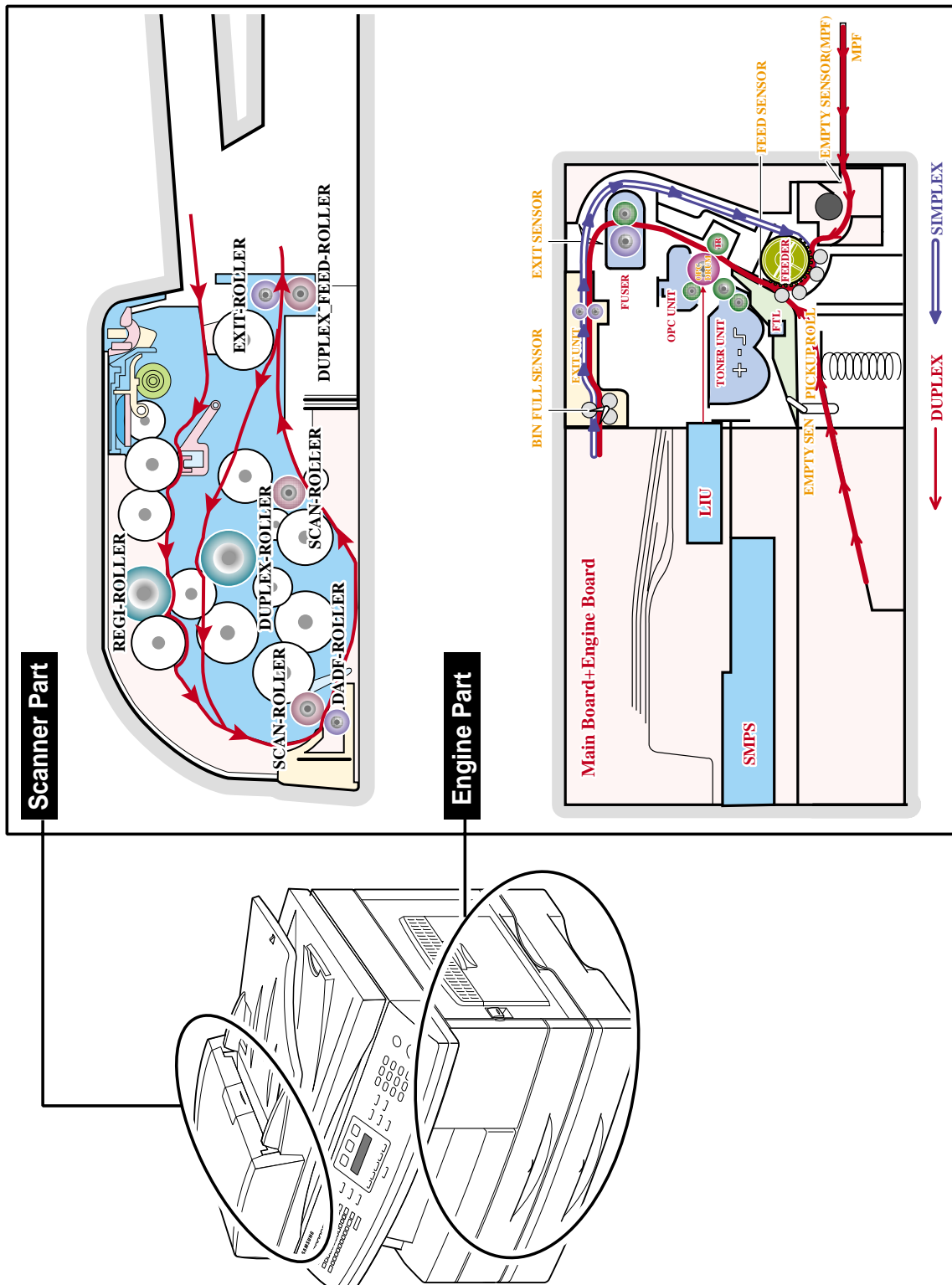


4. Alignment and Adjustments

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

4.1 Paper path



4.2 Clearing Paper Jams

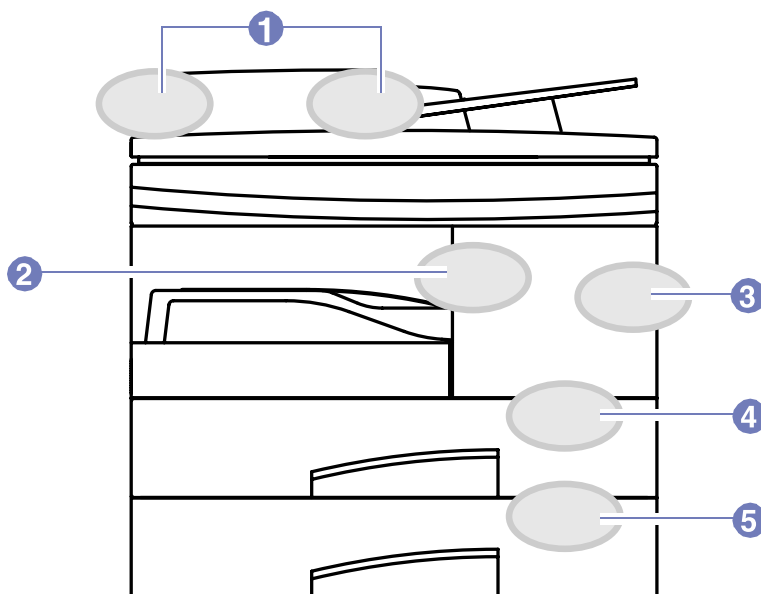
This chapter gives helpful information for what to do if you encounter an error.

This chapter includes:

- Fault Clearance
- Clearing document jams
- Clearing paper jams
- Understanding display messages
- Toner cartridge-related messages
- Solving other problems

4.2.1 Fault Clearance

When a fault occurs, check the Status Map on the Control Panel. A green blanking LED identifies the problem area:

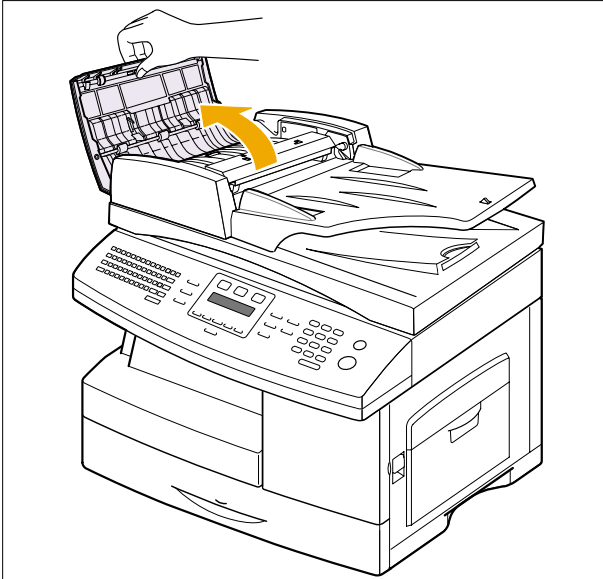


1	document jams
2	paper jam
3	multi-purpose tray
4	tray 1
5	tray 2

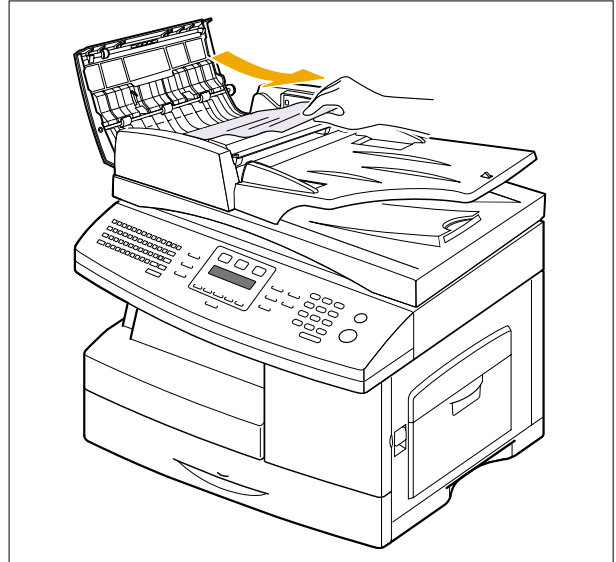
4.2.2 Clearing document jams

When an original jams while passing through the ADF, [Document Jam] appears on the display.

