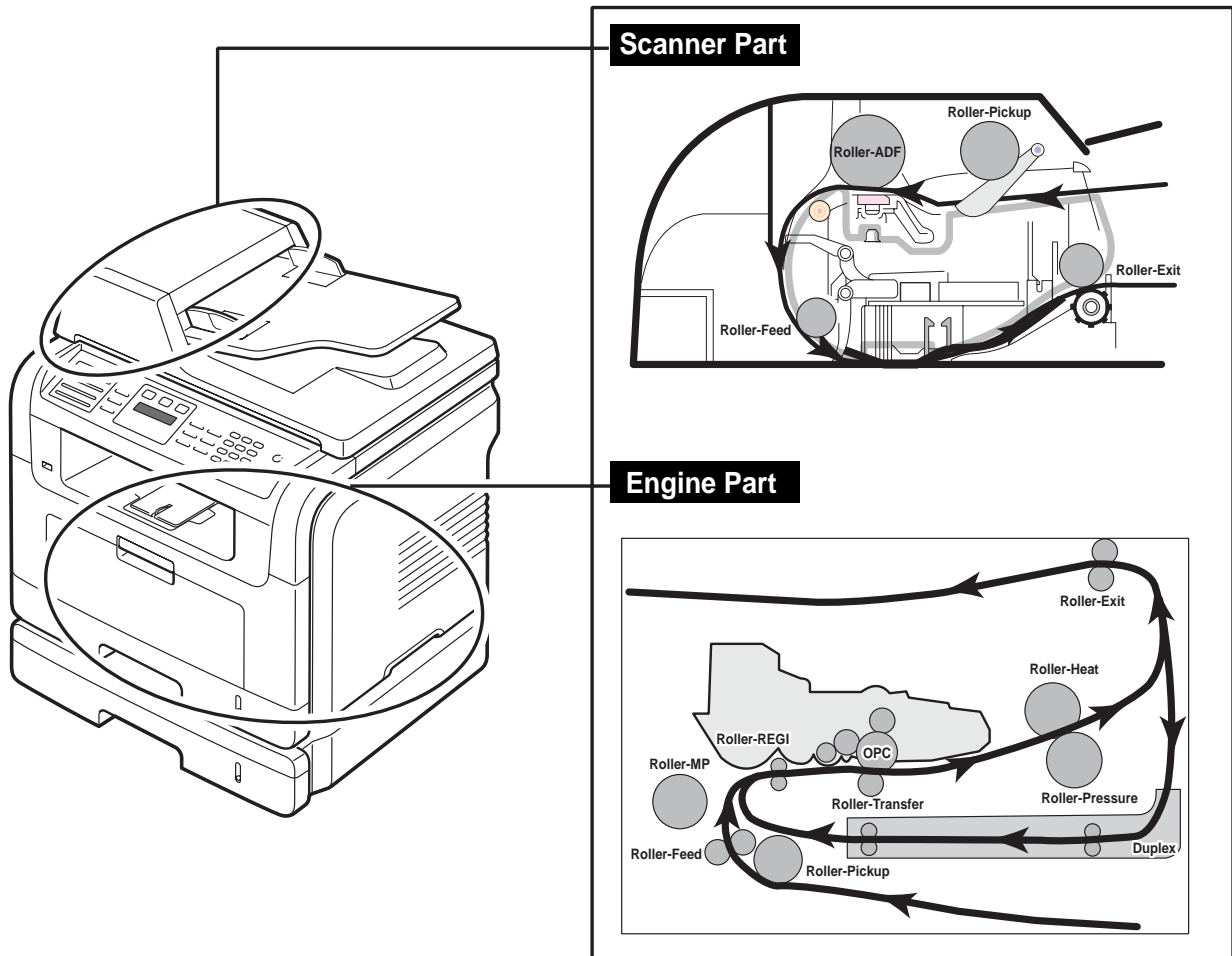


4. Alignment and Adjustments

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

4.1 Paper path



4.2 Clearing Paper Jams

Occasionally, paper can be jammed during a print job. Some of the causes include:

- The tray is loaded improperly or overfilled.
- The tray has been pulled out during a print job.
- The front cover has been opened during a print job.
- Paper was used that does not meet paper specifications.
- Paper that is outside of the supported size range was used.

If a paper jam occurs, the Jam status will be displayed on LCD panel. Find and remove the jammed paper. If you don't see the paper, open the covers.

Do not use a pinset or a sharp metal tool when removing a jam.

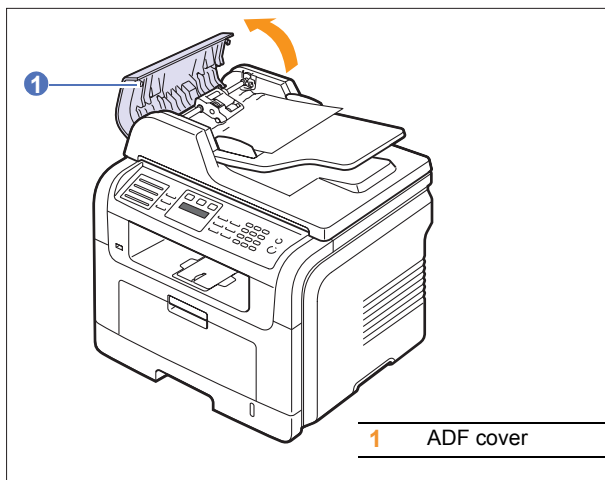
The covering of a metal part can be removed which can cause an electric leakage.

4.2.1 Clearing document jams

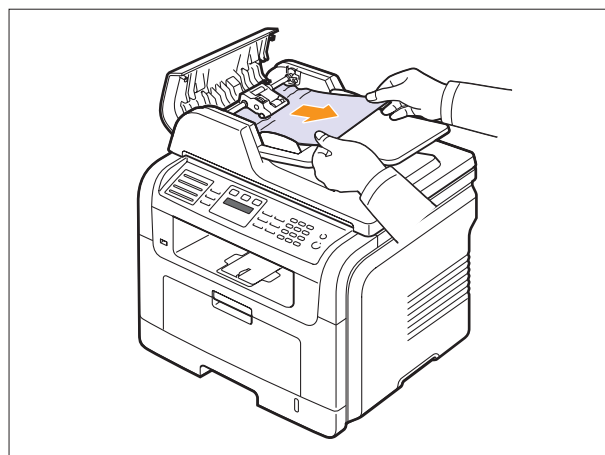
When an original jams while passing through the ADF, Document Jam appears on the display.

1. Remove any remaining pages from the ADF.

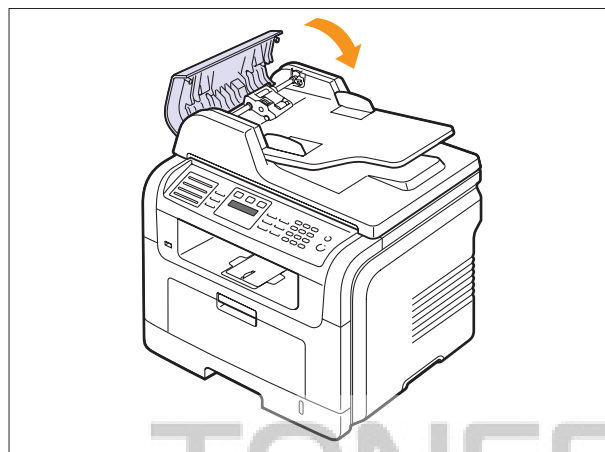
2. Open the ADF cover.



