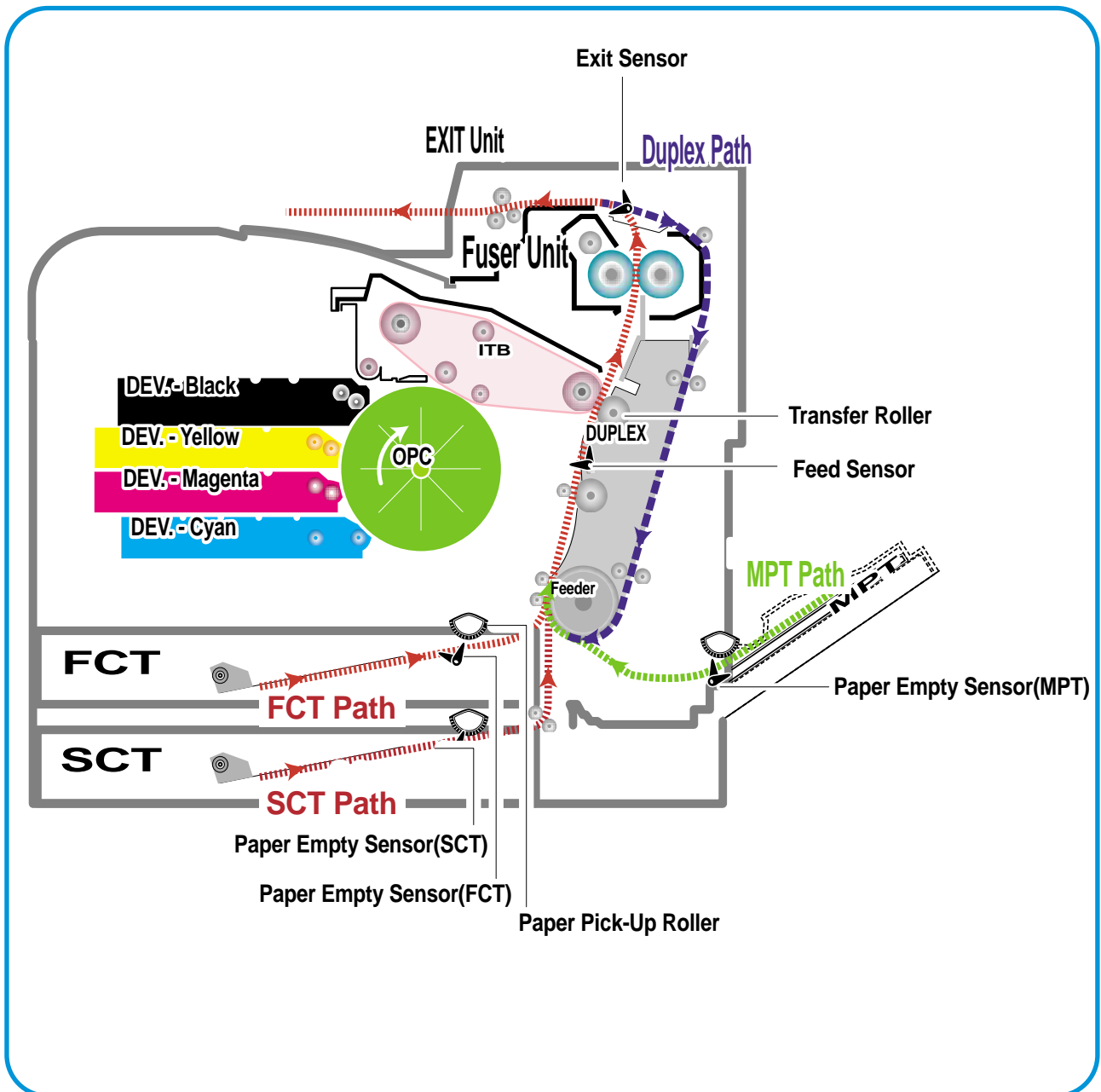# 7. Alignment and Adjustments

This chapter describes some of the main service procedures including:
Using the EDC mode; Clearing paper jam and test patterns.
Much of this chapter is also included in the user's guide.

## 7.1. Paper path and Paper jam

7.1.1 Paper path

7.1.2 Jams

1) Jam0 (Jam in feed area)

* After a page was picked up, it was not fed.
* Paper does not reach the feed sensor in a certain time.
* Feed sensor is faulty and does not detect paper.
  - FCF pickup error: When a paper is not picked up in the 1st cassette.
 - SCF pickup error: When a paper is not picked up in the 2nd cassette.

Feed Sensor

Paper Empty Sensor
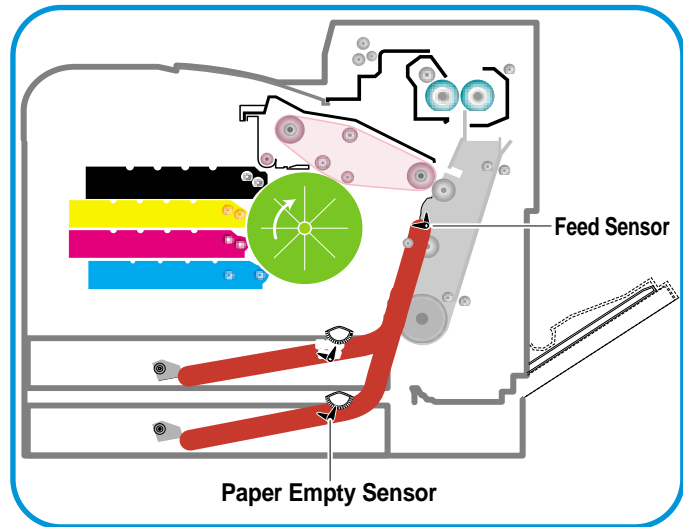
2) Jam1 (Jam inside printer)

* After the leading edge of the paper has reached the feed sensor, the feed sensor doesn't turn off (fails to detect the trailing edge of the paper) in a certain time
* After the leading edge of the paper has passed the feed sensor, it doesn't reach the exit sensor in a certain time.
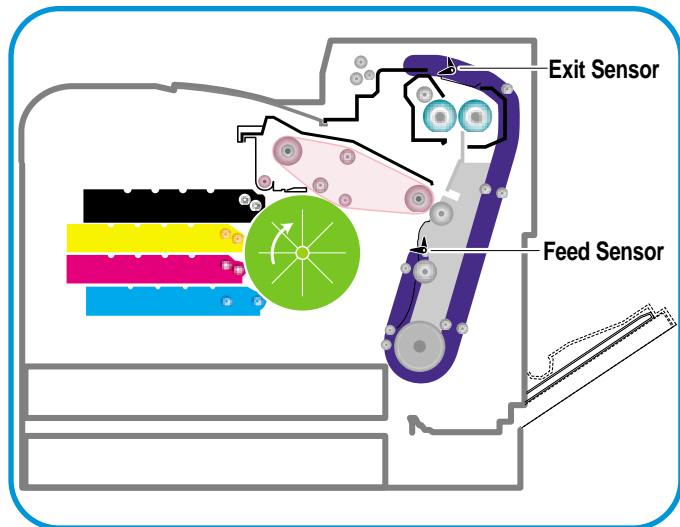* Exit senor is faulty and does not detect paper.