1. Remove any remaining pages from the ADF.
2. Open the ADF cover.



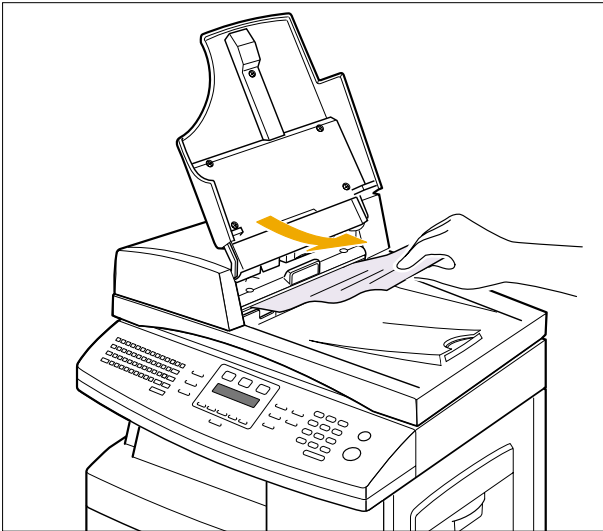
3. Pull the jammed paper gently out of the ADF.



4. Close the ADF cover. Then load the removed pages, if any, back into the ADF.

Exit Misfeed

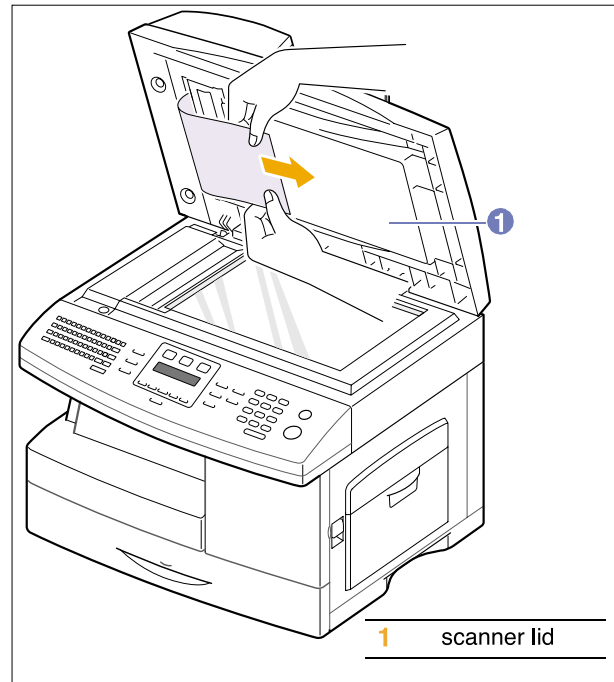
1. Remove the remaining documents from the ADF.
2. Open the document input tray upward and pull the document gently out of the DADF.
Since the machine, which has the ADF, has a fixed document input tray, pull the misfeed document under the document input tray.



3. Close the document input tray. Then place the documents back into the DADF.

Roller misfeed

1. Open the scanner lid.
2. Seize the misfed paper, and remove the paper from the feed area by carefully pulling it to the right using both hands.



3. Close the scanner lid. Then load the removed pages back into the ADF.

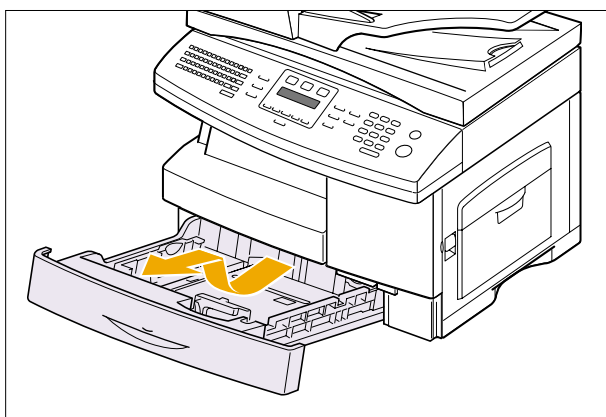
4.2.3 Clearing paper jams

When a paper jam occurs, Paper Jam appears on the display. Refer to the table below to locate and clear the paper jam.

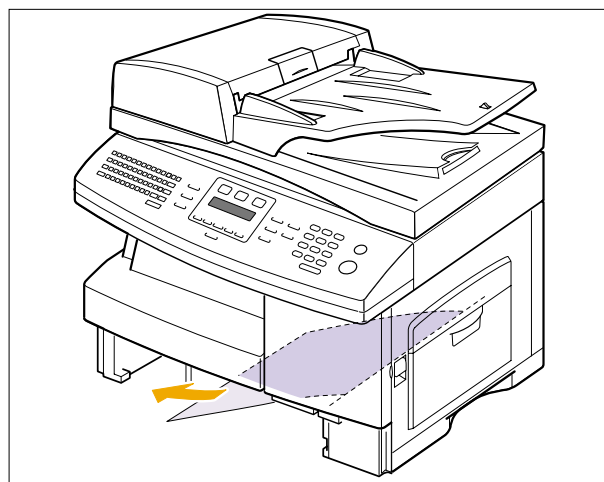
Message	Location of jam
[Paper Jam 0] Open/Close Door	In the paper feed area (tray 1, optional tray 2, or multi-purpose tray)
[Paper Jam 1] Open/Close Door	In the fuser area or around the toner cartridge
[Paper Jam 2] Check Inside	In the paper exit area
Duplex Jam Open/Close Door	In the duplex unit

In the tray 1

1. Open and close the front cover. The jammed paper is automatically ejected from the machine.
If the paper does not exit, go to the next step.
2. Pull out the paper Tray to open. After you pull it out completely, lift the front part of the Tray slightly up to release the Tray from the machine.



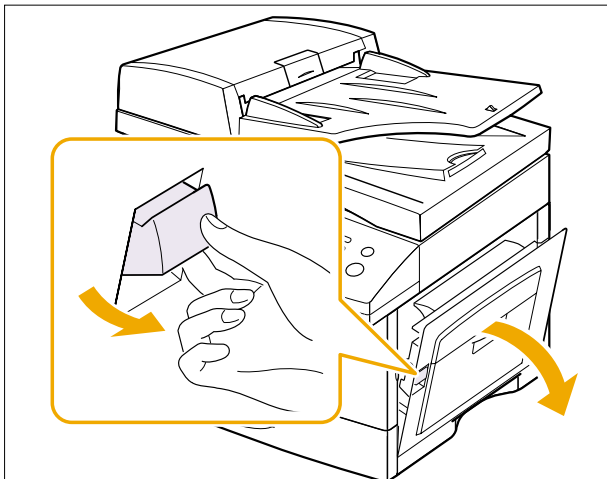
3. Remove the jammed paper by gently pulling it straight out.



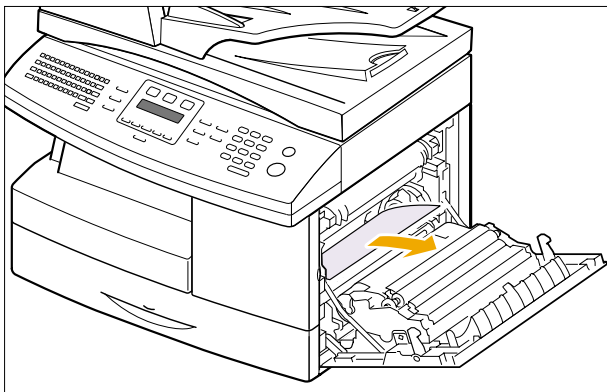
Once you remove the jammed paper here, open the side cover and then close it to clear the "Paper Jam0" message on the display.

If there is any resistance, and the paper does not move immediately when you pull, stop pulling. Then:

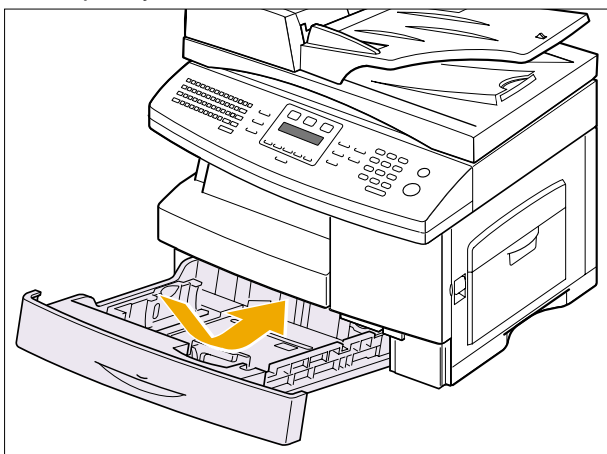
4. Pull the release lever to open the side cover.