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

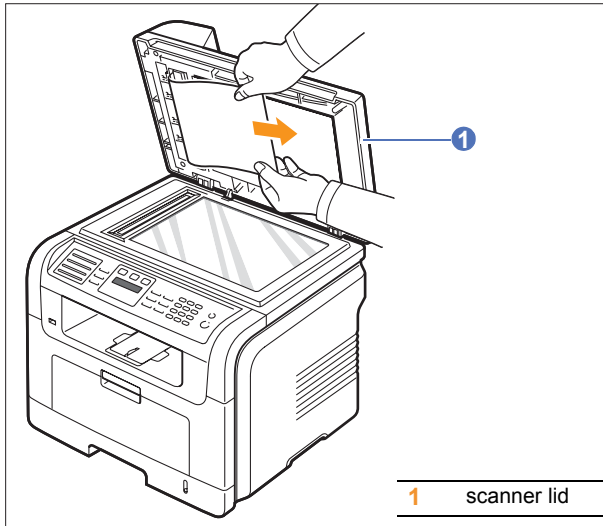


4. Close the ADF cover. Then load the removed pages, if any, back into the ADF.



4.2.2 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.

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.

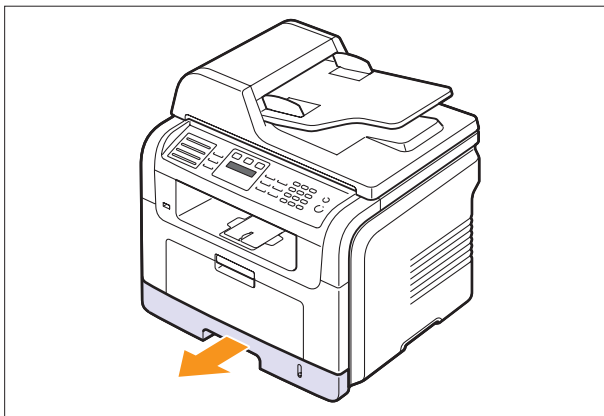
Message	Location of jam
[Paper Jam 0] Open/Close Door	In the paper feed area (tray 1, optional tray 2, or multi-purpose tray)
[Paper Jam 1] Open/Close Door	In the fuser area or around the toner cartridge
[Paper Jam 2] Check Inside	In the paper exit area
[Duplex Jam 0] ^a Check Inside	In the duplex unit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

a. SCX-5530FN only

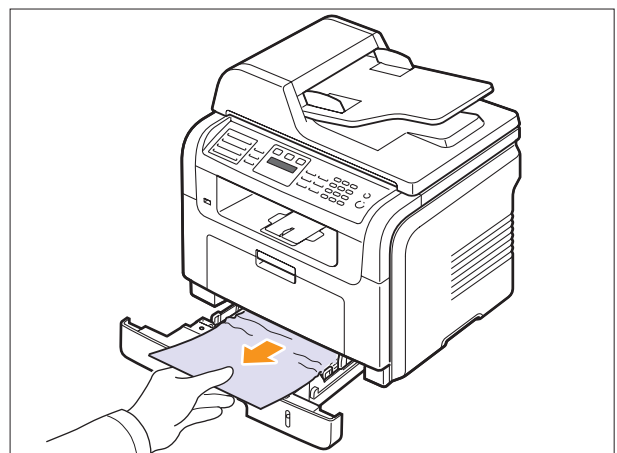
Caution : To avoid tearing the paper, pull out the jammed paper gently and slowly. Follow the instructions in the following sections to clear the jam.

4.2.3 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 the tray 1 open.



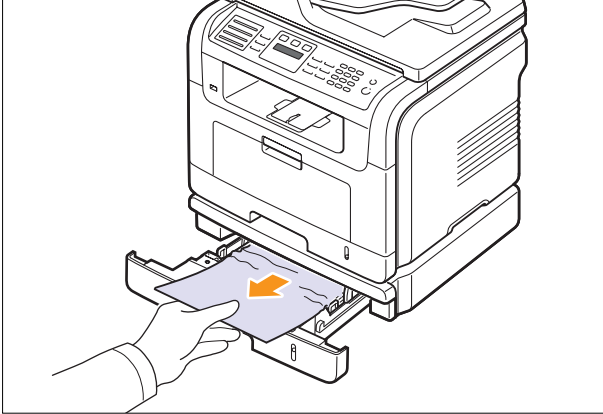
3. Remove the jammed paper by gently pulling it straight out. If the paper does not move when you pull, or if you do not see the paper in this area, check the fuser area around the toner cartridge.



4. Insert the tray 1 into the machine until it snaps into place. Printing automatically resumes.

4.2.4 In the optional tray 2

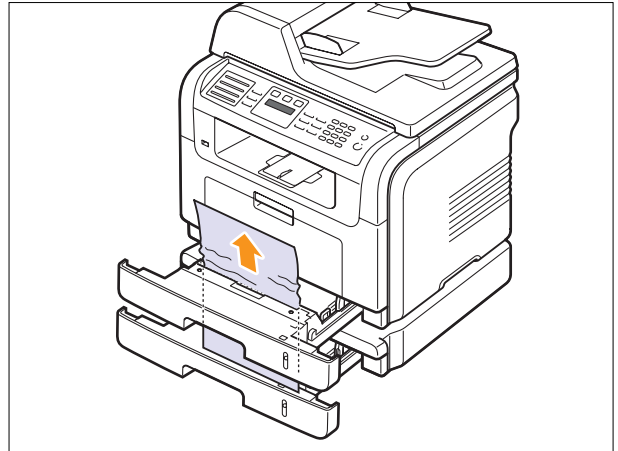
1. Pull the optional tray 2 open.
2. Remove the jammed paper from the machine.



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.

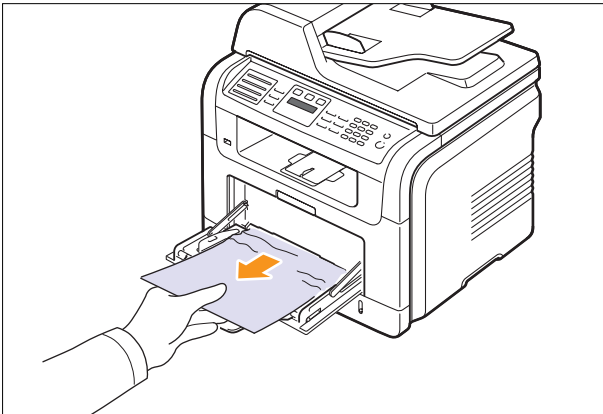
4. Pull the paper straight up and out.



5. Insert the trays back into the machine. Printing automatically resumes.

4.2.5 In the multi-purpose tray

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

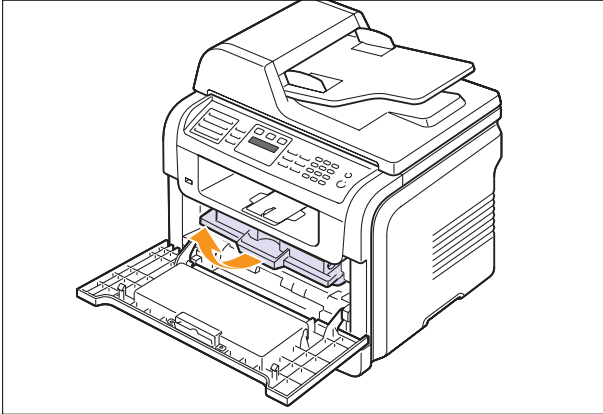


2. Open and close the front cover to resume printing.

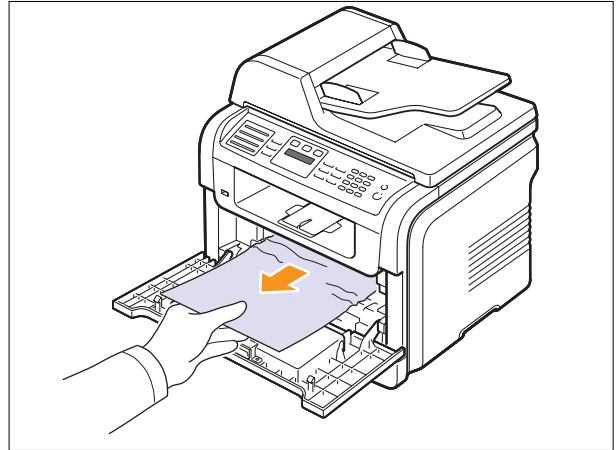
4.2.6 In the fuser area or around the toner cartridge