Exit Sensor

Feed Sensor
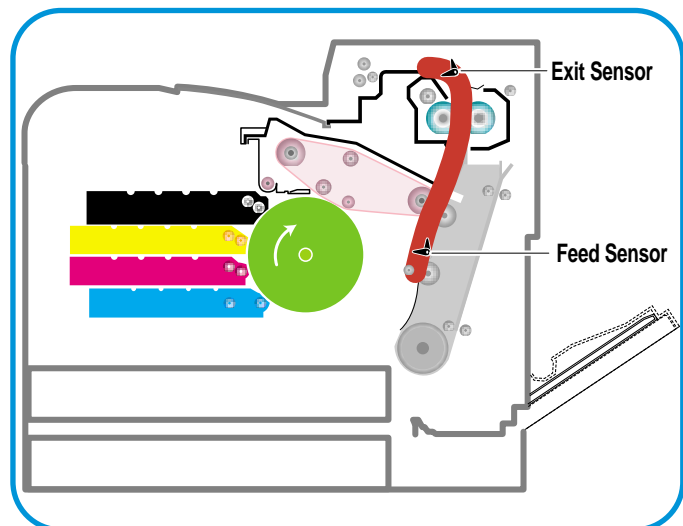
3) Jam2 (Jam in exit area)

* After the leading edge of the paper has passed, the trailing edge of the paper has not passed the exit sensor within a certain time
* The paper drive motor has been driving for longer than the time needed for the longest paper size and the exit sensor is not off.


Exit Sensor
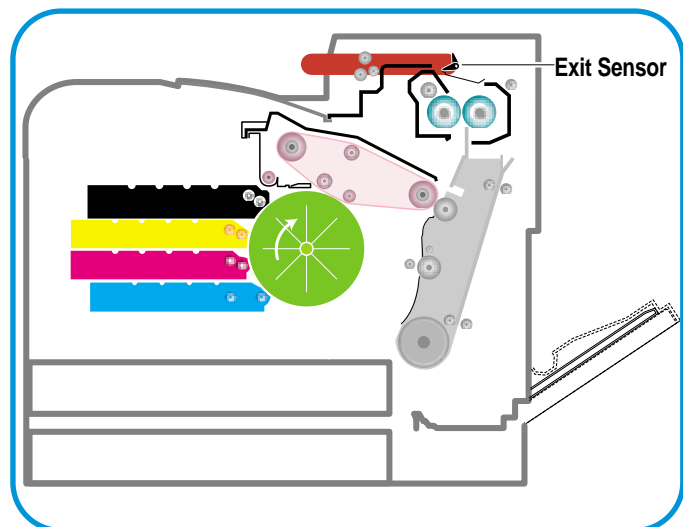
4) Jam duplex (Jam in duplex area)

* Jam duplex occurs when printing the reverse side of the paper during duplex printing. After printing the front side the duplex solenoid must operate in order to feed the paper back into the duplex path. If the solenoid fails paper may be stuck in the exit roller and is not fully ejected into the exit tray.

* If the duplex solenoid operates paper is fed back into the machine. If the leading edge of the paper does not reach the feed sensor in a certain time then Jam Duplex occurs.
  - This can be cause by paper being jammed in the duplex path area.

Exit Sensor

Feed Sensor

5) Jam MPF

* Paper could not be picked up from the MPF tray.
* After pickup, a paper has been fed, but it doesn't reach the feed sensor in a certain time.
* Feed sensor is faulty and does not detect paper.

Feed Sensor

MP Empty Sensor
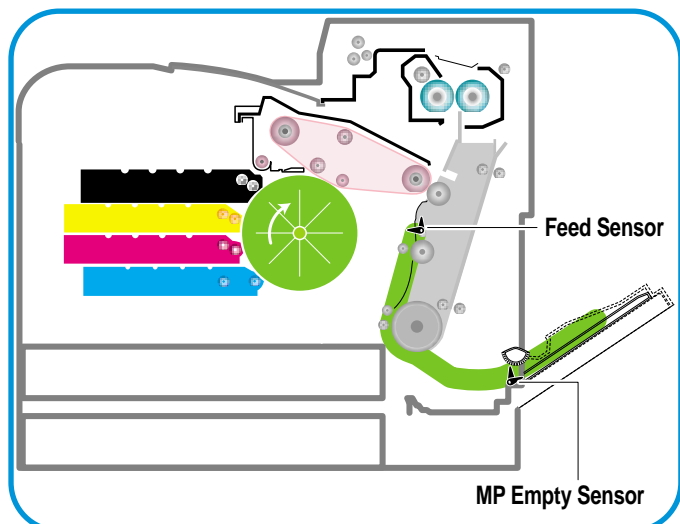
7.2 Jam Removal

When a jam occurs while printing a jam message is displayed on the control panel.

* **Jam0 In Tray 1:**
>   Paper jam in the main cassette.
* **Jam0 In MP Tray:**
>   Paper jam in the MP tray
* **Jam0 Tray2:**
>   Paper jam in the SCT (Second cassette tray)
* **Jam Inside Printer:**
>   Jam 1, Paper is jammed inside the printer.
* **Jam In Exit Area:**
>   Jam2, Paper is jammed in the exit area when ejecting paper.
* **Jam In Duplex Path:**
>   While duplex printing, paper is jammed in the duplex unit.

CAUTION: When removing jammed paper, always pull it firmly and evenly without any sudden jerks. If at all possible, remove the paper as a single sheet. If the paper tears ensures ALL paper fragments are removed. Any fragments left inside the machine will cause it to jam again.

7.2.1 Factors that cause paper to jam

- Too much paper is loaded in the cassette.
- Paper in not loaded correctly in the cassette.
- Duplex cover opened while printing.
- Cassette removed while printing.
- Incorrect thickness of paper used.
- Incorrect size of paper used.
- Cassette paper guides not correctly set (loose or too tight).
- Foreign object or other contamination of internal paper path and paper guide ribs.
- Badly damaged or folded leading or trailing edges of the paper.

## 7.2.2 Tips for Avoiding Paper Jams

By selecting the correct paper types, most paper jams can be avoided. If a paper jam occurs, follow the steps outlined below:

- Ensure that the adjustable guides are positioned correctly.
- Do not overload the tray. Ensure that the paper is below the paper capacity mark on the right inside the tray.
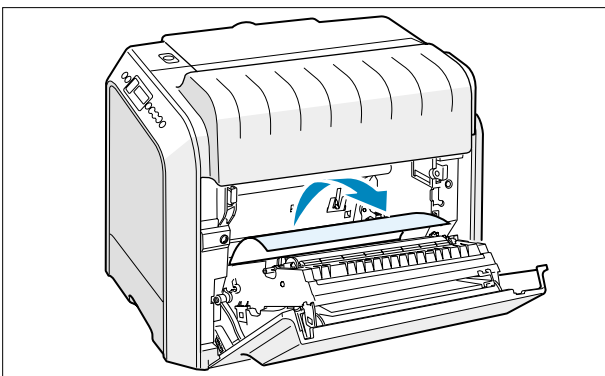
7.2.3 Jam 0 In Tray 1

If paper is jammed in the paper feed area,'Jam0 In Tray1 ' appears on the display.

1. Using the handle open the right cover.
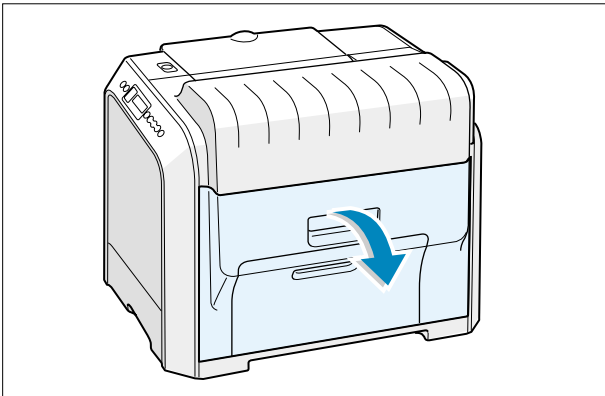
2. Carefully remove the misfed paper in the direction as shown.

3. Close the right cover .The printer resumes printing.

> If there is any resistance, and the paper does not move immediately when you pull, stop pulling and go to step 4.

