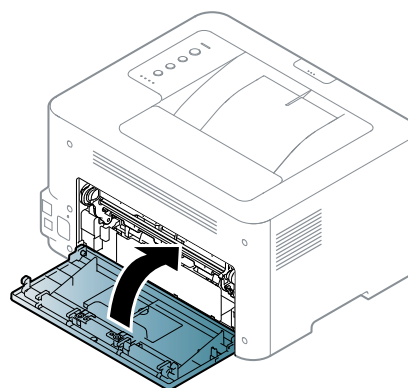
- 6) Remove the jammed paper by gently pulling it straight out.



7) Close the FRAME-TRANSFER.



8) Close the rear cover door.

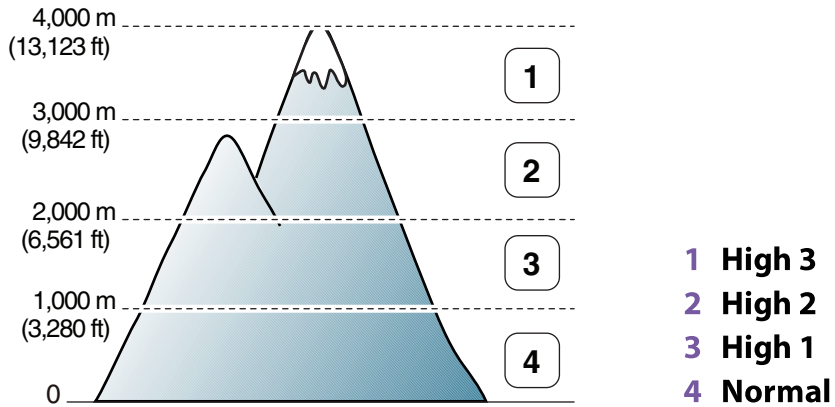


4.1.4. Useful menu item for service

1) Altitude adjustment

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

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



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

- For Windows and Macintosh users, you set from **Samsung Easy Printer Manager > Switch to advanced mode > Device Settings**.

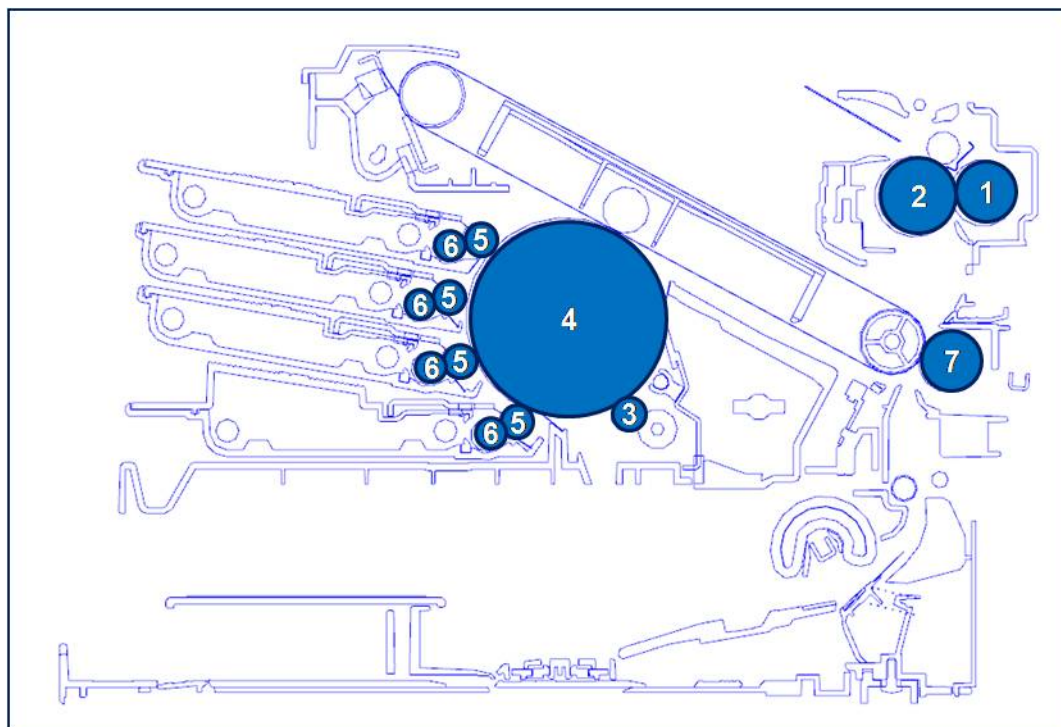


NOTE

- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service.

4.1.5. Periodic Defective Image

If an image defects appears at regular intervals on the printed-paper, it is due to a faulty or damaged roller. Refer to the table below and check the condition of the appropriate roller.



	Roller	Period (mm)	Phenomenon	Defective part
1	Pressure Roller	50.3mm	Background	Fuser Unit
2	Heat Roller	86.4mm	Black spot and image ghost	
3	Charging Roller	37.7mm	Black Spot and line and periodic band	Toner Cartridge
4	OPC Drum	188.5mm	White and Black Spots	
5	Developing Roller	26.0mm	White spot, Horizontal black band	
6	Supply Roller	47.5mm	Periodic Band by little difference of density	
7	Transfer Roller	54.64mm	Ghost, Damaged image by abnormal transfer	Transfer roller

4.1.6. Useful management tools

4.1.6.1. Using Samsung Easy Printer Manager (Windows and Macintosh only)



NOTE

- This feature may not be available depending on model or optional goods.
- Available for Windows or Macintosh OS users only.
- For Windows, Internet Explorer 6.0 or higher is the minimum requirement for Samsung Easy Printer Manager.

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

Understanding Samsung Easy Printer Manager

To open the program:

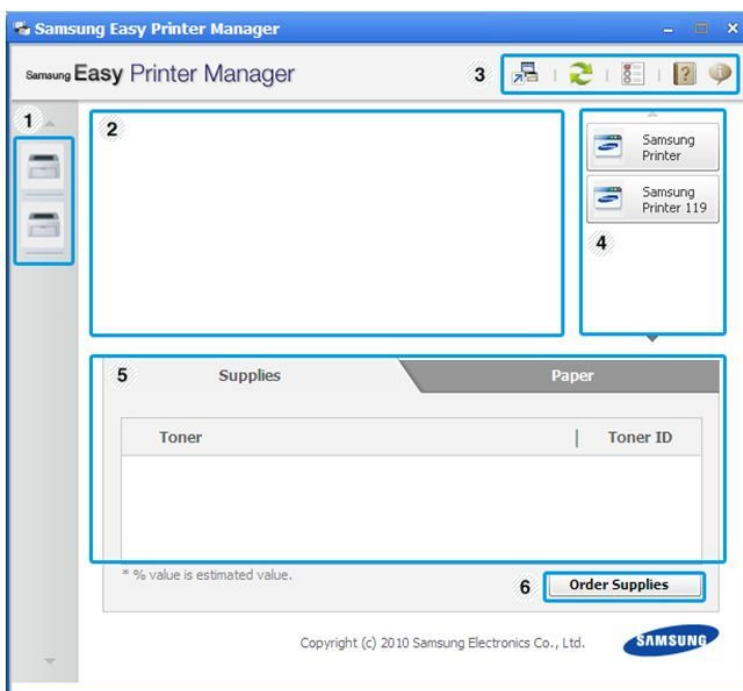
- For Windows, Select Start > Programs or All Programs > Samsung Printers > Samsung Easy Printer Manager > Samsung Easy Printer Manager.
- For Macintosh, Open the Applications folder > Samsung folder > Samsung Easy Printer Manager.