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

1. Open the front cover and pull the toner cartridge out, lightly pushing it down.



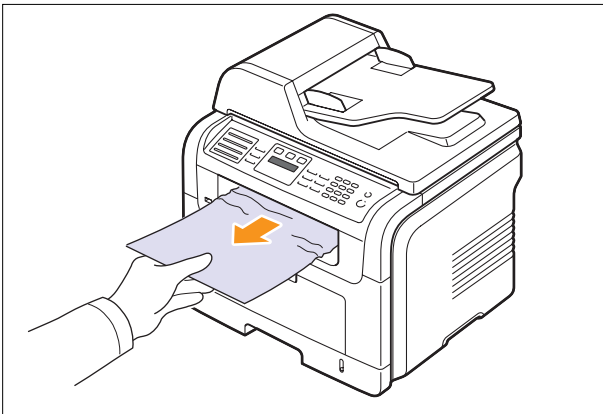
2. Remove the jammed paper by gently pulling it straight out.



3. Replace the toner cartridge and close the front cover. Printing automatically resumes.

4.2.7 In the paper exit area

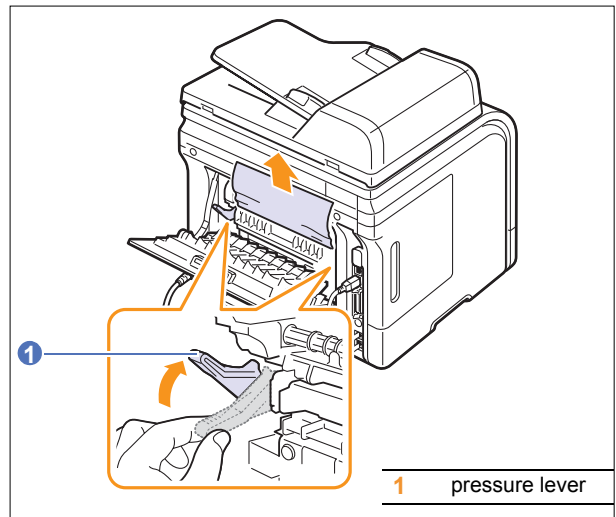
1. Open and close the front cover. The jammed paper is automatically ejected from the machine.
2. Gently pull the paper out of the output tray.



If you do not see the jammed paper or if there is any resistance when you pull, stop and go to the next step.

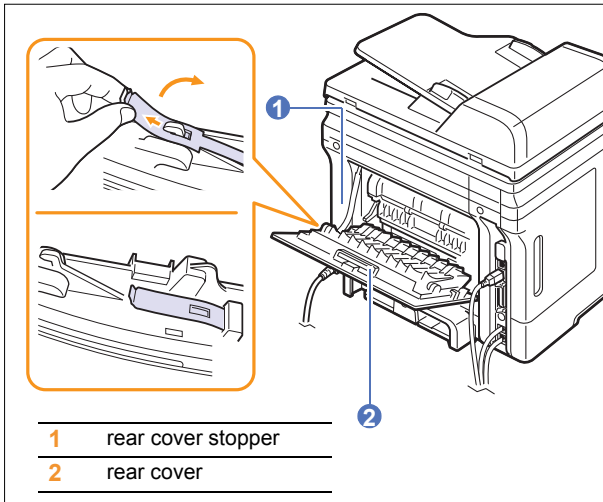
3. Open the rear cover.

4. If you see the jammed paper, push the pressure lever on each side up and remove the paper. Skip to step 9.

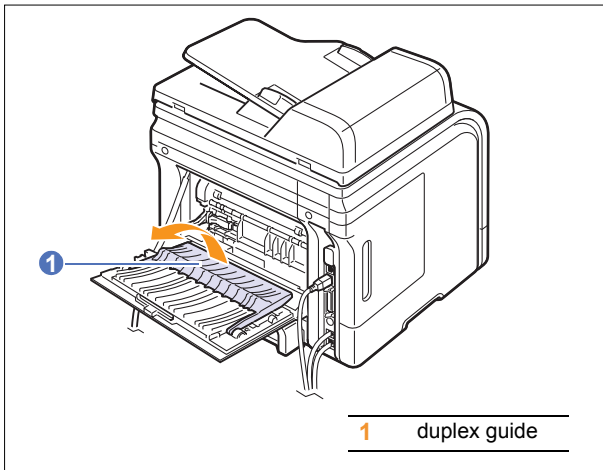


If you still do not see the paper, go to the next step.

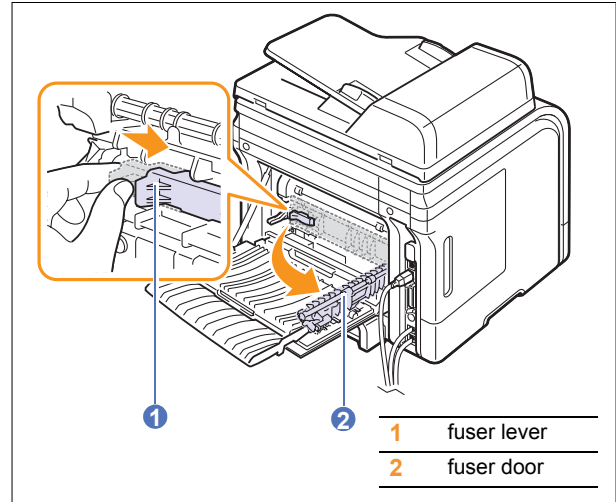
5. Release the white strip, the rear cover stopper, and fully open the rear cover, as shown.



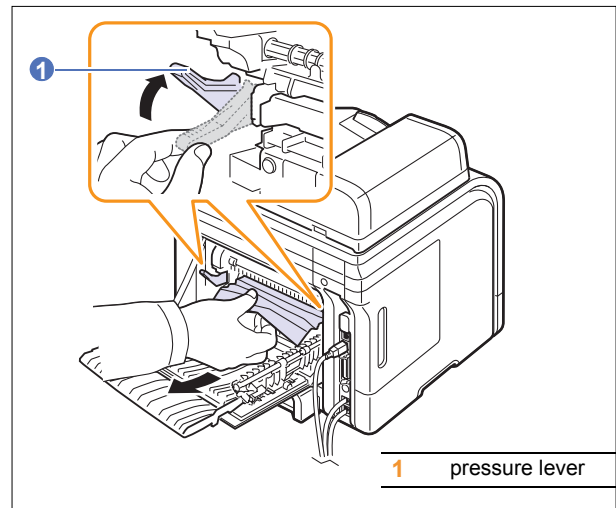
6. Unfold the duplex guide fully.



7. While pushing the fuser lever to the right, open the fuser door.



8. Pull the jammed paper out.
If the jammed paper does not move when you pull, push the pressure lever on each side up to loose the paper, and then remove it.