4. Pull the tray open. After you pull it all the way out lift up the front part of the tray slightly to release the tray from the machine.
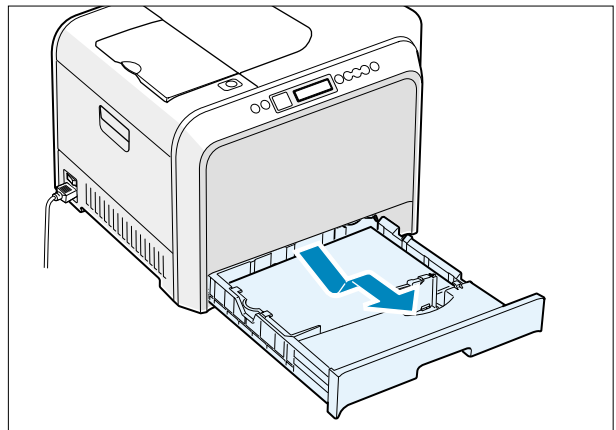
5. Remove the jammed paper by gently pulling it straight out.
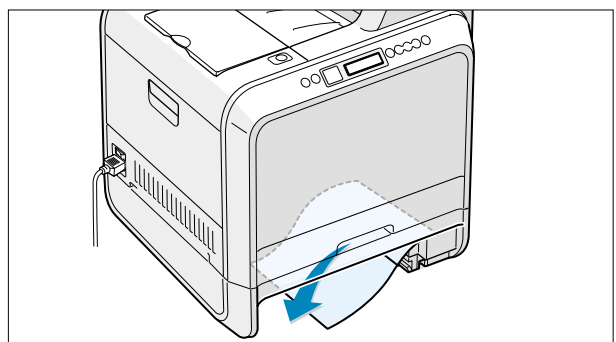
6. To replace the tray lower the rear edge, align it to the slot and slide it into the printer.

7. Close the right cover .The printer resumes printing.

7.2.4 Jam 0 in MP Tray 1

'Jam0 In MP Tray' appears on the display when you are printing using the Multi-purpose Tray and the printer detects either there is no paper or the paper is improperly loaded.

1. If the paper is not feeding properly pull the paper out of the machine..

2. To resume printing, open and close the right cover.
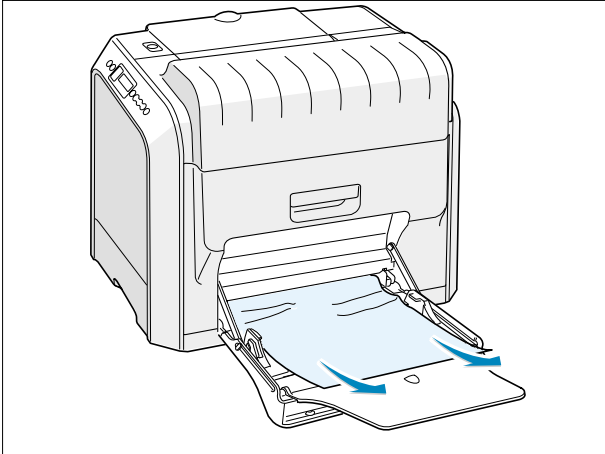
7.2.5 Jam Inside Printer : Jam1

'If paper is jammed inside the printer 'Jam Inside Printer' appears on the display.

1. Using the handle open the right cover.

2. Remove the jammed paper in the direction shown. To avoid the paper tearing pull it out gently and slowly.
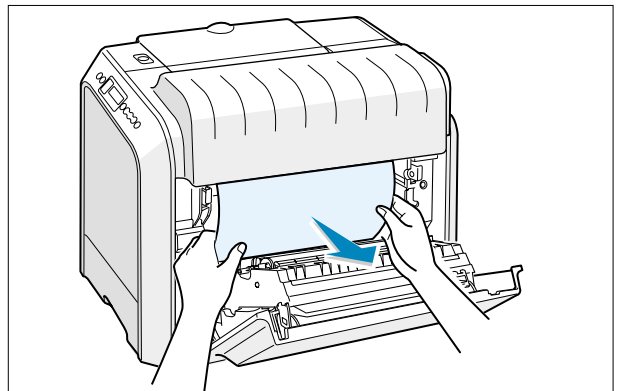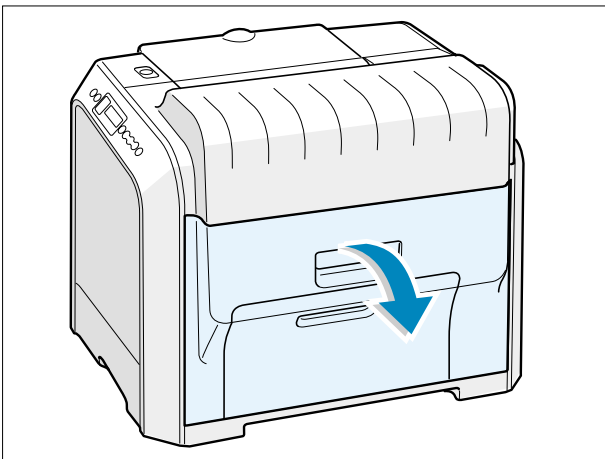
NOTE : If the paper tears make sure that all of the paper fragments are removed from the printer.

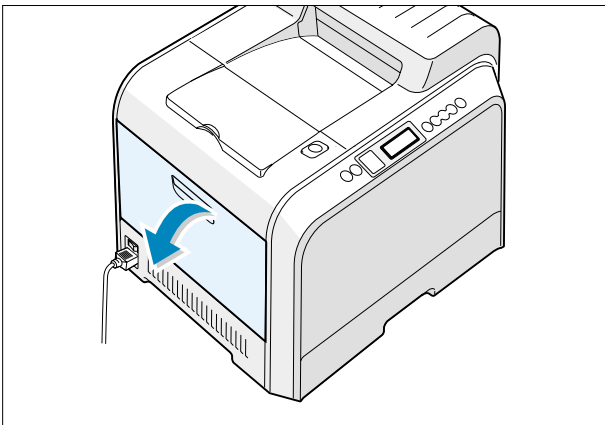3. Close the right cover. The printer resumes printing.

7.2.6 Jam In Exit Area : Jam2

If paper is jammed in the paper exit area 'Jam In Exit Area ' appears on the display.

1. If a long portion of the paper is visible pull it straight out. If not continue to step 2.
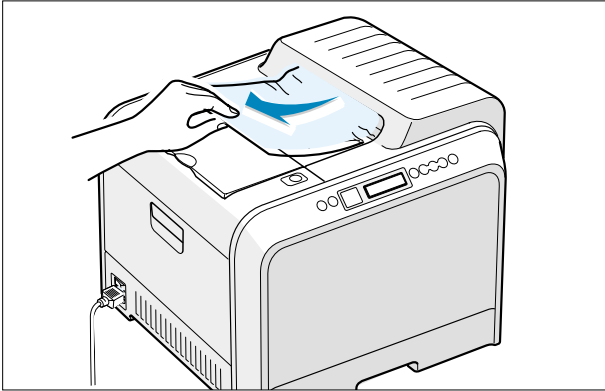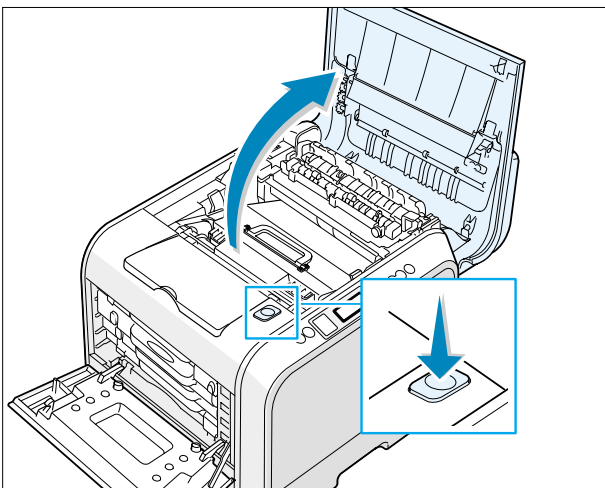

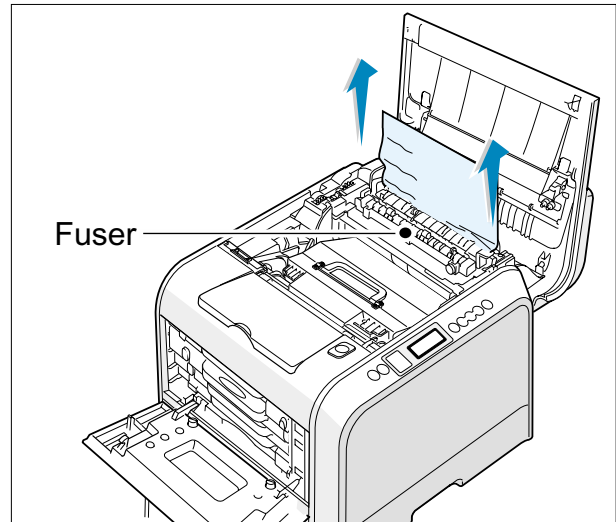2. Using the handle open the left cover completely.

