SAMSUNG

SERVICE *Manual*

SCX-6345N

The keynote of Product

The alternative of A3 copier models.

1. Print Speed:
   · Simplex Print: Up to 45 ppm/Ltr, 43 ppm/A4
   · Duplex Print: Up to 40 ppm/A4

2. Main Processor: SPGPv3(400MHz) + CIP4e

3. Device Memory(SDRAM):
   · 256MB System Memory (FAX:16MB), Max. 384MB
   · Option : 128MB (DIMM Slot 1EA)

4. Toner(20K), Drum(60K)

5. Standard:
   · Copy
   · Direct Print & N/W Print
   · Direct Scan (USB)
   · DADF
   · HDD(40GB)

6. Option:
   · N/W Scan/OEK(Option Enable Key)
   · FAX/Smart DAA, Single LIU
   · SCF (550 sheet)
   · Finisher with Stapler
   · Ext. Memory: 256MB
   · Stand: Short/Tall

7. Machine Life: 1,000K Pages
   · Average Monthly Print Volume: 10K Pages

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ELECTRONICS

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1. Precautions

In order to prevent accidents and to prevent damage to the equipment please read the precautions listed below carefully before servicing the printer and follow them closely.

1.1 Safety Warning

(1) Only to be serviced by appropriately qualified service engineers.
High voltages and lasers inside this product are dangerous. This printer should only be serviced by a suitably trained and qualified service engineer.

(2) Use only Samsung replacement parts
There are no user serviceable parts inside the printer. Do not make any unauthorized changes or additions to the printer, these could cause the printer to malfunction and create electric shock or fire haz-ards.

(3) Laser Safety Statement
The Printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, chapter 1 Subchapter J for Class 1(1) laser products, and elsewhere, it is certified as a Class I laser product con-forming to the requirements of IEC 825. Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

Warning >> Never operate or service the printer with the protective cover removed from Laser/Scanner assembly. The reflected beam, although invisible, can damage your eyes. When using this product, these basic safety pre-cautions should always be followed to reduce risk of fire, electric shock, and injury to persons.

CAUTION - INVISIBLE LASER RADIATION WHEN THIS COVER OPEN. DO NOT OPEN THIS COVER.

VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.

ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.

PRECAUCION - RADIACION LASER IVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.

ADVARSEL. - USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

ADVARSEL. - USYNLIG LASERSTRÅLNING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

注 意 - 严禁渴开此盖, 以免激光泄露灼伤

주 의 - 이 덮개를 열면 레이저광에 노출될 수 있으므로 주의하십시오.

1.2 Caution for safety

1.2.1 Toxic material

This product contains toxic materials that could cause illness if ingested.

(1) If the LCD control panel is damaged it is possible for the liquid inside to leak. This liquid is toxic. Contact with the skin should be avoided, wash any splashes from eyes or skin immediately and contact your doctor. If the liquid gets into the mouth or is swallowed see a doctor immediately.

(2) Please keep Drum cartridge and Toner Cartridge away from children. The toner powder contained in the Drum cartridge and Toner Cartridge may be harmful and if swallowed you should contact a doctor.

1.2.2 Electric Shock and Fire Safety Precautions

Failure to follow the following instructions could cause electric shock or potentially cause a fire.

(1) Use only the correct voltage, failure to do so could damage the printer and potentially cause a fire or electric shock.

(2) Use only the power cable supplied with the printer. Use of an incorrectly specified cable could cause the cable to overheat and potentially cause a fire.

(3) Do not overload the power socket, this could lead to overheating of the cables inside the wall and could lead to a fire.

(4) Do not allow water or other liquids to spill into the printer, this can cause electric shock. Do not allow paper clips, pins or other foreign objects to fall into the printer these could cause a short circuit leading to an electric shock or fire hazard..

(5) Never touch the plugs on either end of the power cable with wet hands, this can cause electric shock. When servicing the printer remove the power plug from the wall socket.

(6) Use caution when inserting or removing the power connector. The power connector must be inserted completely otherwise a poor contact could cause overheating possibly leading to a fire. When removing the power connector grip it firmly and pull.

(7) Take care of the power cable. Do not allow it to become twisted, bent sharply round corners or other wise damaged. Do not place objects on top of the power cable. If the power cable is damaged it could overheat and cause a fire or exposed cables could cause an electric shock. Replace a damaged power cable immediately, do not reuse or repair the damaged cable. Some chemicals can attack the coating on the power cable, weakening the cover or exposing cables causing fire and shock risks.

(8) Ensure that the power sockets and plugs are not cracked or broken in any way. Any such defects should be repaired immediately. Take care not to cut or damage the power cable or plugs when moving the machine.

(9) Use caution during thunder or lightening storms. Samsung recommend that this machine be disconnected from the power source when such weather conditions are expected. Do not touch the machine or the power cord if it is still connected to the wall socket in these weather conditions.

(10) Avoid damp or dusty areas, install the printer in a clean well ventilated location. Do not position the machine near a humidifier. Damp and dust build up inside the machine can lead to overheating and cause a fire.

(11) Do not position the printer in direct sunlight. This will cause the temperature inside the printer to rise possibly leading to the printer failing to work properly and in extreme conditions could lead to a fire.

(12) Do not insert any metal objects into the machine through the ventilator fan or other part of the casing, it could make contact with a high voltage conductor inside the machine and cause an electric shock.

1.2.3 Handling Precautions

The following instructions are for your own personal safety, to avoid injury and so as not to damage the printer

(1) Ensure the printer is installed on a level surface, capable of supporting its weight. Failure to do so could cause the printer to tip or fall.
(2) The printer contains many rollers, gears and fans. Take great care to ensure that you do not catch your fingers, hair or clothing in any of these rotating devices.
(3) Do not place any small metal objects, containers of water, chemicals or other liquids close to the printer which if spilled could get into the machine and cause damage or a shock or fire hazard.
(4) Do not install the machine in areas with high dust or moisture levels, beside on open window or close to a humidifier or heater. Damage could be caused to the printer in such areas.
(5) Do not place candles, burning cigarettes, etc on the printer, These could cause a fire.

1.2.4 Assembly / Disassembly Precautions

Replace parts carefully, always use Samsung parts. Take care to note the exact location of parts and also cable routing before dismantling any part of the machine. Ensure all parts and cables are replaced correctly. Please carry out the following procedures before dismantling the printer or replacing any parts.

(1) Check the contents of the machine memory and make a note of any user settings. These will be erased if the mainboard or network card is replaced.
(2) Ensure that power is disconnected before servicing or replacing any electrical parts.
(3) Disconnect printer interface cables and power cables.
(4) Only use approved spare parts. Ensure that part number, product name, any voltage, current or temperature rating are correct.
(5) When removing or re-fitting any parts do not use excessive force, especially when fitting screws into plastic.
(6) Take care not to drop any small parts into the machine.
(7) Handling of the OPC Drum
  - The OPC Drum can be irreparably damaged if it exposed to light.
    Take care not to expose the OPC Drum either to direct sunlight or to fluorescent or incandescent room lighting. Exposure for as little as 5 mins can damage the surface's photoconductive properties and will result in print quality degradation. Take extra care when servicing the printer. Remove the OPC Drum and store it in a black bag or other lightproof container. Take care when working with the covers(especially the top cover) open as light is admitted to the OPC area and can damage the OPC Drum.
  - Take care not to scratch the green surface of OPC Drum Unit.
    If the green surface of the Drum Cartridge is scratched or touched the print quality will be compromised.

1.2.5 Disregarding this warning may cause bodily injury

(1) Be careful with the high temperature part.
   The fuser unit works at a high temperature. Use caution when working on the printer. Wait for the fuser to cool down before disassembly.

(2) Do not put finger or hair into the rotating parts.
   When operating a printer, do not put hand or hair into the rotating parts (Paper feeding entrance, motor, fan, etc.). If do, you can get harm.

(3) When you move the printer

   - When transporting/installing the equipment, employ four persons and be sure to hold the positions as shown in the figure.
     The equipment is quite heavy and weighs approximately 45 Kg (including consumables), therefore pay full attention when handling it.

   - Be sure not to hold the movable parts or units (e.g. the control panel, DADF) when transporting the equipment.

   - Be sure to use a dedicated outlet with 110V/220Vpower input.

   - The equipment must be grounded for safety.

   - Select a suitable place for installation. Avoid excessive heat, high humidity, dust, vibration and direct sunlight.

   - Provide proper ventilation since the equipment emits a slight amount of ozone.

   - To insure adequate working space for the copying operation, keep a minimum clearance of 80cm (32") on the left, 80 cm (32") on the right and 10 cm (4") on the rear.

   - The equipment shall be installed near the socket outlet and shall be accessible.

   - Be sure to fix and plug in the power cable securely after the installation so that no one trips over it.

1.3 ESD Precautions

Certain semiconductor devices can be easily damaged by static electricity. Such components are commonly called "Electrostatically Sensitive (ES) Devices", or ESDs. Examples of typical ESDs are: integrated circuits, some field effect transistors, and semiconductor "chip" components.

The techniques outlined below should be followed to help reduce the incidence of component damage caused by static electricity.

Caution >>Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

1. Immediately before handling a semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, employ a commercially available wrist strap device, which should be removed for your personal safety reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ESDs, place the assembly on a conductive surface, such as aluminum or copper foil, or conductive foam, to prevent electrostatic charge buildup in the vicinity of the assembly.

3. Use only a grounded tip soldering iron to solder or desolder ESDs.

4. Use only an "anti-static" solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.

5. Do not use Freon-propelled chemicals. When sprayed, these can generate electrical charges sufficient to damage ESDs.

6. Do not remove a replacement ESD from its protective packaging until immediately before installing it. Most replacement ESDs are packaged with all leads shorted together by conductive foam, aluminum foil, or a comparable conductive material.

7. Immediately before removing the protective shorting material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

8. Maintain continuous electrical contact between the ESD and the assembly into which it will be installed, until completely plugged or soldered into the circuit.

9. Minimize bodily motions when handling unpackaged replacement ESDs. Normal motions, such as the brushing together of clothing fabric and lifting one's foot from a carpeted floor, can generate static electricity sufficient to damage an ESD.

1.4 Super Capacitor or Lithium Battery Precautions

1. Exercise caution when replacing a super capacitor or Lithium battery. There could be a danger of explosion and subsequent operator injury and/or equipment damage if incorrectly installed.

2. Be sure to replace the battery with the same or equivalent type recommended by the manufacturer.

3. Super capacitor or Lithium batteries contain toxic substances and should not be opened, crushed, or burned for disposal.

4. Dispose of used batteries according to the manufacture's instructions.

2. Product Specifications

2.1 Product Overview

1) Major Feature

- SCX-6345N : 45PPM All-in-1 (exclude from Analog Fax)

- Productive 43 cpm output speeds in A4

- 600 x 600 dpi output

- 50-sheet DADF

- Versatile paper supply of up to 2,300 sheets

- 25% - 400% zoom

- Finishing capabilities, including stapling and offset stacking

- Wide Touch Screen (640x240)
  (Simple Intuitive Graphic Touch Screen User Interface)

- Easy to use digital copier with finishing

- Improved Productivity through Super G3 and LAN Faxing with advanced copying capabilities

- Networked digital copier/printer/scanner with its duplex printing and finishing capabilities, plus network scan technology

2) Sales Target

- 20 ~ 100 Persons Workgroup (Corp., SMB)
- Competitive TCO

3) Concept

   - Lower than Half Price of A3 Mono MFP

   - High Performance Network-Ready Print

   - N/W Scan Operation
     · Scan Solution
     · Scan to Client / FTP / SMB
     · Scan to Email
     · SmarThru Workflow

   - Job Accounting
     · Job Records Information (Print/Copy/Scan/Fax)
     · User based History tracking
     · SNMP Job Accounting Access from SWAS
     · Print/Copy/Scan/Fax log tracking (HDD, Server)

   - Security
     · Authentication (LDAP, Kerberos)
     · Secure Printing
     · IP Address Filtering
     · Time / Date / ID Stamp

   - Enhanced UI / Color Touch Screen LCD
     · Enhanced Paper Handling
     · High Capacity Feeder
     · Multi-bin Stacker
     · Multi-position Stapler

   - Document Server
     · Scan / Copy / FAX to HDD
     · File Management
     · Paperless N/W Fax
     · Internet FAX
     · Fax Forward to Email / Folder
     · IP FAX

2.2 Prouduct Specification

No	Items		SCX-6345N	Remarks
1	Speed	Print	Simplex: 45ppm/LTR, 43ppm/A4	
			Duplex: 42ppm/LTR, 40ppm/A4	
		Copy	SDMP: 45ppm/LTR, 43ppm/A4	
			MDSP: 45ppm/LTR, 43ppm/A4	
			Simplex-to-Duplex(1-2): ; Approx. 42ipm/Ltr, 40ipm/A4	
			Duplex-to-Duplex(2-2) collated ; Approx. 17ipm/Ltr, 14ipm/A4	
		Scan	45ppm at 300dpi / 22ppm at 600dpi	N/W Scan(Color 600*300) : 3ipm
2	Resolution	Print	600*600dpi, Addressable 1200dpi	
		Copy/Scan	600*600dpi 100, 200, 300, 400, 600	
3	Processor		SPGPV3 ,400MHz	
4	Emulation		PCL6, PS3	
5	Connectivity		USB 2.0, N/W (PCI base)	USB Printing
6	LCD		Graphic Touch Screen LCD(640x240)	
7	Memory		256MB, Option 128MB	Max. 384MB
8	Warm up	From cold start	Less than 60 sec	
		From Sleep	Less than 35 sec	
9	FPOT	From stand by	Less than 8 sec	
		From Sleep	Less than 40 sec	
10	FCOT	From stand by	From Platen : Less than 6 sec	
			From DADF : Less than 8 sec	
		From Sleep	From Platen : Less than 36 sec	
			From DADF : Less than 36 sec	
11	Reduction & Enlargement		I Zoom Range ; - 25% to 400% in Platen, - 25% to 100% in ADF	
12	Paper Input Capacity	Main/Option Tray	520sheets	
		MP Tray	Up to ; 100sheets	
		ADF	Max 50 sheets	
13	Paper Output Capacity	Face Down	Face Down, 500 sheets	
		ADF	Max 50 sheets	
14	Noise	Standby	under 43dB	
		Print/Copy	During Printing(Simplex) ; under 60dB	
			Copying (Simplex) ; under 62dB	
15	FAX (Option)	Modem Speed	33.6Kbps	
		TX Speed	2.5 sec @ JBIG mode	
			3 sec @ MMR mode	
16	Battery Backup for System		64MB (FAX memory 16MB)	
17	CRU	Initial Toner	20K at ISO 19752 Std.	
		Regular Toner	20K at ISO 19752 Std.	
18	EP-Process	Type	2 component	

No		Items	SCX-6345N	Remarks
19	Option	SCF	520sheets	
		Finisher	stacking ; 500 sheet	
			Stapling 50 sheets max.	
		STAND	Short Stand (Stand Low)	
			Tall Stand (Stand High)	
		Fax	Stamdard G3 PSTN Modem Speed : 33.6Kbs Fax Memory : 16MB	
		Memory	DIMM module up to 256MB	
		Network Scan-E mail	Scan To E mail Network Scan Manager SMB/FTP(Scan to Server)	
20	Accessory	S/W APPLICATION-CD	Network CD	
			Driver CD	
		MANUAL	MANUAL-NETWORK GUIDE	
			MANUAL on CD	
		CBF-POWER CORD	-	
		CBF INTERFACE-USB	-	
		CBF LINE CORD	-	
21	Maintenance Life	Feed Roller	200,000 Feeds	
		Transfer Roller	100,000 images	
		Fuser Unit	200,000 images	
		ADF/Bypass Feed Roller	200,000 Feeds	
		ADF/Bypass Rubber Pad	50,000 Feeds	
22	Reliability	Engine Life	1,000,000 images	
		MPBF	120,000 images	
		AMPV	10,000 images	
		Max Monthly Duty Cycle	100,000 images	10months for Engine Life

2.3 General specifications

ITEM	DESCRIPTION
DADF	Up to 50 sheets
DADF document size	Width:174 to 218 mm Length: 128 to 356 mm for single page scan 　　　　128 to 356 mm for multi pages scan
Paper input capacity	· Tray 1: 520 multi-pages for plain paper 　30 pages for transparencies, labels, card stock, and envelopes · Multi-purpose tray: 100 multi-pages for plain paper, 　10 pages for transparencies, labels, card stock, and envelopes · optional tray 2/3/4: 520 multi-pages for plain paper, 　30 pages for transparencies, labels, and card stock
Paper output capacity	· 500 sheet (face down) · 500 sheet (optional stacker)
Consumables	2-piece toner/drum cartridge system
Power rating	110 - 127 VAC, 50/60 Hz, 9 A 220 - 240 VAC, 50/60 Hz, 4.5 A
Power consumption	Average operation mode: Less than 900 W Power save mode: Less than 35 W Stand by mode: Less than 170 W
Noise level [a]	Standby mode: Less than 43 dBA Printing mode: Less than 60 dBA Copying mode: Less than 62 dBA
Warm-up time	Less than 35 seconds (from sleep mode)
Operating environment	Temperature: 10 ℃ to 32 ℃ Humidity: 20% to 80% RH
Display	1/2 VGA (640 x 240)
Toner cartridge life [b]	20,000 pages at ISO 19752 Std.
Drum cartridge life [b]	60,000 pages
*Memory	256 MB (max. 384 MB)
External dimension (W x D x H)	637.4 x 489 x 616mm (without tray 2/3/4), 25 x 19.25x 24.25 inches
Weight	44.5 Kg (including consumables)
Package weight	Paper: 5.4 Kg, Plastic: 1.2 Kg

a. Sound Pressure Level, ISO 7779

b. The number of pages may be affected by operating environment, printing interval, media type, media size and option.

* Note: This machine comes with 128 MB of on-board memory and a 128 MB DIMM.
　　To expand the memory of your machine, you must remove the existing DIMM and purchase a larger one.

2.4 Printer specifications

ITEM		DESCRIPTION
Printing method		2 Beam Laser Scanning Unit and Electro Photo graphy
Printing speed [a]		Up to 43 ppm in A4 (45 ppm in Letter)
Duplex printing speed		Up to 40 ipm in A4 (42 ipm in Letter)
First print out time		8 seconds (from ready)
Print resolution		Up to 600 x 600 dpi (1200 dpi class)
Printer language		PCL 6, PS 3
OS Support	PCL/PS	Windows 98/Me/NT4.0/2000/XP(32/64bit)/2003 Server(32/64bit), Various Linux OS including Red Hat 8~9, Fedora Core 1~4, Mandrake 9.2~10.1 and SuSE 8.2~9.2 Mac OS 10.3~10.4
	WHQL	Windows 2000/XP/2003 Server
	Network	Windows 98/ME/NT4.0/2000/XP(32/64bits)/2003(32/64bits) NetWare 4.x, 5.x, 6.x Mac OS 8.6~9.2/10.1~10.4 Various Linux OS including Red Hat 8~9, Fedora Core 1~4, Mandrake 9.2~10.1, and SuSE 8.2~9.2 Unix HP-UX, Solaris, SunOS, SCO UNIX
	UNIX Filter	N/A
Printing Support for AS/400		Yes
Direct Printing		PDF 1.4
Interface		High Speed USB 2.0
		Ethernet 10/100 Base TX

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

b. Please visit www.samsungprinter.com to download the latest software version.