9. Return the lever, door, stopper, and guide to their original position.

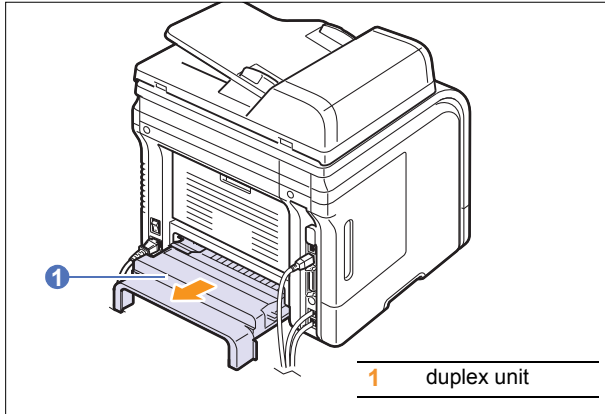
10. Close the rear cover. Printing automatically resumes.

4.2.8 In the duplex unit area (SCX-5530FN only)

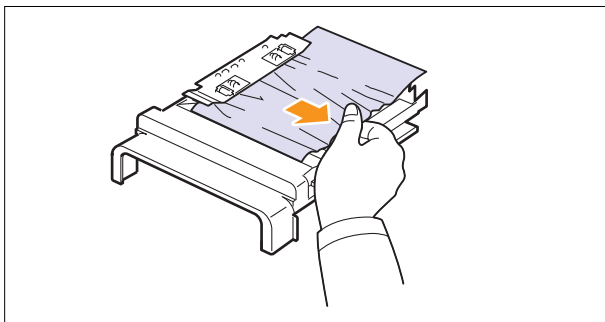
If the duplex unit is not inserted correctly, paper jam may occur. Make sure that the duplex unit is inserted correctly.

Duplex Jam 0

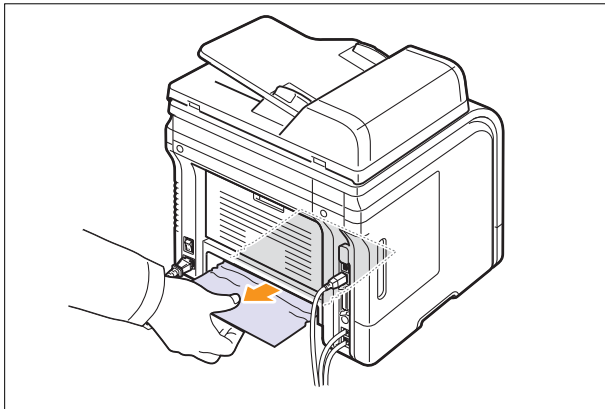
1. Pull the duplex unit out of the machine.



2. Remove the jammed paper from the duplex unit.

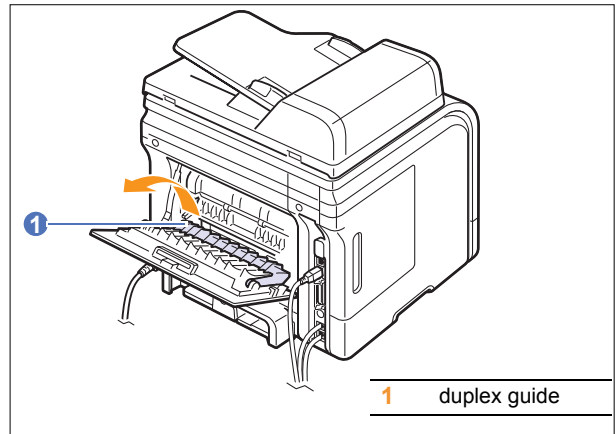


If the paper does not come out with the duplex unit, remove the paper from the bottom of the machine.

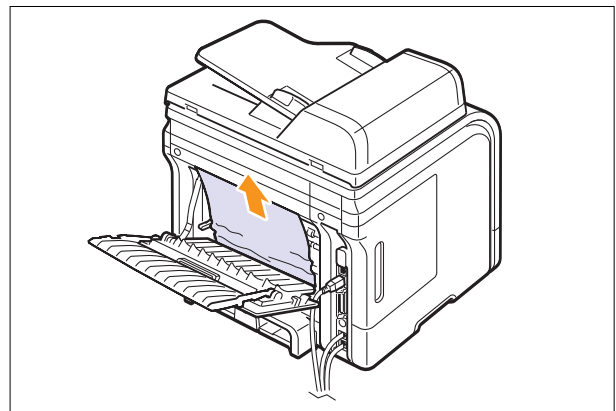


Duplex Jam 1

1. Open the rear cover.
2. Unfold the duplex guide fully.



3. Pull the jammed paper out.



4.3 User Mode

The control panel provides access to various menus to set up the machine or use the machine's functions. These menus can be accessed by pressing Menu. Refer to the following diagram. Menus available in Fax, Copy, or Scan mode vary.

Menus in the colored characters are available only with SCX-5530FN.



4.3.1 Changing the display language

To change the language that appears on the control panel, follow these steps:

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Language appears and press OK.
4. Press the Scroll buttons until the language you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

4.3.2 Setting the date and time

The current date and time are shown on the display when your machine is on and ready to work. For the SCX-5530FN, all of your faxes will have the date and time printed on them.

Note : *If power to the machine is cut off, you need to reset the correct time and date once the power has been restored.*

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Date & Time appears and press OK.
4. Enter the correct time and date using the number keypad.

Month = 01 to 12
 Day = 01 to 31
 Year = requires four digits
 Hour = 01 to 12 (12-hour mode)
 00 to 23 (24-hour mode)
 Minute = 00 to 59

Note : *The date format may differ from country to country.*

You can also use the Scroll buttons to move the cursor under the digit you want to correct and enter a new number.

5. To select AM or PM for 12-hour format, press the * or # button or any number button.
 When the cursor is not under the AM or PM indicator, pressing the * or # button immediately moves the cursor to the indicator.
 You can change the clock mode to 24-hour format (e.g. 01:00 PM as 13:00). For details, see the next section.
6. Press OK to save the time and date.
 When you enter a wrong number, Out of Range appears and the machine does not proceed to the next step. If this happens, simply reenter the correct number.
7. Press Stop/Clear to return to Standby mode.

Changing the clock mode

You can set your machine to display the current time using either a 12-hour or 24-hour format.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Clock Mode appears and press OK.
4. Press the Scroll buttons to select the other mode and press OK.
5. Press Stop/Clear to return to Standby mode.

4.3.3 Changing the default mode (SCX-5530FN only)

Your machine is preset to Fax mode. You can switch this default mode between Fax mode and Copy mode.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Default Mode appears and press OK.
4. Press the Scroll buttons until the default mode you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

4.3.4 Setting sounds (SCX-5530FN only)

You can control the following sounds:

- **Key Sound:** Turns the key sound on or off. With this option set to On, a tone sounds each time a key is pressed.
- **Alarm Sound:** Turns the alarm sound on or off. With this option set to On, an alarm tone sounds when an error occurs or fax communication ends.
- **Speaker:** Turns on or off the sounds from the telephone line through the speaker, such as a dial tone or a fax tone. With this option set to Comm. which means "Common," the speaker is on until the remote machine answers. You can adjust the volume level using On Hook Dial.
- **Ringer:** Adjusts the ringer volume. For the ringer volume, you can select Off, Low, Mid, and High.

Speaker, ringer, key sound, and alarm sound

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press the Scroll buttons until Sound/Volume appears and press OK.
3. Press the Scroll buttons until the sound option you want appears and press OK.
4. Press the Scroll buttons until the desired status or volume for the sound you have selected appears and press OK.
5. If necessary, repeat steps 3 through 5 to set other sounds.
6. Press Stop/Clear to return to Standby mode.

Speaker volume

1. Press On Hook Dial. A dial tone sounds from the speaker.
2. Press the Scroll buttons until you hear the volume you want.
3. Press On Hook Dial to save the change and return to Standby mode.

Note : You can adjust the speaker volume only when the telephone line is connected.