CAUTION : If the left cover is not completely open the top cover release button will not press.

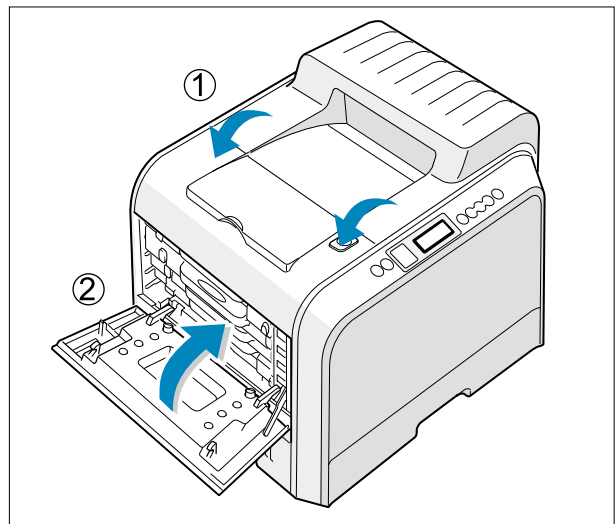3. Press the top cover release button to unlatch the top cover and open it all the way.

4. Carefully take the jammed paper out of the printer.

Fuser

CAUTION : Do not touch the fuser it is hot and could cause burns! The fuser's operating temperature is 180 °C (356 °F). Take care when removing paper from the machine.
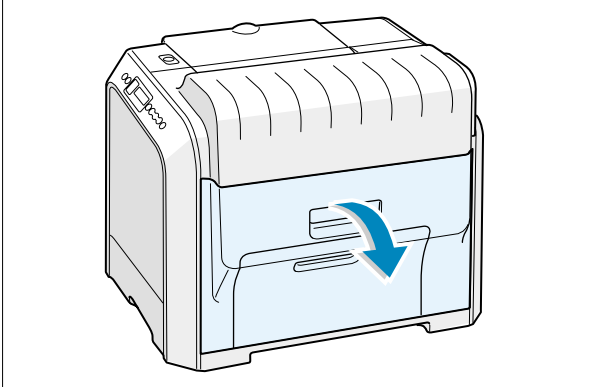
5. Close the top cover and the left cover firmly

CAUTION : Do not try to close the top cover with the left cover closed. This may cause damage to the machine.

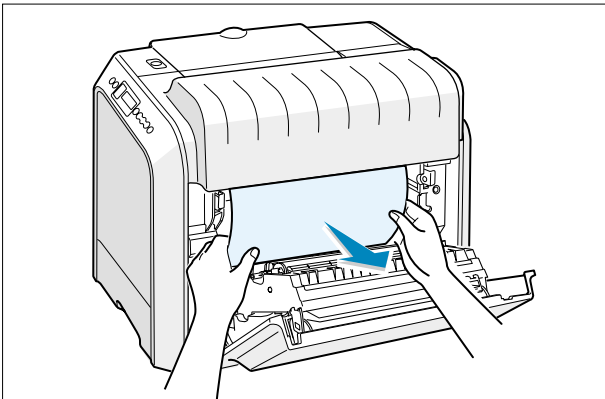6. Open and close the right cover to resume printing.

7.2.7 Jam In Duplex Path : Jam Duplex

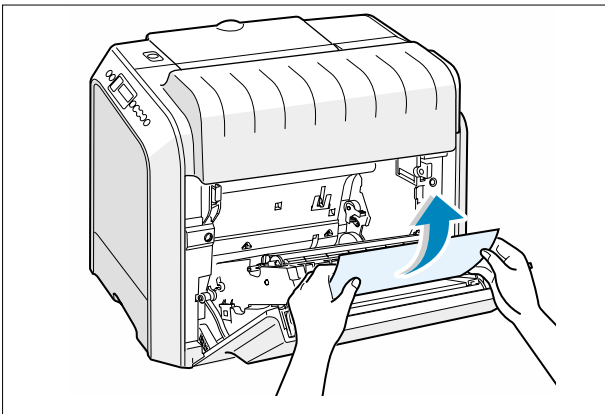If paper is jammed in the duplex area 'Jam In Duplex Path' appears on the display.

1. Using the handle open the right cover.

2. Locate the jammed paper and then pull it out gently and slowly to avoid the paper tearing. Close the right cover. The printer resumes printing.
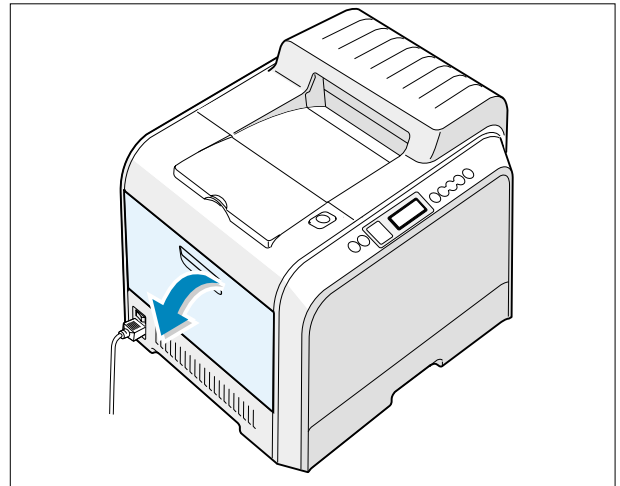

or

*Note : If the paper tears make sure that all of the paper fragments are removed from the printer.*

3. If you cannot find the jammed paper or there is any resistance removing the paper go to step 4.
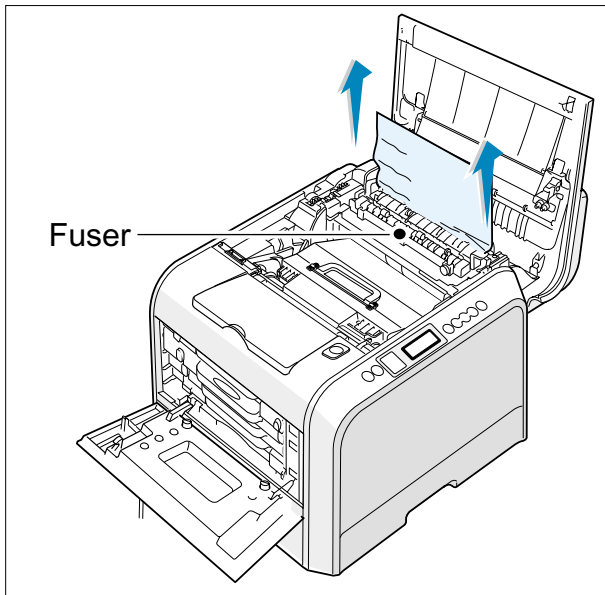
4. Using the handle open the left cover completely.

CAUTION : If the left cover is not completely open the top cover release button will not press.