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




NOTE

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



TONER

No	Area	Description
1	Printer List	The printer list displays the installed printer icons on your computer.
2	Printer Information	<p>This area gives you general information about your machine. You can check information, such as the machine's model name, IP address (or Port name), and machine status.</p> <div>  NOTE Troubleshooting button: This button opens Troubleshooting Guide when an error occurs. You can directly open the necessary section in the user's guide. </div>
3	Application Information	Includes links for changing to the advanced settings, preference, help, and about.
4	Quick links	Displays Quick links to machine specific functions. This section also includes links to applications in the advanced settings.
5	Contents Area	Displays information about the selected machine, remaining toner level, and paper. The information will vary based on the machine selected. Some machines do not have this feature.
6	Order Supplies	Click on the Order button from the supply ordering window. You can order replacement toner cartridge(s) from online.

Advanced settings user interface overview

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

- **Device Settings**

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

- **Alert Settings**

This menu includes settings related to error alerting.

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

- **Job Accounting**

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

4.1.6.2. Using Samsung Printer Status (Windows only)

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

NOTE




- The Samsung Printer Status window and its contents shown in this user's guide may differ depending on the machine or operating system in use.
- Check the operating system(s) that are compatible with your machine.

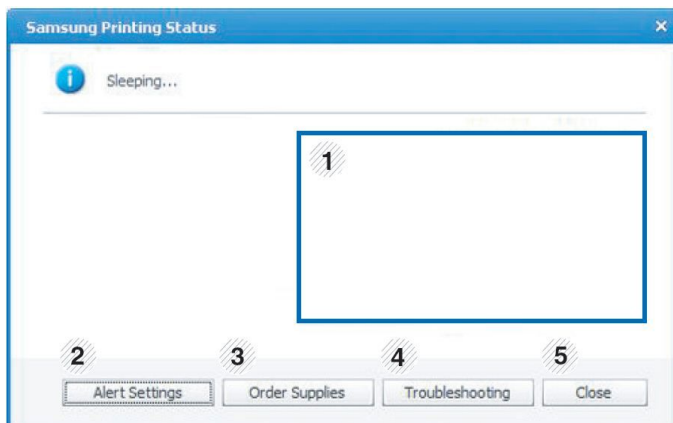
Samsung Printer Status overview

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

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

These icons appear on the Windows task bar:

Icon	Mean	Description
	Normal	The machine is in ready mode and experiencing no errors or warnings.
	Warning	The machine is in a state where a soft error has occurred. For example, a toner low status, which may lead to toner empty status.
	Error	The machine has at least one hard error, such as out of paper, fuser error, etc. Machine does not have ability to come to ready without customer intervention.



1	Toner Level	You can view the level of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. Some machines do not have this feature.
2	Alert Settings	Select the settings you want from the options window.
3	Order Supplies	You can order replacement toner cartridge(s) from online.
4	Troubleshooting	You can directly open the troubleshooting section in the user's guide.
5	Close	Close the window.

4.1.6.3. Using SyncThru Web Service (SWS)

SWS is an embedded web server in the machine. This web server informs you of machine configuration, version, status and allows you to customize the machine's settings. You can contact this server via wired and wireless network using your web browser in the remote place.

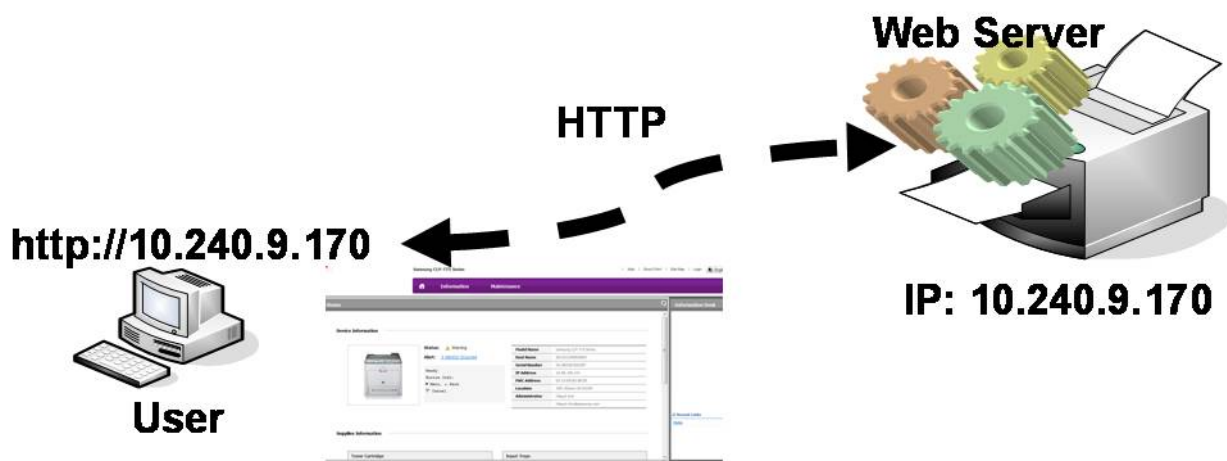
Connecting preparations

- Wired or Wireless Network connection is established.
- Browser (Ex> Internet Explorer) Program on your PC network connected

SWS overview

SyncThru Web Service (SWS)

- accepts HTTP request via port 80 as normal web servers.
- provides interface to users information of networked printers and allow to configure the setting of printers.
- is able to provide more complicated options than Local UI for printer configuration.



Connection Procedure

- 1) Open the Web-browser and input IP address of machine. Click "Login".
- 2) Log-in Admin Mode. (ID: admin, PW: sec00000)
- 3) Select pages to check the configuration and customize the settings.



CAUTION

Please, change SWS Default ID and Password for system security in case of your first connection.

4.1.7. Updating Firmware

This chapter includes instructions for updating the printer firmware. You can update the printer firmware by using one of the following methods :

- Update the firmware by using the USB port.
- Update the firmware by using the Network.