2.5 Copier specifications

ITEM	DESCRIPTION
Copy speed [a]	Up to 43 ppm in A4 (45 cpm in Letter)
Duplex Copy speed	· Simplex to Duplex(1-2): Approx. 40 ipm b in A4 (42 ipm in Letter)
	· Duplex to Duplex(2-2): 14 ipm in A4 (17 ipm in Letter)
Copy resolution	Scan: up to 600 x 300 (text, text/photo) up to 600 x 600 (photo using platen) up to 600 x 300 (photo using DADF)
	Print: up to 600 x 600 (text, text/photo, photo)
Zoom rate	25% ~ 400% (Platen), 25% ~ 200% (ADF)
Multiple copies	1 to 999 pages

a. Copy Speed is based on Single Document Multiple Copy.

b. images per minute

2.6 Scanner specifications

ITEM	DESCRIPTION
Compatibility	TWAIN standard / WIA standard
Scanning method	DADF and Flat-bed Color CCD (Charge Coupled Device) module
Resolution	Optical: 600 x 600 dpi (mono and color)
	Enhanced: 4,800 x 4,800 dpi
Effective scanning length	Scanner glass: 348 mm
	DADF: 348 mm
Effective scanning width	Max 208 mm
Color bit depth	Internal: 36 bit
	External: 24 bit
Mono bit depth	1 bit Linearity & Halftone
	8 bits (External), 12 bits (Internal) for Gray Scale
Grayscale	256 levels

2.7 Facsimile specifications (optional)

ITEM	DESCRIPTION
Compatibility	ITU-T Group 3
Applicable line	Public Switched Telephone Network (PSTN) or behind PABX
Data coding	MH/MR/MMR/JBIG/JPEG (Tx only)
Modem speed	33.6 Kbps
Transmission speed	Approx. 3 seconds/page [a]
Maximum document length	Scanner glass: 356 mm
	Duplex automatic document glass: 356 mm
Resolution	· Standard: 203 x 98 dpi
	· Fine: 203 x 196 dpi
	· Super Fine: 300 x 300 dpi, 406 x 392 dpi, 203 x 392 dpi (Rx only)
Memory 1	16 MB
Halftone	256 levels
Auto dialer	up to 200 numbers (all numbers / Max group avail)

a. Transmission time applies to memory transmission of text data with ECM compression using only ITU-T No.1 Chart.

2.8 Scan to Email (optional)

ITEM		DESCRIPTION
HW, S/W Requirements		Need Scan Enable Kit
Authentication	ID/Password Login	LDAP/Kerberos/SMB/Local Authentication
Protocol		SMTP, MIME(Base 64)
Max. Capacity of Message	Message size	1/2/3/4/5/10MB
	Local Address Book	Up to 200
Max. Scan Area		Up to Legal size in Platen, DADF
Basic Sending Mode	Address Entry	Manual EntryLocal Address Book (Up to 200 Users)LDAP
	Duplex	- 1-Sided - 2-Sided - 2-Sided & Rotate Side2
	Resolution	Color: 100, 200, 300 Mono: 100, 200, 300, 400, 600 Gray: 100, 200, 300, 400, 600
Image control Mode	Original Size	Auto, Custom, Mixed Size
	Original type	Text, Text/Photo, Photo, Color
	Darkness	5 Levels
	Sharpness	No
	Erase Background	Yes (On/Off)
	Erase Edge	Yes
Output Control	Quality/File Size	Normal Quality
	File Formats	BMP, TIFF-S, TIFF-M, JPEG, PDF

2.9 NW Scan (Scan to SMB/FTP/HTTP(S))

ITEM		DESCRIPTION
HW, S/W Requirements		SCX-KIT10S
Authentication	ID/Password Login	LDAP/Kerberos/SMB/Local Authentication
Protocol		SMB, FTP
Template settings	Server Address	IPv4 Address or DNS name
	Port Number	0 ~ 65535
Basic Entry	Color	Yes
	Resolution	Color: 100, 200, 300 Mono: 100, 200, 300, 400, 600 Gray: 100, 200, 300, 400, 600
	Original Size	Auto, Manual, Mixed Size
Image control	Original type	Text, Text/Photo, Photo
	Darkness	5 Levels
	Erase Background	Yes (On/Off)
	Erase Background	Yes (On/Off)
Output Control	Quality/File Size	Normal Quality
	File Formats	TIFF-S, TIFF-M, JPEG, PDF

2.10 SmarThru Workflow

ITEM		DESCRIPTION
HW, S/W Requirements		SCX-KIT11S
OS	Server	Windows 2000/XP/2003 Server
	Cient	OS including Windows that supports IE5.5 or higher
Server	No. of user	Up to 1,000 user (up to 100 Workforms per user)
	No. of device	Up to 100 device (up to 10 devices at the same time)
	Address Entry	Server: Device: Server Address book + each Device's Phonebook, Email Address book Local(HD) + Local(SmarThru Workflow) + Global(LDAP) Address book UI
Scan To	Folder(SMB)	Yes (Via SmarThru Server)
	Email	Yes (Via SmarThru Server)
	OCR	Yes (Via SmarThru Server)
	FTP	Yes (Via SmarThru Server)
	Fax	Tx to Fax Server (Via SmarThru Server)
	HTTP/S	No
	Print	Color scan(Mono Print) to Color Print (Via SmarThru Server)
Fax to	Folder	Yes (Via SmarThru Server)
	Email	Yes (Via SmarThru Server)
	OCR	N/A (Fax Resolution is too low)
	FTP	Yes (Via SmarThru Server)
	Fax	similar with Server Fax solution (Via SmarThru Server)
	Print	Yes (Via SmarThru Server)
	HTTP/S	No
Security	SSL/TLS	SSLV3.0, TLS V1.0
	Authentication	LDAP, Kerberos v5.0
	IPv6	NO

2.11 Paper Handling

ITEM		DESCRIPTION
Input Capacity	Main Tray	Up to 520sheets @ 75g/㎡
	MP Tray	100sheets @ 75g/㎡
	Optional Cassette (SCX-S6345A)	520 sheets @ 75g/㎡Max. three additional cassettes could be attached (SEE Tray2 Option for more information)
	Sensing(Cassette)	H/W Install Sensor: Yes Paper Empty Sensor: Yes Paper Size Detect: Partially YES (A4,Ltr.,Legal,Folio,Oficio, Executive) Paper Type Detect: No
Output Capacity	Face Down	500 sheets @ 75g/㎡
	Face Up	N/A
	Sensing	Paper Full Sensor: Yes
Tray 1/2/3/4	Media Size	Letter, Legal, Oficio, Folio, A4, JIS B5, ISO B5, Executive, A5, Statement, A6, PostCard 4x6, Envelope B5, Envelope Monarch, Envelope COM-10, Envelope DL, Envelope C5, Envelope C6, Custom
	Media Size Control Guide	Min: 98.0 mm x 148 mm (3.86"x5.83") Max: 215.9 mm x 355.6 mm (8.5"x14.0")
	Media type	Plain Paper, Thin Paper, Bond, Punched, Pre-Printed, Recycled, Envelope, Transparency, Label, CardStock, Letterhead,Thick,Cotton,Colored,Archive
	Mdeia Weight	Plain Paper: 60~90g/㎡(16~24 lb) (Duplex : 20~24lb) Thin Paper: 60g/㎡(16 lb) Bond: 105~120g/㎡(28~32 lb) Punched: 60~90g/㎡(16~24 lb) Pre-Printed : 60~90g/㎡(16~24 lb) Recycled : 90~108g/㎡(20~24 lb) Envelope : 75~90g/㎡ Transparency : 138~146
MP Tray	Media Size	Letter, Legal, Oficio, Folio, A4, JIS B5, ISO B5, Executive, A5, Statement, A6, PostCard 4x6, Envelope B5, Envelope Monarch, Envelope COM-10, Envelope DL, Envelope C5, Envelope C6, Custom
	Media Size Control Guide	Min: 98.0 mm x 148 mm (3.86"x5.83") Max: 215.9 mm x 355.6 mm (8.5"x14.0")
	Media type	Plain Paper, Thin Paper, Bond, Punched, Pre-Printed, Recycled, Envelope, Transparency, Label, CardStock, Letterhead,Thick,Cotton,Colored,Archive
	Mdeia Weight	16~43 lb.
	Paper empty sensor	Yes
	Paper size detection	No

ITEM		DESCRIPTION
DADF	Model Code	Standard
	Document Weight	50~120 g/sm(12.5~28lb = 0.07mm~0.13mm)
	Capacity	50 sheets @ 75g/㎡
	Document Size	Width: 174 ~ 218mm (6.9"~8.5") Length : 128 ~ 356mm (5" ~ 14.0") for Single page scan 128 ~ 400mm (5" ~ 15.7") for Multi pages scan
	Document Type	MN standard except transparencies
	Original size detection	Letter or A4, Legal, and Small Size
Others	High Capacity Feeder	N/A
	Envelope	N/A
	Finisher	SEE "Finisher"
	Stapler	SEE Stapler spec in "Finisher"

2.12 Model Comparison

ITEM		SCX-6345N	SCX-6320F
Max. Speed @ Letter		45 ppm	22 ppm
H/W	Processor	500 MHz	120 MHz
	Memory	256 MB (max. 384MB)	32 MB
	HDD	40 GB	N
FCOT		< 6 second	-
Resolution	Copy	600 x 600 dpi	600 x 600 dpi
	Print	Addr. 1200 dpi	FastRes 1200 dpi
Fax	Speed	up to 33.6 Kbps	up to 33.6 Kbps
	Resolution	up to 600 dpi	up to 600 dpi
	Compression	MMR/MR/MH, JBIG, JPEG	MH/MR/MMR/JBIG/JPEG (Color/Transmission)
Scan	Resolution	up to 600 dpi	up to 600 dpi
Max. Docu. Size	Platen	Legal	Legal
	DADF	Legal	Legal
Paper Handling	Max. Paper Supply	2300	1050
User Interface	LCD	640 x 240	20 characters X 2 lines
	Type	Graphic / Touch-Screen	with Backlight
Interface		USB 2.0, N/W	IEEE1284(ECP), USB(without HUB mode)

2.13 PM(Preventive Maintenance) List

PM Parts

Description	Part No.	Life	Qty	Remark
Pickup Roller	JC97-02259A	200,000	3	-
Fuser Unit	JC96-03724A	200,000	1	-
Transfer Roller	JC97-02287A	100,000	1	-
DADF Rubber PAD	JC97-01846A	50,000	1	for DADF
DADF Feed Roller	JC97-02277A	200,000	1	for DADF
Bypass Rubber PAD	JC97-02260A	50,000	1	for MP Tray
Bypass Feed Roller	JC96-03533A	200,000	1	for MP Tray

Maintenance Kit

	Top Code	Parts	Part No.	Quantity	Lifetime
Maintenance Kit1	SCX-V6345A/SEE	Pick-Up Roller	JC97-02259A	3	200,000
		Fuser Unit	JC96-03724A	1	200,000
		Quick Install Guide	New	1	-
		Box,Cushion,Label Master Box (4box/1master box)	New	1	-

	Top Code	Parts	Part No.	Quantity	Lifetime
Maintenance Kit2	SCX-V6345B/SEE	Transfer Roller	JC97-02287A	5	100,000
		Quick Install Guide	New	1	-
		Box,Cushion,Label Master Box (4box/1master box)	New	1	-

3

3. System Overview

The SCX-6345 Series is a networked Multi-Function Peripheral (MFP) integrating a plain fax, a B/W laser printer, a color flatbed scanner, and a B/W copier, and a Scan-To-Email sender (5-in-1 with DADF). The Jungfrau series can be expanded to support non-scan and FAX functions such as Copy ?only or Copy and printer functions(2-in-1 with DADF). Jungfrau is developed for workgroup office customers. The main product concept is "High Speed and High Quality". This model has 45 ppm letter print-speed, 3 sec transmission-speed for fax, 33.6kbps fax-transfer rate, optical 600 dpi color scanner, and 1200 dpi printer.
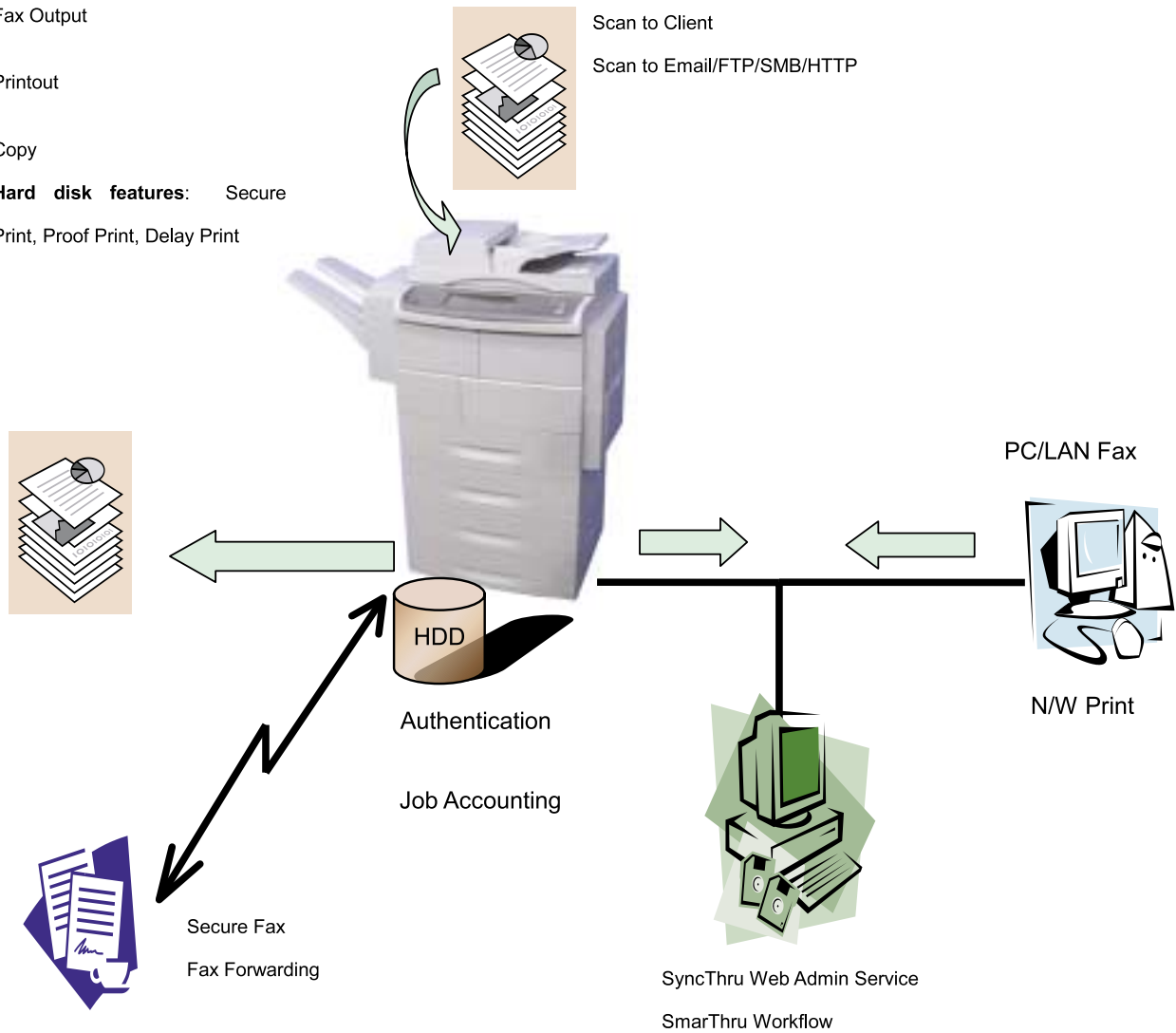
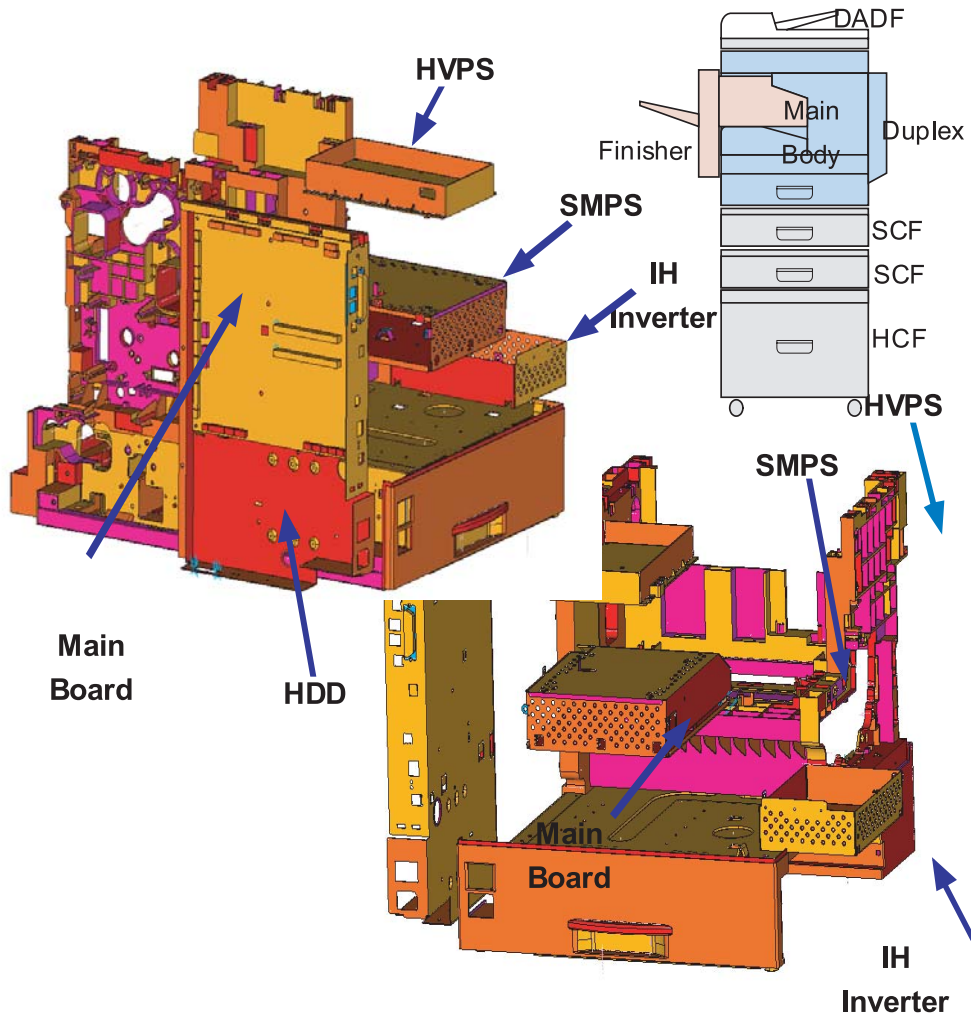**Network Solution Center**

Scan

Fax Output

Printout

Copy

Hard disk features: Secure Print, Proof Print, Delay Print

Scan to Client

Scan to Email/FTP/SMB/HTTP

PC/LAN Fax

N/W Print

HDD

Authentication

Job Accounting

Secure Fax

Fax Forwarding

SyncThru Web Admin Service

SmarThru Workflow

3.1 System Lay-out

HVPS

SMPS

IH Inverter

Main Board

HDD

DADF

Finisher

Main Body

Duplex

SCF

SCF

HCF

HVPS

SMPS

**Main Board**

IH Inverter

3.2 System Description

3.2.1 System controller architecture

Largely, SCX-6345N consists of Main Control Part, Operation Panel Part, Scanner Part, Line Interface Part, Power Part and Network Interface Card, Optional DIMM(Dual-In-Memory Module) for Scan-To-Email.

Main Controller is commonly applied in all products, Jungfrau Series, and in case of necessary a part of components or Module is selectively adopted in accordance with required feature of each model.