5. Carefully remove the misfed paper in the direction shown.

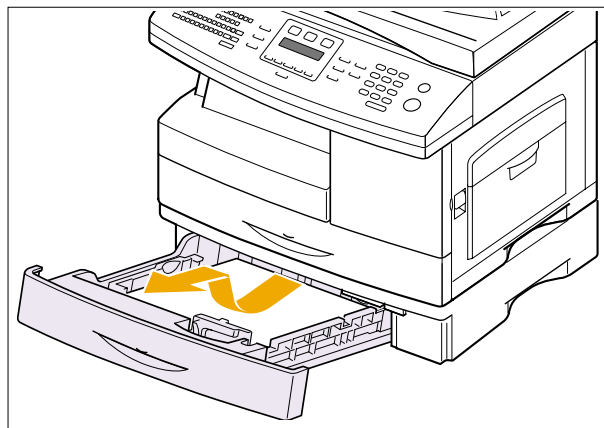


6. Close the cover and insert the paper Tray. Lower the rear part of the Tray to align the rear edge with the corresponding slot of the machine, then insert it completely.



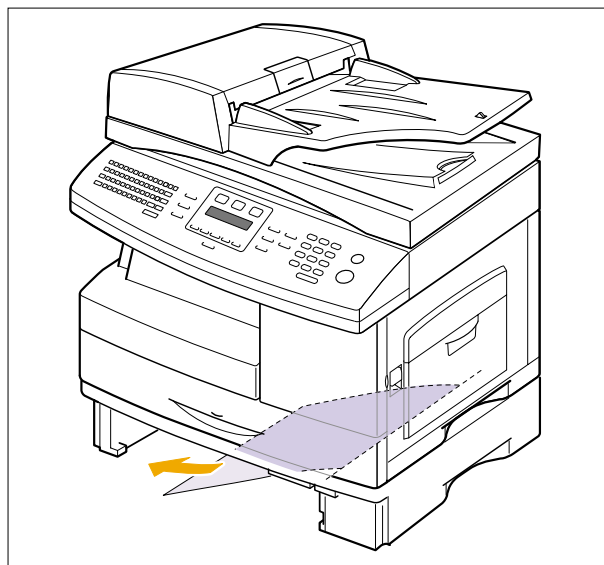
In the optional tray 2

1. Pull the optional tray 2 open.
2. Pull the paper Tray to open. After you pull it out completely, lift the front part of the Tray slightly up to release the Tray from the machine.



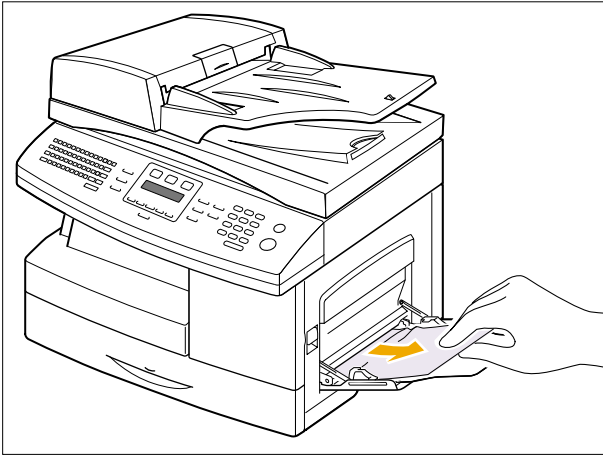
If the paper does not move when you pull, or if you do not see the paper in this area, stop and go to step 3.

3. Pull the tray 1 half.
4. Remove the paper in the direction shown. To avoid the paper torn, pull it out gently and slowly.



In the multi-purpose tray

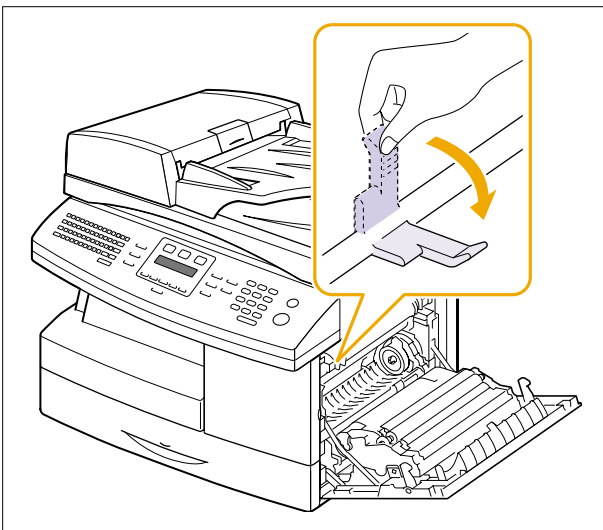
1. If the paper is not feeding properly, pull the paper out of the machine.



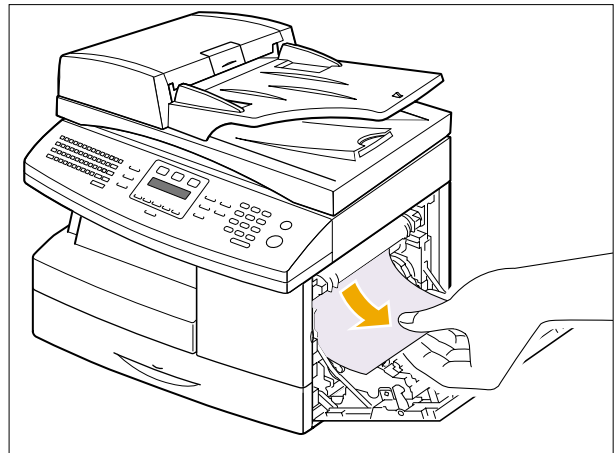
2. Open and close the front cover to resume printing.

In the fuser area or around the toner cartridge

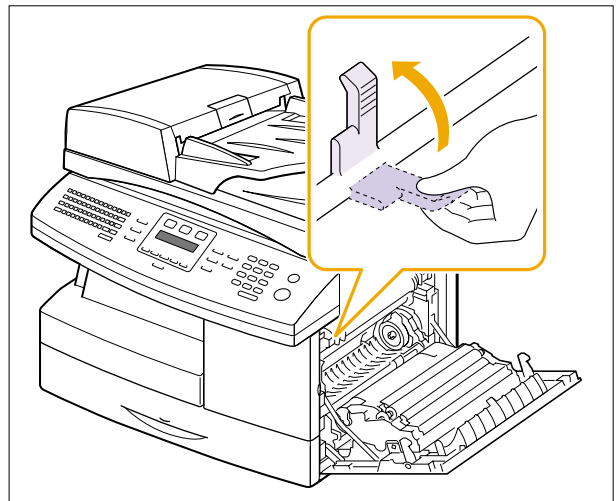
1. Press the release lever to open the side cover.
Lift the release lever to open the side cover.
2. Pull down on the fuser lever as shown below.
This will release pressure on the paper.
If paper is not seen in this area, skip to the Exit Area.



3. Remove the jammed paper, in the direction shown.



4. Push the fuser lever up, and then close the side cover.



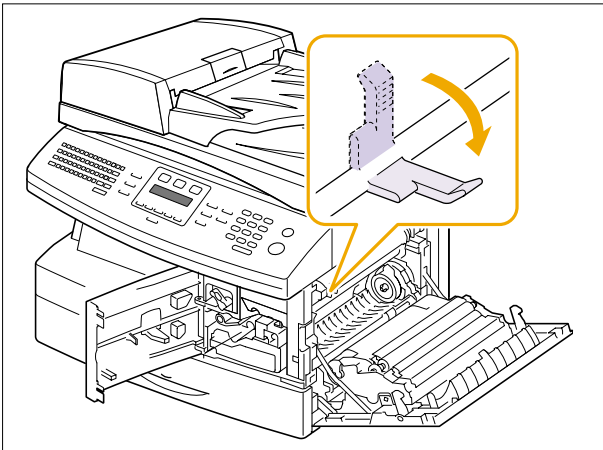
5. Open and close the front cover to resume printing.

In the paper exit area

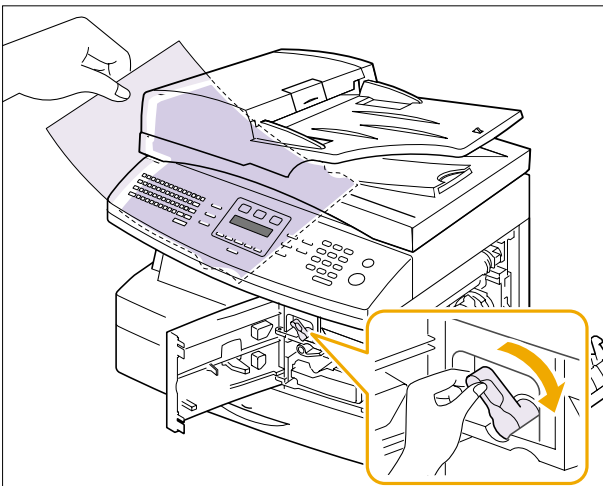
1. Press the release lever to open the side cover.
2. Open the front cover.