4.3.5 Entering characters using the number keypad

As you perform various tasks, you may need to enter names and numbers. For example, when you set up your machine, you enter your name or your company's name, and the fax number. When you store fax numbers or email addresses in memory, you may also enter the corresponding names.

Entering alphanumeric characters

1. When you are prompted to enter a letter, locate the button labeled with the character you want. Press the button until the correct letter appears on the display.
For example, to enter the letter O, press 6, labeled with MNO.
Each time you press 6, the display shows a different letter, M, N, O, and finally 6.
You can enter special characters, such as space, plus sign, and etc.
For details, see the below section.
2. To enter additional letters, repeat step 1.
If the next letter is printed on the same button, move the cursor by pressing the right Scroll button and then press the button labeled with the letter you want. The cursor will move to the right and the next letter will appear on the display.
You can enter a space by pressing 1 twice.
3. When you have finished entering letters, press OK.

Keypad letters and numbers

Key	Assigned numbers, letters, or characters
1	1 Space
2	A B C 2
3	D E F 3
4	G H I 4
5	J K L 5
6	M N O 6
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	+ - , . ' / * # & @ 0

Correcting numbers or names

If you make a mistake while entering a number or name, press the left Scroll button to delete the last digit or character. Then enter the correct number or character.

Inserting a pause

With some telephone systems, you must dial an access code (9, for example) and listen for a second dial tone. In such cases, you must insert a pause in the telephone number. You can insert a pause while you are setting up speed buttons or speed dial numbers.

To insert a pause, press Redial/Pause at the appropriate place while entering the telephone number. A - appears on the display at the corresponding location.

4.3.6 Using the save modes

Toner Save mode

Toner Save mode allows your machine to use less toner on each page.

Activating this mode extends the life of the toner cartridge beyond what one would experience in the normal mode, but it reduces print quality.

To turn this mode on or off, press Toner Save.

Note : When PC-printing, you can also turn on or off Toner Save mode in the printer properties. See the Software Section.

Power Save mode

Power Save mode allows your machine to reduce power consumption when it is not in actual use. You can turn this mode on and select a length of time for which the machine waits after a job is printed before it switches to a reduced power state.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Power Save appears and press OK.
4. Press the Scroll buttons until On appears and press OK.
5. Press the Scroll buttons until the time setting you want appears and press OK.
- 6 Press Stop/Clear to return to Standby mode.

Scan Power Save mode

Scan Power Save mode allows you to save power by turning off the scan lamp. The scan lamp under the scanner glass automatically turns off when it is not in actual use to reduce power consumption and extend the life of the lamp. The lamp automatically wakes up after some warm-up time when you start scanning.

You can set the length of time for which the scan lamp waits after a scan job is completed before it switches to the power save mode.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Scan PWR Save appears and press OK.
4. Press the Scroll buttons until the time setting you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.

4.3.7 Setting print job timeout

You can set the amount of time a single print job is active before it must print.

The machine handles incoming data as a single job if it comes in within the specified time. When an error occurs while processing data from the computer and the data flow stops, the machine waits the specified time and then cancels printing if data flow does not resume.

1. Press Menu until System Setup appears on the bottom line of the display and press OK.
2. Press OK when Machine Setup appears.
3. Press the Scroll buttons until Job Timeout appears and press OK.
4. Press the Scroll buttons until the time setting you want appears and press OK.
5. Press Stop/Clear to return to Standby mode.








4.4 Tech Mode

4.4.1 How to Enter Tech Mode

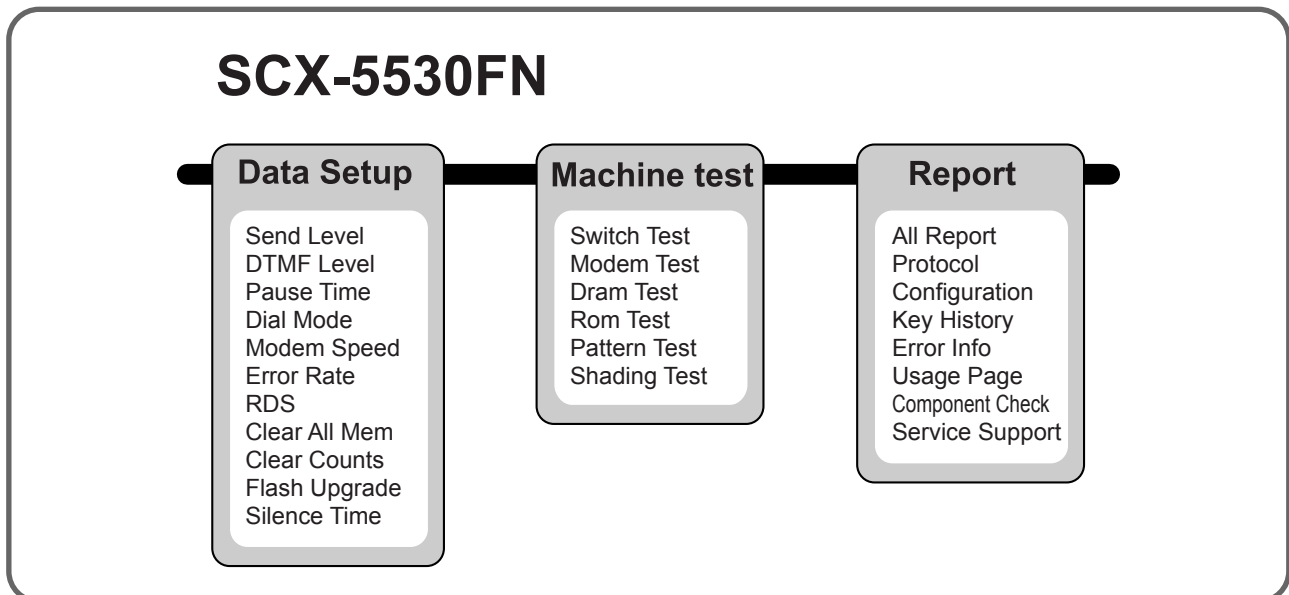
In service (tech) mode, the technician can check the machine and perform various test to isolate the cause of a malfunction.

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

To enter the Tech mode

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

4.4.2 Setting-up System in Tech Mode



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 at the best condition in the shipment from factory. Never change settings arbitrarily.

DIAL MODE

This function can choose dial method.

*Default : Dial(Dial/Pulse)

MODEM SPEED

You can set the maximum modem speed.

Communication is done with modem speed automatically set at lower speed when communicating with a slower speed modem since communication is done on the standard of the side where modem speed is low for transmission/reception. It is best set 33.6Kbps as 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] at the 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

Flash Upgrade

The Firmware Upgrade function has two methods, Local and Remote.

1) Local Machine Upgrade

• RCP(Remote Control Panel) mode

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

< Method >

How to Update Firmware using RCP

1. Connect PC and Printer with Parallel Cable or USB Cable.
2. Execute RCP and select Firmware Update.
3. Search Firmware file to update with Browse Icon.
4. Click Update icon, firmware file is transmitted to Printer automatically and printer is initialized when it finished.
5. Click Refresh icon and check what is updated.

• DOS Command mode

This method is just for Parallel Port. Connect to PC with Parallel cable and enter DOS Command to upgrade the Firmware

< Method >

1. The first of all, need the files : down.bat, down_com.bin, fprt.exe, and Rom File:
file name for upgrade. Save the files in the same folder.
2. In the DOS, input as below and push the enter key. Then, it will be automatically upgraded.
3. There are two commands for the conditions of product.
* When the product is in idle condition down "rom file"
* When the product is in Ready condition (TECH MODE ; DATA SETUP ; FLASH UPGRADE ; LOCAL) copy/b
"rom file" lpt1
4. Do not turn off the power while upgrading process.