Each Part is designed with emphasis on Common-Use/Standardization with other models as independent module.
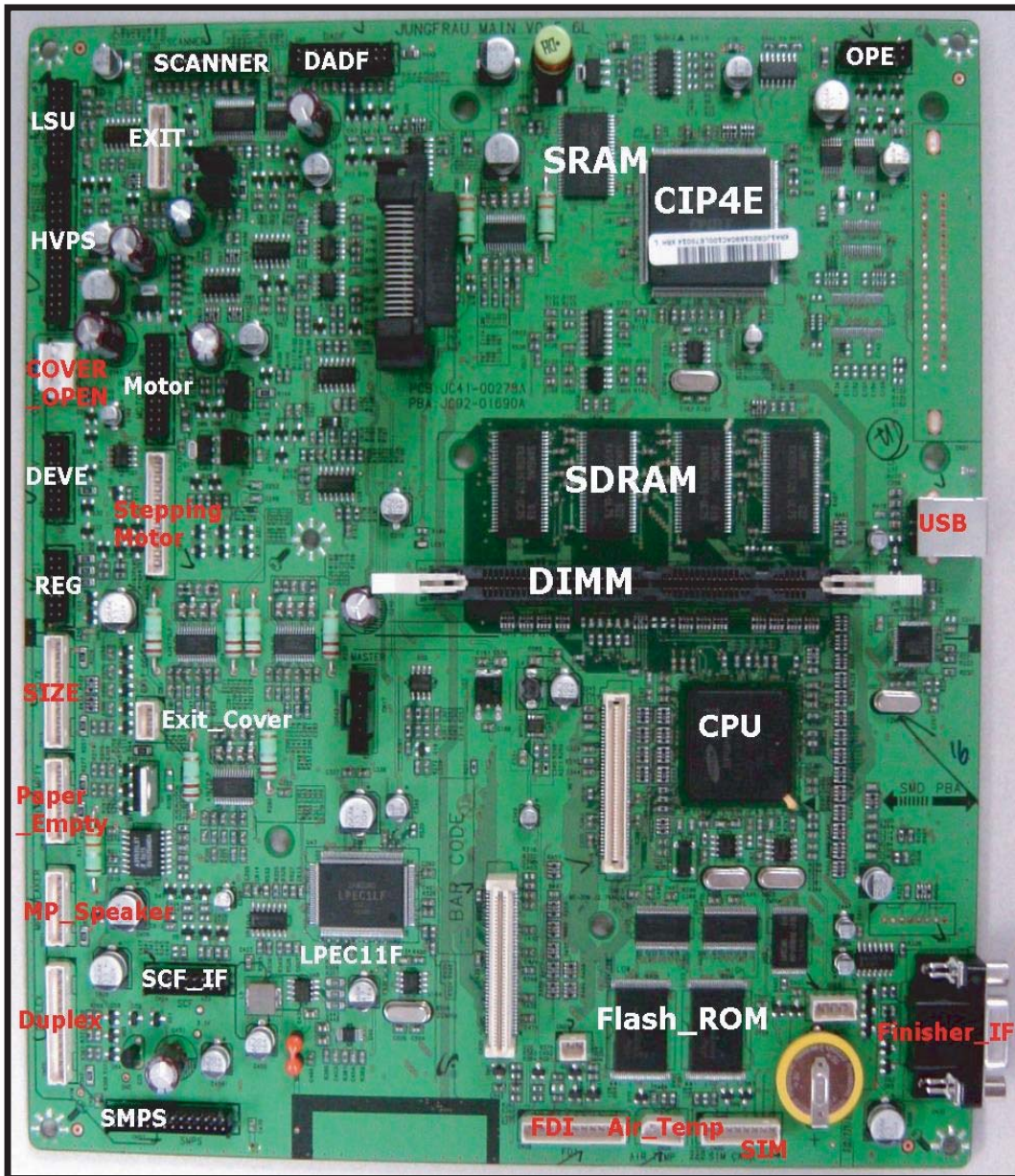
· System Block Diagram
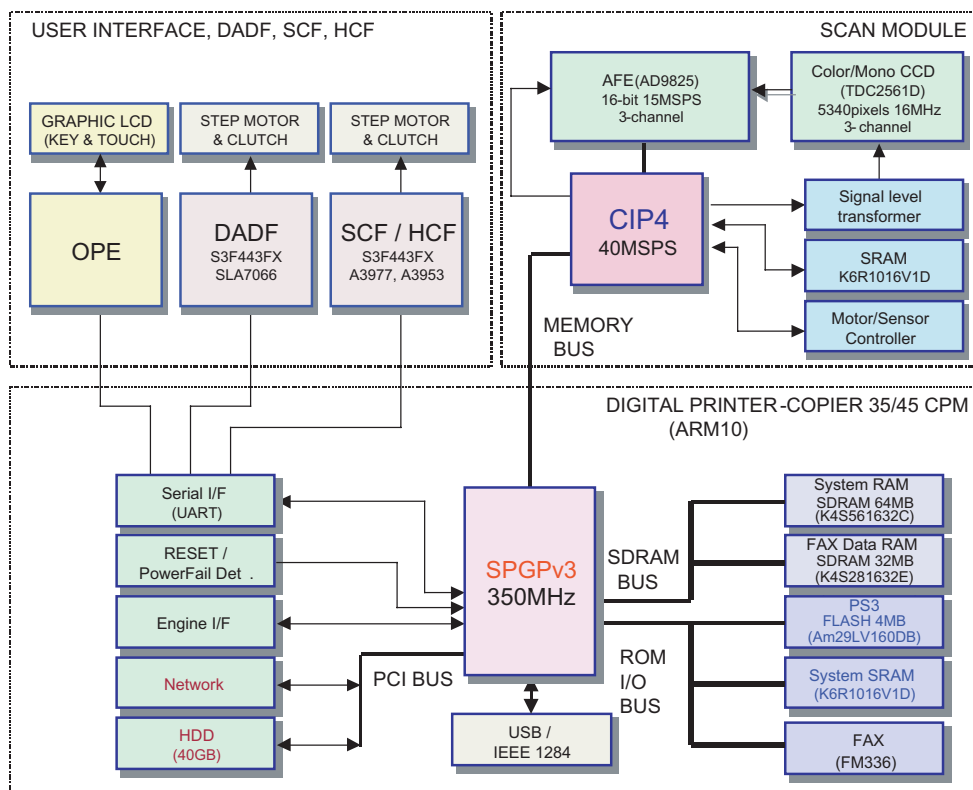
(note) This System Block diagram only for reference (will be updated with next version)

3.2.2 Main Controller

The Main Control Part comprises 1 CPU and 1 B'D by adopting the dedicated Controller for Fax & LBP.
The Scanner Part comprises ADF& CCD and connected with Main through Harness.

1) CPU (SPGPV3)

It uses the ARM 1020E, 32Bit RISC Processor, which is dedicated Controller for Printer & Fax function and drives the each internal Operation Block by system program of Flash Memory and thereby controlling the whole System.

- Main Function Block : Completely Integrated System for Embedded Applications,

▶ 32 Bit RISC Architecture, Efficient and Powerful ARM 1020E Core.

▶ LSU Interface Module for Interfacing PVC or HPVC with LSU

▶ 4 Channel General Purpose DMA Controller for High Speed I/O

▶ Dual Memory Bus Architecture

- Operation Frequency : AHB Bus: 100MHz, Internal System Bus: 120MHz

- Operation Power : 3.3V/1.3V(core)

- POWER ON RESET TIME : 5.6ms or less

2) Flash Memory

It stores system program, Fonts data(PCL, PS/3), and can download the system program through PC Interface or Network.

It is used as Journal List for FAX and One Touch Dial & Speed Dial List..

- Capacity : 16M Byte, Access Time : 80 nsec

3) System Memory (SDRAM)

It is used as Swatch Buffer for Printing, Scan Buffer for Scanning and System Working Memory Area.

- System memory : 64 MB Capacity

- Data memory (for Fax data and Scan-To-Email, Network Scan memory) ; 64MB

- Max Frequency : 100 MHz

- It preserves the Fax Receive Memory by using Battery.

4) System Data Memory (SRAM)

This memory, which is for storing the operation variable & the setting parameter of SCX-6345N, keeps the information with using Backup Battery even in case of Power-off.

3.2.3 Network Interface Card (NIC) Block Diagram - Option

This device is necessary to provide users with Network Printing, Network Scanning, Scan-To-Email function and helps manage Jungfrau machine efficiently in Network environment with Embedded Web Service when installing this device.

This device, which comprising Network Printer Card-related circuit is designed for providing users with easy-install through screwing with Main Control Board by 80 pin connector.
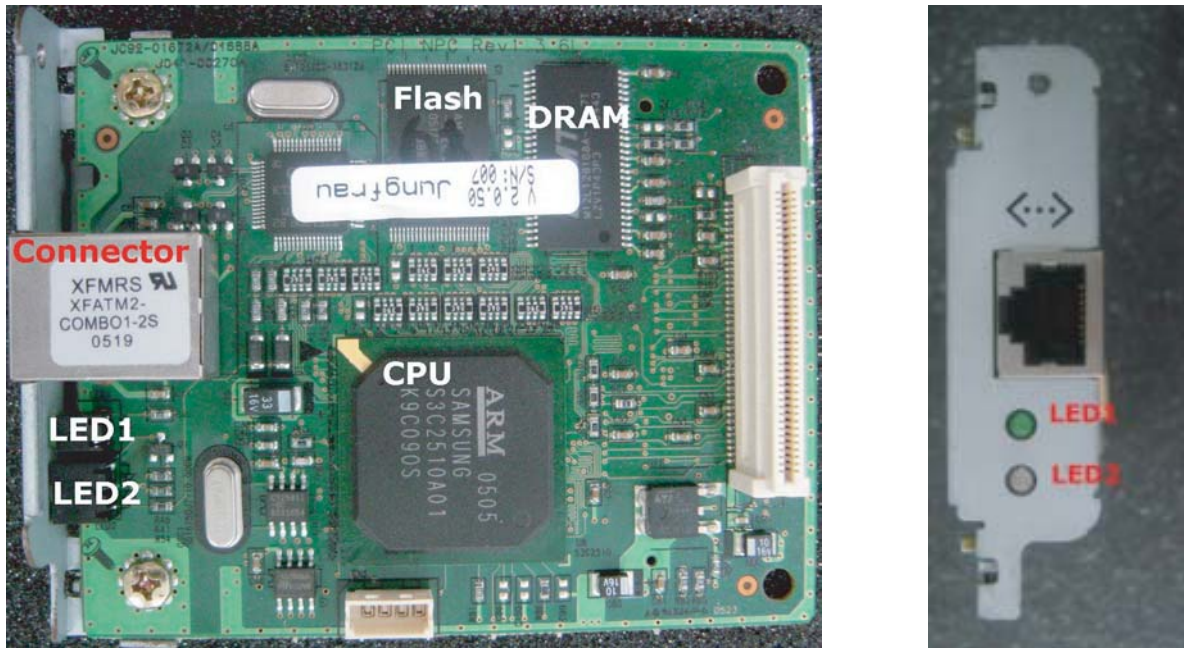
1) CPU (ARM7 based S3C2510)

This device includes IEEE802.3 MAC Core as 32Bit RISC Controller only for Network Control having ARM9 Core. It converts/uses 10MHz input clock into 33MHz System clock by using internal PLL.

The communication between Main PBA and CPU enables the high-speed/high-efficiency transmission through 33MHz PCI Bus

2) ROM (Flash Memory)

Jungfrau uses 2MB Flash Memory for operating System Program.

This Flash Memory stores software for NIC Firmware which controls entire Network Protocol and software for Embedded Web Service & Network Management.

Flash Memory Size needs to be extended or reduced in case Embedded Web Service requires like Embedded Web Pages & MIB besides Network Printing and Scan-To Email function.

This Flash Memory can be upgraded through Network by using EWS or MIB.

3) RAM

16MB SDRAM is used as System Program buffer or Network Data buffer.

4) PHY ; STE100P PHY chip

Converting Network signal into Digital signal, it supports MII and requires 10MHz clock input.

5) RJ-45

6) LEDs

Comprising 2 LEDs, it functions as displaying the Network Link status and System Operation status.

7) Clock

System clock which is needed in Network Card operation, it needs the precision of 10MHz ±50PPM.
X-tal application

8)EEPROM

Non-volatile memory for storing Network setting parameters, it stores the various parameters like TCP/IP and Netware.

9) 80 pin Connector

This device is Connector for interfacing with Main Controller B'd ; PCI Bus, Power 3.3V

3.2.4 Option Memory (DIMM)

■ SCX-6345N provides one (1) Extension Slots for extending Memory. The RAM Extension Slot can be used for:

· General Memory Extension
  128 MB Optional Memory is available.

■ System standard 256M: Buffer for printing, scan and system working memory area.
  Primarily used for system memory(240MB) and FAX Data storage(16MB).

■ DIMM : available 128MB (System memory : Max 384MB)
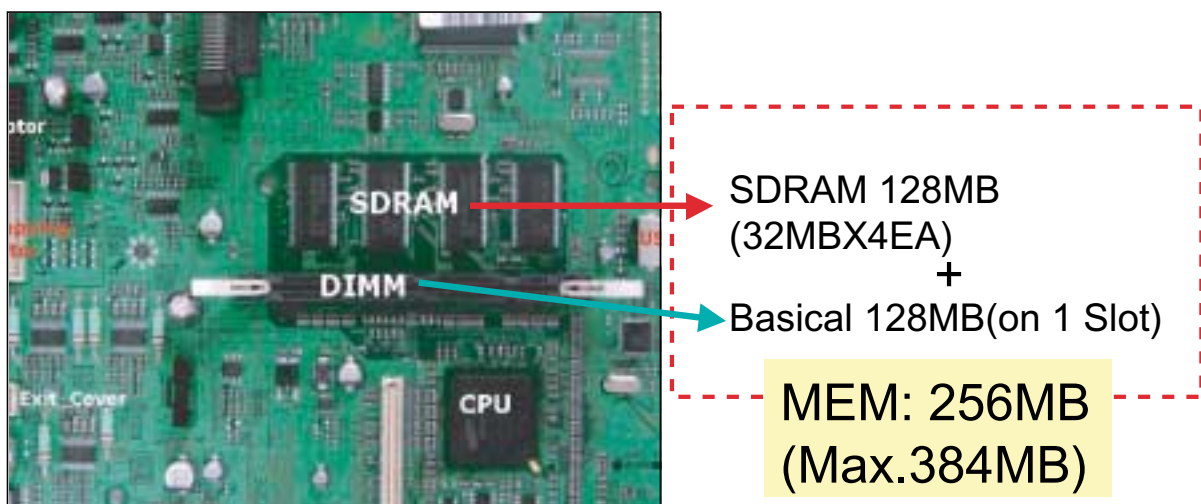
※**Note:** This machine comes with 128 MB of on-board memory and a 128 MB DIMM.
        To expand the memory of your machine, you must remove the existing DIMM and purchase a larger one.

3.2.5 SDRAM

■ Memory Size

  - SDRAM: 240MB for Data and 16MB for FAX
  - DIMM: STD 128MB, MAX. 256MB for Data

■ Used as buffer and system
  - working memory area in printing, copying, scanning, and
    facsimileing.

■ External voltage from the battery is used to store the received
  fax data when the main power is off for 72Hrs. (self-refresh)


3.2.6 DADF Board

■ Duplex Automatic Document Feeder

Descriptions
A DADF board controls 2 stepping motors, 2 clutches, 8 sensors By using CPU(S3F443FX) having 80MHz Core
Frequency. A DADF board supports customer to copy Max 50 sheets of documents automatically. In this reason, SCX-
6345N series has a DADF module in standard option.

 · MPU: S3F443FX (Refer to the next page)
 · Motor Drive Block
  - Unipolar Motor Driver IC(SLA7066M): Most rollers are controlled by a SLA7066M motor drive.
  - Bipolar Motor Driver IC(A3977): For Exit motor
 · Clock Generator(CY25814): SSCG converts crystal 12Mhz to 48MHz clock for MPU main clock.
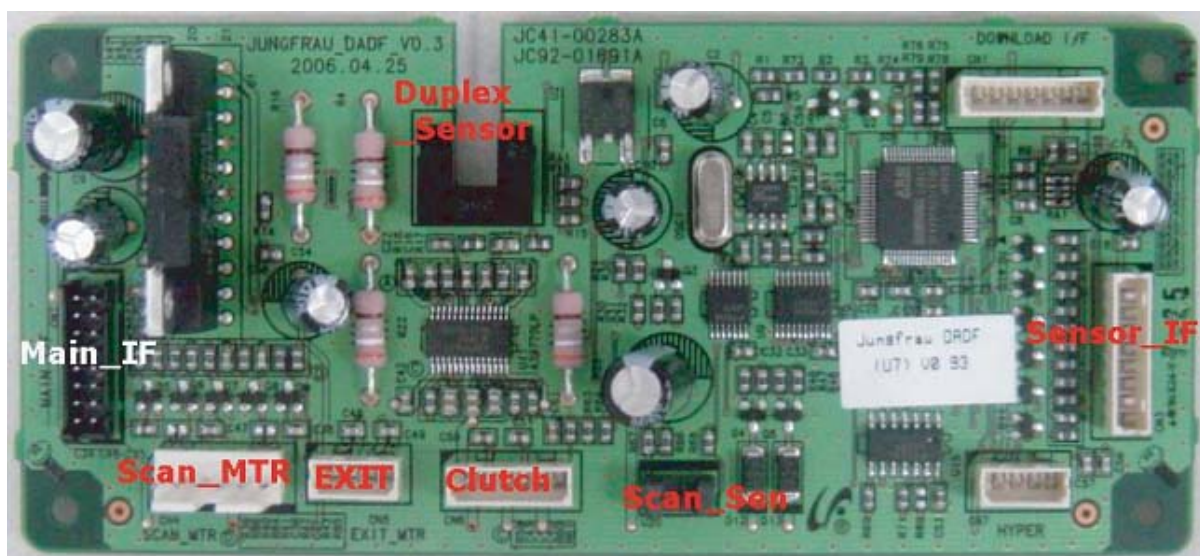
3.2.7 OPE Board

- 640x240 Graphic LCD
- CPU(S3C44B0): ARM7 Based 32bit RISC Processor.
- Flash ROM(16MB): OP Operating program F/W
- SDRAM(32MB): System Program and Data Buffer
- CCFL Inverter: 24V input -> 400Vrms output to power LCD Back Light
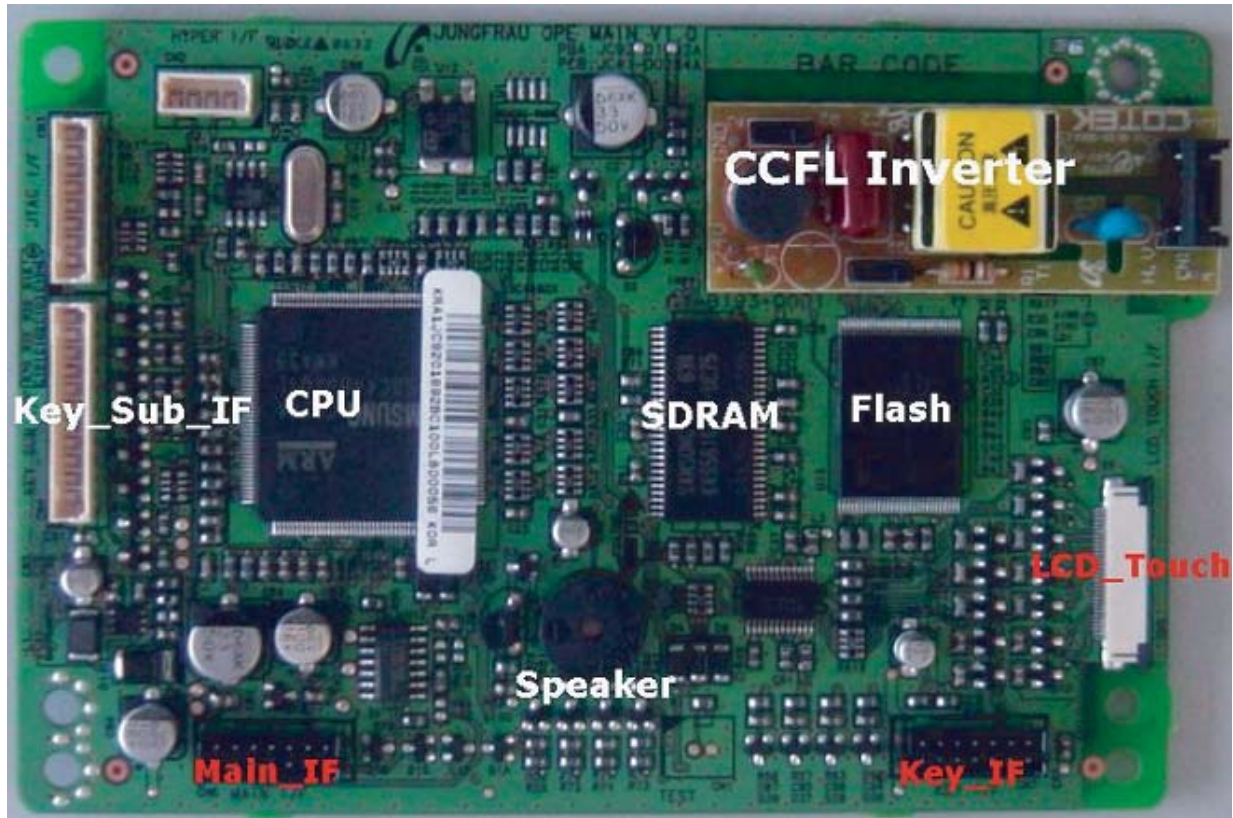
3.2.8 SMPS PBA

Descriptions

It supplies electric power to a Main Board and other boards through a Main Controller by +5V,+24V from 110V/220V power input. It has safety protection modes for over current and load.