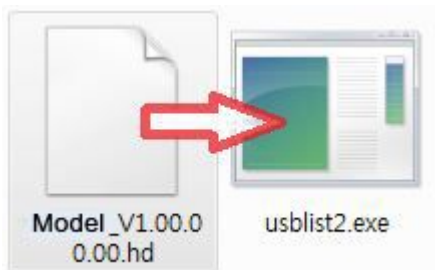
4.1.7.1. Update the firmware by using the USB port

Upgrading preparations

- usblast2.exe : Tool which sends firmware data to printer.
- Firmware file to update.

Upgrade Procedure

- 1) Turn the machine off.
- 2) Connect USB cable to printer.
- 3) Turn the machine on. Check if the printer is the ready status.
- 4) Drag the firmware file and Drop down on the usblast2.exe.



And then firmware update will be started automatically.

- 5) When upgrading is completed, machine is automatically re-booting.

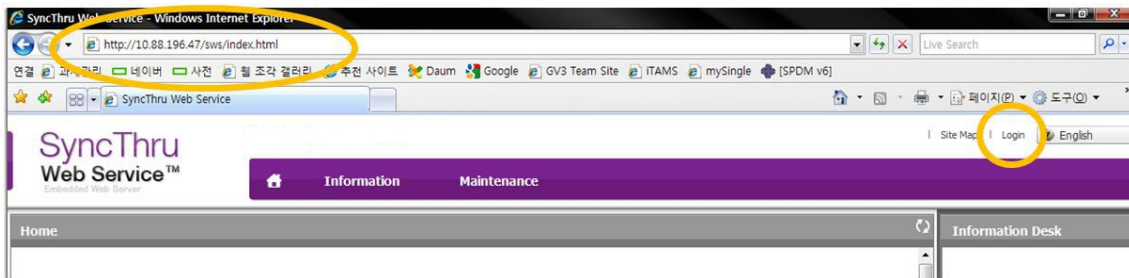
4.1.7.2. Update the firmware by using the network (CLP-36xW only)

Upgrading preparations

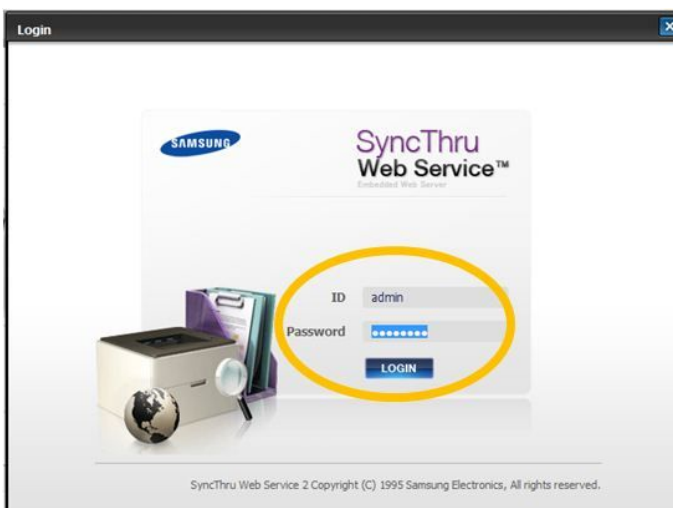
- Wired or Wireless Network connection is established.
- Firmware file to update

Upgrade Procedure

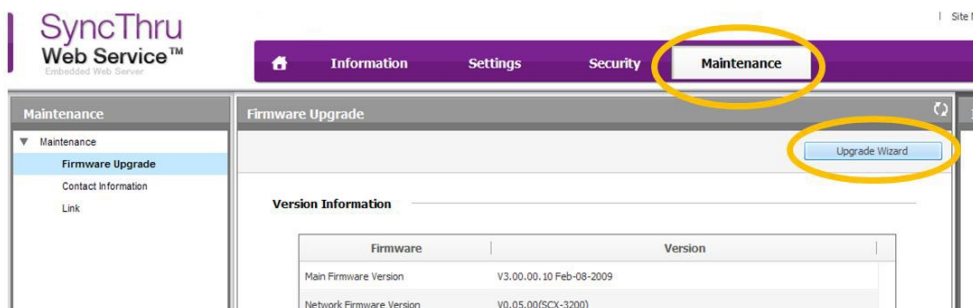
- 1) Open the Web-browser and input IP address of machine. Click “Login”.



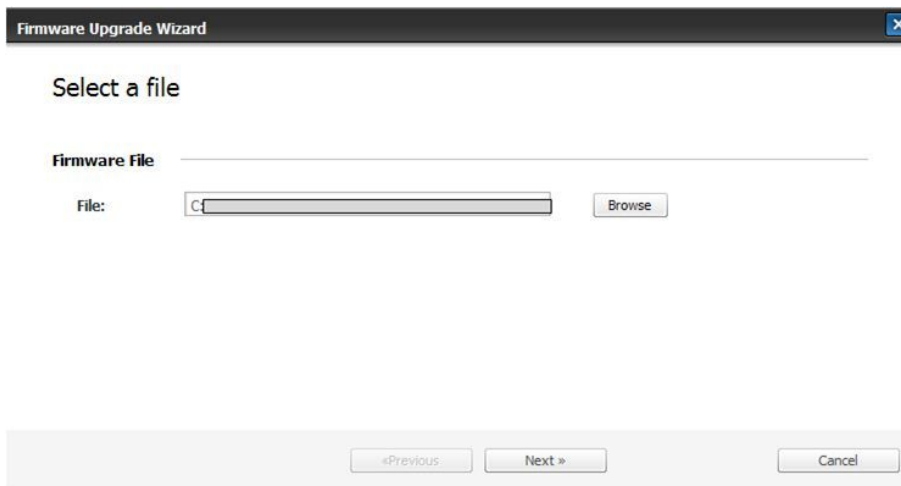
- 2) Log-in Admin Mode. (ID: admin, PW: sec00000)



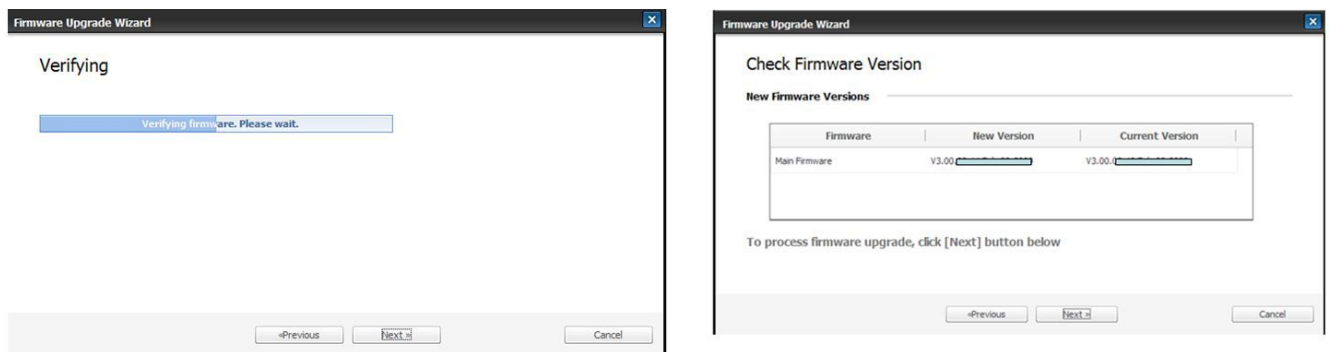
- 3) Select Maintenance menu and click “upgrade wizard”