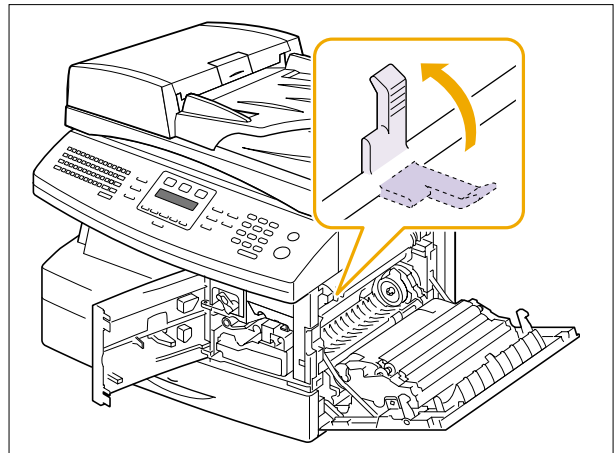
3. Pull down on the fuser lever. This will release pressure on the paper.



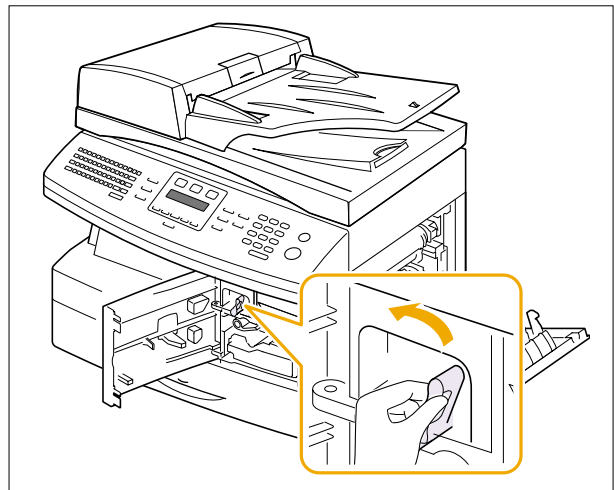
4. Turn the Jam Remove Lever in the direction of the arrow to move the paper to the exit area, then gently pull the paper out through the exit area.



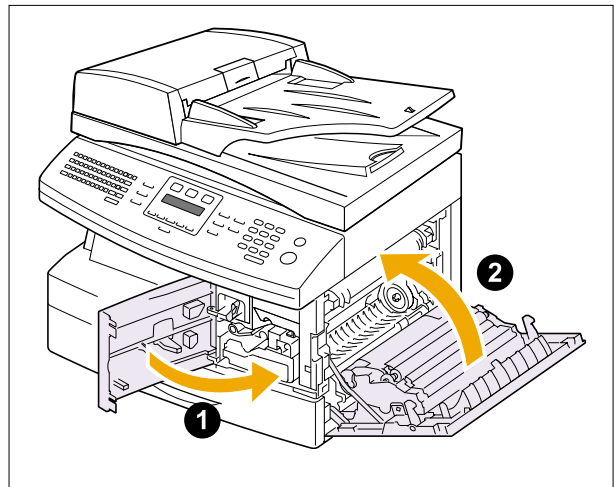
5. Push the fuser lever up.



6. Turn the Jam Remove Lever back to the original position.



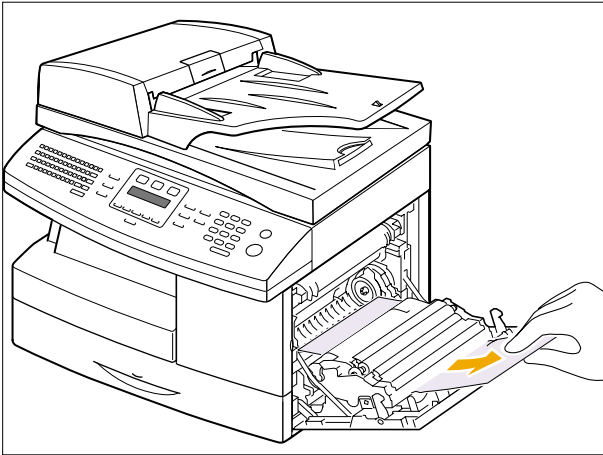
7. Close the front cover ① and the side cover ②. Printing automatically resumes.



In the duplex unit area

If the duplex unit is not inserted correctly, paper jam may occur. Make sure that the duplex unit is inserted correctly.

1. Press the release lever to open the side cover.
2. Remove the jammed paper.



3. Close the side cover.

4.3 User Mode

The table below shows all of the possible user settings. Full details can be found in the User Guide.

Function	-- ▶	1'st LCD	2'st LCD	Default
1.Paper Setting	1	Fax Paper Tray	[Tray1]	[Tray1]
			[Tray2]	
			[All]	
	2	Paper Type	[Plain Paper/ Bond/ Transparency/ Card Stock /Labels/Preprinted/ Colored/envelope]	[Plain Paper]
	3	Paper Size	[Tray Paper] [MP Tray Paper]	LTR LTR
2.Machine Setup	◀ Machine ID ▶	1	Machine ID	Fax: ID:
		2	Date & Time	
		3	Clock Mode	[12, 24 hours] 12hours
		4	Language	[English/FRANCAIS/Deutsch/Italia no/Español/Portuguê s/Nederlands/Dansk/Svenska/suomi /Norsk] English
		5	Localization	[Inch, MM] Inch
		6	Power save	[On] [Off] 5min
		7	CCD Power Save	[1, 4, 8, 12] 4Hour
		8	USB Mode	[Fast, Slow] Fast
		9	Ignore Toner Empty	[On, Off] off
		10	Time out	[Off, 15, 30, 60, 180] [30]
3.Copy Features	◀ Change Default ▶	1	Change Default	[Darkness] [Original Type] [Reduce/Enlarge] [Normal] [Text] [Original(100%)]
			2	Margin Shift
				[Off] [Off]
				[Auto Center]
				[Left Margin]
				[Right Margin]
				[Top Margin]
				[Bottom Margin]
		3	Book Copy	[Off] [Off]
			4	Auto Suppress
				[Left Page] [Right Page] [Both Pages] [Off, On] [Off]
		5	Covers	[Off] [Off]
			6	Transparencies
				[Front] [Back] [Front&Back] [Tray 1] [Tray 1] [Tray 1]
				[Off] [Off] [Off]
				[MP Tray] [Off]

Function	-- ▶	1'st LCD	2'st LCD	Default
4.Fax Setup ◀ Default-Change ▶	1	Default-Change	[Darkness] [Resolution]	[Normal] [Standard]
	2	Receive Mode	[Fax, Tel, Ans/Fax]	FAX
	3	Ring to Answer	[1~7]	1
	4	Redial Term	[1~15minutes]	3minutes
	5	Redials	[0~13times]	7times
	6	MSG Confirm	[On, Off, On-Err]	On-Error
	7	Auto Report	[On, Off]	On
	8	Auto Reduction	[On, Off]	On
	9	Discard Size	[00~30mm]	20mm
	10	Prefix Dial	FAX: xxxxx (5 digits)	
	11	Receive Start Code		
	12	ECM Mode	[On, Off]	On
5.Fax Feature ◀ Delay Fax ▶	1	Delay Fax		
	2	Priority Fax		
	3	Polling	[Tx Poll] [Delay Rx Poll]	
	4	Broadcasting		
	5	Batch Tx		
	6	Toll Save	[On] [Off]	Off
	7	Junk Fax Setup	[On] [Off]	off
	8	Secure Receive	[Off] [On] [Print]	off
	9	Stamp RCV Name	[On, Off]	Off
	10	Fax Duplex	[Off, Long Edge, Short Edge]	
6.Reports ◀ Fax Phone Book ▶	1	Fax Phone Book		
	2	Sent Report		
	3	RCV Report		
	4	System Data		
	5	Scheduled Jobs		
	6	MSG Confirm		
	7	Email Tx Report		
	8	Junk Fax List		
	9	Billing/Counters		
	10	Connect Page		
	11	User Auth List		
	12	Netscan Journal		
	13	Print All Reports		
7.Sound/Volume ◀ Speaker ▶	1	Speaker	[On, Off, Com]	Com
	2	Ringer	[Off, Low,Med,High]	Med
	3	Key Sound	[On, Off]	Off
	4	Alarm Sound	[On, Off]	On