SPECIFICATION

· General Input/Output Voltage
  1) AC 110V (90V ~ 135V)
  2) AC 220V (180V ~ 270V)
  3) Input Current: 3.2 [Arms]
  4) Output Power: 192W / Max. 270W
     DC 5V: 24W ~ 30W (0.6A ~ 6.0A)
     DC 24V: 168W ~ 240W (0A ~ 10A)
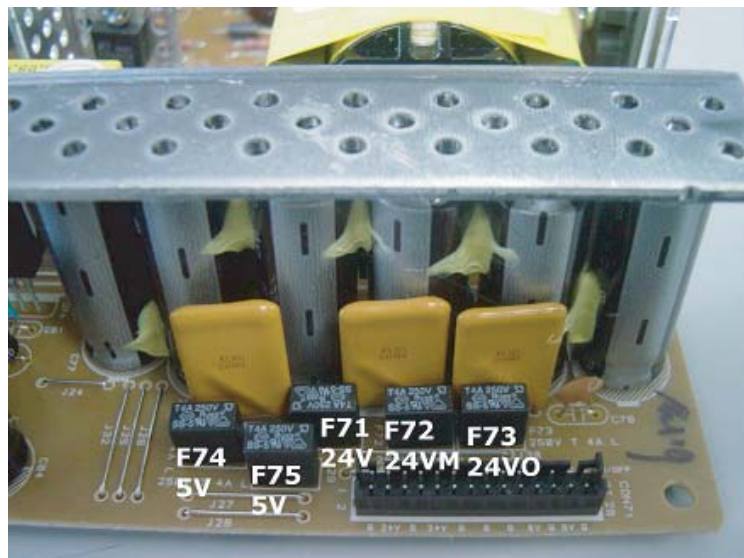
3.2.9 IH PBA

■ IH (Induction Heating)

Descriptions
Induction heating is a method of providing fast, consistent heat for fuser heat roller. The IH inverter has improved Heating Efficiency up to 35-40% over e-Coil System.

SPECIFICATION
· General Input / Output Voltage
 1) AC 110V (90V ~ 135V)
 2) AC 220V (180V ~ 270V)
 3) Input Current: 14 [Arms]
 4) Output Power: 1300 [W]
   (1300[W] / 90V ~ 135V = 9A ~ 12A)
   (1300[W] / 180V ~ 270V = 4.5A ~ 7A)

3.2.10 HVPS PBA

■ HVPS (High Voltage Power Supply)

Descriptions
HVPS Part outputs the high voltage for THV(+),(-)/MHV/DEV/DTS/FU-BIAS by DC 24V input and the output high voltage is provided into OPC Cartridge and Transfer Roller. It helps transfer toner to media well.

SPECIFICATION
· General Input Voltage
  1) DC 5V (4.75 ~ 5.25V)
  2) DC 24V(21.6V ~27.6V)

· General Output Voltage
  1) MHV: -1200V $\pm$3%
  2) Fu-Bias: 80V $\pm$5%
  3) DEV: -500V $\pm$3%
  4) THV(+): 1800V $\pm$3%
 5) THV(-): -1100V $\pm$20%
  6) DTS: -1800V $\pm$3%
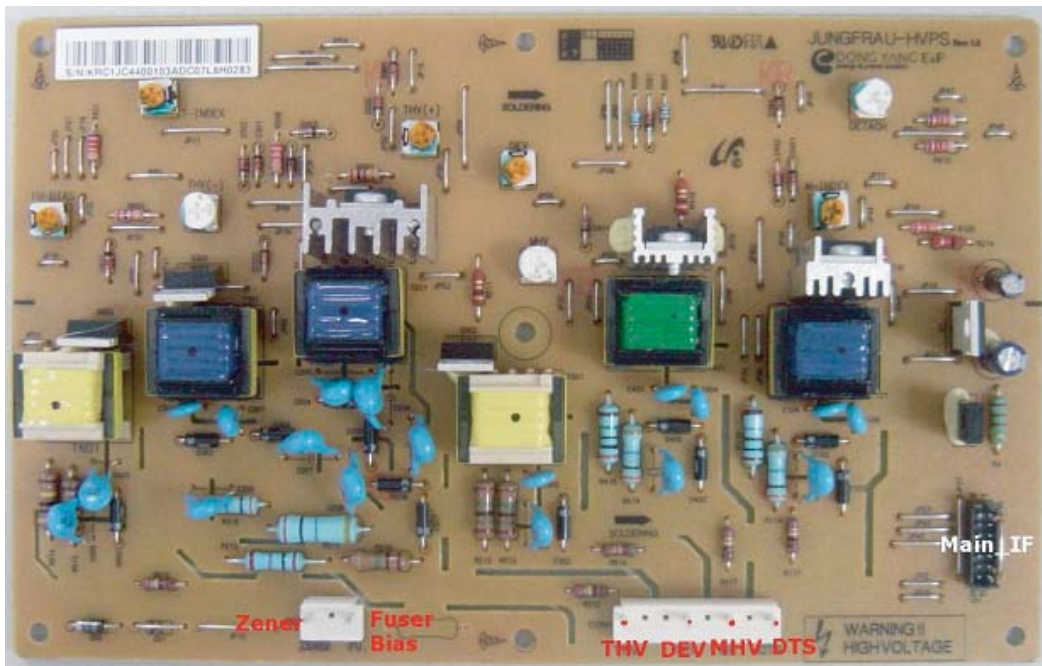
3.2.11 SCF PBA

Descriptions

A SCF PBA is a option cassette controlling in SCX-6345N. Max. 3 cassettes are connected on a purpose of feeding paper. It consists one controller(S3F443FX) and two motor drive IC to control feeding timing through Uart communication with a Main controller.

No.	Signal Name	Direction	Active Level	Description	Remarks
1	24V	POWER	-	+24V Power	
2	3.3V	POWER	-	+3.3V Power	
3	GND	POWER	-	Signal Ground	
4	TxD	OUT	-	Data Transmission	
5	RxD	IN	-	Data Receive	
6	nBUSY	OUT	LOW	SCF TxD Line Busy	
7	nCMDREQ	OUT	LOW	Command Request	
8	Reserved1	I/O	LOW	Reserved	
9	Reserved2	I/O	LOW	Reserved	
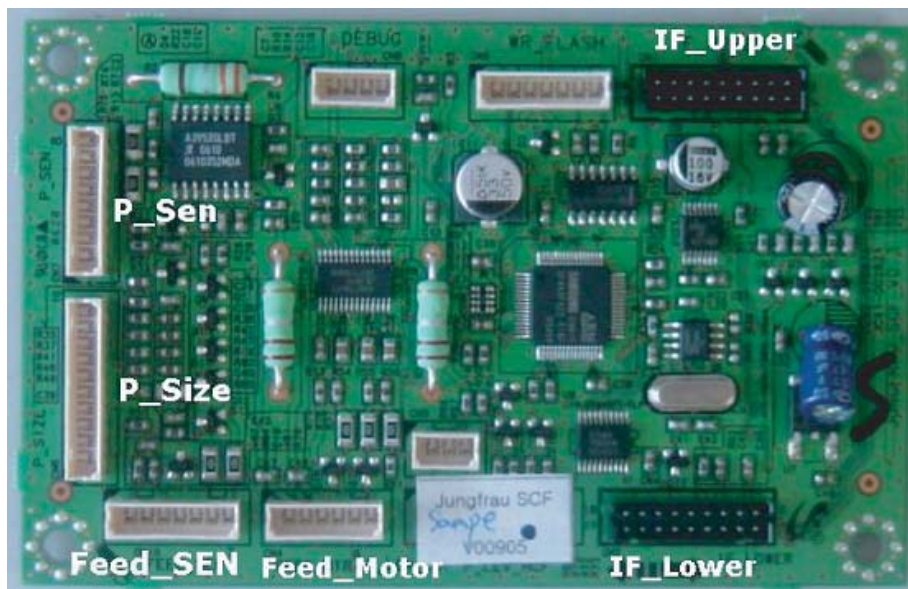
3.2.12 Finisher PBA

Descriptions

A Finisher PBA is a Finisher controlling in SCX-6345N for option. It also consists one controller(S3F443FX), two motor drive IC and LPEC1 for expandable I/O IC to control a finisher through Uart communication with a Main controller.
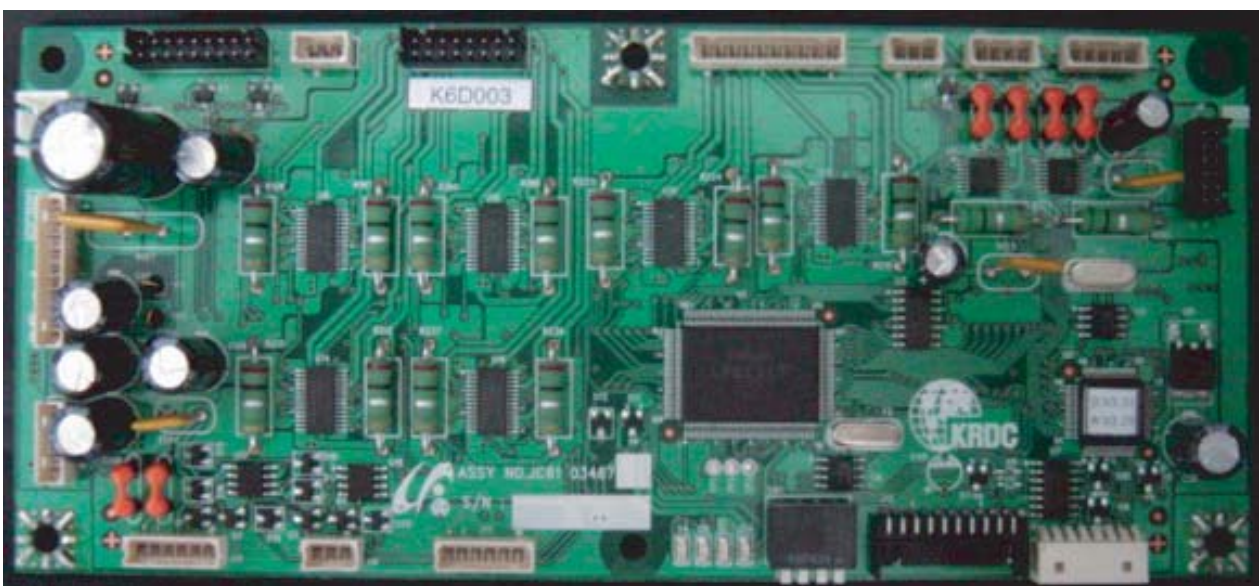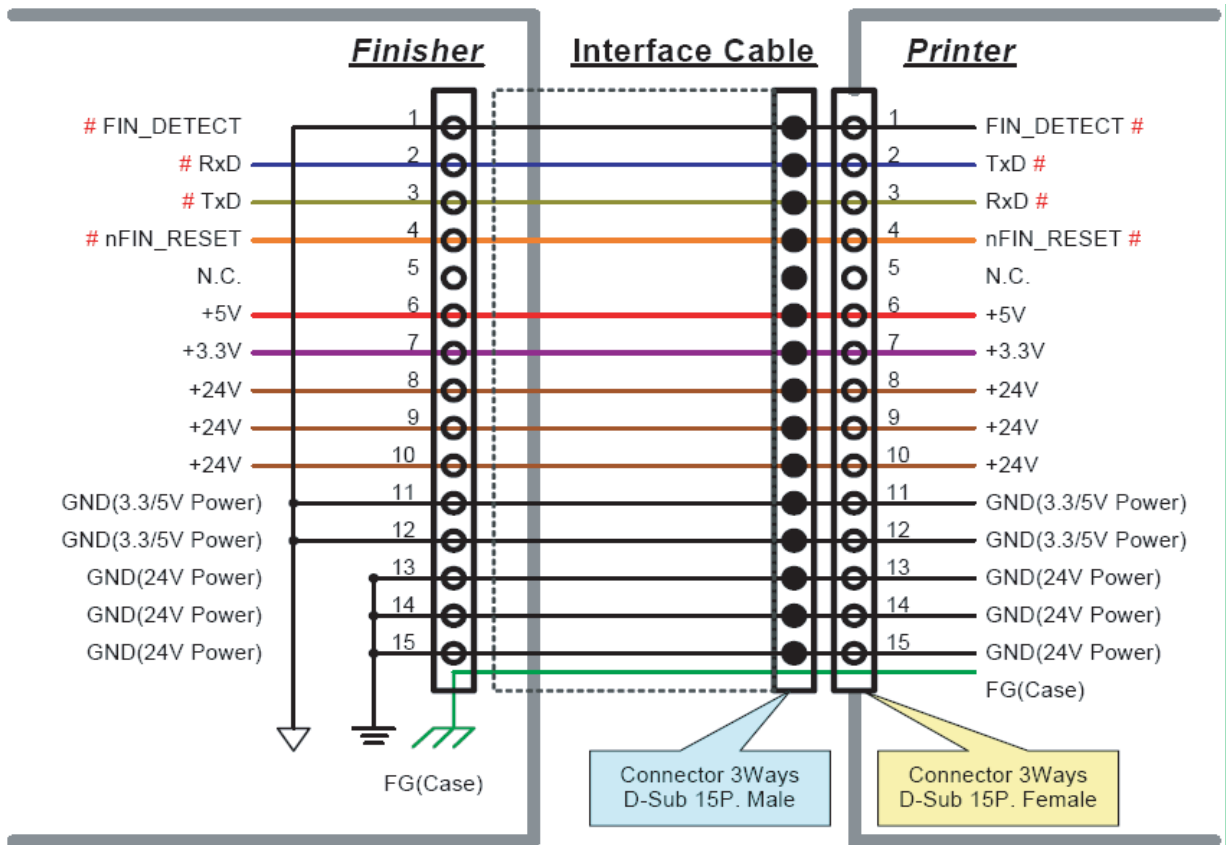
3.3 Engine Section

It is used as recording device when copying/printing or Fax receiving and designed as detachable unit type with system.

It adopts Electro-photography system with using LSU when recording, and uses non-magnetic 1 component developing system.

It consists of Frame unit, Feed unit, Transfer unit, Driving unit, Imaging, Cartridge, Fuser unit and High pressure member.

3.3.1 Engine Hardware Configurations

1) Main PBA

It comprises integrated single unit with Engine Board and Controller Board.

It manages Electro-photography system, which sends the Video Data of current image from Main Board to LSU and conducts printing.

And also it consists of Motor (paper transmission & exit)Driving, Pre-transfer Lamp Driving, Current Driving, Fan Driving Circuit.

The detection signal of Paper Feed Jam Sensor and Paper Empty Sensor is directly input into Main Board.

2) HVPS(High Voltage Power Supply)

HVPS Part outputs the generated high voltage for THV/MHV/BIAS/DETACH/FUSER BIAS by inputting 24V, and the output high voltage is provided into OPC Cartridge and Transfer Roller.

3) SMPS(Switching Mode Power Supply)

SMPS supplies DC voltage to System.

It supplies electric power to Main Board/ADF Board1 by outputting +5V,+24V after 110V/220Vpower input.

4) CRU (Customer Replacement Unit)

It is consisted of Drum Cartridge and Toner Cartridge.

5) LSU (Laser Scanning Unit)

It scans high-convergency Laser Beam into rotating Polygon Mirror, and linearly scans through f-θ Lens with constant speed. Then it forms the latent image by exposing the image data into OPC Drum.

6) Transfer Unit

TRANSFER Roller bears and carries the toner of OPC Drum into recording medium.

7) Fuser

Consisted of IH Heater, Heat Roller, Pressurizing Roller, Thermistor and Thermostat, it fixes toner into recording medium.

3.4 Communication Specifications

This section defines the electrical specifications for the SCX-6345N phone line interface.
Please refer to the FAX Behavior Specifications for user interface implementation.

1) Modem Section
   ▶ LINE CONNECTION: PSTN or PABX (RJ-11)
   ITU COMPATIBILITY: Group 3/ECM

   ▶ MODEM
   · Speed - Standard   33,600 BPS
   · Error Correction Method   ITU T.30
   · Automatic Train down   Yes
   · ITU Compliance   V.34
   · Forced 9600 BPS   No

   ▶ COMMUNICATIONS
   · Initial Setting: -12dBm

2) Line Interface Section
SCX-6345N Line Interface will be accomplished with DAA technology. This new technology will enable one single interface option that satisfies communication requirements for all OpCo's

   · Modular Plug: RJ-11C
     - Out Band Signal Level : Guaranteed North American and Europe PTT standard
     - DP Dial Mode (direct current 30mA) : 50~300 Ω
     - DTMF Dial Mode (direct current 20mA) : 50~540 Ω

This is a usual connection in U.S.A. and normally middle 2 wires (pin no. 3 and 4 of modular jack/plug) are used for Tip and Ring.

4 wires connection is also used in the field.
There is no special mechanical structure or switch in a wall jack.
The 1'st wall jack , the 1'st device/phone plugged , is just connected in parallel with another wall jack,
the 2'nd phone coupled in another room.
When users pick up each handset at the same time, they can hear what they are saying each other.
An user normally use a telephone or TAD device connected into Ext. Jack of the fax machine.

This is another normal connection in certain countries like Germany, Italy, France, Sweden, etc. and 4 wires are used.
They call them wire a for Tip, wire b for Ring and wire a", wire b" to pass the line path to the next priority phone.
There is a special mechanical structure or switch in a wall jack.

A 2 wall jack , the 2'nd device/phone plugged, is always connected in serial behind the 1'st wall jack.

When an user pick up the handset of 1'st device, the 2'nd Device and 3'rd phone is disconnected simultaneously.

In the countries they do not connect an external telephone or TAD into Ext. Jack of the fax machine.

The 1'st Device has to have 4 wires of a, b, a", b" connection.