5. Press the top cover release button to unlatch the top cover and open it all the way.
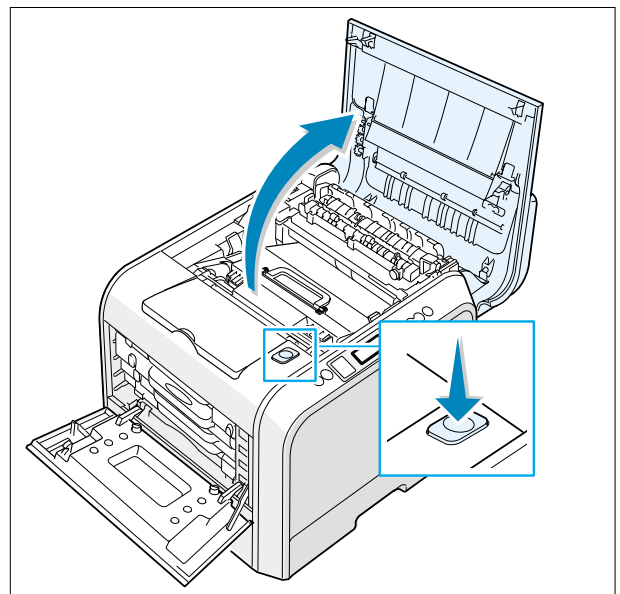
6. Locate the jammed paper and then carefully take it out of the printer.

Fuser

CAUTION : Do not touch the fuser it is hot and could cause burns! The fuser's operating temperature is 180 °C (356 °F). Take care when removing paper from the machine.
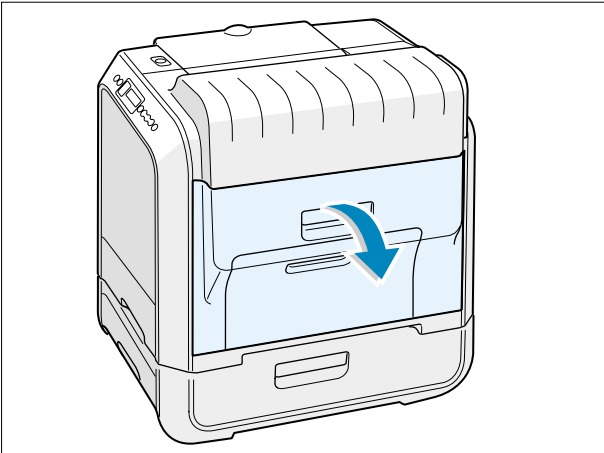
7. Close the top cover and the left cover firmly
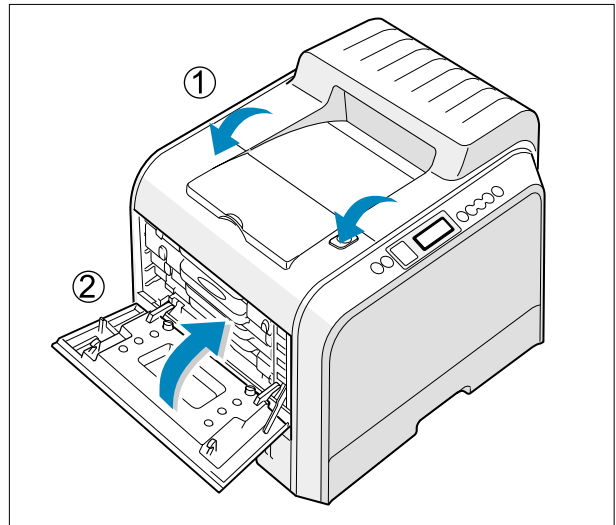
CAUTION : Do not try to close the top cover with the left cover closed. This may cause damage to the machine.

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7.2.8 Jam In the Optional Second Tray

1. Using the handle open the right cover.

2. Remove the jammed paper in the direction shown. To avoid the paper tearing pull it out gently and slowly.
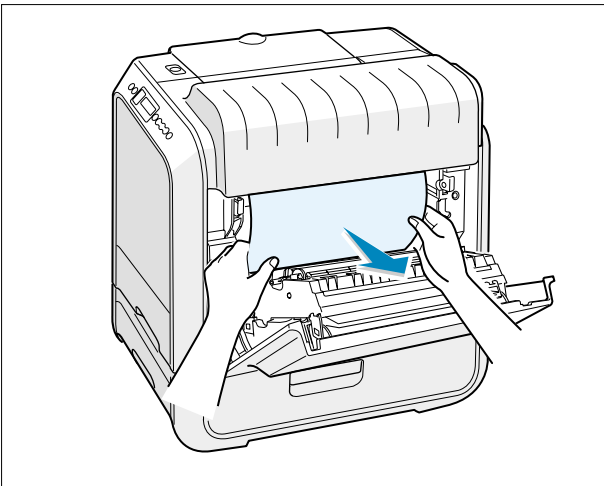
3. Close the right cover. The printer resumes printing.

4. If you cannot find the jammed paper in the machine open the Tray2 outer jam cover.
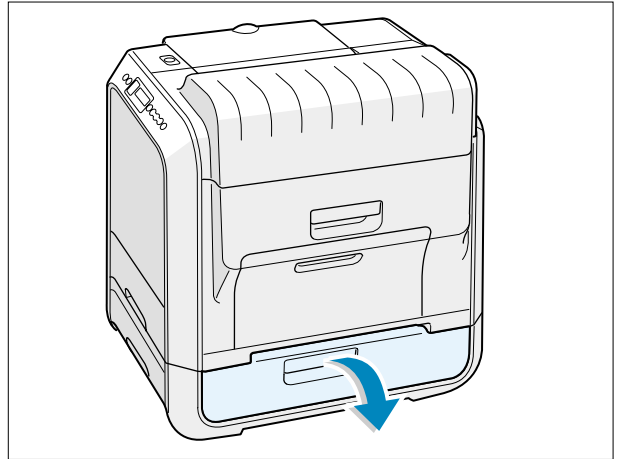
5. Open the inner cover of Tray 2.
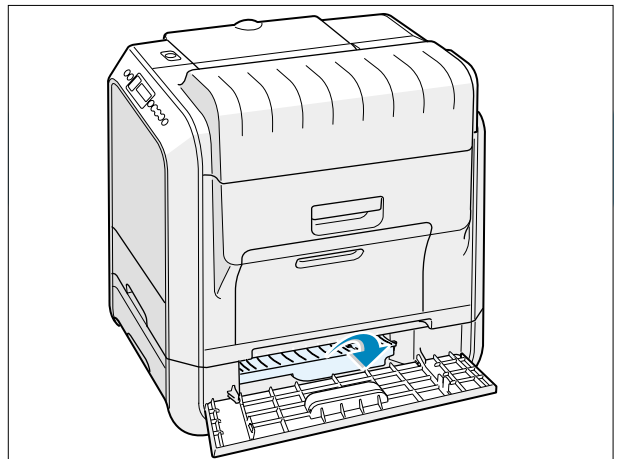
6. Pull the jammed paper out in the direction shown. To avoid the paper tearing pull it out gently and slowly. If there is any resistance, and paper does not move immediately when you pull, stop pulling and continue to step 8.
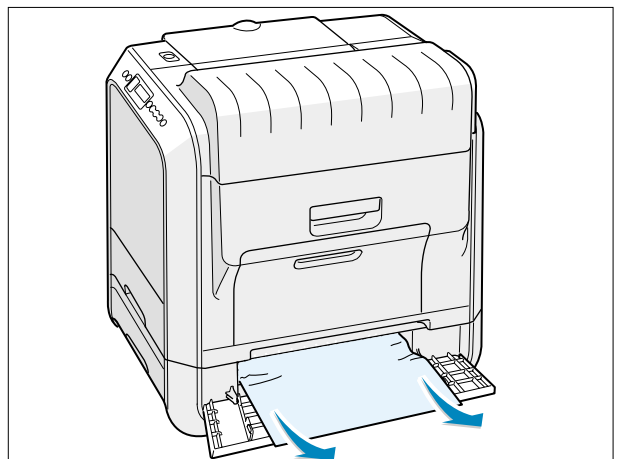
7. Close the two jam covers. Go to step 11.
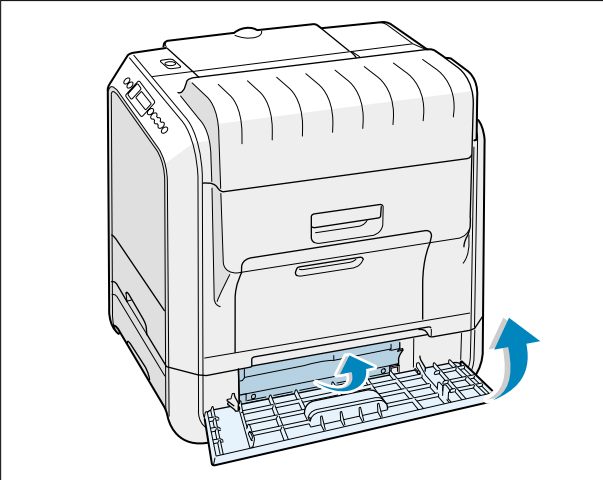
8.Pull the optional tray, Tray 2, out of the printer.
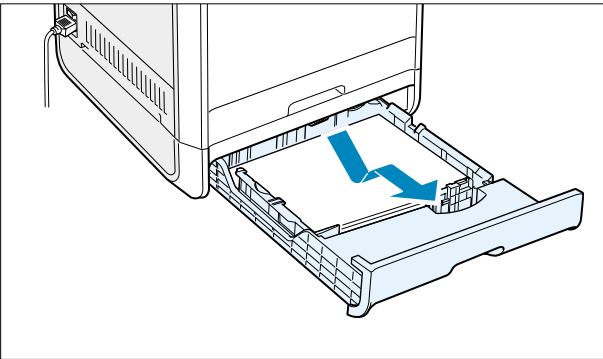
9. If you see the jammed paper remove the paper from the machine by gently pulling it straight out.