Function	--▶	1'st LCD	2'st LCD	Default
8.Mail Box ◀ Print ▶	1	Print		
	2	Store		
	3	Delete		
	4	Poll From		
	5	Send		
9.Email Features ◀ Group Mail ▶	1	Email Features	◀ Local Address Book ▶	
			◀ Print Address Book ▶	
10.Sys. Admin Tools ◀ Passcode Protect ▶	1	Passcode Protect?	[Off]	Off
			[On]	
	2	Department Codes	◀ Set ▶	
			◀ Print ▶	
			◀ Management ▶	
	3	Auxiliary Access	[Off]	Off
			[On]	
	4	Network Setup	◀ Reset NIC ▶	
			◀ Config Network ▶	
			◀ Netware ▶	
			◀ Factory Default ▶	
	5	Email Setup	◀ SMTP Server Setup ▶	
			◀ Auto Send to Self ▶	
			◀ Guest User Access ▶	
			◀ Default From ▶	[On]
			◀ Default Subject ▶	[Disable]
			◀ LDAP Server Setup ▶	[On]
			◀ Email Body Text ▶	[Off]
			◀ Default Change ▶	
			◀ File Format Prompt ▶	
	6	Enter Passcode:		
	7	Clear Memory	[System Data]	
			[Fax TX History]	
			[Fax RX History]	
			[Fax Phone Book]	
			[Email Address Book]	
			[Email TX History]	
			[Netscan Journal]	
			◀ Billing Counters ▶	
	8	Maintenance	[Serial Number]	
			[Adjust Shading]	
			[Clean Drum]	
			[New Drum]	
			[Notify Toner Low]	
	9	Mailbox Setup	[Create]	
			[Delete]	
	10	Fax/Email Forward	Setup Forward	
	11	Netscan Timeout	Timeout Period	







4.4 Tech Mode

4.4.1 How to Enter Tech Mode







In service (tech) mode the technician can check the machine and perform various tests to help with failure diagnosis.

When in Tech mode the machine still performs all normal operations.
While in Tech mode the machine still performs all normal operations.

To enter the Tech mode (SCX-6122FN)

To enter the Tech mode press  →  →  →  →  →  in sequence and the LCD briefly displays 'TECH', the machine has entered service (tech) mode.







To enter the Tech mode (SCX-6322DN)

To enter the Tech mode press  →  →  →  →  →  in sequence and the LCD briefly displays 'TECH', the machine has entered service (tech) mode.

4.4.2 Engine Test Mode







The Engine Test Mode supplies useful functions to check the condition of the print engine. It tests the condition of each device and displays the result of the test on the LCD. It is divided into 7 functions (0~6), and these are shown below.

To enter the Engine Test mode (SCX-6122Fn)

Press  →  →  →  →  →  in sequence, and the LCD briefly displays 'Engine Test', the machine has entered Engine Test Mode.

Press "0", "1", "2", "3" or "4" to select the Test No. (see list below – left hand column)

To enter the Engine Test mode (SCX-6322DN)

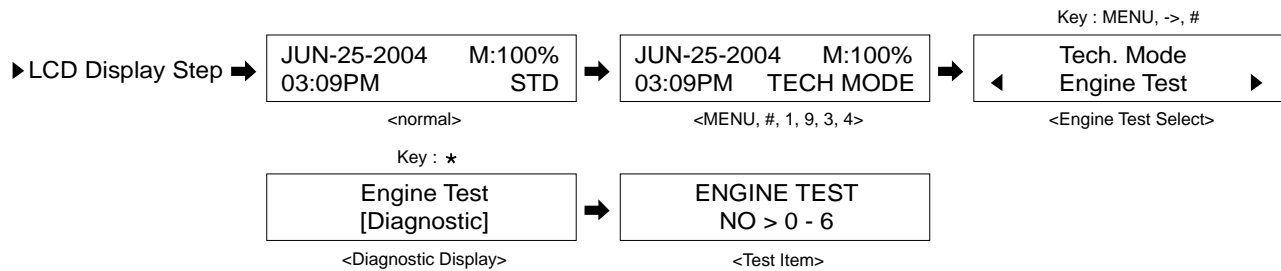
Press  →  →  →  →  →  in sequence, and the LCD briefly displays 'Engine Test', the machine has entered Engine Test Mode.

Press "0", "1", "2", "3" or "4" to select the Test No. (see list below – left hand column)

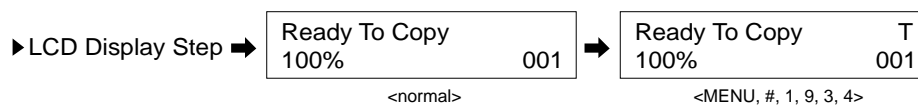
4.4.2.1 Test No

First you must enter Tech Mode

<In Fax mode>



<In Copy mode>



Then you must select the required test

<To Select Engine Test>

- [0] : All Motor Test
- [1] : LSU Motor Test
- [2] : Sensor Test
- [3] : SCF Motor Test
- [4] : OPC Motor Test
- [5] : MHV Supply 1350V
- [6] : Test Start

4.4.2.2 Test map

Test No	Test Items (Description)	Control Code			
		[1]		[2]	
[0]	ALL MOTOR TEST	ON	Start the Developer_Motor & Fuser_Motor	OFF	Stop the Developer_Motor & Fuser_Motor
	FUSER MOTOR TEST (STEPPER)	ON	Start the Fuser_Motor only.	OFF	Stop the Fuser_Motor
	Deve. MOTOR TEST (BLDC)	ON	Start the Developer_Motor only.	OFF	Stop the Developer_Motor.
	FUSER MTR DIR TEST	FWD	Start the Fuser_Motor in the forward direction	RVS	Start the Fuser_Motor in the reverse direction
	ALL MOTOR STOP	STOP	Stop the Developer_Motor & Fuser_Motor.	NEXT	Go to next test item (Go to FCF SOLENOID TEST).
	FCF (1st Tray) SOLENOID TEST	ON	Energize (Turn On) the Solenoid of the First Cassette Feeder (FCF). - Automatically de-energized after 200ms.	OFF	De-energize (Turn off) the Solenoid of the FCF.
	MPF (MP Tray) SOLENOID TEST	ON	Energize (Turn On) the Solenoid of the Multi-Purpose Feeder (MPF). - Automatically de-energized after 200ms.	OFF	De-energize (Turn Off) the Solenoid of the MPF
	PTL TEST	ON	Turns on the Pre-Transfer Lamp (PTL)	OFF	Turns off the PTL.
	FAN TEST	ON	Start the FAN motors (Cooler on the Rear side and LSU)	OFF	Stop the FAN motors.
	FUSER CONTROL TEST	ON	Turns on the Fuser Heat lamp. - only when the current fuser temp. is lower than the standby fuser temp.	OFF	Turns off the Heating lamp of Fuser Unit.
	FUSER TEMP CHECK	CHECK	Display FUSER ADC VALUE	NEXT	Go to next test item (Go to ALL MOTOR TEST)
[1]	LSU MOTOR TEST	ON	Start the polygon mirror motor in the LSU.	OFF	Stop the polygon mirror motor in the LSU.
	LASER DIODE TEST	ON	Turns on LASER diode in the LSU.	OFF	Turns off LASER diode in the LSU.
	LSU FAN TEST	ON	Turns LSU Fan On.	OFF	Turns LSU Fan Off.
	LSU READY TEST	CHECK	Check the time for the LSU motor to come to speed. The time will be displayed. This includes 500ms for the speed to stabilize (must be less than 10sec). The Motor will stop automatically.	NEXT	Go to next test (go to LSU HSYNC TEST)
	LSU HSYNC TEST	CHECK	Check the time for LSU HSYNC (Horizontal Synch. Signal) to be detected. The time will be displayed. (must be less than 10sec). The Motor will stop automatically. Monitor the status of the Actuators (Sensor). - '1':Active, '0':Inactive	NEXT	Go to the next test (go to LSU MOTOR TEST)
[2]	SENSOR TEST	CHECK	Monitor the status of Actuator(Sensor) with '1' or '0' . - '1':Active, '0':Inactive (Legend) CV / SIDE COVER SENSOR FD / FEED SENSOR EX / EXIT SENSOR OB / OUT BIN SENSOR FE / FC EMPTY SENSOR ME / MP EMPTY SENSOR	NEXT	Go to the top level of Engine test mode.
[3]	SCF MOTOR TEST	ON	Start the SCF Motor.	OFF	Sopt the SCF Motor.
	SCF SOLENOID TEST	ON	Energize (Turn On) the Solenoid of the 2nd Cassette Feeder (SCF). - Automatically de-energized after 300ms.	OFF	De-energize (Turn Off) the Solenoid of the SCF
	SCF EMP/INST CHECK	CHECK	Display the status of the SCF (SCF Installed or not installed, Paper Empty)	NEXT	Go to the next test (go to SCF MOTOR TEST)
[4]	OPC FUSE STATE	CHECK	Check thif there was a New OPC during the previous warm-up time.	NEXT	Go to the next test (go to OPC FUSE CHECK)
	OPC FUSE CHECK	CHECK	Display the current state of fuse in the OPC.	NEXT	Go to the next test (go to TONER STATE)
	TONER STATE	CHECK	Display Toner State - This test does not check thecurrent toner state. It displays the stored value in SDRAM at the previous Open/Close of the Side-Cover or Power-on. - Opening/closing the side-cover or POPO, will update the memory with the current toner state.	NEXT	Go to the next test (go to TONER LOW CHECK)
	TONER LOW CHECK	CHECK	Check current toner state.	NEXT	Go to the next test (go to PAGE COUNTER INC)
	PAGE COUNTER INC	CHECK	Increase PAGE COUNTER by 1 count	NEXT	Go to the next test (go to AIR TEMP CHECK)
	AIR TEMP CHECK	CHECK	Read and display the temperature of the current working environment. - Display the ADC value	NEXT	Go to the next test (go to OPC FUSE STATE)