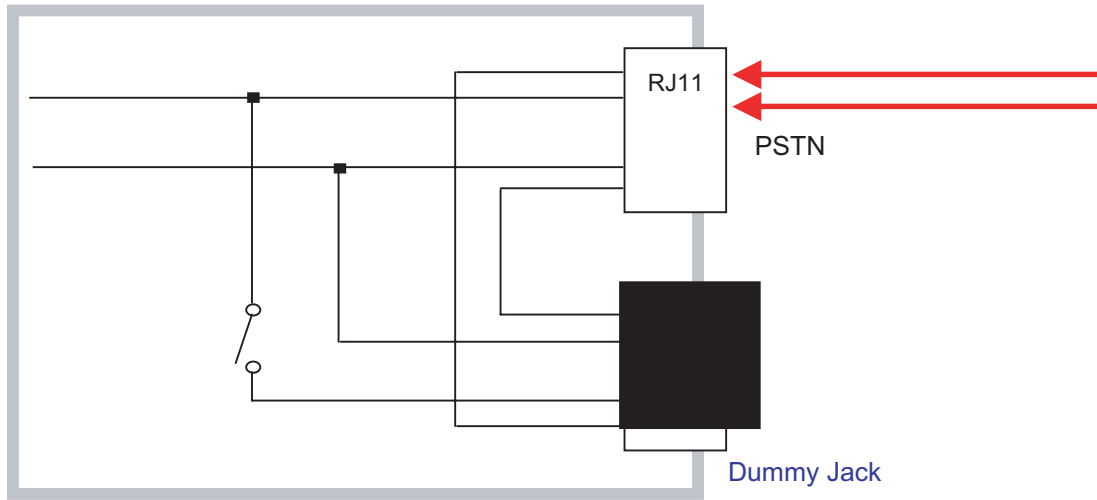The circuit below is the line connection section of Jungfrau fax module for worldwide
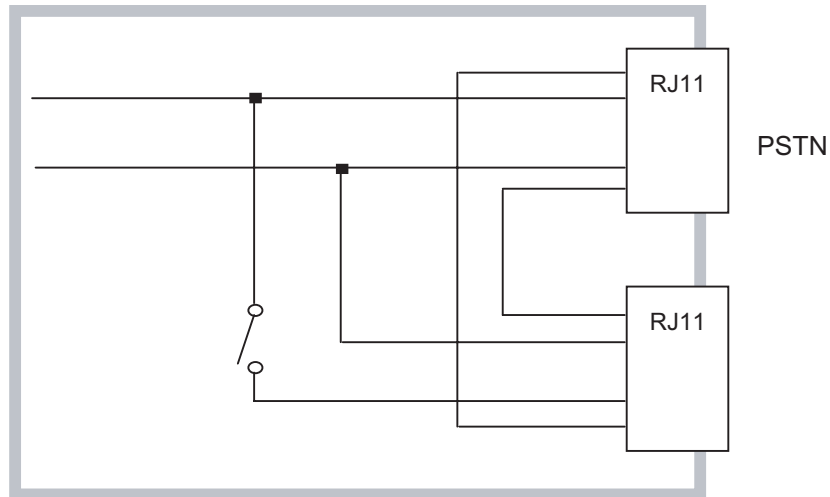
Factory Default of Parallel Connection

(A Dummy Jack will be inserted into the Ext RJ11.)
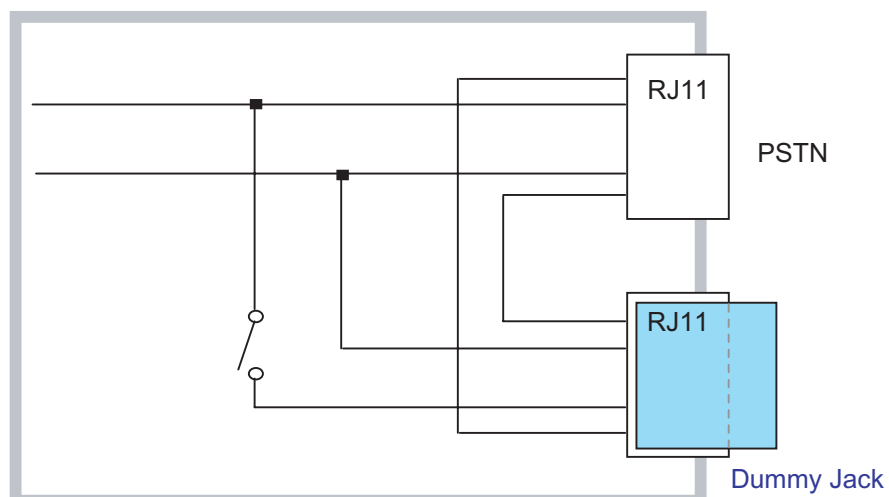
How to use in the field
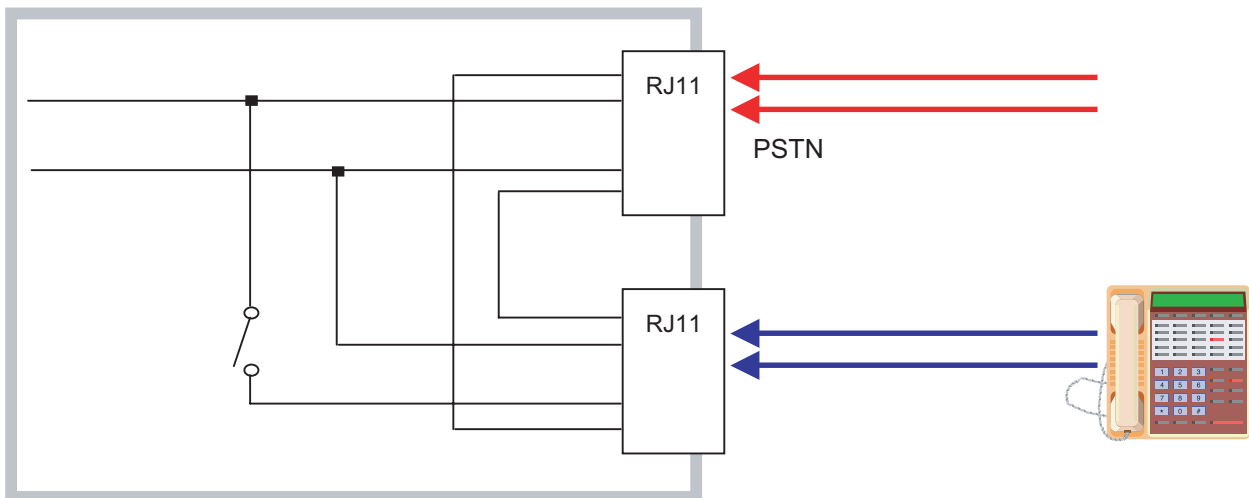
(Users can use fax just by connecting line cord into Line RJ11.)

Dummy Jack

If an user want to use a 2'nd phone, he/she has to remove the dummy jack and connect the phone.

Pictures

How to use for the Countries of Serial Connection (Factory Default)

1) A Dummy Jack will be inserted into the Ext RJ11.
2) Additional information sheet and a terminator will be supplied.
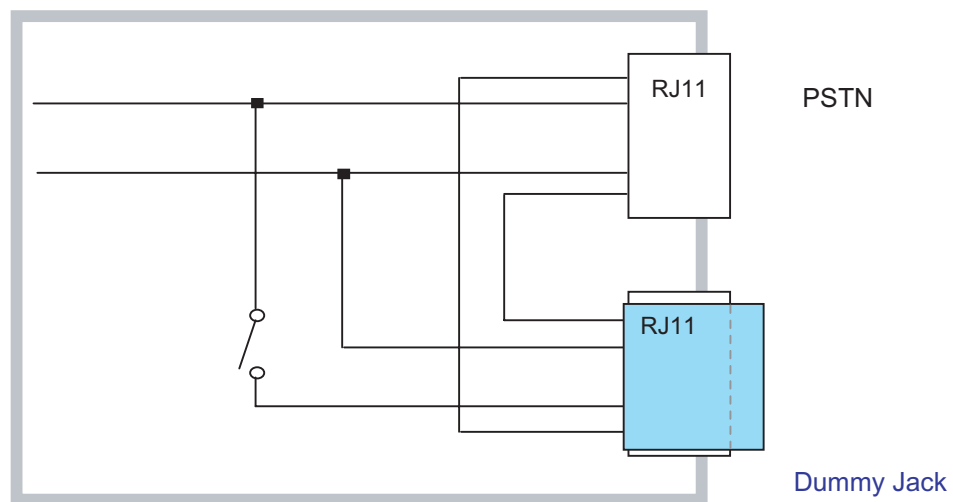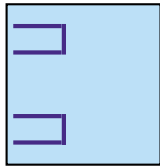
Terminator

A information sheet to instruct how to use it.
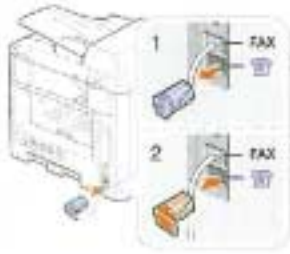
If the phone communication is serial in your country (such as Germany, sweden, Denmark, Austria, Belgium, Italy, France and Switzerland), you must remove the "blue" plug from the bottom connector (☎) and insert the supplied "orange" terminator.

How to use in the field

(Users have to replace the dummy jack by the terminator and connect line can into Line RJ11.)
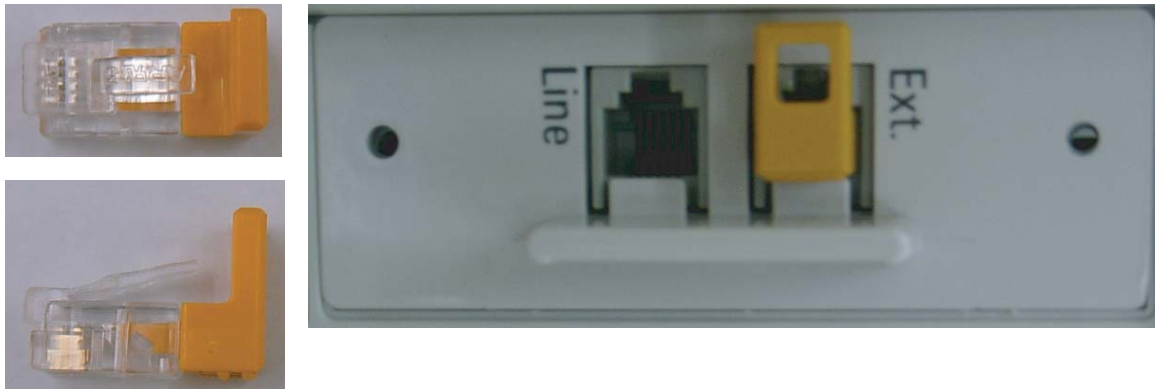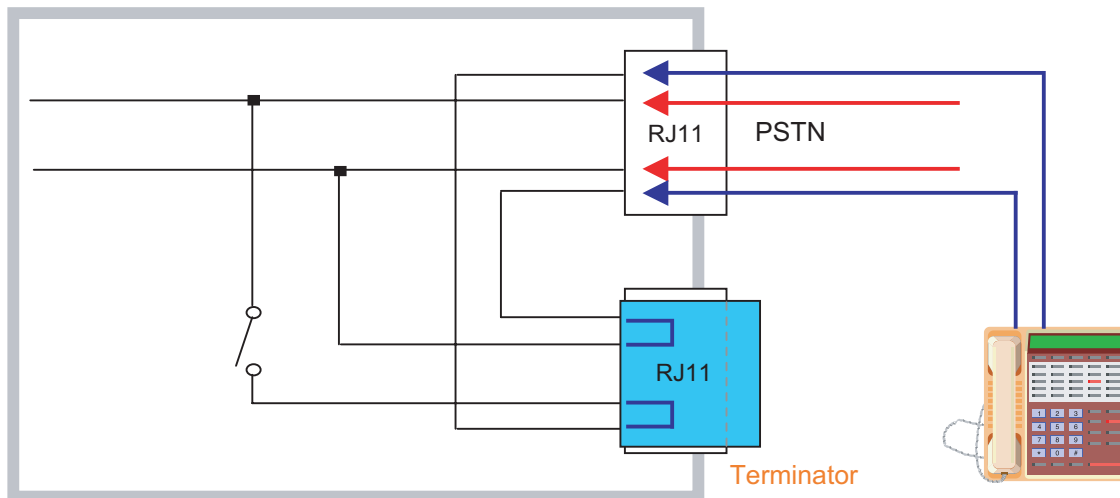
Note) The terminator has inner connection to path the line to the 2'nd phone
    The dummy jack has no inner connection and it just for block Ext RJ11.

3) Dialing Characteristics

 · Dial Pulse: Tech Mode Option Feature
 · Make / Brake Ratio: 40msec/60msec or 33msec/66msec
 · Pulse Speed: 10 $\pm$ 1 PPS
 · Minimum Pause: above 30msec

3.5 Scanning Section

1) Color Separation : Single-Pass color separation

Color separation is done with transmissive color filters put over the CCD elements themselves as part of CCD manufacturing process. The CCD used in Jungfrau has three rows of imaging elements. Each row has a color filter directly over the CCD elements, one row red, one green, and one blue.

2) Optical System: Lens Reduction type All-In-One (Scanning Lamp + Lens + CCD Image sensor).

3) Light Source:Cold Cathode Fluorescent

4) Scanning method:
   ▶ Platen : Optical Moving
   ▶ DADF : Document Moving

5) Scanning Area

1) Maximum Document Width : 216mm

2) Effective Scanning Width : 208mm

6) Source Document Specification (DADF)

- DADF capacity: 50 sheets of 20lbs /80gsm paper
- Features

Document Size Sensing	Yes	Extendible tray for long documents	Yes
Adjustable Paper Guide	Yes	DADF Ready Indicator	None
Labels w/graphics	None	Book copying with DADF open	Yes
Wear out items (rolls) easily replaceable w/o tools	No	Wear out items (rolls) should be serviced.	DADF Pad & Feed Roller

3.6 Paper Feeding

- JAM: Additional work is required to correct problems in feeding/outlet.
- Improper Feeding: Meandering, Improper initial print location, Folded corners, double feeding, Miss feeding, etc.

  To enhance paper feeding reliability, paper should be fed so that printing may begin on the better side when printing on both sides. The better side is defined as the manufacturer specified side or "watermarked" side.

- Shut Down: Machine stops functioning in the middle of a job (any mode). Fault code is displayed on the message display (LCD). Customer must take action to complete the job.

  · Paper jam
  · Miss-feed

- Non-Shutdown:

  Machine does not stop during are job (any mode), however, there is a paper feeding quality problem with the output of the job.

  · Folded corner on output (Dog ears)
  · Multiple sheets feed through without separation

- Power-Off / Power - On:

  During a job, there is a problem with the machine that requires Power Off to recover back to operational mode.

  · Machine is "locked-up" and not responding to control panel
  · Machine is continually printing blank pages.
  · Control panel is blank and not responding.

3.7 Toner Cartridge Specification

Toner CRU will have a CRUM to differentiate Samsung and SEC versions as well as detect CRU presence.

■ CRUM : Yes (Type IV RFID in Toner/OPC Cartridge)
■ Life(Service) Time:
  The service life of a cartridge is based on an estimates printings with ISO 19752 Std. coverage on one A4 or Letter page at the default density setting performed on the machine. Here is an estimate of the service life of the toner cartridge based on B5 criteria.

  ▶ (Starter) : 20K Pages, A4 or Letter page, ISO 19752 Standard.
  ▶ (Sailes) : 20K Pages, A4 or Letter page, ISO 19752 Standard.

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

Simplex Pass

Finisher Pass

Duplex Pass

MP Feed

Cassette Feed

SCF Feed

SCF Feed

SCF Feed
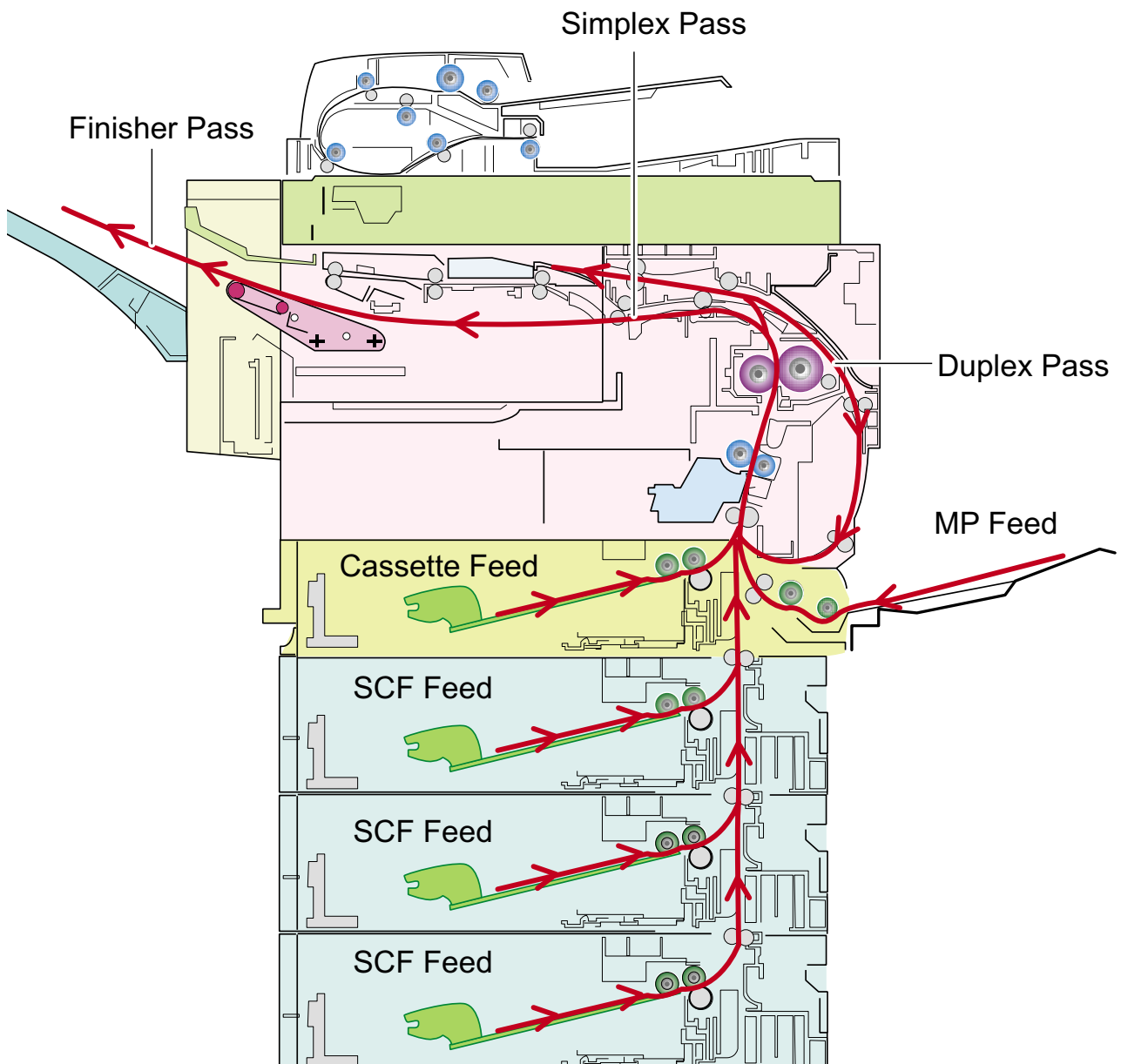
4.2 Clearing Paper Jams

If a paper jam occurs an error message appears in the LCD display.
Find and remove the jammed paper.
If you don't see the paper, open the covers.
Do not use a tweezers, pincers or other metal tools when clearing a paper jam.
This could damage the internal mechanism causing print quality problems or possibly electrical shock.