10. Slide the tray back into the printer and close the two jam covers.

11. Open and close the right cover. The printer resumes printing.

7.3 Sample Pattern

This product provides several printable test patterns for maintenance purposes. These patterns can be used to aid the diagnosis of print quality problems.

7.3.1 Printing a Demo Page

Print a demo page to make sure that the printer is operating correctly.

1. Press the **Menu** button (⊞) on the control panel until you see "Information " on the bottom line of the display..

2. Press the **Enter** button (✳) to access the Menu.

3. Press the scroll button (◁ or ▷) until you see "Demo Page " on the bottom line.

4. Press the **Enter** button (✳) .

A demo page showing the printer 's features and capabilities prints out.

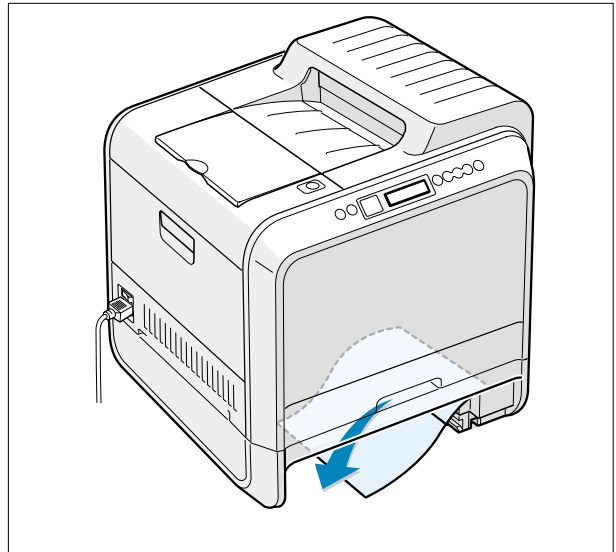### 7.3.2 Printing a Configuration Page

Print a demo page to make sure that the printer is operating correctly.

1. Press the **Menu** button (⊞) on the control panel until you see "Information " on the bottom line of the display..

2. Press the **Enter** button (✳) to access the Menu.

3. Press the scroll button (◁ or ▷) until you see "Configuration " on the bottom line.

4. Press the **Enter** button (✳) .

A demo page showing the printer 's features and capabilities prints out.

7.4 Checking the Remaining Toner and Others

7.4.1 Checking the Remaining Toner

You can check the level of toner left in each cartridge.

1. In ready mode press the Menu button   (⊞) on the control panel several times until you see 'Setup 'on the bottom line of the display.

2 Press the Enter button (✳)   to access the menu.

3 Press the scroll button   (◀or▶)   until 'Maintenance ' displays on the bottom line.

4 Press the Enter button (✳)

5 When 'Check Toner ' displays on the bottom line,,press the Enter button （✳） .

6 Press the scroll button (◀or▶) until the color of the toner cartridge you want to check displays on the bottom line.

7 Press the Enter button (✳)   The display shows the percentage of the remaining toner.

8. Press the Upper Level button to return to step 6 and select a different cartridge.

9. To return to the Ready condition press the Upper Level button several times until 'Ready' appears in the display

7.4.2 Checking the Remaining Others

You can check the level of each item.

1. In ready mode press the Menu button   (⊞) on the control panel everal times until you see 'Setup 'on the bottom line of the display.

2 Press the Enter button (✳)   to access the menu.

3 Press the scroll button   (◀or▶)   until 'Maintenance ' displays on the bottom line.

4 Press the Enter button (✳)

5 When 'Check Others ' displays on the bottom line,,press the Enter button （✳）   .

6 Press the scroll button (◀or▶) until the item you want to check displays on the bottom line.

7 Press the Enter button (✳)

8. Press the scroll button to display either 'Image Count' or 'Reset'

9a. Choose 'Reset' and press enter to reset the counter after replacing a consumable item

or

9b Choose Image count to display the counter.

10. Press the Upper Level button to return to step 7 and select a different choice or press it a second time to return to step 6 and choose a different item.

11. To return to the Ready condition press the Upper Level button several times until 'Ready' appears in the display.

7.4 Understanding the Control Panel
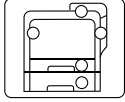
The control panel on the top right side of your printer has a display and seven buttons.

7.4.1 Display

Status Map

Display : dispaly the printer
status and job in progress.
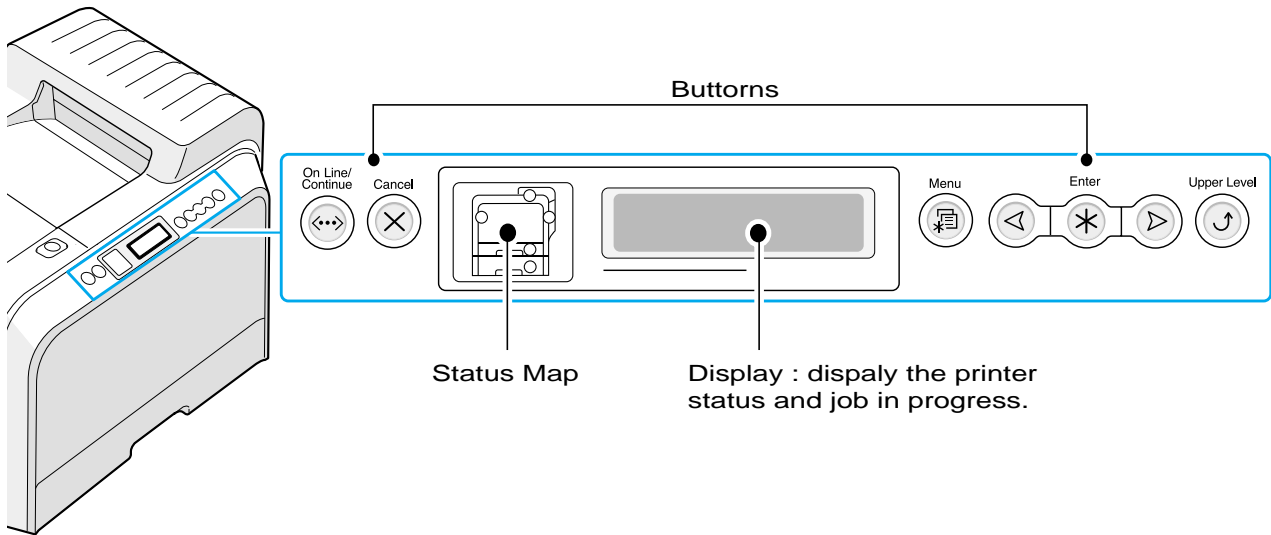
Message	Description
Ready	•The printer is on-line and ready to print. •If you press On Line/Continue ,the printer switches to off-line.
Offline	•The printer is off-line and cannot print. •If you press On Line/Continue ,the printer switches to on-line.
Processing...	•The printer is printing. •If you want to cancel printing,press Cancel .
Sleeping...	•The printer is in Power Save mode, using less power.When a print job is received from the computer or if any button is pressed,the printer switches to on-line. •To deactivate the Power Save mode or change the power-saving time.