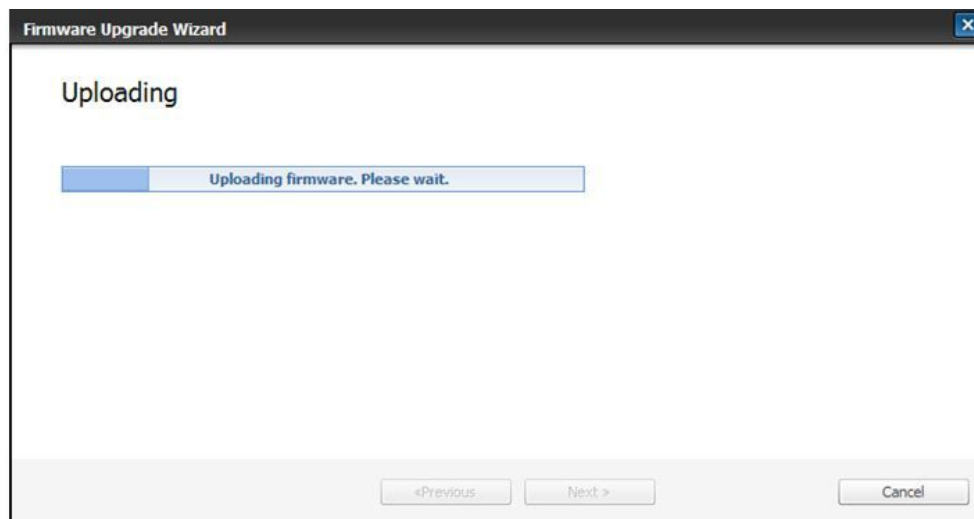
- 4) Select firmware file using “browser” button and press next button.



- 5) SyncThru will check verify firmware file and compare version and press next button.



- 6) Machine starts upgrading. SyncThru will return home page after upgrading is completed.

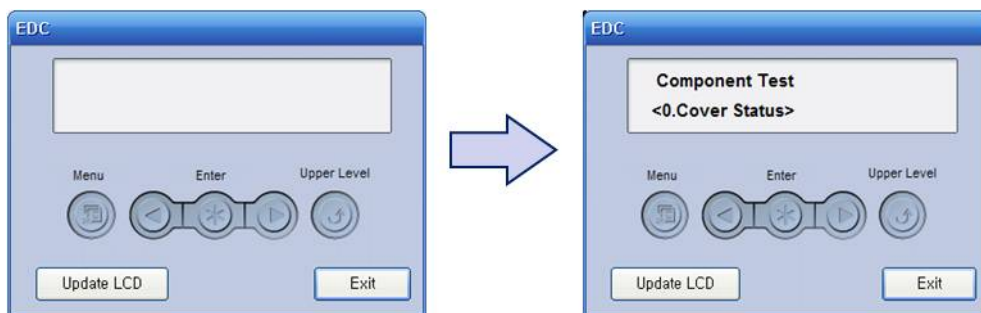


4.1.8. EDC program

The EDC program can check the machine status and perform various test to isolate the cause of a malfunction.

1) How to use the EDC program

- 1) Download the EDC program in your PC.
- 2) Connect the printer to the computer using USB cable.
- 3) Turn on the printer and wait for the printer to finish initializing.
- 4) Start EDC program. Press the “Menu” Button



- 5) To exit the EDC Mode, press the “Exit” button.

EDC mode menu (Engine Diagnostic Test)

Code-Sec	Displayed Name	Meaning
100-0000	Main BLDC Motor	Main BLDC Motor is On/Off
100-0001	Main BLDC Motor Slow	Main BLDC Motor Slow(50% speed) On/Off
100-0010	Main BLDC Motor Ready	Detect if Main BLDC Motor runs at normal speed
100-0241	Waste Toner Led	Waste Toner Led On/Off
100-0250	Waste Toner Full Sensor	Detect if the waste toner is full or not. Display Waste Tank Full adc
101-0010	T1 Pick-Up Clutch	Engages drive to pick up a paper from tray1.
101-0050	Registration Clutch	Engages drive to registartion rolls.
101-0201	Dev Cam Clutch	Rotate Deve cam
101-0202	Dev Relay1	Turn on the deve relay1
101-0203	Dev Relay2	Turn on the deve relay2
101-0204	Dev Relay3	Turn on the deve relay3
101-0205	Dev Relay4	Turn on the deve relay4
101-0210	ITB Clutch	Engages drive to ITB Cleaning Blade
101-0231	T2 Nip Release	T2 Nip Release
101-0260	Cover Open Sensor	Check if the set main cover is open or not
102-0010	T1 Paper Empty Sensor	Detect when paper is in Tray1.
102-0360	Regi. Sensor	Detect when a paper is at Regi. sensor.
102-0370	Exit Sensor	Detect when a paper is at Exit. sensor.
105-0032	MHV Bias	MHV bias voltage on at normal drive level
106-0037	Dev Bias	Dev bias voltage on at normal drive level
106-0038	Dev AC Bias	Dev bias AC voltage on at normal drive level

Code-Sec	Displayed Name	Meaning
107-0032	THV Bias	THV plus bias voltage on at normal drive level
107-0033	THV(-) Bias	THV minus bias voltage on at normal drive level
107-0080	iTHV(+) Bias	iTHV plus bias voltage on at normal drive level
107-0160	Erase Lamp1	Erase Lamp 1
109-0000	Fuser Temperature A	Detects what the temperature A is on fuser.
110-0000	LSU Motor1 Run Ready	Detects if LSU motor1 runs at normal speed.
110-0060	LSU Motor1 Run	LSU Motor1 On/Off
110-0111	LSU LD Power	LSU LD Power On/Off with normal LD Power
111-0080	ID Sensor	Start ID sensor sensing On/Off
111-0090	ID Sensor Check	Display ID sensor reading value