		Control Code			
Test No	Test Items (Description)	[1]		[2]	
[5]	MHV SUPPLY 1350V	ON	Supply 1350V to the MHV	OFF	Disconnect voltage from MHV
	MHV ADC READ	CHECK	Read and display the MHV ADC (Analog-To-Digital Conversion) value.	NEXT	Go to the next test (go to DEV SUPPLY 450V)
	DEV SUPPLY 450V	ON	Supply 1450V to the DEV (Developer).	OFF	Disconnect voltage from DEV
	THV SUPPLY NEG VOLT	ON	Supply negative voltage to the THV	OFF	Disconnect negative voltage from THV
	THV SUPPLY 1301V	ON	Supply 1300V to the THV	OFF	Disconnect voltage from THV
	THV ADC READ	CHECK	Read and display the THV ADC value.	NEXT	Go to the next test (go to MHV SUPPLY 1350V)
[6]	Auto TEST	NEXT : RIGHT KEY		Automatically start to test with 2 sec intervals.	
		EXIT : STOP KEY		Go to the top level of Engine test mode.	
		Automatic Test Sequence		1	ALL MOTOR CONTROL
				2	FUSER MOTOR CONTROL
				3	DEV MOTOR CONTROL
				4	DUPLEX CONTROL
				5	FCF PICKUP CONTROL
				6	M P PICKUP CONTROL
				7	PTL CONTROL
				8	FAN CONTROL
				9	FUSER CONTROL
				10	LSU MOTOR CONTROL
				11	LASER DIODE CONTROL
				12	SENSOR DETECT
				13	MHV CONTROL
				14	DEV CONTROL
				15	THV NEG CONTROL
				16	THV CONTROL
				17	MHV ADC READ
				18	THV ADC READ
				19	TEST END

4.4.2.3 Operation of Tech mode

Function	1'st LCD	2'st LCD	3'st LCD	4'st LCD	5'st LCD	6'st LCD	Default
Tech Mode ◀ Data Setup ▶	1	Data Setup					-12
		[Send Level] [Modem Speed] [Dial Mode] [Error Rate] [Notify Toner] [Clear All Mem.] [Clear Count] [Flash Upgrade]	Send Level Modem Speed Dial Mode Error Rate Notify Toner Clear All Mem. Clear Count Flash Upgrade	[9--15] [33.6,28.8,14.4,12.96,48] [Tone, Pulse] [5%, 10%] [Customer No.] [Customer Name] [Service Number] [Serial Number] [Total Page Count] [CRU Print CNT] [FLT Scan Count] [ADF Scan Count] [Used Toner CNT] [Local] [Remote]			33.6 10%
2	Machine Test	[Switch Test] [Modem Test] [DRAM Test] [ROM Test] [Pattern Test] [Shading Test] [Diagnostic]					
3	Engine Test		Engine Test	NO > 0 - 6	ALL MOTOR TEST FCF SOLENOID TEST M/F SOLENOID TEST PTL TEST FAN TEST FUSER CONTROL TEST FUSER TEMP TEST LSU MOTOR TEST LASER DIODE TEST LSU READY TEST LSU HSYNC TEST SENSOR TEST SCF MOTOR TEST SCF SOLENOID TEST SCF EMP/INST TEST OPC FUSE STATE OPC FUSE CHECK TONER STATE TONER LOW CHECK PAGE COUNTER INC AIR TEMP CHECK MHV SUPPLY 1350V MHV ADC READ DEV SUPPLY 450V THV SUPPLY NEG VOLT THV SUPPLY 1301V THV ADC READ TEST START	1:ON 2:OFF 1:ON 2:OFF 1:ON 2:OFF 1:ON 2:OFF 1:ON 2:OFF 1:CHECK 2:NEXT 1:ON 2:OFF 1:ON 2:OFF 1:CHECK 2:NEXT 1:CHECK 2:NEXT 1:ON 2:OFF 1:ON 2:OFF 1:CHECK 2:NEXT 1:CHECK 2:NEXT 1:CHECK 2:NEXT 1:CHECK 2:NEXT 1:CHECK 2:NEXT 1:ON 2:OFF 1:CHECK 2:NEXT 1:ON 2:OFF 1:ON 2:OFF 1:ON 2:OFF 1:ON 2:OFF 1:CHECK 2:NEXT	
4	DADF Test	[Status Print] [DADF EDC] [DADF Diagnostic]	Clutch Test Motor Test Sensor Test				
5	Report	[Protocol] [System Data]					

4.4.3 Data Setup

SEND LEVEL

You can set the level of the transmission signal. Typically, the Tx level should be under -12 dBm.

Caution : The Send Fax Level is set to the best condition during manufacture. Never change settings arbitrarily.

DIAL MODE

This function can choose the dialing method.

*Default : Dial (Dial/Pulse)

MODEM SPEED

You can set the maximum modem speed.

When the fax establishes communication with a remote set the value of the maximum modem speed is checked for both transmitter and receiver. The lowest value is used. It is best set at 33.6Kbps, the default setting.

ERROR RATE

When the error rate is about exceed the set value, the Baud rate automatically adjusts to 2400 bps.

This ensures that the error rate remains below the set value.

You can select the rate between 5% and 10%.

CLEAR ALL MEMORY

The function resets the system to factory default settings.

This function is used to reset the system to the initial value when the product is functioning abnormally. All the values are returned to the default values, and all the information which was set by the user will be erased.

< Method >

1. Select the [MEMORY CLEAR] in TECH MODE.
2. Push the ENTER button.
3. Select your country. (There are four country groups. Refer to the table below.)
4. Push the ENTER button then it will clear all memory.

NOTICE : Always perform a memory clear after replacing the main board, otherwise the system may not operate properly.

Country Group	USA/Canada	UK	Russia	Southafrica
Country	USA/Canada Mexico Brazil	UK Germany France Italy Spain Austria Netherlands Belgium Portugal Sweden Norway Denmark Finland Switzerland Greece Ireland Turkey	Russia India Oman Poland Bangladesh Kuwait Moroco Algeria Pakistan UAE Bahrain Srilanka Saudi Arabia Chile Peru Argentina Hungary Romania Bulgaria Czech	South Africa

4.4.3.1 Clear Counters

The following counters can only be cleared in TECH MODE. They are accessed through the Data Setup menu.

Total page Count : XXXXX
 FLT Scan CNT : XXXXX
 ADF SCAN CNT : XXXXX
 Used Drum CNT : XXXXX
 Used Toner CNT : XXXXX

4.4.3.2 Flash Upgrade

FLASH memory is upgraded in the same way as Firmware. See Page 4-22.

4.4.4 Machine Test

SWITCH TEST

Use this feature to test all keys on the operation control panel. The result is displayed on the LCD window each time you press a key.

MODEM TEST

Use this feature to hear various transmission signals to the telephone line from the modem and to check the modem, amplifier and speaker. If no transmission signal sound is heard, it means the modem part of the main board, amplifier, speaker or speaker harness is faulty.

DRAM TEST

Use this feature to test the machine's DRAM. The result appears in the LCD display.
 If all memory is working normally, the LCD shows << O K >>

ROM TEST

Use this feature to test the machine's ROM. The result and the software version appear in the LCD display.

- FLASH VER : 1.00 V
- ENGINE VER :1.00V

PATTERN TEST

Using this pattern printout you can check that the printer mechanism is functioning properly.
 This function is for factory manufacturing use only.