[Engine Jam Type]

| Type	Case	Jam Removal	Jam Layout	Photo
Jam 0	Leading edge of media does not arrive at registration within a certain time after pick-Up(If fails at a time, it tries pick-up again)	1. Pull out cassette 2. Remove jammed paper	Registration, Regi Sensor, Pick-Up	
Jam 1	Leading edge of media does not arrive at Exit Sensor within a certain time after registration	1. Open side cover 2. Remove jammed paper	Exit Sensor, Fuser, OPC, Registration, Regi Sensor	
Jam 2	Trailing edge of media does not leave Exit Sensor within a certain time after touching Regi Sensor	1. Open side cover 2. Remove jammed paper Or 1. Remove jammed paper from exit	Exit Sensor, Fuser	
Duplex Jam 1	Trailing edge of media leaves Exit Sensor, and does not arrive at Duplex Jam1 Sensor	1. Open side cover 2. Remove jammed paper Or 1. Remove jammed paper from exit	Duplex Jam1 Sensor, Fuser	
Duplex Jam 2	Leading edge of media does not arrive at Duplex Jam2 Sensor after touching Duplex Jam1 Sensor	1. Open Side Cover 2. Remove jammed paper	Duplex Jam1 Sensor, Duplex Jam2 Sensor	
Duplex Jam 0	Leading edge of media does not arrive at Registration after touching Duplex Jam2 Sensor	1. Open Side Cover 2. Remove jammed paper	Registration, Duplex Jam2 Sensor	

4.2.1 Clearing Document Jams

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

1. Remove any remaining pages from the DADF.

2. Open the DADF cover.

3. Pull the jammed paper gently out of the DADF.
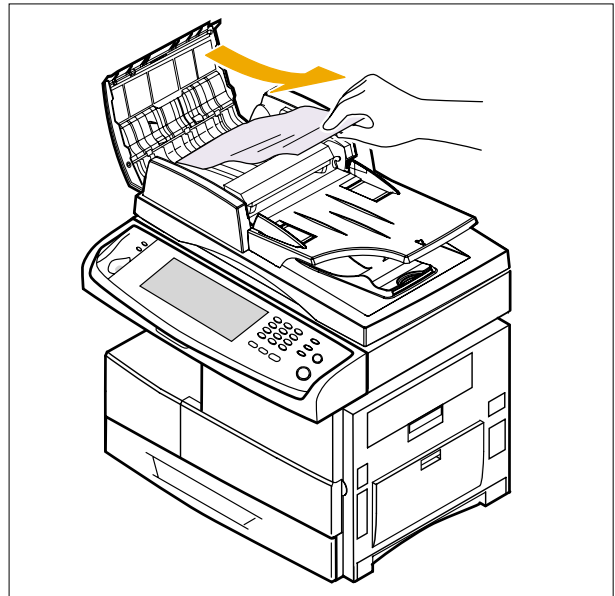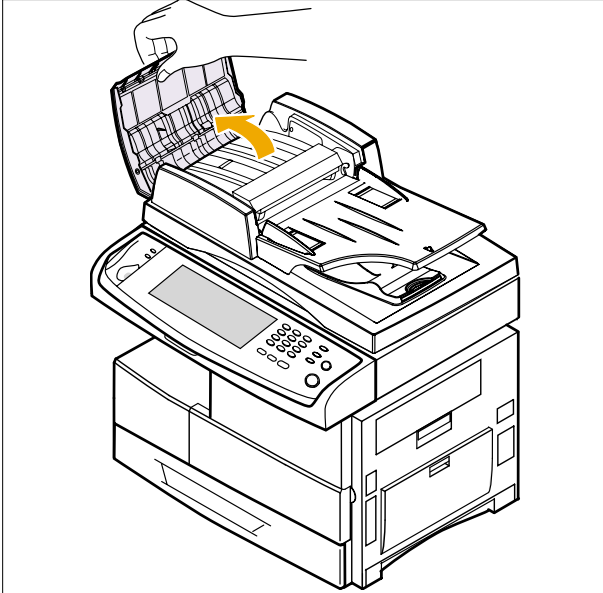
4.2.1.1 Exit Misfeed

1. Remove the remaining documents from the DADF.

2. Open the document input tray upward and pull the document gently out of the DADF.

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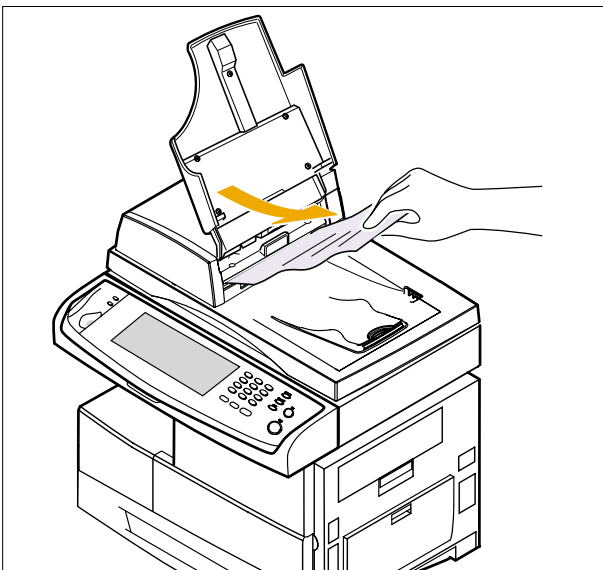
4.2.1.2 Roller misfeed

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 DADF.

1	scanner lid
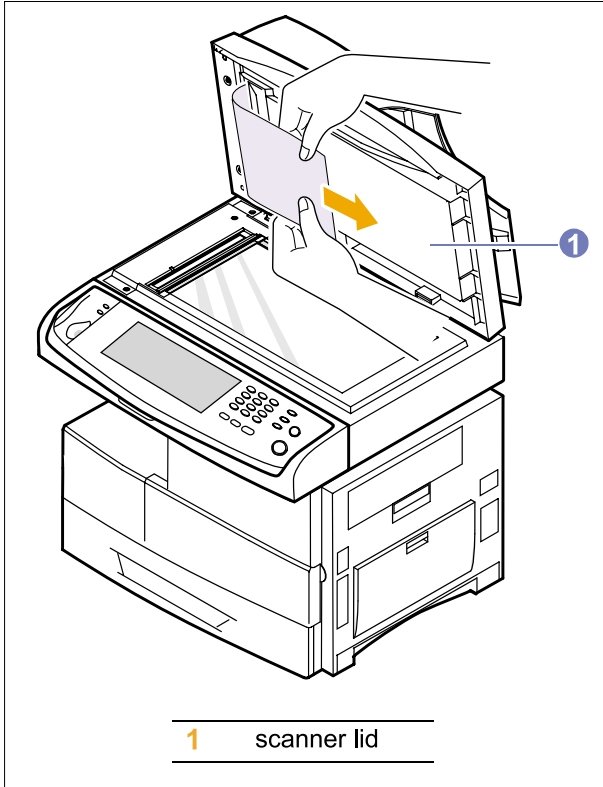
4.2.2 Clearing paper jams

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 page
Duplex Jam Open/Close Door	In the duplex unit page

4.2.2.1 In the tray 1

1. 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.
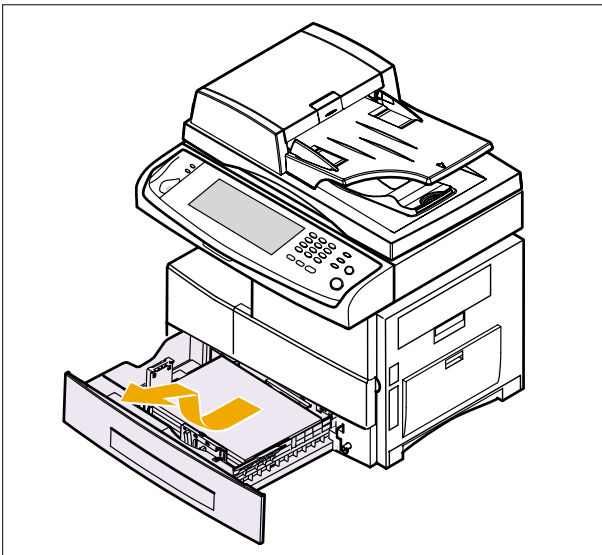
2. Remove the jammed paper by gently pulling it straight out.
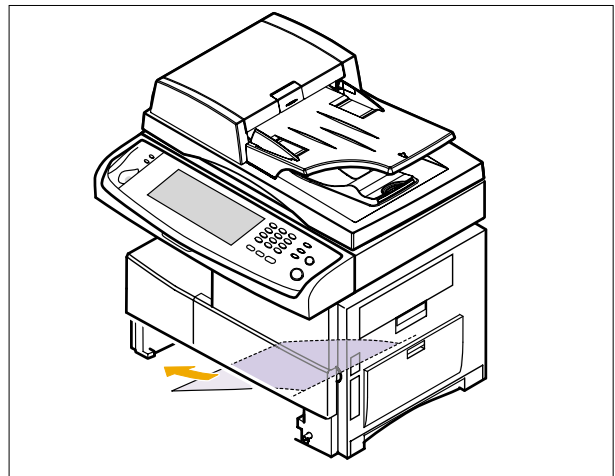
Once you remove the jammed paper here, open the side cover and then close it to clear the "Paper Jam0" message on the display.

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

3. Open the side cover.
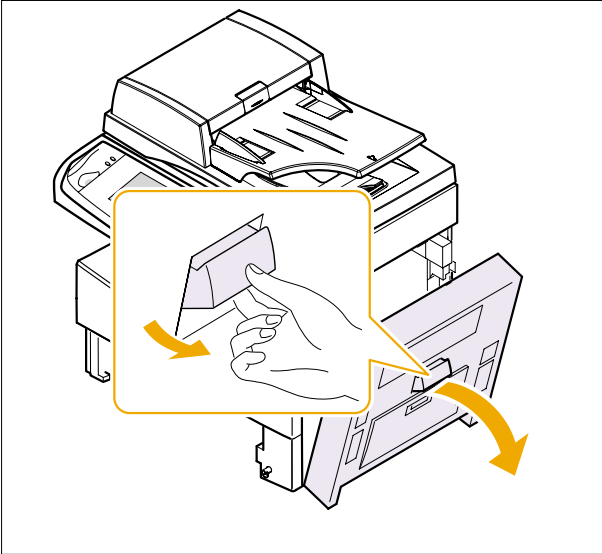
4. Carefully remove the misfed paper in the direction shown.
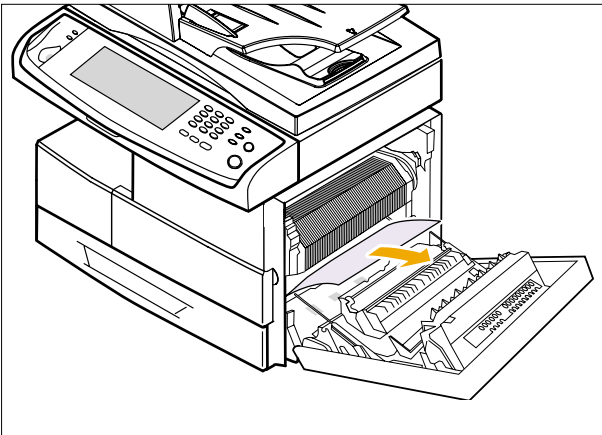
5. Close the cover and insert the paper Tray. Lower the rear part of the Tray to align the rear edge with the corresponding slot of the machine, then insert it completely.
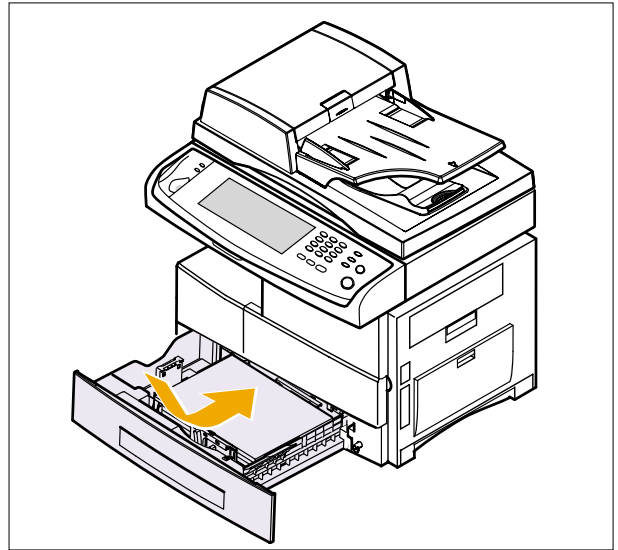
4.2.2.2 In the optional tray 2

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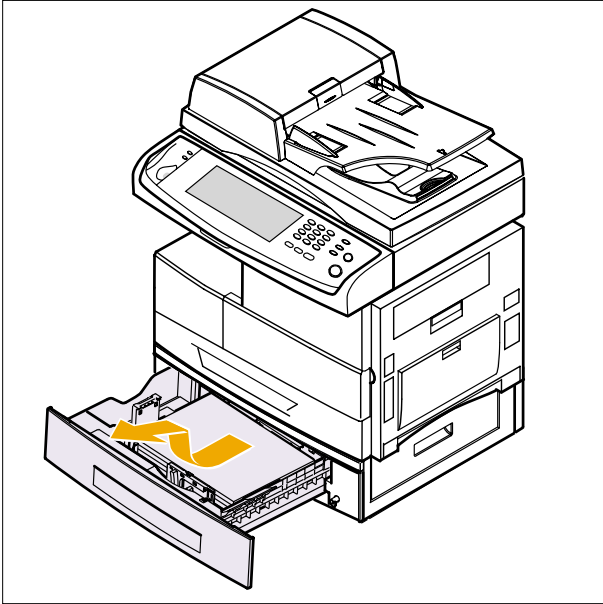
If the paper does not move when you pull, or if you do not see the paper in this area, stop and go to step 3.

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.
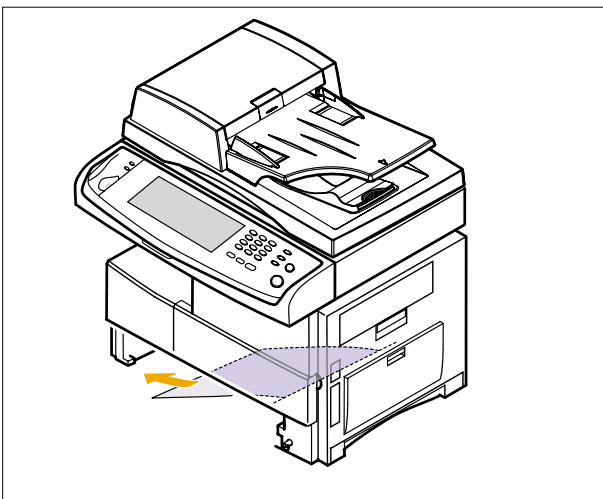
If you cannot find the jammed paper, or if there is any resistance removing the paper, stop pulling and continue to step 5.

5. Open the outer jam cover in tray2.
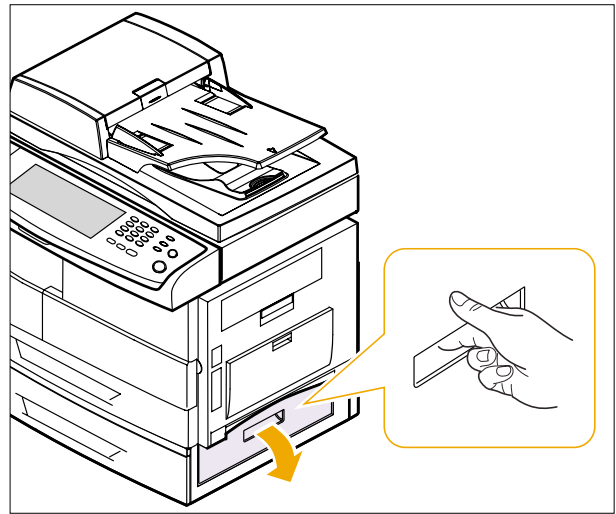
6. Open the inner cover of tray2.
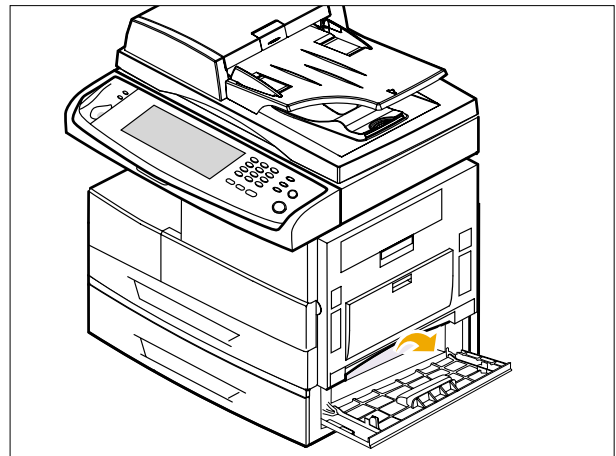
7. Pull the jammed paper out in the direction shown. To avoid tearing the paper, pull it out gently and slowly.
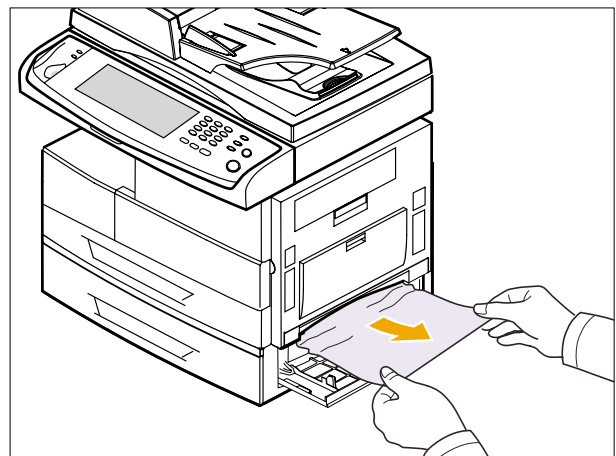
8. Close the two jam covers.
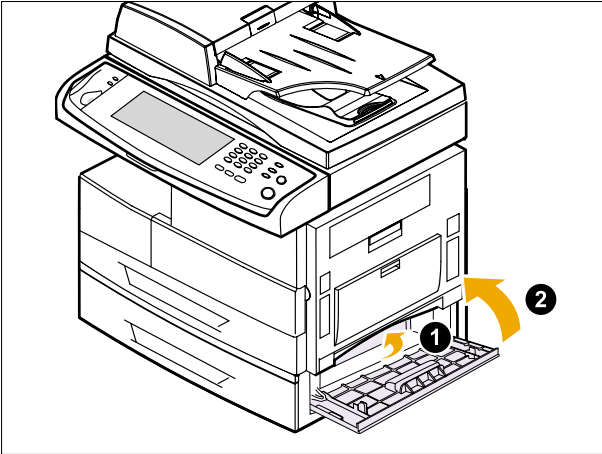
4.2.2.3 In the multi-purpose tray

1. If the paper is not feeding properly, pull the paper out of the machine.
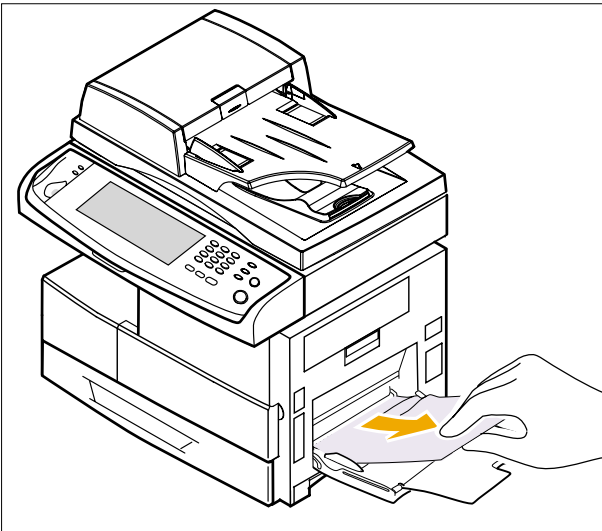
2. Open and close the front cover to resume printing.
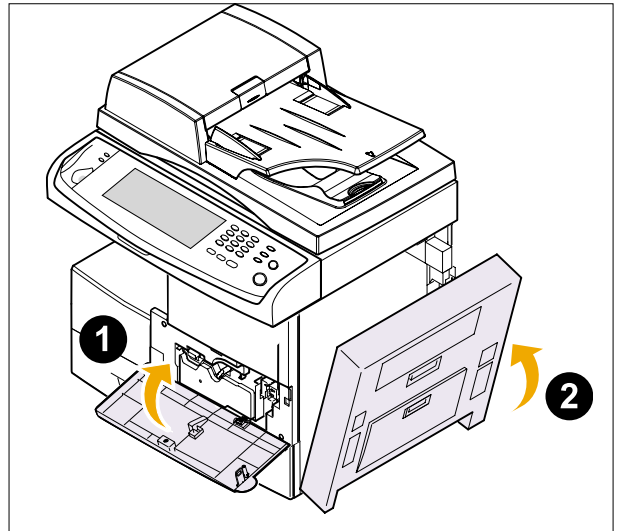
4.2.2.4 In the paper exit area