**NOTE**

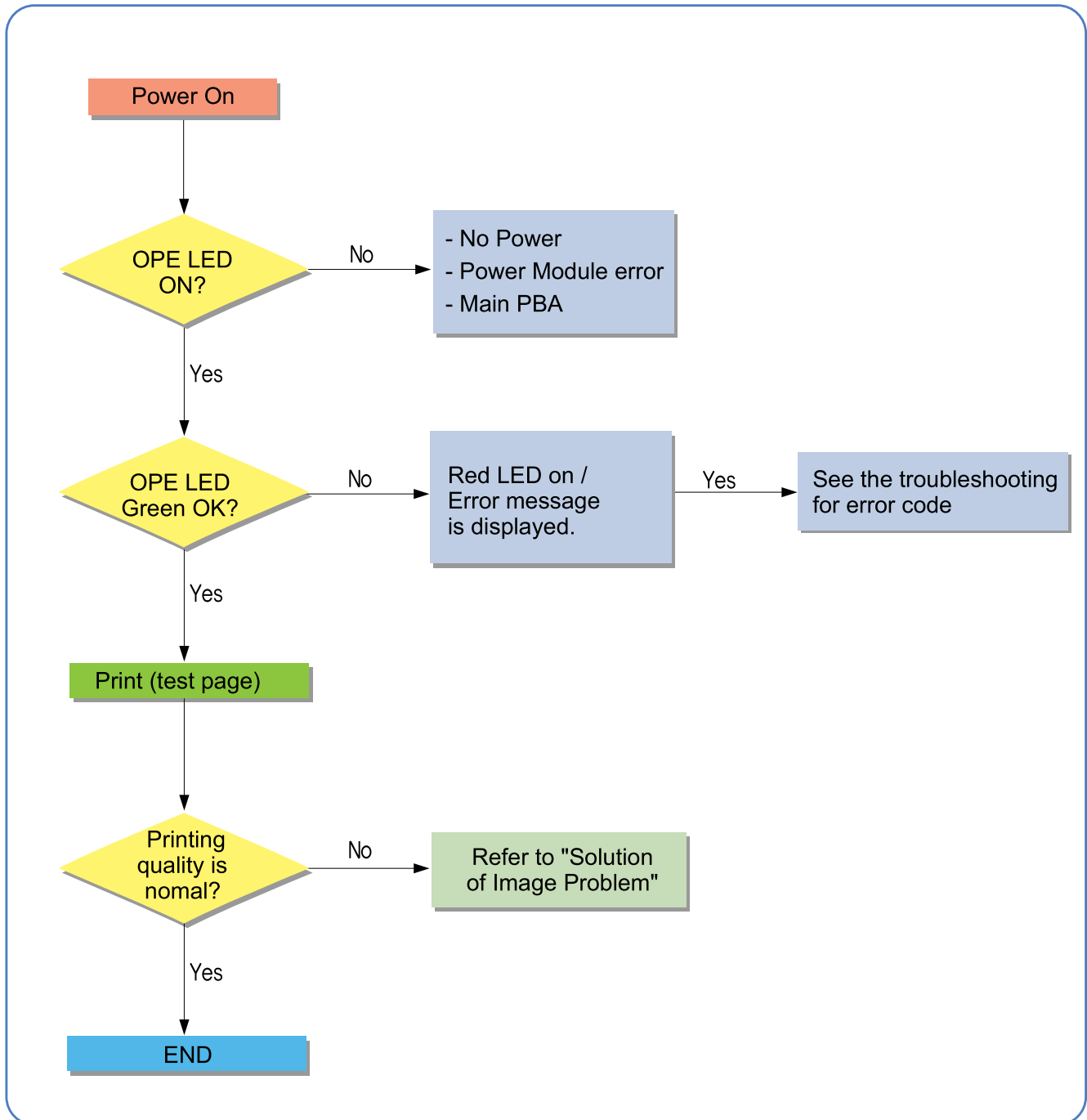
Acronyms and Abbreviations

- DEV Bias- Developing High Voltage Bias
- EDC - Embedded Diagnostic Control
- LD – Laser Diode
- LSU – Laser Scanning Unit
- MHV - Main High Voltage (Charge Voltage)
- THV - Transfer High Voltage

4.2. Troubleshooting

4.2.1. Procedure of checking the symptoms

Before attempting to repair the printer first obtain a detailed description of the problem from the customer.



4.2.1.1. Basic Check List

1) Check the Power.

- Check that the power switch is turned on.
- Check that the power cable is plugged into the outlet and the printer.
- Check the voltage of the power outlet.

2) Check the LED of Panel.

- Is there OPE LED ON?
 - › If not check power cable, switch SMPS or Main board.
- Is the abnormal Lamp?
 - › Check the Main board and cable harness.

3) Check the Paper Path

- Is there a Paper Jam?
 - › Remove any paper fragments caught in the paper path.
- Paper Jam occurs repeatedly at a specific point in the Paper Path
 - › Open the fuser cover, Jam clear.
 - › Dismantle the machine and carefully inspect the region where the jam occurs.
(Especially, check if paper fragments are caught in the Fuser)

4) Print the Information Page (Configuration).

- Try printing a test page from a computer.
 - › If there is an error check cables and driver installation.

5) Check the Print Quality.

- Is there are a Print Quality Problem?
 - › Refer to image quality problem section.

6) Check consumables (toner etc.).

- Using the keys print the Test Pattern.
 - › Expected life of various consumable parts, compare this with the figures printed and replace as required

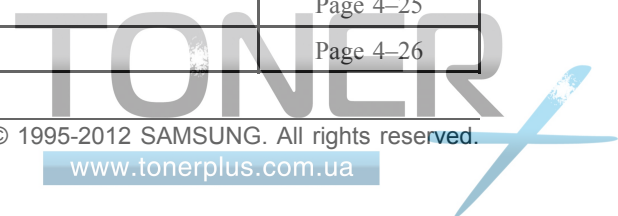
4.2.2. Error Code and Troubleshooting

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.


NOTE

Some messages may not appear on the display depending on the options or models.

Error Code	Error Message	Troubleshooting Page
A1-1110	Error #A1-1110 Turn off then on	Page 4-21
A3-2210	Error #A3-2210 Call for service	Page 4-21
A3-3312	Error #A3-3312 Call for service	Page 4-22
A3-6110	Deve Home Sensor Error	Page 4-23
C1-2110	Prepare Toner	Page 4-24
C1-2120	Replace Toner	Page 4-24
C1-2411	Install toner	Page 4-24
C1-2512	Not compatible Yellow toner	Page 4-25
C1-2514	Not compatible Yellow toner	Page 4-25
C1-2711	Error: #C1-2711 Call for Service	Page 4-25
C1-2712	Error: #C1-2712 Call for Service	Page 4-25
C1-3110	Prepare Toner	Page 4-24
C1-3120	Replace Toner	Page 4-24
C1-3411	Install Toner	Page 4-24
C1-3512	Not compatible Magenta toner	Page 4-25
C1-3514	Not Compatible Magenta toner	Page 4-25
C1-3711	Error: #C1-3711 Call for Service	Page 4-25
C1-3712	Error: #C1-3712 Call for Service	Page 4-25
C1-4110	Prepare Toner	Page 4-24
C1-4120	Replace Toner	Page 4-24
C1-4411	Install Toner	Page 4-24
C1-4512	Not compatible Cyan toner	Page 4-25
C1-4514	Not compatible Cyan toner	Page 4-25
C1-4711	Error: #C1-4711 Call for Service	Page 4-25
C1-4712	Error: #C1-4712 Call for Service	Page 4-25
C1-5110	Prepare Toner	Page 4-24
C1-5120	Replace Toner	Page 4-24
C1-5411	Install Toner	Page 4-24
C1-5512	Not compatible Black toner	Page 4-25
C1-5514	Not compatible Black toner	Page 4-25
C1-5711	Error: #C1-5711 Call for Service	Page 4-25
C1-5712	Error: #C1-5712 Call for Service	Page 4-25
C3-6110	Prepare new Imaging unit	Page 4-26