2) Remote Upgrade

This is a function that a fax with the latest firmware sends files to a fax in long distance through telephone line.

< Method >

1. Before remote upgrade, the latest firmware should be loaded into the machine.
(TECH MODE ; DATA SETUP ; FLASH UPGRADE ; REMOTE)
2. Input the fax number, which needs to be upgraded. (Several faxes can be upgraded at the same time. In this case, enter the each fax number.)
3. After push the enter button, send the firmware file by calling to the appointed number. (Around 10~15 minutes needs to send the file.)

< Caution >

1. sending and receiving fax must be the same model.
2. A sending fax must be set up as ECM mode, and a receiving memory must be set up as 100%. If not, the function operates abnormally

S/W of Maintenance

1. Clearing the Memory

- You can selectively clear information stored in your machine ;\$1memory.
 - 1) Press Menu on the control panel until; Maintenance ; appears on the top line of the display.
 - 2) Press the scroll button (left-key or right-key) until you see; Clear Memory ; on the bottom line and press Enter
 - The first available menu item; Clear All Mem. ; displays on the bottom line.
 - See next page - There are some item to display on the LCD.
 - 3) Press the scroll button (left-key or right-key) until you see the item you want to clear.
 - 4) Press Enter. The selected memory is cleared and the display asks you to continue clearing the next item.
 - 5) To clear another item, press Enter and repeat steps 3 and 4
 - To return to Standby mode, press Stop/Clear.
 - As below item you can selectively clear information stored in your machine ;\$1memory.
- Clear All Mem.:
 - Clears all of the data stored in the memory and resets all of your settings to the factory default.
- Paper Setting:
 - Restores all of the Paper Setting options to the factory default.
- Copy Setup:
 - Restores all of the Copy Setup options to the factory default.
- Fax Setup:
 - Restores all of the Fax Setup options to the factory default.
- Fax Feature:
 - Cancels all of the scheduled fax jobs in the machine ;\$1memory.
 - As below item you can selectively clear information stored in your machine ;\$1memory.
- Advanced Fax:
 - Restores all of the Advanced Fax setting options to the factory default.
- Sound/Volume:
 - Resets the sound and volume settings to the factory default.
- Machine Setup:
 - Resets all of the system settings, such as the machine ID, date and time, display language and save modes, to the factory default.
- Sent Report:
 - Clears all of records of your faxes sent.
- RCV Report:
 - Clears all of records of your faxes received.
- Phone Book:
 - Clears the one-touch, speed and group dial numbers stored in the memory.

2. Adjust shading

- When the scan unit becomes dirty, it can alter the shading value.
- If your copy has black lines or is blurred, adjust the shading setting.
 - 1) Load a sheet of white paper into the ADF.
 - 2) Make machine Tech mode.
 - 3) Press Menu on the control panel and scroll until; Machine Test ; displays.
 - 4) Scroll to; Shading Test ; and Enter.
 - 5) Select; Shading&Print ; appears on the bottom line and press Enter.
 - 6) Your machine picks up the paper and adjusts the shading value.
 - 7) After adjusting, shading value will be printed with graphic image.

3. Flash Upgrade

- The Firmware Upgrade function and has two methods, Local and Remote.

3.1 Local Machine

• RCP(Remote Control Panel) mode

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

< Method >

How to Update Firmware using RCP

1. Connect PC and Printer with Parallel Cable or USB Cable.
2. Execute RCP and select Firmware Update.
3. Search Firmware file to update with Browse Icon.
4. Click Update icon, firmware file is transmitted to Printer automatically and printer is initialized when it finished.
5. Click Refresh icon and check what is updated.

• DOS Command mode

This method is just for Parallel Port. Connect to PC with Parallel cable and enter DOS Command to upgrade the Firmware

< Method >

1. The first of all, need the files : down.bat, down_com.bin, fprt.exe, and Rom File: file name for upgrade.Save the files in the same folder.
2. In the DOS, input as below and push the enter key. Then, it will be automatically upgraded.
3. There are two commands for the conditions of product.
 - * When the product is in idle condition down "rom file"
 - * When the product is in Ready condition (TECH MODE ; DATA SETUP ; FLASH UPGRADE ; LOCAL) copy/b "rom file lpt1
4. Do not turn off the power while upgrading process.

3.2 Remote Upgrade

This is a function that a fax with the latest firmware sends files to a fax in long distance through telephone line.

< Method >

1. Before remote upgrade, the latest firmware should be loaded into the machine.(TECH MODE ; DATA SETUP ; FLASH UPGRADE ; REMOTE)
2. Input the fax number, which needs to be upgraded. (Several faxes can be upgraded at the same time. In this case, enter the each fax number.)
3. After push the enter button, send the firmware file by calling to the appointed number. (Around 10~15 minutes needs to send the file.)

< Caution >

1. sending and receiving fax must be the same model.
2. A sending fax must be set up as ECM mode, and a receiving memory must be set up as 100%.
If not, the function operates abnormally

4. Remote Diagnostic System(RDS)

- RDS and FT-EGT Automatic Ordering System, will enhance the quality and the speed of after sales service and monitor the performance of the MFP at the customer site.
- MFP Should be connected by MFP Server.

4.1 Required components of RDS

RDS for MFP system consists of the following three components that communicate with each other

1. Main RDS Server connected to FAX-MODEM.
2. RDS Client Application.
3. RDS on MFP.

4.2 Enable of RDS on MFP

This value is in Tech Mode.

The factory default for Consumables Status Update / Error Proactive value is Disabled.

< Method >

1. MFP Should be connected by RDS Server.
2. Service numbers should have the proper values.
: TECH MODE ; DATA SETUP ; NOTIFY TONER ; 2.RDS ; Service Number.
3. Machine Serial No. should have the proper values.
: TECH MODE ; DATA SETUP ; NOTIFY TONER ; 1.Toner ; Serial No.
4. Criter value input is optional, default is set to 1000-page.
: TECH MODE ; DATA SETUP ; NOTIFY TONER ; 2.RDS ; Criter.Value.
5. Remote Test should be On
: Maintenance ; Remote Test ; On
6. Change the password : if you forgot the; Notify Toner ; password, enter the new password.
: TECH MODE ; DATA SETUP ; NOTIFY TONER ; RDS ; RDS Password.
7. If you are to enable the RDS system,; Notify Toner ; option should be [Off].

4.3 Call setup & Release

In order to perform any RDS activity on a Customer MFP, the SVC will have to setup a call to it.

- On successful completion of call setup, one or more RDS functions can be executed before call release is manually initiated.
- When connecting to a device, RDS will query the MFP for serial no. If Serial No. is a zero-length string / invalid string, user will be prompted to enter a valid serial no. for the device. If the user chooses not to enter the serial number at that point, he can enter/edit it later also; Serial number will be configurable just like any other MFP parameter
- Following successful connection, following details of the MFP will be displayed :
Tel. No, Model, Server Port (that is connected to), Status, Serial Number, Firmware Version, Engine Version, Emulation Version
- In case the established call is dropped due to an error condition, RDS Client Application will notify the user. It will then be necessary to manually request for another call setup to the desired MFP before any RDS function can be re-attempted.
- If no activity is detected on a connected call for a maximum duration of 5 minutes (300 seconds), the call will be released / disconnected from the MFP-side.

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. If no transmission signal sound is heard, it means the modem part of the main board malfunctioned.

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 if the printer mechanism is functioning properly. It is needed in the production progress. Service person doesn't need to use it.