1. Open the side cover.

2. Open the front cover.

3. Gently pull the paper out through the exit area.

4. Close the front cover ❶ and the side cover ❷. Printing automatically resumes.
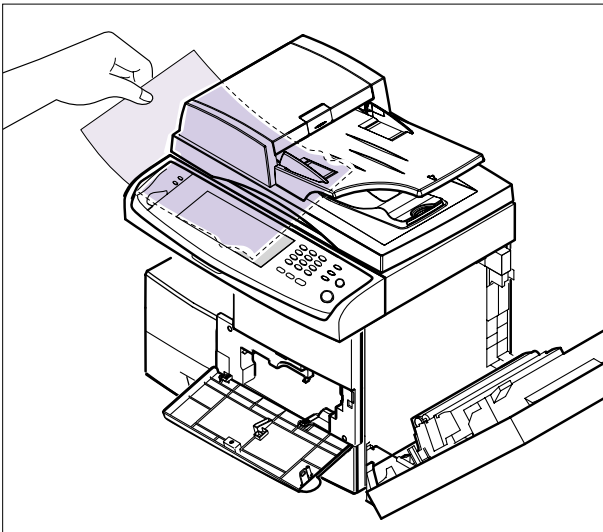
4.2.2.5 In the duplex unit area

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

1. Open the side cover.

2. Pull the guide exit.
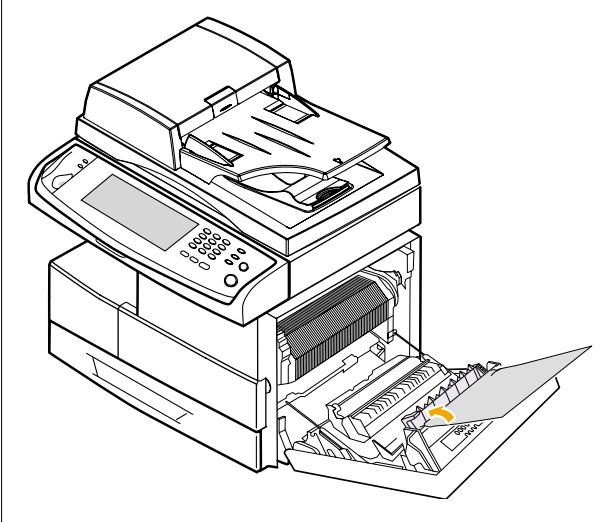
3. Remove the jammed paper.
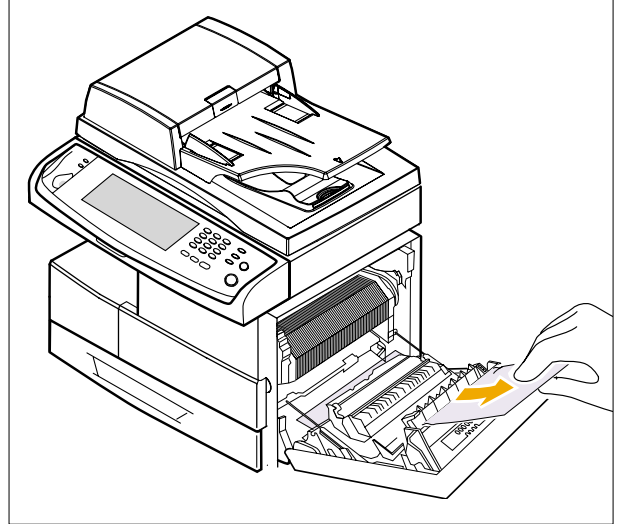
4. Close the side cover.

4.2.2.6 In the stacker

1. Open the stacker cover.
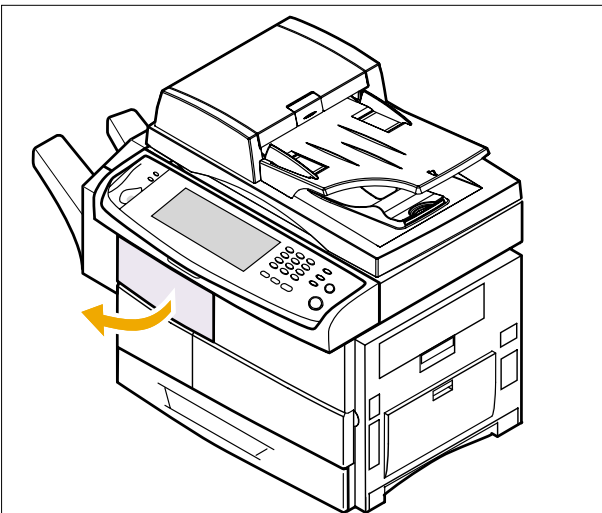
2. Push the stacker lever down.
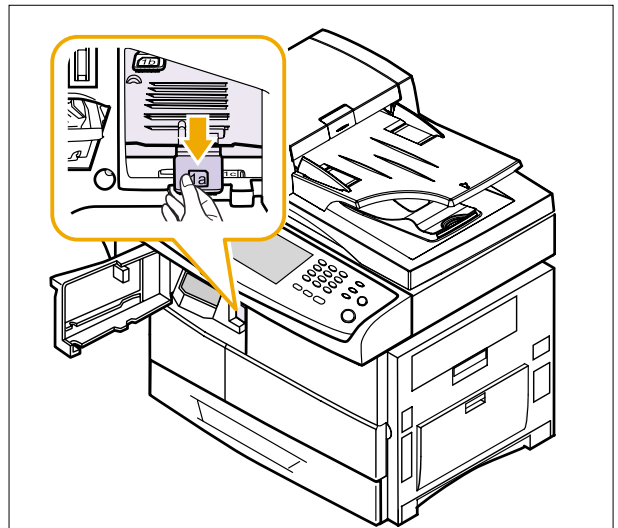
3. Remove the jammed paper.
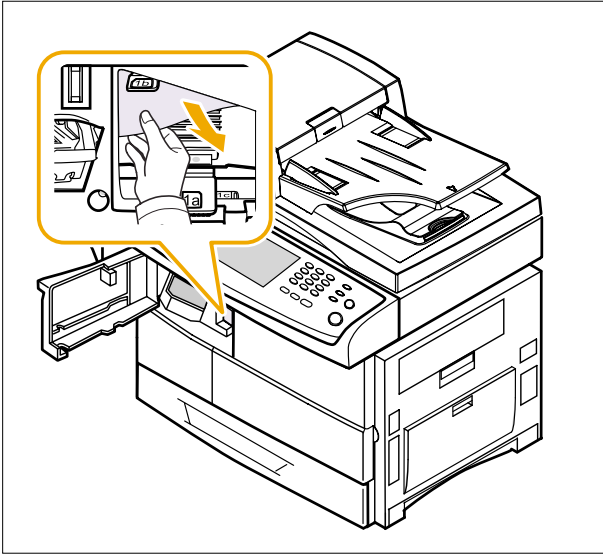
4. Pull up on the stacker lever and then close the stacker cover.
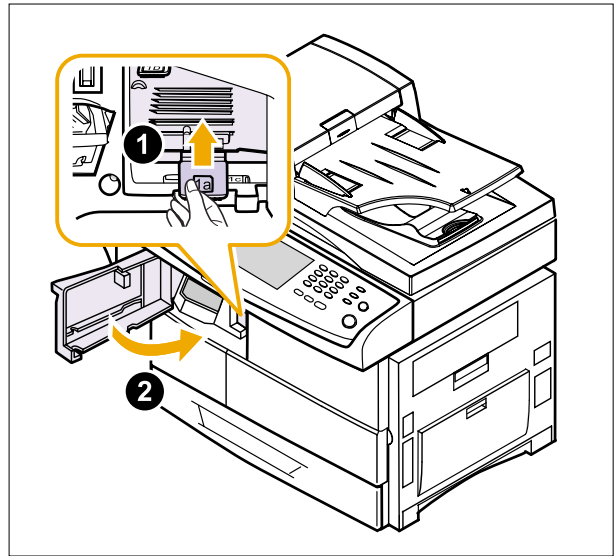
4.3 Abnormal Image Printing and Defective Roller

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.
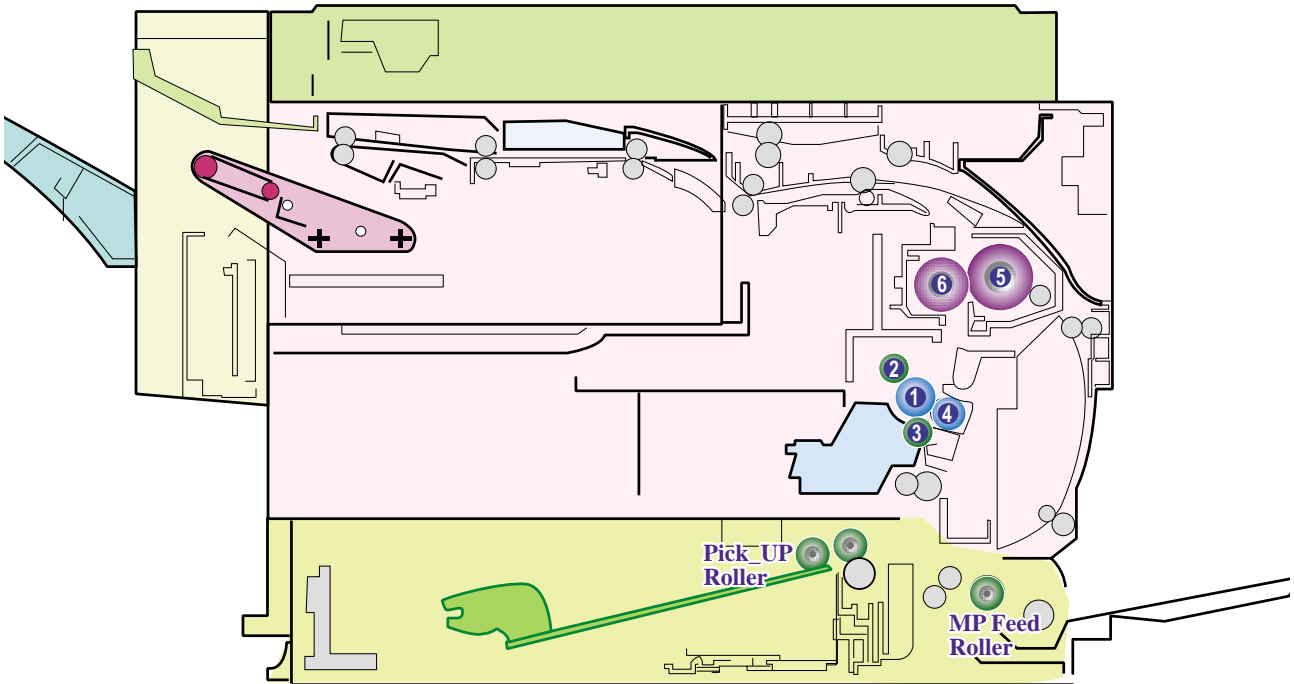
① **OPC Drum**   ③ **Developing Roller**   ⑤ **Heat Roller**

② **Charge Roller**   ④ **Transfer Roller**   ⑥ **Pressure Roller**

No	Roller	Abnormal image period	Kind of abnormal image
1	OPC Drum	94.30mm	White spot, Block spot
2	Charge Roller	43.96mm	Black spot
3	Develop Roller	39.25mm	Horizontal density band
4	Transfer Roller	57.14mm	Black side contamination/transfer fault
5	Heat Roller	125.6mm	Black spot and fuser ghost
6	Pressure Roller	157mm	Black side contamination

4.4 User Mode

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

＊Default Value

Main	1Depth	2Depth	3Depth	4Depth	5Depth	6Depth
General	**Device Info**	Service Center Registration	Phone Number			
			E-mail Address			
		Contact Info	Using Place			
			Phone Number			
	Date & Time	Set Date & Time	Year,Month,Day, Hour,Date			
		Date Format	*MM/DD/YY YY/MM/DD DD/MM/YY			
		Time Format	*12 Hour 24 Hour			
	Default Settings	**Default Option**	**Copy**	Output	Collated Uncollated Staple,Portrait Staple,Landscape	
				Reduce/Enlarge	Original(100%) Custom Auto Fit LGL->LTR(78%) LGL->A4(83%) A4->A5(71%) A4->LTR(94%) A5->A4(141%) EXE->LTR(104%) 25% 50% 150% 200% 400%	
				Duplex	1 -> 1 Sided 1 -> 2 Sided 1 -> 2 Sided, Rotate Side 2 2 -> 1 Sided 2 -> 2 Sided 2 -> 1 Sided, Rotate Side 2	
				Paper Supply	Auto MP Tray Tray1 Tray2 Tray3 Tray4	
				Original Type	Text Text/Photo Photo	
				Darkness	Light Dark < ⏐ ⏐ ⏐ ⏐ ⏐ >	
				Erase Background	Off On	
				Erase Edge	Off Border Erase Small Original Erase Hole Punch Erase	
			Fax	Resolution	Standard Fine Super Fine	
				Original Type	Text Text/Photo Photo	
				Darkness	Light Dark < ⏐ ⏐ ⏐ ⏐ ⏐ >	
				Color Mode	Color Mono	
				Erase Background	Off On	

Main	1Depth	2Depth	3Depth	4Depth	5Depth	6Depth
General	Default Settings	Default Option	Email	Resolution	100 dpi 200 dpi 300 dpi 400 dpi 600 dpi	
				Darkness	Light Dark < | | | | | >	
				Original Type	Text Text/Photo Photo	
				Color Mode	Color Grey Mono	
				Erase Background	Off On	
				Scan to Edge	Off On	
				Quality	Best Normal Draft	
				File Format	PDF Multi-Page TIFF Single-Page TIFF JPEG	
			Scan to Server	Resolution	100 dpi 200 dpi 300 dpi 400 dpi 600 dpi	
				Darkness	Light Dark < | | | | | >	
				Original Type	Text Text/Photo Photo	
				Color Mode	Color Grey Mono	
				Erase Background	Off On	
				Scan to Edge	Off On	
				Quality	Best Normal Draft	
				File Format	PDF Multi-Page TIFF Single-Page TIFF JPEG	
				Filing Method	Overwrite Cancel Change Name	
			Paper Size	A4		
				Letter		
	Measurements	Unit	*Inches			
			mm			
		Numeric Separations	*Comma (12,345)			
			Period (12,345)			
	Timers	System Timeout	On (1~10 min) *5	System Time out [01-10]min < ## >		
			Off			
	Language	*English				

Main	1Depth	2Depth	3Depth	4Depth	5Depth	6Depth
	Energy Saver	Scan Power Save	30min 60min 120min			
		Power Save	5min 15min 30min 45min 60min 120min			
		Low Power Save	5min 15min 30min 45min 60min 120min			
General	**Tray Management**	Tray1	Paper Size	Letter Legal Folio A4 JIS B5 Executive A5 A6 Oficio Envelop Monarch Envelope COM-10 Envelope DL Envelope C5 Envelope C6 ISO B5 Post Card 4x6 Statement Custom		
			Paper Type	Plain Letterhead Thick Thin Cotton Colored Pre-Printed Recycled Envelope Transparency Label Cardstock Bond Punched Archive		
			Tray Confirmation Message	Off On		
		Tray2	Paper Size	same as above		
			Paper Type	same as above		
			Tray Confirmation Message	same as above		
		Tray3	Paper Size	same as above		
			Paper Type	same as above		
			Tray Confirmation Message	same as above		
		Tray4	Paper Size	same as above		
		Mp Tray	Paper Size	same as above		
			Paper Type	same as above		
			Tray Confirmation Message	On/Off		
		Auto Tray Switch	Off On			
		Auto Continue	Off On			
	Altitude Adjustment	Normal				
		High 1				
		High 2				
		High 3				
	Output Option	Out of Staples Options	Complete job without stapling			
			Fault/Held Job			
		Within Job Offsetting	Off On			

Main	1Depth	2Depth	3Depth	4Depth	5Depth	6Depth
General	Sound	Fault	Off			
			*Low			
			Medium			
			High			
			Test			
		Conflict	Off			
			*Low			
			Medium			
			High			
			Test			
		Selection	Off			
			*Low			
			Medium			
			High			
			Test			
	Supplies Management	Drum Cartridge Reorder Notification	Drum Reorder at Life Remaining	1%, 5%, 10%, 15%		
		Toner Cartridge Reorder Notification	Toner Reorder at Life Remaining	1%, 5%, 10%, 15%		
		Fuser Counter Reset	Pop up window Yes/No			
		Bias Transfer Roller Counter Reset	Pop up window Yes/No			
		Feed Roller Counter Reset	Tray1			
			Tray2			
			Tray3			
			Tray4			
			Bypass			
			Document Feeder Roller			
		Doc. Feeder Friction Pad Counter Reset	Pop up window Yes/No			
	Machine Test	Image Quality Test Pattens	Image Quality Test Pattens	1-8		
			Pattern Print Tray Source	Tray1 ~ Tray4		
			Number of Pattern Prints	1~999		
			2 Sided	1Sided / 2Sided		
	Ignore Toner Empty Status	On/Off				
Setup	Copy Setup	Page Number	Off			
			On			
		Time & Date	Off			
			On			
		ID Stamp	Off			
			On			
	Fax Setup	Terminal ID	ID Name			
			Fax Number			
		Remote Code	On/Off			
		Error Correction Mode	On/Off			
		Fax Initial Setup	Receive Mode	Telephone		
				*Fax		
				Answering Machine/Fax		
			Dial Type	*DP		
				MF		
		Auto Answer Delay	1-7 Rings			
		Receive Header	Eable/Disable			
		Secure Receive	On/Off			
		Received Fax Printing	Rx Reduction Printing	Off	Discard Size (0-30 mm)	
				*On		
		Redial	Redial Time Interval	[1-15] *3		
			Redial Attempts	[0-13] 7		
		Speaker Volume (Audio Line Monitor)	Off			
			Comm.			
			*On			
		Prefix Dial	Off / On	Prefix Dial (Max 5 digits)		
		Junk Fax Number List	Select from list			
		Ring Volume	Off			
			*Low			
			Medium			
			High			
		Dial Tone Volume	1-7			
		Output Option	Duplex	Off		
				Long Edge On		
				Short Eege		
			Stapled	Off		
				On		
		Output Tray	MP Tray	On/Off		
			Tray1	On/Off		
			Tray2	On/Off		
			Tray3	On/Off		
			Tray4	On/Off		