Error Code	Error Message	Troubleshooting Page
C3-6120	Replace new Imaging unit	Page 4-26
C3-6410	Install Imaging unit	Page 4-26
C3-6520	Error: #C3-6520 Door open/close	Page 4-26
C5-1110	Prepare new Transfer belt	Page 4-27
C5-1120	Replace new Transfer belt	Page 4-27
C5-1710	Transfer Belt Error	Page 4-27
C5-3110	Prepare new Transfer roller	Page 4-27
C5-3120	Replace new Transfer roller	Page 4-27
C6-1110	Replace Fuser Soon	Page 4-28
C6-1120	Replace new Fuser unit	Page 4-28
C7-1131	Replace/Install Waste Toner Tank	Page 4-28
M1-1013	Paper Jam in Tray1	Page 4-29
M1-5012	Paper Empty in Tray	Page 4-30
M2-1210	Paper Jam inside machine	Page 4-29
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► **Error Code**

A1-1110

► **Error message**

Error #A1-1110 Turn off then on

► **Symptom**

The main motor does not operate.

► **Troubleshooting method**

- 1) Turn the machine off then on. If the error persists, turn the machine off again.
- 2) Remove the rear and right cover.
- 3) Check if the connection between main board and main motor are correct.



- 4) If the connection is OK, replace the main motor.
- 5) If the problem persists, replace the main board.

► **Error Code**

A3-2210

► **Error message**

Error #A3-2210 Call for service

► **Symptom**

The CTD sensor has a problem.

► **Troubleshooting method**

- 1) Turn the machine off then on. If the error persists, turn the machine off again.
- 2) Check the CTD sensor connector. If the connection is OK, replace the CTD sensor board.

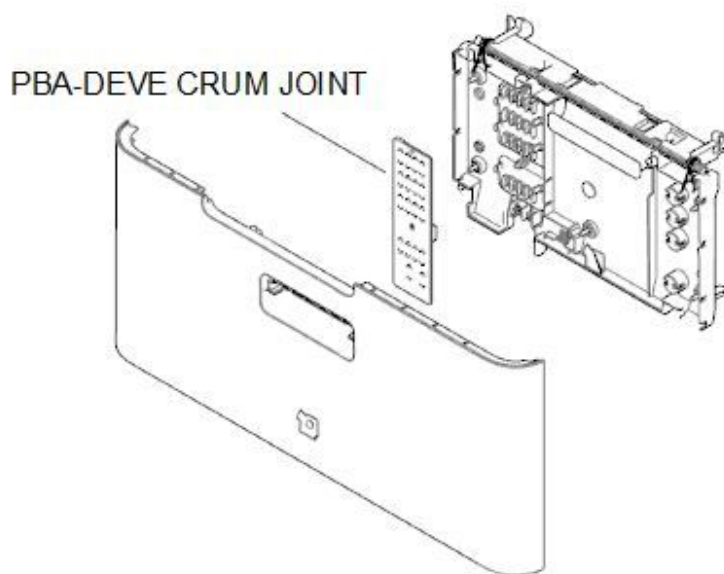


► Error Code**A3-3312****► Error message****Error #A3-3312 Call for service****► Symptom**

The outer temperature sensor is defective.

► Troubleshooting method

- 1) Turn the machine off then on. If the error persists, turn the machine off again.
- 2) Remove the front cover.
- 3) Disassemble the front cover and replace the PBA-DEVE CRUM JOINT that includes the outer temperature sensor.



► **Error Code**

A3-6110

► **Error message**

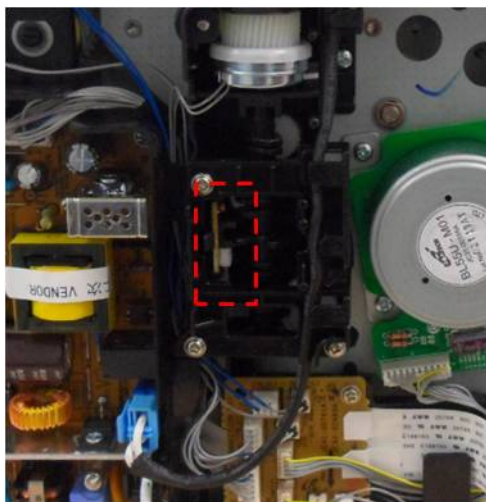
Deve Home Sensor Error

► **Symptom**

The deve home sensor is defective.

► **Troubleshooting method**

- 1) Turn the machine off then on. If the error persists, turn the machine off again.
- 2) Remove the right cover.
- 3) Check the connection between the deve home sensor and connection board.



- 4) If the connection is OK, replace the deve home sensor.

► Error Code

C1-2110

C1-3110

C1-4110

C1-5110

► Error message

Prepare Toner

► Symptom

The remaining toner cartridge is less than 10%

► Troubleshooting method

- 1) Print the supply information report. Check the life remaining of the toner cartridge.
- 2) If its life is at the end, turn the machine off and replace the toner cartridge with new one.

► Error Code

C1-2120

C1-3120

C1-4120

C1-5120

► Error message

Replace Toner

► Symptom

The toner cartridge is at the end of its life.

► Troubleshooting method

- 1) Turn the machine off and replace the toner cartridge with new one.

► Error Code

C1-2411

C1-3411

C1-4411

C1-5411

► Error message

Install toner

► Symptom

The toner cartridge is not installed or the CRUM has some problem.

► Troubleshooting method

- 1) Check if the toner cartridge is installed properly. Turn the machine off then on.
- 2) If the error message is not disappear, remove the toner cartridge. Thoroughly roll the cartridge five or six times to distribute the toner evenly inside the cartridge. And reinstall the toner cartridge.
- 3) If the problem persists, check that the CRUM contact area is contaminated. Clean it.
- 4) If the problem persists, replace the toner cartridge with new one.

► **Error Code**

C1-2512

C1-2514

C1-3512

C1-3514

C1-4512

C1-4514

C1-5512

C1-5514

► **Error message**

Not compatible Yellow toner

Not compatible Magenta toner

Not compatible Cyan toner

Not compatible Black toner

► **Symptom**

Toner cartridge is not compatible.