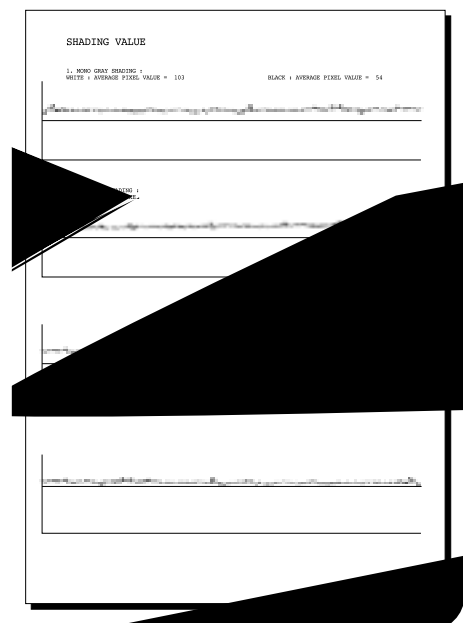
SHADING TEST

The function is used to set the optimum scan quality determined by the specific characteristics of the CCD (Charge Coupled Device). If copy image quality is poor perform this function to check the condition of the CCD unit.

< Method >

1. Select the [Shading Test] in TECH MODE (Menu, #, 1934).
2. Push the ENTER button and an image will be scanned.
3. After scanning the CCD SHADING PROFILE will be print out.
4. If the printed image is different to the sample image shown the CCD is defective.

NOTICE : When you test the CCD, make sure that the cover is closed.



4.4.5 DADF Test

Test Item[DADF Diagnostic]

- Clutch Test: Pick up clutch, Regi clutch, Duplex clutch
- Motor Test: Scan Motor, Duplex CW, Duplex CCW

4.4.6 Report

4.4.6.1 Protocol Dump List

This list shows the sequence of the CCITT group 3 T.30 protocol during the most recent sending or receiving operation. Use this list to check for send and receive errors. If a communication error occurs while the machine is in TECH mode, the protocol list will print automatically.

[illegible]

4.4.6.2 System Data List

This list provides a list of the user system data settings and tech mode settings.

System Data List		JUN-25-2004 06:35 PM PST	
Options	Item	Value	Unit
	MSR-6x30 Series		
	Machine ID	1	YU 834
	Serial Number	1	4380-0438024380
	Fax Number	1	00000110007800
	Status		Startup
Yield Rate	[On/Off]		Off
Search Via	[On/Off]		Off
Tray 1 Size	[Letter/A4...]		A4
Tray 2 Size	[Letter/A4...]		A4
MP Tray Size	[Letter/A4...]		A4
Power Save	[On/Off/Standby/Off]		5 Min
Volume	[0/30/60/90/120]		30 Sec
Stamp RK Name	[On/Off]		
Keypad Sound	[On/Off]		On
Key Sound	[On/Off]		Off
Speaker Control	[On/Off/Volume]		Volume
Language	[Eng/Lab/French/...]		Eng/Lab
Look/LookIn	[On/Off]		Off
USB Mode	[Host/Printer]		Host
Clock Mode	[12 Hour/24 Hour]		12 Hour
Power Mode	[On/Off]		Off
Standby Size	[0-30 mm]		30 mm
Lighter/Tracker	[On/Off]		Off
Registration	[Auto/Manual/Off]		Standard
Baseline Mode	[On/Off/Normal]		Off
RGB Confuse	[On/Off/Normal]		Off
Auto Reduction	[On/Off]		Off
Profile (x) (y)	[On/Off]		Off
Auto Report	[On/Off]		Off
RGB Mode	[On/Off]		Off
Red/In	[On/Off]		Off
Ring To Answer	[On/Off]		Off
Redial Time	[1-15]		1 Min
Ring	[On/Off/Normal/High]		Low
Auto Fax Setup	[On/Off]		Off
SECURE MODE	[On/Off]		Off
Fax Paper Tray	[Tray 1/Tray 2 & Tray 3]		Tray 1
Bolify Toner Low	[On/Off]		Off
Low Toner Mode	[On/Off]		Off
Set To Level	[On/Off]		Off
Dial Mode	[On/Off]		Off
Phone Speed	[1.1/1.2/1.3/1.4/1.5]		1.1
Phone Rate	[On/Off]		Off
Firmware/Engine	1	0.54	0.54
Simulation Version	1	0.54	0.54
MPF Version	1	0.54	0.54
Tray2 Version	1	0.54	0.54
Network P/W Version (2)	1	0.54	0.54

4.4.6.3 Billing / Counters List

This list provides the usage data (page count) of Drum Cartridge, Toner Cartridge, the page count of machine, and DADF / Platen scan page count.
(See the chapter 4.2.8.3)

Billing/Counters List		JAN-08-2004 01:39 AM THU	
		SCX-6320F	
		Machine ID	:
		Serial Number	: PR-HV51.....
		Fax Number	:
<hr/>			
Total impressions	:	1762	
Total impression Count	:	1762	
Drum impression Count	:	1762	
DADF Scan Page Count	:	1342	
Platen Scan Page Count	:	27	
Replaced Toner Count	:	1	
Replaced Drum Count	:	0	
Equivalent Drum Revolution Rate (Projected Page Counts)	:	126.10% (2237)	
CRUM Information			
Vendor	:	SAMSUNG(China)	[CHN]
Capacity	:	8K	
Product Date	:	2004.06	
Install Date	:	2004.01.04	
Serial	:	CRUM-04060934720	
Total Pages	:	1762(0)	
Toner Status	:	0	

4.5 Flash Upgrade

There are 2 methods to update the Flash Rom, Local and Remote.

(1) Local Machine

• RCP (Remote Control Panel) mode

This method is for Parallel Port or USB Port. Connect the PC and activate the RCP (Remote Control Panel) to upgrade the Firmware.

< Method >

How to Update Firmware using RCP

1. Connect PC and Printer with a Parallel Cable or a USB Cable.
2. Run the RCP utility and select Firmware Update.
3. Search for the Firmware file to be used to update the set using the Browse Icon.
4. Click the Update icon. The firmware file is transmitted to the Printer automatically and the printer is initialized when the download completes.
5. Click the Refresh icon and check that the updated version numbers are displayed.

• DOS Command mode

This method is ONLY for Parallel Port. Connect the PC to the set using a Parallel Cable and enter the DOS Command to upgrade the firmware.

< Method >

1. First of all you need the following files : down.bat, down_com.bin, fprt.exe, and Rom File: (file name for upgrade). Ensure you save ALL of these files in the same folder.
2. At the DOS prompt enter the correct command (as shown below) and push the enter key.
Then the upgrade will automatically take place..
3. There are two commands use the correct one depending on the condition of the set..
 - * When the product is in the idle condition
down "rom file"
 - * When the product is in Ready condition
(TECH MODE --> DATA SETUP --> FLASH UPGRADE --> LOCAL)
fprt "rom file"
4. Do not turn off the power during the upgrade process.

(2) Remote FAX

It is possible to use a set that already has the latest firmware to upgrade a remote set remotely using the telephone system.

< Method >

1. On the set that has the latest firmware set it to transmit the upgrade:-
(TECH MODE •DATA SETUP•••• FLASH UPGRADE•••• REMOTE)
2. Enter the telephone number of the set that needs to be upgraded.
(Several faxes can be upgrade at the same time. In this case, enter each fax number.)
3. When the enter button is pressed the set sends the firmware file by calling designated fax number.
(Around 10~15 minutes are needed to send the file.)

< Caution >

1. The Sending and Receiving fax machines MUST be the same model.
2. The sending fax must be set up in ECM mode and the Receiving fax memory must be 100%.
If not the function will not work.

4.5.1 NIC Card F/W Upgrade

There're two methods for upgrading NIC f/w. You can not do it by using Printer RCP.

A. SyncThru :

SyncThru

- >Menu
- >Maintenance
- >Upgrade Firmware
- >Select the machine you want to upgrade.
- > Fill file path and name in File name field.
- >Press Start.

Upgrading NIC F/W will take at least one minute.