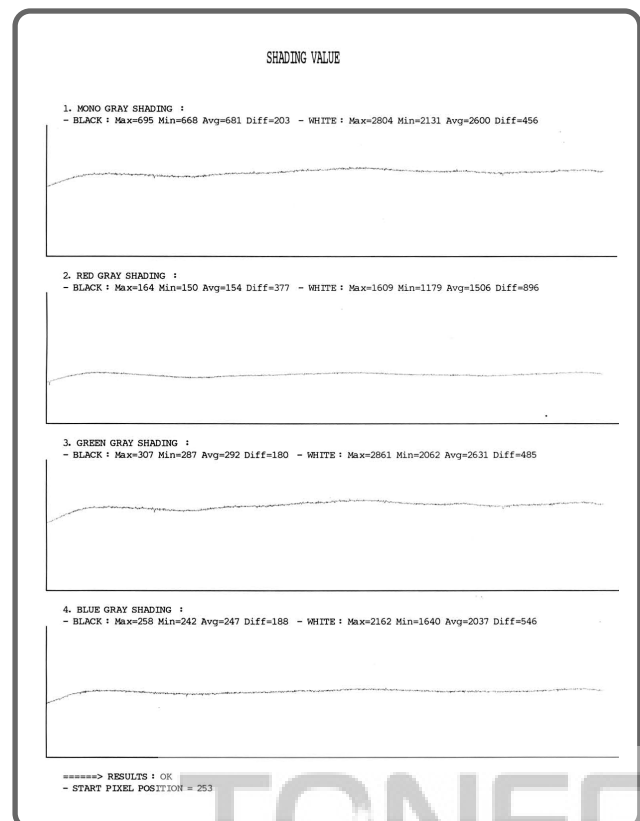
SHADING TEST

The function is to get the optimum scan quality by the specific character of the CCD(Charge Coupled Device). If the copy image quality is poor, perform this function to check the condition CCD unit.

< Method >

1. Select the [ADJUST SHADING] at the TECH MODE.
2. Push the SET UP button then an image will be scanned.
3. After the scan, CCD SHADING PROFILE will be print out.
4. If the printed image is different to the image, the CCD is defect.

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



4.4.5 Report

PROTOCOL 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.

OTHER ITEM

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

Component Check

Configuration Report		
Date/Time	: FEB-14-2004 06:14PM SAT	
Fax Number	:	
Fax Name	:	
Model Name	: SCX5530FN	
Options	Item	Status
Copy Tray	[Tray1/Tray2...]	Auto
Fax Tray	[Tray 1/Auto]	Auto
Paper type	[Plain Paper/Bond...]	Plain Paper
Tray Paper	[Letter/A4...]	Letter
MP Tray Size	[Letter/A4...]	Letter
Clock Mode	[12 Hour/24 Hour]	24 Hour
Language	[English/French...]	English
Power Save	[5/10/15/30/45]	30 Min
Scan PWR Save	[0.5/1/4/8/12 Hours]	0.5 Hours
Ignore Toner	[On/Off]	Off
Default Darkness	[Light/Normal/Dark]	Normal
Default Image	[Text/Mixed/Photo]	Text
Default Reduce/Enlarge	[Original/Lg1->Ltr...]	100%
Default Number of Copy	[1-99]	1
Timeout	[15/30/60/180/Off]	[30 sec]
Receive Mode	[Fax/Tel...]	Fax
Ring To Answer	[1-7]	1
Darkness	[Light/Normal/Dark]	Normal
Redial Term	[0-15]	3
Redials	[0-13]	2
MSG Confirm	[On/Off/OnErr]	On-Err
Auto Report	[On/Off]	On
Auto Reduction	[On/Off]	On
Discard Size	[0-30 MM]	[20 MM]
RCV Start Code	[0-9]	[*9*]
DRPD Mode	[On/Off]	Off
Send Forward	[On/Off]	Off
RCV Forward	[On/Off]	Off
Security Mode	[On/Off]	Off
Prefix Dial	[Fax Number]	[]
Stamp RCV Name	[On/Off]	Off
ECM Mode	[On/Off]	On
Speaker	[On/Off/Comm]	Comm
Ringer	[Off/Low/Med/High]	Med
Key Sound	[On/Off]	Off
Alarm Sound	[On/Off]	On
Set Tx Level	[09-15]	-12 dB
Dial Mode	[Tone/Pulse]	Tone
Modem Speed	[33.6/28.8...]	33.6 kbps
Error Rate	[5%/10%]	[10%]
Silence Time	[12 Sec/Unlimit/Off]	Off
Firmware/Engine Version	: OS 1.00.86.07 11-31-2005	0.8.00
Emulation Version	: PCL5e 5.21 11-10-2005	PCL6 5.14 11-03-2005
	: PS3 V0.96.16 11-25-2005	QPDL 5.16 11-09-2005
PDF Version	: PDF V1.00.15 11-22-2005	
Total Page Counts	: 4294967295	
CRU Prints	: 4294967295 (74310)	
Replaced Toner Counts	: 4294901760	
ADF/Platen Scan Page Counts	: 0	0
CRUM Vendor/Serial	:	
IP Address/Memory Size	: 192.0.0.192	96 Mbytes

4.4.6 Detail Description

Function Name	Description	Display
01.Motor Test	The main motor keeps running after the execution key is chosen and stops when the stop key is chosen.	Main Motor On(Off)
02.Pick Up Test	automatically stops, when the execution is chosen.	Tray 1,2 Solenoid On/Off
03.Fan Test	The fan keeps running after the execution key is chosen and stops when the stop key is chosen.	Fan On(Off)
04.Manual Clutch Test	The tray2,3 clutch is on for 1sec and then it automatically stops, when the execution is chosen.On this function, the main motor runs before 2sec from the point of the clutch on in order to check the clutch state.	Tray 2,3 Clutch On/Off
11.LSU Motor	Test The laser motor keeps running after the execution key is chosen and stops when the stop key is chosen.	Laser Motor On(Off)
12.LSU Hsync Test	"Laser Leady" is displayed, When the Laser Scanning Unit is ready to print. On the other case "Laser Error"	Laser Leady On(Off)
13.LD Test	"Diode On" is displayed, when the laser diode is on. On the other case "Diode Off" is displayed.	Diode On(Off)
21.Feed Sen Test	These Functions are considered to check the present state (normal or not)of the Sensors.	"Sensor Off"to " Sensor On "
22.Exit Sen Test		
23.Cover Sen Test	After the cover is open, touch the sensor and confirm the message changed "Cover Open" to " Cover Close"	"Cover Open" to "Cover Close"
24.Empty Sen Test	These Functions are considered to check the present state (normal or not)of the Sensors.	"Sensor Off"to " Sensor On "
25.Manual Sen Test		
31.Them ADC 180	"current value"is displayed on the upper line of the panel, and "target value"on the bottom line. Target value is limited from "191°C" to "80°C"	Input and output value are ADC value.(refer to the ADC table)
32.Them ADC 140		
33.Them ADC 120		
34.Them ADC 100		
41.MHV Test	These Functions are considered to check whether the control for HVPS is normal or not.	MHV On(Off)
42.Dev Bias Test		Dev Bias On(Off)
43.THV EN/NEG Test		THV EN/NEG On(Off)
44.THV ON(1300V)		THV On(Off)
45.THV ADC 1300V		ADC value displayed.
46.THV ADC 600V~3500		ADC value displayed.

4.5 Identify Sale Date

This function confirms the date that consumer bought product and used the product for the first time. When the consumer first operate the machine, it will start a scan and page count. The time the machine was first used is remembered.

These settings are are remembered after memory delete (Clear All Memory).

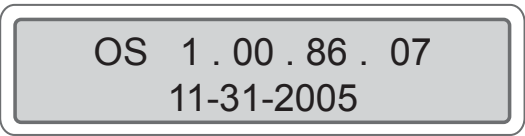
< Method >

Press MENU, #, 1, 9, 3, # in sequence. Firmware version is displayed on LCD.