► **Troubleshooting method**

- 1) If the toner cartridge is not a Samsung genuine toner cartridge, replace with new one.

► **Error Code**

C1-2711

C1-2712

C1-3711

C1-3712

C1-4711

C1-4712

C1-5711

C1-5712

► **Error message**

Error: #C1-2711 Call for Service

Error: #C1-2712 Call for Service

Error: #C1-3711 Call for Service

Error: #C1-3712 Call for Service

Error: #C1-4711 Call for Service

Error: #C1-4712 Call for Service

Error: #C1-5711 Call for Service

Error: #C1-5712 Call for Service

► **Symptom**

CRUM chip is defective.

► **Troubleshooting method**

- 1) Check if the toner cartridge is installed properly. Turn the machine off then on.
- 2) If the problem persists, check that the CRUM contact area is contaminated. Clean it.

3) If the problem persists, replace the toner cartridge with new one.

► **Error Code**

C3-6110

C3-6130

► **Error message**

Prepare new Imaging unit

Replace new Imaging unit

► **Symptom**

The imaging unit is at the end of its life.

► **Troubleshooting method**

- 1) Print the supply information report. Check the life remaining of the imaging unit.
- 2) If its life is at the end, turn the machine off and replace the imaging unit with new one.

► **Error Code**

C3-6410

C3-6520

► **Error message**

Install Imaging unit

Error: #C3-6520 Door open/close

► **Symptom**

The imaging unit is not installed.

► **Troubleshooting method**

- 1) Open the front cover. Remove YMCK toner cartridges.
- 2) Check if the imaging unit is installed. Remove and reinstall it.
- 3) If the problem persists, replace the imaging unit.

► **Error Code**

C5-1110

C5-1120

► **Error message**

Prepare new transfer belt unit.

Replace new transfer belt unit.

► **Symptom**

The ITB Unit is at the end of its life.

► **Troubleshooting method**

- 1) If its life is at the end, turn the machine off and replace the ITB unit with new one.

► **Error Code**

C5-1710

► **Error message**

Transfer Belt Error

► **Symptom**

ITB home sensor is defective.

► **Troubleshooting method**

- 1) Turn the machine off then on.
- 2) If the problem persists, turn the machine off. Remove and reinstall the ITB unit.
- 3) If the problem persists, replace the ITB unit with new one.

► **Error Code**

C5-3110

C5-3120

► **Error message**

Prepare new Transfer roller

Replace new Transfer roller

► **Symptom**

The transfer roller is at the end of its life.

► **Troubleshooting method**

- 1) If its life is at the end, turn the machine off and replace the transfer roller Assy with new one.

► **Error Code**

C6-1110

C6-1120

► **Error message**

Prepare new fuser unit.

Replace with new fuser unit.

► **Symptom**

The fuser unit is at the end of its life.

► **Troubleshooting method**

- 1) Print the supply information report. Check the life remaining of the fuser unit.
- 2) If its life is at the end, turn the machine off and replace the fuser unit with new one.

► **Error Code**

C7-1311

► **Error message**

Waste toner container is not installed. Install it.

► **Symptom**

The waste toner container is not installed

► **Troubleshooting method**

- 1) Check if the waste toner container is installed properly.
- 2) Remove and reinstall the waste toner container.

► **Error Code**

M1-1013

M2-1210

► **Error message**

Paper jam in tray 1.

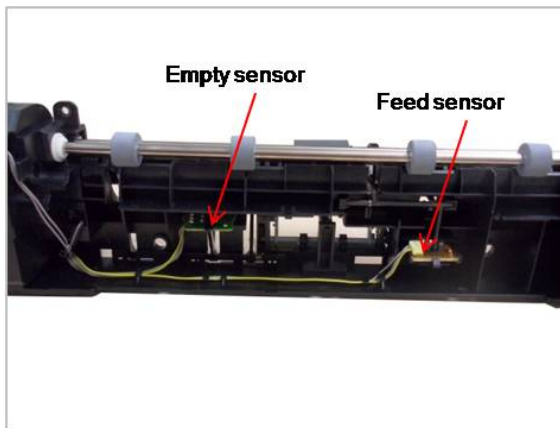
Paper Jam inside machine

► **Symptom**

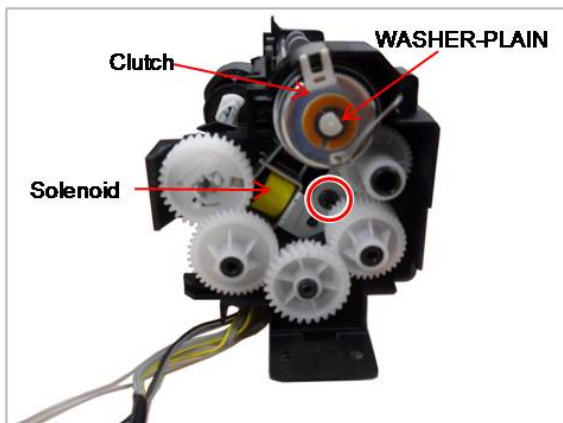
The jammed paper has occurred in the tray1 or inside the machine.

► **Troubleshooting method**

- 1) Remove the jammed paper.
- 2) If the jammed paper occurs continually, check the followings.
 - a) Check if the pick up roller are worn out or contaminated. Clean the contaminated part or replace it.
 - b) Check if the feed actuator or feed sensor is assembled correctly.



- 3) If the pick up solenoid is defective, replace it.



► **Error Code**

M1-5012

► **Error message**

Paper Empty in Tray

► **Symptom**

Paper is empty in tray.

► **Troubleshooting method**

- 1) Remove the cassette. Check if the paper is loaded.
- 2) If the problem persists, replace the paper empty sensor.

► **Error Code**

M3-1110

► **Error message**

Paper jam in exit area.

► **Symptom**

The jammed paper has occurred in the exit area.

► **Troubleshooting method**

- 1) Remove the jammed paper.
- 2) If the problem persists, check the following.
 - a) Check if there is any obstacles or paper on the paper path. Remove it.
 - b) Check if the fuser unit is assembled properly. If the fuser unit is defective, replace it.

► **Error Code**

M3-2130

► **Error message**

Output bin full Remove paper

► **Symptom**

The paper is full on the exit tray.

► **Troubleshooting method**

- 1) Remove the paper.
- 2) If the problem persists, remove the top cover.
- 3) Check if the bin full sensor connector is connected properly.
- 4) If the connection is OK, replace the bin full sensor.

► **Error Code**

S1-5221

► **Error message**

Wireless Network Error

► **Symptom**

The communication error between the main board and WLAN board has occurred.

► **Troubleshooting method**

- 1) Turn the machine off then on. If the problem persists, turn the machine off.
- 2) Remove the right cover. Check the connection between the main board and WLAN board.
- 3) If the connection is OK, replace the WLAN board.

► **Error Code**

S2-4110

► **Error message**

Door is open. Close it.