B. SyncThru Web Service :

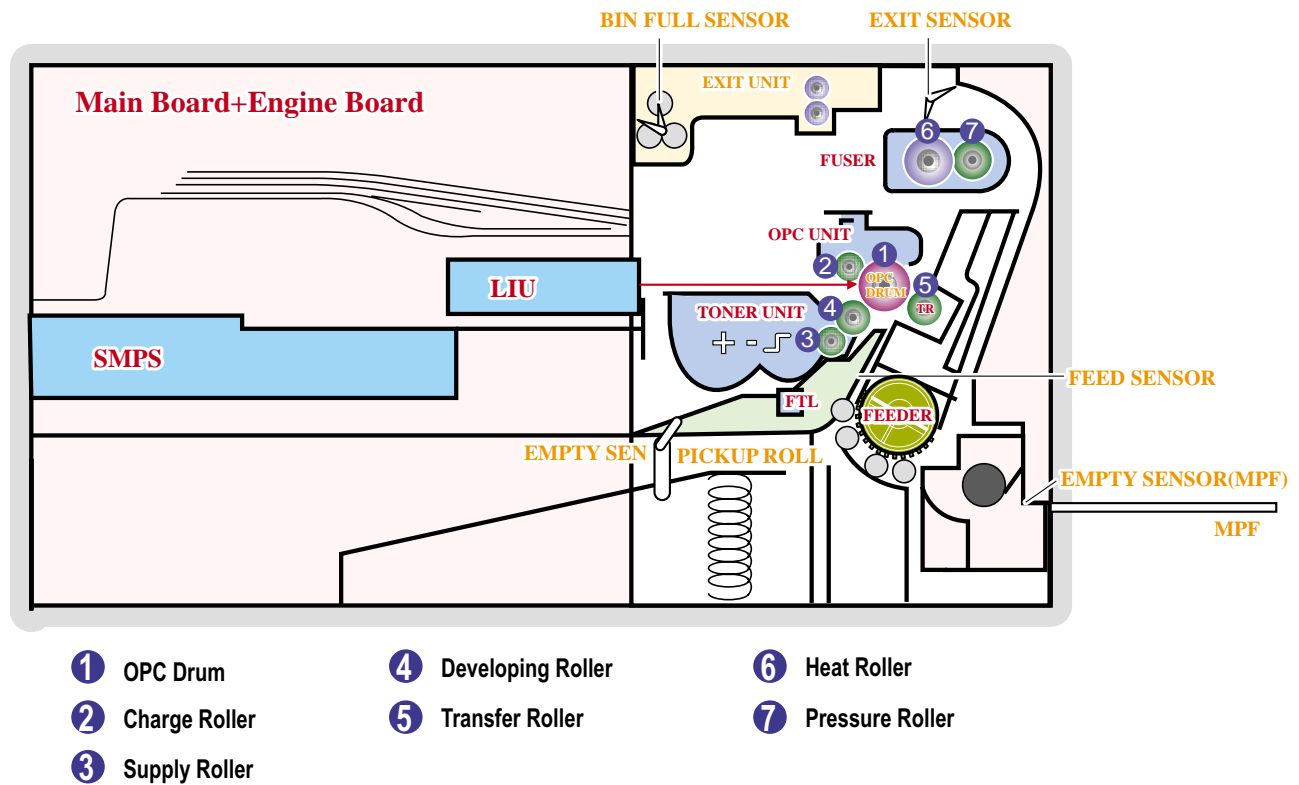
Open a browser(Internet explore)

- > type your machine ip address in address field.
- > Maintenance Tab
- > Firmware Upgrade
- > Fill file path and name in File name field.
- > Press "Upgrade" button

Upgrading NIC F/W will take at least one minute.

4.6 Abnormal Image Printing and Defective Roller

If a mark or other printing defect occurs at regular intervals down the page it may be caused by a damaged or contaminated roller. Measure the repetition interval and refer to the table below to identify the roller concerned.



No	Roller	Abnormal image period	Kind of abnormal image
1	OPC Drum	94.30mm	White spot, Block spot
2	Charge Roller	38.30mm	Black spot
3	Supply Roller	43.80mm	Horizontal density band
4	Develop Roller	54.30mm	Horizontal density band
5	Transfer Roller	56.60mm	Black side contamination/transfer fault
6	Heat Roller	83.60mm	Black spot and fuser ghost
7	Pressure Roller	91.00mm	Black side contamination

4.7 Error Messages

Message	Meaning	Suggested solutions
Authentication Failure	The ID or password you entered is incorrect.	Enter the correct ID or password.
Cancel? ◀Yes▶	Your machine's memory has become full while trying to store an original into memory.	To cancel the fax job, press the OK button to accept Yes. If you want to send those pages that have been successfully stored, press the OK button to accept No. You should send the remaining pages later, when memory is available.
[COMM. Error]	The machine has a communication problem.	Ask the sender to try again.
Connection Error	Connection with the SMTP server failed.	Check the server settings and the network cable.
Connection Failed	The protocol you have entered is not supported or server port is wrong.	Check the protocol or server port.
[Document Jam]	The loaded original has jammed in the ADF.	Clear the jam.
Door Open	The front cover or rear cover is not securely latched.	Close the cover until it locks into place.
Drum Warning	The drum cartridge is near the end of its life.	You should ensure a replacement cartridge in stock.
Enter Again	You entered an unavailable item.	Enter the correct item again.
Duplex Jam Open/Close Door	Paper has jammed during duplex printing.	Clear the jam.
File Access Denied	Login to the network server was successful. However, access to the file on the network server was denied.	Change the server settings.
File Name Exist	The file name you have entered already exists.	Enter a different file name.
File Name Over Limit	The file names you can use are from doc001 to doc999. However, all file names are used already.	Delete unnecessary files.
Fuser Door Open	The fuser door is not securely latched.	Open the rear cover and close the fuser door until it locks into place. For the location of the fuser door.
Group Not Available	You have tried to select a group location number where only a single location number can be used, such as when adding locations for a Multiple Send operation.	Use a speed dial number or dial a number manually using the number keypad.
[Incompatible]	The machine has received a fax from which is registered as a junk fax.	The received fax data will be deleted. Reconfirm junk fax setup.
Invalid Server Address	The server address you have entered is invalid.	Enter the correct server address.
Line Busy	The receiving fax machine did not answer or the line is already engaged.	Try again after a few minutes.

Message	Meaning	Suggested solutions
[Line Error]	Your machine cannot connect with the receiving fax machine or has lost contact because of a problem with the phone line.	Try again. If the problem persists, wait an hour or so for the line to clear and try again. Or, turn the ECM mode on.
Low Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, Replace to the Fuser Unit
LSU Motor Error Cycle Power	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back inches. If the problem persists, Replace to the Fuser Unit
LSU Hsync Error Cycle Power	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back inches. If the problem persists, Replace to the Fuser Unit
Main Motor Locked	There is a problem in the main motor.	Open and then close the front cover.
Mail Exceeds Server Support	The mail size is larger than the supported size by SMTP server.	Divide your mail or reduce the resolution.
Memory Full	The memory is full.	Delete unnecessary fax jobs and retransmit after more memory becomes available. Alternatively, split the transmission into more than one operation.
MP Tray Paper Empty	There is no paper in the multi-purpose tray.	Load paper in the multi-purpose tray.
Network Error	There is a problem with the network.	Contact your network administrator.
[No Answer]	The receiving fax machine has not answered after several redial attempts.	Try again. Make sure that the receiving machine is operational.
Not Assigned	The one-touch dial or speed dial number you tried to use has no number or email address assigned to it.	Enter the number or email address manually using the number keypad or store the number or address.
[No Paper] Add Paper	The paper in the tray has run out.	Load paper in the tray.
One Page is Too Large	Single page data exceeds the configured mail size.	Reduce the resolution and try again.
Open Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, Replace to the Fuser Unit
Operation Not Assigned	You are in the Add Page/Cancel Job operation, but there are no jobs stored.	Check the display to see if there are any scheduled jobs.
Over Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, Replace to the Fuser Unit
Paper Jam 0 Open/Close Door	Paper has jammed in the feeding area of the tray.	Clear the jam.
Paper Jam 1 Open/Close Door	Paper has jammed in the fuser area.	Clear the jam.
Paper Jam 2 Check Inside	Paper has jammed in the paper exit area.	Clear the jam.
Power Failure	Power has turned off then on and the machine's memory has not been back up.	The job which you were trying to do before the power failure must be completely re-done.

Message	Meaning	Suggested solutions
Replace Drum	The drum cartridge is at the end of its life.	Replace the drum cartridge.
Retry Redial?	The machine is waiting for a specified time interval to redial a previously busy station.	You can press OK to immediately redial, or Stop/Clear to cancel the redial operation.
Scanner locked	The scanner module is locked	Unlock the scanner and press Stop/Clear.
Self Diagnostic LSU	The LSU (Laser Scanning Unit) in your printer is checking some problems detected.	Please wait a few minutes.
Self Diagnostic Temperature	The engine in your machine is checking some problems detected.	Please wait a few minutes.
Send Error (AUTH)	There is a problem in SMTP authentication.	Configure the authentication setting.
Send Error (DNS)	There is a problem in DNS.	Configure the DNS setting.
Send Error (POP3)	There is a problem in POP3.	Configure the POP3 setting.
Send Error (SMTP)	There is a problem in SMTP.	Change to the available server.
Send Error (Wrong Config)	There is a problem on the network interface card.	Configure your network interface card correctly.
[Stop Pressed]	Stop/Clear has been pressed during a fax transmission.	Try again.
Tray 1 Paper Empty	There is no paper in the tray 1.	Load paper in the tray 1.
Tray 2 Paper Empty	There is no paper in the optional tray 2.	Load paper in the optional tray 2.