7.4.2 Buttons

Message	Description
 Status map	When an error occurs,a lamp turns on at the corresponding location on the Status map.An error message appears on the display so that you can locate the error.

On Line/ Continue	•Press to switch between on-line and off-line. •In menu mode,press to return to ready mode. The color of the On Line/Continue button indicates the status of the printer.		
	Green	On	The printer is on-line and can receive data from the computer.
		Blanking	• When the backlight blinks slowly,the printer is receiving data from the computer. • When the backlight blinks quickly,the printer is receiving and print-ing data.
	Orange	On	The printer stops printing due to a major error.Check the display message.
		Blanking	A minor error has occured and the printer is waiting for the error to be cleared.Check the display message.When the problem is cleared,the printer resumes printing.If you want to ignore this warn-ing,press this button.
	Off		•The printer is off-line and cannot print. •The printer is in Power Save mode. When data is received,it switches to on-line.

Message	Description
Menu	• Press to enter menu mode. • In menu mode,press to scroll through the menus.
Enter	In menu mode,press to select the displayed submenu item or confirm the changed setting.The selected item is marked with an *.
◁ ▷	In menu mode,press to scroll through submenu items or setting options.Pressing • moves you to the next option and pressing • sends you back to the previous option.
Cancel	• Press to cancel the current print job. • In menu mode,press to return to ready mode.
Upper Level	In menu mode,press to go back to the upper menu level.

7.4.3 Using Control Panel Menus

A number of menus are available to make it easy for you to change the printer settings.

You can configure your printer from the printer's control panel.You can also use the control panel menus while the printer is in use.

1. In ready mode press the Menu button （(🖳)）until you see the menu you want on the bottom line of the display.

2. Press the Enter button （(✳)） to access the menu.

3. Press the scroll button （(◀)or(▶)）until the menu item you want displays on the bottom line.

4. Press the Enter button （(✳)） to confirm the selected item.

5. If the menu item has submenus, repeat steps 3 and 4.

6. Press the scroll button（(◀)or(▶)）until the setting option you want displays on the bottom line or enter the required value.

7. Press the Enter button （(✳)） to save your input or selection.

     - An asterisk (*) appears next to the selection on the display, indicating that it is now the default.

8. To exit the menu, press the Upper Level button （(✕)） repeatedly, or the Cancel button （(↻)） .

     - After 60 seconds of inactivity (no key has been pressed), the printer automatically returns to ready mode.

NOTE: *Print settings made from the printer driver override the settings on the control panel.*

Information	Layout	Printer
Configuration Menu Map Demo Page	Duplex Duplex Margin	Default Set Current Job

Setup		Color
LCD Language Power Save Auto Continue	Jam Recovery Altitude Adj. Maintenance	Calibration Custom Color

NETWORK*	
Config Network Config TCP IP Get Method IP Address Subnet Mask Gateway Config 802.11b	Netware Config Netware IPX Frame Type Reset Network Default Set Print Net CFG

* This menu only appears when a Network Card is fitted (CLP500N or CLP500 with optional Network card).

7.5 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.

No	Roller	Defective image	Typical defect
1	OPC Drum	same position in each page	white spot on black image or black spot
2	Charge Roller	43.96 mm	black spot
3	Supply Roller	26.02 mm	light or dark horizontal image band
4	Developing Roller	29.28 mm	horizontal image band
5	ITB(T1)	same position in each page	black spot
6	Transfer Roller(T2)	75.36 mm	ghost
7	Heat Roller	109.9 mm	Black spot and ghost, printing backside pollution

7.6 How to use EDC (Engine Diagnostic Control) Mode

7.6.1 EDC Establishment

EDC Mode is feature that allows the engineer to check the condition of the print engine. It can check the operating condition of the motors, sensors, solenoids and clutches, measure the High Voltage from the HVPS and check the operation of the fuser and LSU.

7.6.1.1 How to enter the EDC Mode

a) Turn on the printer while pressing the "Enter" key. Hold the key until 'Select Test mode' appears in the display.

b) Press the direction key until "<EDC Test>" is displayed.

c) Press the "Enter" key.

d) <Enter Access Key> appears in the display. Press the ìCancelî key twice.

Note. There are a number of other test modes. Only EDC Test and Panel Tests should be used by service engineers, all other functions are for factory use only.

7.6.1.2 Functions of the keys on the Panel and how to use them.

Key	Function	Description
On Line		Not used
Cancel		Not used
Menu	Menu	Display Top Menu of EDC Mode
Left/Right Arrow	Find Menu	Move Menu
Enter	Run/Select	Rrun the Function / Select Menu
Upper Menu	Stop/Move	Stop the selected Function or go to Upper Menu.

7.6.1.3 LCD Function and Directions

Upper Line : Upper Line messages mainly show the current test menu or sub-menu.
        [Main Menu] or [Function] is displayed.
Lower Line : Lower Line messages mainly the current test and status.

Status Map

Display : dispaly the printer status and job in progress.

7.6.2 EDC Whole Menu

Motor Test

Main Motor
Dev Motor
Waste Motor
SCF Motor
Fan Motor

Solenoid Test

Y Clutch
M Clutch
C Clutch
K Clutch
Y Solenoid
M Solenoid
C Solenoid
K Solenoid
Feed Clutch
T2 Solenoid
FCF Solenoid
MPF Solenoid
SCF Solenoid
ITB Solenoid
Duplex Solenoid

Sensor Test

Feed Sensor
Exit Sensor
FCF Empty Sensor
MPF Empty Sensor
SCF Empty Sensor
SCF Cover Sensor
Waste Box Sensor
Cover Check

LSU & Fuser Test

LSU Motor
Laser Diode
Fuser

HVPS Test

Charger
T1
T2
Dev DC
Dev AC

Test Print

Select Tray
Select Pattern
Print Pattern
Print Menu Map

Interface Test

SCF Interface

7.6.2.1 Motor Test

This function allows the operation of the various motors to be checked.

<How to operate>

a) Press the "<" or ">" key until "Motor Test" is displayed.

b) Press the "Enter" key to select this function.

c) Press the "<" or ">" key until you see the name of the motor you wish to test.

d) Press the "Enter" key to run the test. The test is stopped by pressing the "Upper Level" key.

e) Pressing the "Upper Level" key when the test is already stopped will return to step 'c' above.

f) Pressing the "Upper Level" key again will return to the EDC main menu.

Item	Description	Remarks
Main Motor	Operates Main Motor	Displays "Succeed" if Motor Lock Signal is Normal, "Failed" otherwise.
Dev Motor	Operates Dev Motor	Displays "Succeed" if Motor Lock Signal is Normal, "Failed" otherwise.
Waste Motor	Operates Waste Motor	Display motor status - "On" or "Off".
SCF Motor	Operates SCF Motor	Display motor status - "On" or "Off".
Fan Motor	Operates Fan Motor	Display motor status - "On" or "Off".

7.6.2.2 Solenoid Test

This function allows the operation of various solenoids and clutches to be checked.