► **Symptom**

Door is opened or the cover open switch is defective.

► **Troubleshooting method**

- 1) Check if the front cover is closed perfectly.
- 2) If the error persists, check that the cover-open sensor is working normally. If it is defective, replace it.

► **Error Code**

S2-4611

► **Error message**

Top door Open or Exit JAM

► **Symptom**

Top door is opened or the paper jam has occurred in exit area.

► **Troubleshooting method**

- 1) Open and close the top door.
- 2) If there is a jammed paper, remove it.
- 3) Open and close the top door again.

► **Error Code**

S6-3123

► **Error message**

Network Problem:IP Conflict

► **Symptom**

IP address conflicts with that of other system.

► **Troubleshooting method**

- 1) Change the machine's IP address.
- 2) Check the setting-up for 802.1x confirmation server.

► **Error Code**

U1-2320

U1-2330

U1-2332

U1-2340

► **Error message**

Error #U1-2320 Turn off then on

Error #U1-2330 Turn off then on

Error #U1-2332 Turn off then on

Error #U1-2340 Turn off then on

► **Symptom**

The temperature control of fuser unit is abnormal.

► **Troubleshooting method**

- 1) Check if the input voltage is normal.
- 2) Turn the machine off. Remove and reinstall the fuser unit. Be careful when connecting the AC-connector and Thermistor connector.
- 3) Turn the machine on. Is the error message is disappeared?
- 4) Check the followings. If the fuser unit has any problem, replace it.
 - a) Check if the fuser connector is connected properly.



- b) Check if the halogen lamp voltage is normal.
 - c) Check if the thermistor is contaminated or twisted.
- 5) If the problem persists, replace the main board or SMPS board.

► **Error Code**

U2-6120

U2-6140

► **Error message**

Error #U2-6120 Turn off then on

Error #U2-6140 Turn off then on

► **Symptom**

LSU Motor does not work normally. / LSU Hsync signal is abnormal.

► **Troubleshooting method**

- 1) Check if the LSU harness on the main board is connected properly.
- 2) If it is OK, check that the LSU harness on LSU board is connected properly.
- 3) Check if the LSU harness is defective.
- 4) If the problem persists, replace the LSU.



- 5) If the problem persists after replacing LSU, replace the main board.

4.2.3. Image quality problems

1) Vertical Black Line and Band

- Description : Straight thin black vertical line occurs in the printed image.



Cause and Check Point	Solution
Check if the surface of the charge roller is scratched or contaminated.	Replace the imaging unit and test again.
Check if there are grooves on the circumference of the OPC drum.	Replace the imaging unit and test again.
Check if the cleaning blade is damaged	Replace the imaging unit and test again.
Check if paper transfer belt is damaged or contaminated.	Replace the ITB unit and test again.

2) Vertical White Line

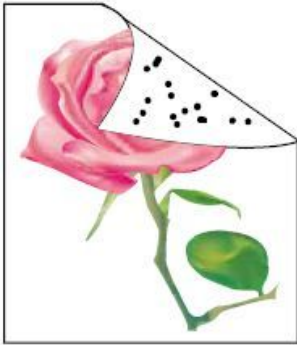
- Description : White vertical voids in the image.



Cause and Check Point	Solution
Check if the LSU window or internal lenses of LSU is contaminated.	Clean the LSU window with recommended cleaner(IPA). Clean the window with a clean cotton swab. If dirt is inside the LSU, replace the LSU.
Check if there are scratches on the circumference of the OPC drum.	Replace the imaging unit and test again.
Check if there are scratches on the circumference of the developing roller.	Replace the toner cartridge and test again.
Check if paper transfer belt is damaged or contaminated.	Replace the ITB unit and test again.

3) Contamination on back of page

- Description : The back of the page is contaminated.



Cause and Check Point	Solution
Dirty registration roller, pressure roller, feed roller, etc. Any dirty rollers through the path of the paper.	Identify the roller which may cause the problem by comparing the period of the contamination on images with the size of rollers. Clean any dirt from the roller or replace the dirty roller.
Check if the transfer roller is damaged or contaminated.	Replace the transfer roller and test again.
Check if paper transfer belt is damaged or contaminated.	Replace the ITB unit and test again.

4) Dark or Black image

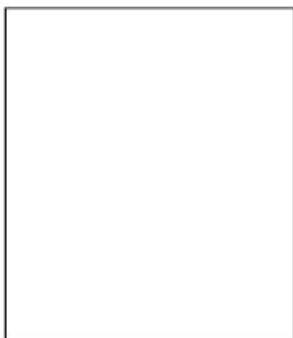
- Description : The black page is printed out.



Cause and Check Point	Solution
No charging voltage in the HVPS.	Check the connecting state between the Main PBA and HVPS. Reconnect the harness.
Poor contact between toner cartridge and set contacts.	Clean the contacts as necessary. Replace any deformed or damaged contacts.
HVPS is defective.	Replace the HVPS.

5) Blank Page

- Description : Blank page is printed.



Cause and Check Point	Solution
Bad contacts from OPC drum and/or toner cartridge to ground.	Check the terminal of Ground-OPC.
Not working the LSU.	Check the connector of LSU.
Not working the developing bias voltage on HVPS.	Replace the HVPS.

6) Uneven Density

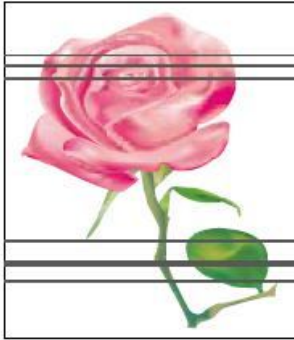
- Description : Print Density is uneven between left and right.



Cause and Check Point	Solution
The life of the Toner Cartridge has expired.	Replace the toner cartridge.
The pressure force in the left and right springs of the ITB unit is not even.	Replace the ITB Unit

7) Horizontal Bands

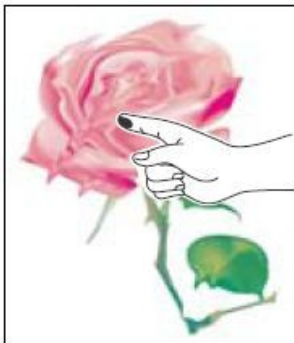
- Description : Dark or white horizontal stripes appear in the page. (These may occur at regular intervals down the page.)



Cause and Check Point	Solution
The developing roller, OPC drum or other rollers in the toner cartridge may be contaminated or deformed.	Replace the imaging unit.
Bad contacts of HV terminals of the toner cartridge with high voltage terminals from printer set.	Clean all HV terminals in the cartridge and on the set frame. Ensure all toner or paper dust, particles are removed.

8) Poor Fusing

- Description : Toner is not properly fixed on paper.



Cause and Check Point	Solution
The media doesn't meet specification	Use the proper media in specifications.
Fuser is defective	Replace the fuser unit.