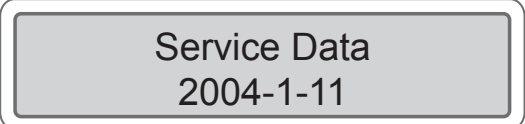
Press 1(in the number keypad) : The LCD display shows "Updated date"

Press 2(in the number keypad) : The LCD display shows "Product first use date"

< Display >



OS 1 . 00 . 86 . 07
11-31-2005



Service Data
2004-1-11

4.6 Consumables and Replacement Parts

The cycle period outlined below is a general guideline for maintenance.
The example list is for an average usage of 50 transmitted and received documents per day.
Environmental conditions and actual use will may vary.
The cycle period given below is for reference only.

COMPONENT	REPLACEMENT CYCLE
ADF Rubber Pad	20,000 Pages
ADF Roller	60,000 Pages
Pick-up Roller	150,000 Pages
Transfer Roller	70,000 Pages
Fuser	80,000 Pages
Tray Rubber Pad	150,000 Pages

The diagram illustrates a river network with a central island. The river flows from the top right, through the island, and exits at the bottom left. Seven nodes are marked with blue circles and numbers: 1, 2, 3, 4, and 5 are on the island; 6 and 7 are on the right side of the river. Arrows indicate the flow direction.

- | No | Roller | Abnormal image period | Kind of abnormal image |
|----|-----------------|-----------------------|---|
| 1 | OPC Drum | 75.5mm | White spot, Block spot |
| 2 | Charge Roller | 37.7mm | Black spot |
| 3 | Supply Roller | 53.2mm | Horizontal density band |
| 4 | Develop Roller | 39.2mm | Horizontal density band |
| 5 | Transfer Roller | 47.1mm | Black side contamination/transfer fault |
| 6 | Heat Roller | 88.9mm | Black spot and fuser ghost |
| 7 | Pressure Roller | 101.3mm | Black side contamination |

4.8 Display LED and Error Messages

4.8.1 Display LED

The Status LED on the control panel shows the status of your machine. See the table below to know your machine's status.

Status		Description
Off		<ul style="list-style-type: none"> ✧ The machine is off-line. ✧ The machine is in Power Save mode. When data is received, or any button is pressed, it switches to on-line automatically.
Green	On	The machine is on-line and can be used.
	Blinking	<ul style="list-style-type: none"> ✧ When the backlight slowly blinks, the machine is receiving data from the computer. ✧ When the backlight fast blinks, the machine is printing data.
Red	On	<ul style="list-style-type: none"> ✧ The toner cartridge is totally exhausted. Remove the old toner cartridge and install a new one. ✧ A paper jam has occurred. To solve the problem. ✧ The front cover is open. Close the front cover. ✧ There is no paper in the tray. Load paper in the tray. ✧ The machine has stopped due to a major error. Check the display message for details on the meaning of the error message.
	Blinking	<ul style="list-style-type: none"> ✧ A minor error occurs and the machine is waiting an error to be cleared. Check the display message. When the problem is cleared, the machine resumes. ✧ The toner cartridge is low. Order a new toner cartridge. You can temporarily improve print quality by redistributing the toner.

4.8.2 Error Message

Messages appear on the Smart Panel program window or the control panel display to indicate the machine's status or errors. Refer to the tables below to understand the messages' meaning and correct the problem if necessary. Messages and their meanings are listed in alphabetical order.

Note : When you call for service, it is very convenient to tell the service representative the display message.

Messages in the colored cells are available only with SCX-5530FN.

Message	Meaning	Suggested solutions
Authentication Failed	The ID or password you entered is incorrect.	Enter the correct ID or password
Cancel? 1:Yes 2:No	Your machine's memory has become full while trying to store an original into memory.	To cancel the fax job, press the 1 button to accept Yes. If you want to send those pages that have been successfully stored, press the 2 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.
Data Read Fail Check USB Mem.	Time expired while reading data.	Try again.
Data Write Fail Check USB Mem.	Storing to the USB memory failed.	Check the available USB memory space.
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.
Duplex Jam 0 Check Inside	Paper has jammed during duplex printing.	Clear the jam.
Duplex Jam 1 Open/Close Door	Paper has jammed during duplex printing.	Clear the jam.
Enter Again	You entered an unavailable item.	Enter the correct item again.

Message	Meaning	Suggested solutions
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.
File Format Not Supported	The selected file format is not supported.	Use the correct file format.
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 remote machine does not have the requested feature, such as polling. This message also occurs if the remote machine does not have enough memory space to complete the operation you are attempting.	Reconfirm the remote machine features.
Install Toner	A toner cartridge is not installed. or bad contact between CRUM terminals and CRUM B'd	Install a toner cartridge.
Invalid Server Address	The server address you have entered is invalid.	Enter the correct server address.
Invalid Cartridge	The toner cartridge you have installed is not compatible with your machine.	Install a Samsung-genuine toner cartridge, designed for your machine.
Line Busy	The receiving fax machine did not answer or the line is already engaged.	Try again after a few minutes.
[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.
Invalid Toner	The toner cartridge you have installed is not for your printer.	Install a Samsung-genuine toner cartridge, designed for your printer.

Message	Meaning	Suggested solutions
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, please call for service.
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, please call for service.
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, please call for service.
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 Dial Full	You are trying to schedule a fax job when memory for storing fax jobs is full.	Wait until a scheduled job is completed.
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 speed button 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.

Message	Meaning	Suggested solutions
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, please call for service.
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, please call for service.
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.
Replace Toner	The toner cartridge installed is not a genuine cartridge.	Replace the toner cartridge with a new one.
Retry Redial?	The toner cartridge installed is not a genuine cartridge.	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.

Message	Meaning	Suggested solutions
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.
Toner Empty	The toner cartridge has run out. The machine stops printing.	Replace the toner cartridge with a new one.
Toner Low	The toner cartridge is almost empty.	Take out the toner cartridge and thoroughly shake it. By doing this, you can temporarily reestablish printing operations.
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.
Nongenuine Toner ◀ STOP ▶	The toner cartridge installed is not a genuine cartridge.	You can select Stop or Continue. If you do not select any, the printer will work as stop is selected. If you select stop, you cannot print until the genuine cartridge is installed. However, you can still print any kind of reports. If you select continue, you can keep printing but the quality cannot be guaranteed and the product support is no longer provided. If you want to change the selection, turn the printer off and on to have this message appear again, and then re-select stop or continue.
Nongenuine Toner Replace Toner 1	The toner cartridge installed is not a genuine cartridge.	This message appears when you selected stop at the Non Genuine Toner prompt. Install the genuine toner cartridge.
Nongenuine Toner Replace Toner	The toner cartridge installed is not a genuine cartridge.	This message appears when you selected stop at the Non Genuine Toner prompt. Install the genuine toner cartridge.

Message	Meaning	Suggested solutions
Toner Exhausted ◀ STOP ▶	The life span of the toner cartridge is reached.	You can select either stop or continue. If you do not select any, the printer will as stop is selected. If you select stop, you cannot print untill the genuine cartridge is installed. If you select continue, you can keep printing but the guality cannot be guaranteed, and the product svpport is no longer provided. If you wunt to change the selection, turn the printer off and on to gave this message apper again, and then re-select stop or continue.
Toner Exhausted Replace Toner 1	The life span of the toner cartridge is reached.	This message appears when you selected stop at the Toner Exhausted prompt. Install the genuine toner cartridge.
Toner Exhausted Replace Toner	The life span of the toner cartridge is reached.	This message appears when you selected continue at the Toner Exhausted prompt. Install the genuine toner cartridge.