<How to operate>

a) Press the "<" or ">" key until "Solenoid Test" is displayed.

b) Press the "Enter" key to select this function.

c) Press the "<" or ">" key until you see the name of the clutch or solenoid you wish to test.

d) Press the "Enter" key to run the test. The test is stopped by pressing the "Upper Level" key.

e) Pressing the "Upper Level" key when the test is already stopped will return to step 'c' above.

f) Pressing the "Upper Level" key again will return to the EDC main menu.

Item	Description	Remarks
Y Clutch	Operates Yellow Developer Clutch	Displays clutch status - "On" or "Off".
M Clutch	Operates Magenta Developer Clutch	Displays clutch status - "On" or "Off".
C Clutch	Operates Developer Clutch	Displays clutch status - "On" or "Off".
K Clutch	Operates Black Developer Clutch	Displays clutch status - "On" or "Off".
Y Solenoid	Operates Yellow Developer Solenoid	Displays solenoid status - "On" or "Off".
M Solenoid	Operates Magenta Developer Solenoid	Displays solenoid status - "On" or "Off".
C Solenoid	Operates Cyan Developer Solenoid	Displays solenoid status - "On" or "Off".
K Solenoid	Operates Black Developer Solenoid	Displays solenoid status - "On" or "Off".
Feed Clutch	Operates Feed Clutch	Displays clutch status - "On" or "Off".
T2 Solenoid	Operates T2 Clutch	Displays solenoid status - "On" or "Off".
FCF Solenoid	Operates FCF pick-up	Displays solenoid status - "On" or "Off".
MPF Solenoid	Operates MPF pick-up	Displays solenoid status - "On" or "Off".
SCF Solenoid	Operates SCF pick-up (Only if SCF is fitted)	Displays solenoid status - "On" or "Off".
ITB Solenoid	Operates ITB cleaning clutch	Displays solenoid status - "On" or "Off".
Duplex Solenoid	OperateS Duplex Solenoid	Displays solenoid status - "On" or "Off".

7.6.2.3 Sensor Test

This function allows the operation of various sensors to be checked

<How to operate>

a) Press the "<" or ">" key until "Sensor Test" is displayed.

b) Press the "Enter" key to select this function.

c) Press the "<" or ">" key until you see the name of the sensor you wish to test.

d) Press the "Enter" key to display the sensor status. If the sensor actuator is moved the displayed status will change to reflect the new sensor position..

e) Pressing the "Upper Level" key will return to step 'c' above.

f) Pressing the "Upper Level" key again will return to the EDC main menu.

Item	Description	LCD indication
Feed	Feed Sensor Status	"With Paper" is displayed when Paper is detected, "Without paper" is displayed when paper is not detected.
Exit	Exit Sensor Status	"With Paper" is displayed when Paper is detected, "Without paper" is displayed when paper is not detected.
FCF Empty	FCF Empty Sensor status	"With Paper" is displayed when Paper is detected, "Without paper" is displayed when paper is not detected.
MPF Empty	MPF Empty Sensor Status	"With Paper" is displayed when Paper is detected, "Without paper" is displayed when paper is not detected.
SCF Empty	SCF Empty Sensor Status	"With Paper" is displayed when Paper is detected, "Without paper" is displayed when paper is not detected.
SCF Cover	SCF Cover Sensor Status	"Cover Opened" or "Cover Closed" is displayed.
Waste Box	Waste Toner Sensor Status	"Not Installed" is displayed when either the Waste toner tank is not installed or it is full. "Installed" is displayed when the Waste Toner tank is installed and is not full.
Cover	Left or Right Cover Sensor Status	"Cover Opened" or "Cover Closed" is displayed.

7.6.2.4 LSU & Fuser Test

This function allows the Fuser, LSU Motor and Laser Diode to be tested.

<How to operate>

a) Press the "<" or ">" key until "LSU & Fuser Test" is displayed.

b) Press the "Enter" key to select this function.

c) Press the "<" or ">" key until you see the name of part you wish to test.

d) Press the "Enter" key to run the test. The test is stopped by pressing the "Upper Level" key.

e) Pressing the "Upper Level" key when the test is already stopped will return to step 'c' above.

f) Pressing the "Upper Level" key again will return to the EDC main menu.

Item	Description	Remarks
LSU Motor	Operates LSU Motor	The LSU motor must come into lock within 6 seconds. After 7 secs the status is displayed either: "Succeed" if lock is successful within the time limit "Failed" if lock is not achieved
LD	Operates Laser Diode	
Fuser	Heats the Fuser	Repetitive cycle (10secs) - Lamp on for 500msec then off again.

• The LSU Motor Lock Time is a maximum 15 seconds depending on the environment. It may take over 15 seconds until the <Succeed> or <Failed> message is displayed.

• For safety - after printing a test pattern if you need to return to EDC mode turn the printer off and then re-enter EDC.

7.6.2.5 Interface Test

This function tests communications between the Main PBA controller and the SCF controller.

<How to operate>

a) Press the "<" or ">" key until "Interface Test" is displayed.

b) Press the "Enter" key to select and run this function.

c) "Succeed" or "Failed" is displayed..

d) Pressing the "Upper Level" key again will return to the EDC main menu.

7.6.2.6 Test Print

This function allows you to test the overall function of the print engine. You can select either a 4 * 4 color bar pattern or a solid color pattern. If the solid pattern is selected 4 pages are printed - one for each color. You can also print the EDC Mode Menu Map.

<How to operate>
a) Press the "<" or ">" key until "Test Print" is displayed.

b) Press the "Enter" key to select this function.

c) Press the "<" or ">" key until "Select Tray" is displayed.

d) Press the "Enter" key to select this function.

e) Press the "<" or ">" key until required tray is displayed and then press the "Enter Key"

f) Press the "Upper Level" key.

g) Press the "<" or ">" key until "Select Pattern" is displayed.

h Press the "Enter" key to select this function.

i) Press the "<" or ">" key until required pattern is displayed and then press the "Enter Key"

j) Press the "Upper Level" key.

k) Press the "<" or ">" key until "Print Pattern" is displayed.

l) Press the "Enter" key to print the pattern.

For safety - after printing a test pattern if you need to return to EDC mode turn the printer off and then re-enter EDC Mode by turning power on whilst holding in the "Enter" key.

7.6.2.7 HVPS Test

This function allows the HVPS to be tested

<How to operate>
a) Press the "<" or ">" key until "HVPS Test" is displayed.
b) Press the "Enter" key to select this function.
c) Press the "<" or ">" key until you see the name of the voltage you wish to test.
d) Press the "Enter" key to select the test.
e) Press the "<" or ">" key to select the appropriate Duty Cycle and press "Enter" to start the test
    The test is stopped by pressing the "Upper Level" key.
    The display shows the acceptable range for this setting (column 4 in the table below)
    The mid range (nominal) voltage is shown in column 3 in the table below.
e) Pressing the "Upper Level" key when the test is already stopped will return to step 'c' above.
f) Pressing the "Upper Level" key again will return to the EDC main menu.

Item	Description	Lower Menu & Input Voltage	LCD Indication
Charger	Supply Voltage to the Charger	Duty 50% : -1262V Duty 80% : -2037V	Duty 50% : -1224V ~ -1300V Duty 80% : -1976V ~ -2098V
T1	Supply Voltage to T1	Duty 50% : 1174V Duty 90% : 2080V	Duty 50% : 1139V ~ 1209V Duty 90% : 2018V ~ 2142V
T2	Supply Voltage to T2	Duty 30% : 1800V Duty 80% : 4540V Reverse Bias : -900V	Duty 30% : 1746V ~ 1854V Duty 80% : 4404V ~ 4676 Reverse Bias : -800V ~1200V
Dev DC	Supply DC Voltage to Dev	Duty 45% : -370V	Duty 45% : -359V ~ -381V
Dev AC	Supply AC Voltage to Dev	Duty 35% : -2200V	Duty 35% : -2134V ~ -2266V

* The allowed tolerance is commonly +/- 3%, this is the value isplayed, in case of "Dev AC", it is the value of Vpp.