Main	1Depth	2Depth	3Depth	4Depth	5Depth	6Depth
		Mailbox Setup	Document Policy	Delete on Poll	On/Off	
				Delete on Print	On/Off	
			Mailbox Configuration	Edit Mailbox	Mailbox ID	20 string
					Mailbox Name	20 string
					Mailbox Passcode	20 string
					Notification	Off
						On
			Delete Mailbox			
Setup	Network Setup	TCP/IP Protocol	IP Setting	*DHCP BOOTP		
				Static	IP address	
					Subnet mask	
					Gateway	
			DNS Configuration	Domain Name		
				Preferred DNS Server	xxx.xxx.xxx.xxx	
				Altenate DNS Server #1	xxx.xxx.xxx.xxx	
				Altenate DNS Server #2	xxx.xxx.xxx.xxx	
				Dynamic DNS	Enable	
					Disable	
			HTTP Protocol	Enable		
				Disable		
		Netware Setting	Protocol	On		
				*Off		
			Print Server	Print Server Name		
				*Print Server Password		
			Frame Type	*[Auto] [EN_802.3] [EN_802.2] [EN_Ⅱ]		
			Primary File Servers	Primary File Server		
			Rates	Poll Interval	1-240 seconds	
				*SAP	*Enable	
					Disable	
			NDS Setting	Name Context		
				Directory Service Tree		
		AppleTalk Protocol	On			
			*Off			
	Authentication	Authentication Mode	Network Accounting			
			Foreign Devie Interface			
			No Authentication Mode			
		Foreign Device Interface Configuration	Job Timer	Enable / Disable		
			Print Job Control	Enable/Disable		
			Inhibit Services	Copy Only / All Services		
			Internal Credits	Enable / Disable		
			Image Counter	Charge / No Charge		
		Change Admin. Password	Old Password New Password Confirm Password			
	Optional Service	N/W Scan	Enable/Disable			
		Analog Fax	Enable/Disable			
	Remote Service	Remote Service	On/*Off			
		Criteria Value	Pages(1~9999)			
			Days (1~9999)			
		Service Number	Service Numer 1			
			Service Numer 2			
			Service Numer 3			
			Service Numer 4			
			Service Numer 5			
Print / Report	Print	Network Configuration				
		PS3 Font List				
		PCL Font List				
		Schedule Jobs Report				
	Accounting Reports	Supplies Information				
		Network Auth. Log Report				
		Counter Information				
		Usage Page Report				
	Report	Configuration Report	*Print at Power On			
			Do not print at Power On			
			Print Now			
		Fax Report	Multi Send Report	*Off		
				On		
				On-Error		
			Fax Send Report Appearance	Reduced		
				*No Image		

4.4.1 Machine overview

These are the main components of your machine:

4.4.1.1 Front view
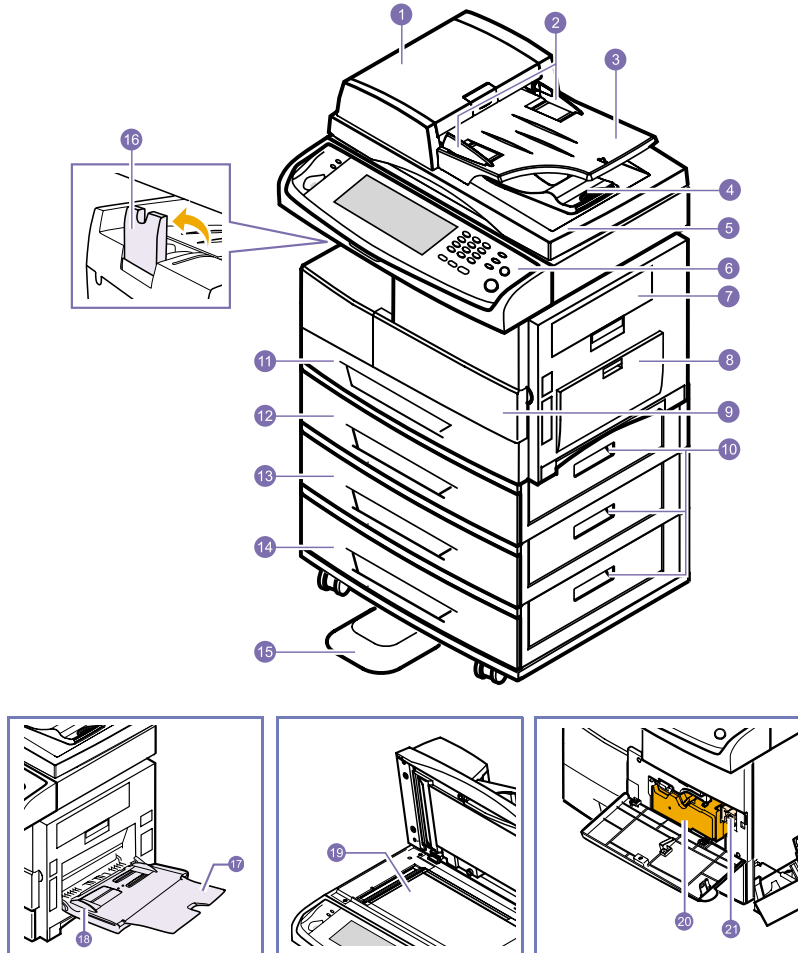
* The figure above shows an SCX-6345N with all available accessories.

1	DADF (Duplex Automatic Document Feeder)		12	optional tray 2
2	document width guides		13	optional tray 3
3	document input tray		14	optional tray 4
4	document output tray		15	optional tray stand
5	scanner lid		16	output support
6	control panel		17	multi-purpose tray extension
7	side cover		18	multi-purpose tray paper width guides
8	multi-purpose tray		19	scanner glass
9	front cover		20	toner cartridge
10	optional tray jam cover		21	drum cartridge
11	tray 1			

4.4.1.2 Rear view
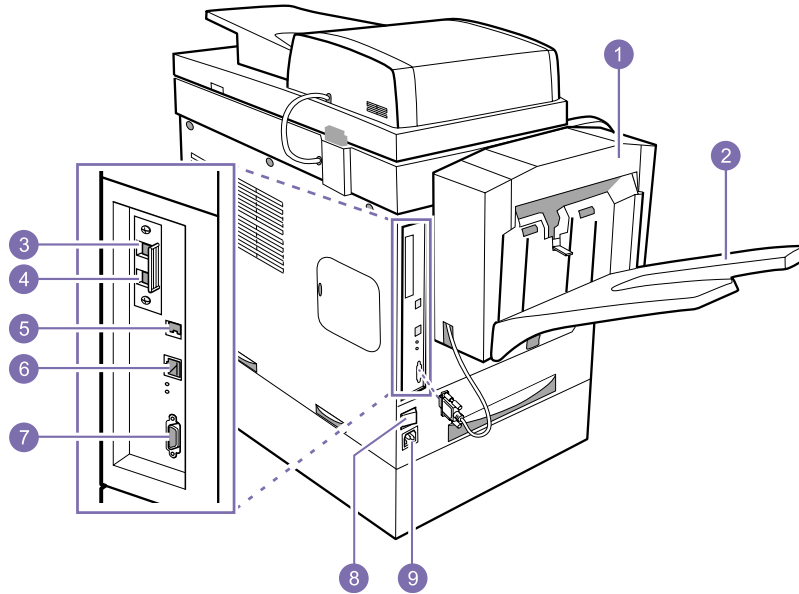
* The figure above shows an SCX-6345N with all available accessories.

1	optional stacker & stapler		6	network port
2	optional stacker output tray		7	optional stacker connection
3	extension telephone socket (EXT)		8	power switch
4	telephone line socket (LINE)		9	power receptacle
5	USB port			

4.4.1.3 Control panel overview
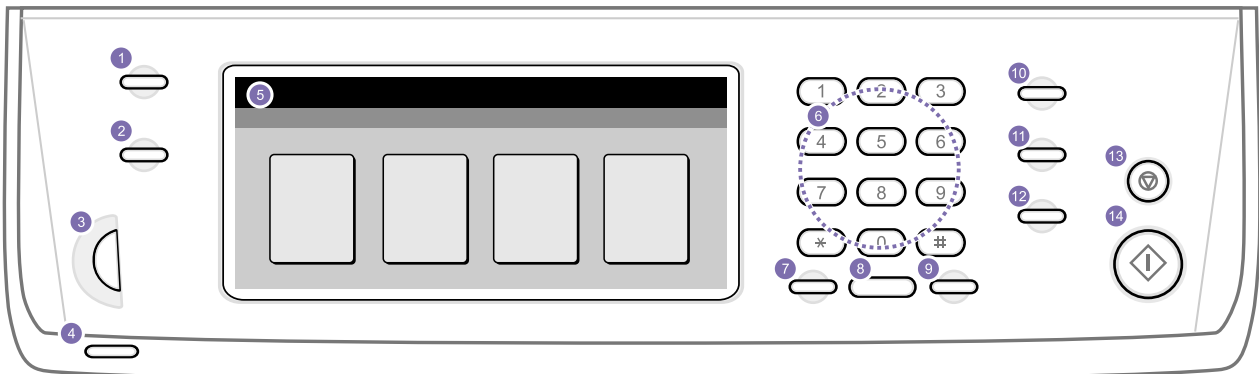
1	**Machine Setup:** Sets the value of machine setup.
2	**Job Status:** Enters job status menu which shows the current running jobs, waiting jobs or completed jobs.
3	**Screen brightness dial:** adjusts the brightness of the touch screen.
4	**Status:** Shows the status of your machine.
5	**Screen:** Displays the current machine status, prompts during an operation, and user can set manus since it is the touch screen.
6	**number keypad:** dials fax number, enters the number of copied document or option values.
7	**Clear:** Deletes character of string in the editing area of screen.

| 8	**Redial/Pause:** In Standby mode, redials the last number, or in Edit mode, inserts a pause into a fax number.
9	**On Hook Dial:** Engages the telephone line.
10	**Power Saver:** Enters the machine into the power save mode.
11	**Interrupt:** Stops a progressing job for urgent copy job.
12	**Clear All:** Sets the machine with default values.
13	**Stop:** Stops an operation at any time. The pop up window appears on the screen showing the current job that user can stop or resume.
14	**Start:** Starts a job.

4.4.1.4 Machine Setup button

With this button, you can browse current machine settings and set machine values.
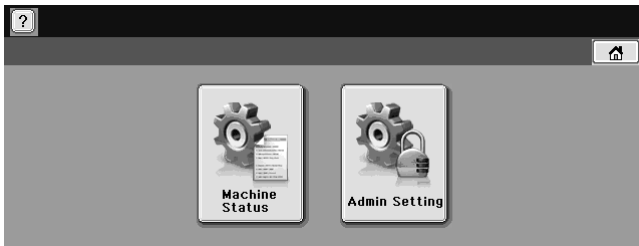
· Machine Status: shows the current status of the machine.
· Admin Setting: allows an administrator to set up the machine.

4.4.1.5 Job Status button

When user presses Job Status button, LCD shows the currently running, queued jobs and completed jobs.
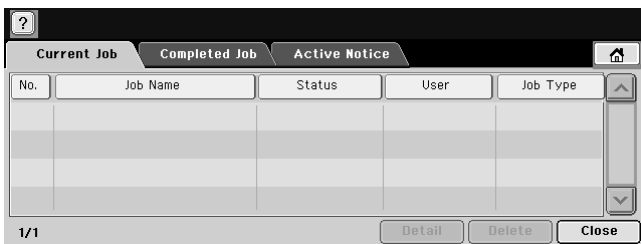
· Current Job tab: shows the list of jobs in progress and pending.
· Completed Job tab: provides the list of completed jobs.
· Error List tab: shows the list of errors that occurred in the machine.
· No.: gives the order of jobs. The job in No. 001 is currently in progress.
· Job Name: shows job information like name and type.
· Status: gives the current status of each job.
· User: provides user name, mainly computer name.
· Job Type: displays details of the active job, such as job type, recipient phone number and other information.
· Delete: removes the selected job from the list.
· Close: closes the job status window and switches to previous view.

4.4.1.6 Status

Status	Description
Off	· 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.

Status" LED		Description
Green	On	The machine is on-line and can be used.
	Blinking	· When the backlight slowly blinks, the machine is receiving data from the computer. · When the backlight blinks rapidly, the machine is printing data.
Red	On	· The toner cartridge is totally Out of lifespan. Remove the old toner cartridge and install a new one. · The drum cartridge is totally empty. Remove the old drum cartridge and install a new one. · A paper jam has occurred. · The front cover is open. Close the cover. · The machine has stopped due to a major error. Check the display message.
	Blinking	· A minor error has occured and the machine is waiting the 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.

4.4.1.7 Touch Screen

The touch screen allows for user-friendly operation of the machine.

Once you press the home icon (🔲) on the screen, it shows the Main screen.

· 🔳 : Shows Help. You can find the explanation by feature contents.
· Copy: Enters the Copy menu.
· Fax: Enters the Fax menu. (Optional)
· Scan: Enters Scan to Email, NetScan, Scan to Server menu. (Optional)
· Stored Documents: Enters the Stored Documents menu.
· Logout: Logs out from the currently logged in account.

4.4.1.8 Power Saver button

When the machine is not in use, save electricity with the provided power save mode. Puts the machine into power save mode.

Status		Description
Off		The machine is not in power save mode.
Green	On	The machine is in power save mode.

4.4.1.9 Interrupt button

When you press this button, the machine goes into interrupt mode which means it stops a printing job for urgent machine use.

Status		Description
Off		The machine is not in interrupt printing mode.
Green	On	The machine is in interrupt printing mode.

*Note:* *Interrupt mode is resumed at default value (Off) after the machine is shut down or reset.*

4.4.2 Machine's basic settings

After setting up the machine, you may need to set the machine's basic features. Check the next explanation if you would like to set or change values.

4.4.2.1 Setting log in password

To set your machine up or change the settings, you have to login. To change passwords, follow the next steps.

1. Press Machine Setup on the control panel.
2. Press Admin Setting.
3. Login message appears, enter password (Factory setting: 1111) with number keypad and press OK.
4. Press Setup tab > Authentication.
5. Press Change Admin Setting Password.
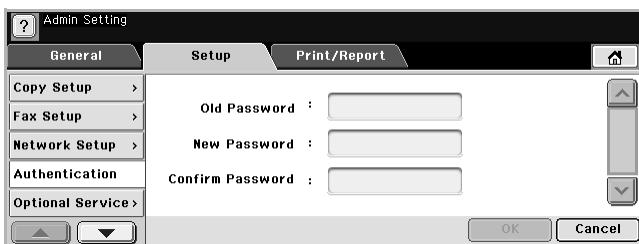
6. Enter old password and new password.
7. Press OK.

4.4.2.2 Setting the date and time

The current date and time are shown on the display when your machine is on and ready to work.

1. Press Machine Setup on the control panel.
2. Press Admin Setting.
3. Login message appears, enter password with number keypad and press OK.
4. Press General tab > Data/Time > Set Date/Time.
5. Select date and time using left/right arrows.
   Note: To change the format of date and time, press Date Format and Time Format.
6. Press OK.

4.4.2.3 Changing the display language

To change the language that appears on the touch screen, follow these steps.

1. Press Machine Setup button in the control panel.
2. Press Admin Setting.
3. Login message appears, enter password with number keypad and press OK.
4. Press General tab.
5. Press down arrow to switch the screen, press Language.
6. Select language.
7. Press OK.

4.4.2.4 Setting job timeout

When there is no input, the machine waits for a specific time. You can set the amount of time the machine will wait.
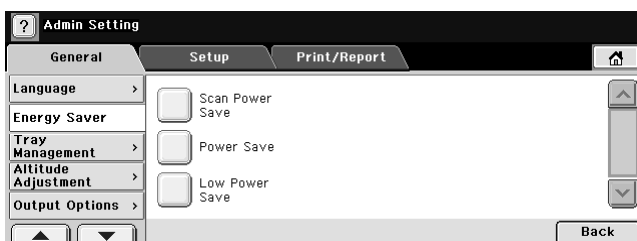
1. Press Machine Setup on the control panel.
2. Press Admin Setting.
3. Login message appears, enter password with number keypad and press OK.
4. Press General tab.
5. Press Timers.
6. Select System Timeout.
7. Select On.
8. Select time using left/right arrows.
9. Press OK.

4.4.2.5 Setting the tray and paper

You can select the tray and paper you use for printing job.

1. Press Machine Setup on the control panel.
2. Press Admin Setting.
3. Login message appears, enter password with number keypad and press OK.
4. Press General tab.
5. Press down arrow to switch the screen, press Tray Management.
6. Select tray and its options such as paper size, type, and Tray Confirmation Message.
7. Press OK.

4.4.2.6 Using energy saving feature

The machine provides energy saving features.
· Scan Power Save: reduces machine's power consumption when it is not in actual use.
· Power Save: saves power by turning off the scan lamp. The scan lamp under the scanner glass automatically turns off when it is not in use to reduce power consumption and extend the life of the lamp.

1. Press Machine Setup on the control panel.
2. Press Admin Setting.
3. Login message appears, enter password with number keypad and press OK.
4. Press General tab.
5. Press down arrow to switch the screen, press Energy Saver.
6. Select appropriate option and time.

7. Press OK.

4.4.2.7 Changing the default settings

You can set the default values for copy, fax, email, scan and paper all at once.

1. Press Machine Setup on the control panel.
2. Press Admin Setting.
3. Login message appears, enter password with number keypad and press OK.
4. Press General tab > Default Settings > Default Option.
5. Press the function you want to change, and change its settings.
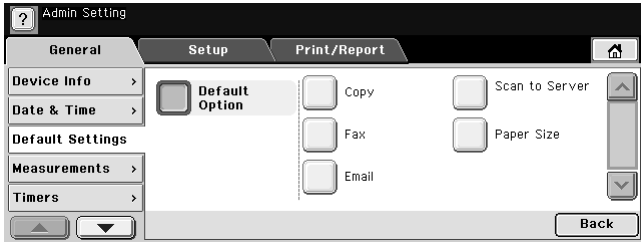
For example, if you want to change the default setting of the brightness & darkness for a copy job, press Copy > Darkness and adjust the brightness & darkness.

6. Press OK.

4.4.2.8 Understanding the keyboard

You can enter alphabet characters, numbers, or special symbols using the keyboard on the touch screen. This keyboard is specially arranged like a normal keyboard for better usability for the user.
Touch the input area where you need to enter characters and the keyboard pops up on the screen. The keyboard below is the default showing the lowercase letters.
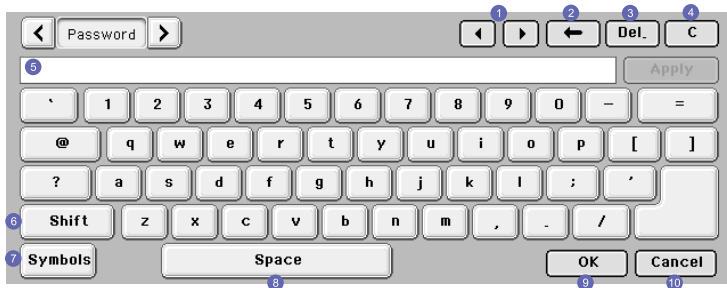
1	Left/Right: moves the cursor between characters in the input area.
2	Backspace: deletes the character on the right side of the cursor.
3	Delete: deletes the character on the left side of the cursor.
4	Clear: deletes all characters in the input area.
5	Input area: enter letters within this line.
6	Shift: converts lowercase keys to uppercase keys.
7	Symbol: switches from the alphanumeric keyboard to the symbol keyboard.

8	Space: enters a blank between characters.
9	Top domai n: chooses top level domains like .com, .net, .org, etc. By pressing arrow key, you can select different domains. You can set the 5 different top level domains in Admin settings.
10	OK: saves and closes input result.
11	Cancel: cancels and closes input result.

Note: *If you enter the email address, then the keyboard for email pops up. After you enter the address, press OK to activate entered address. Press the arrow key on the side for rotating between From, To, CC, Bcc, Subject, Message in order.*

4.5 Service Mode

4.5.1 Introduction

This document will capture the behavior specifications for the GUI Windows for Diagnostics

Each section of this document describes one feature with a step window image and script.
However, used window image is not fixed image from the specification point of view. Acquire detail information from script. Window image is just example image will be implemented.

This is intended to aid GUI designers, reviewers & also testers.

Associated Documents:

<The documents that are associated with this should be mentioned here. For example in case of Basic Copy, the following could be the associated documents>

4.5.2 Entry Point

The entry for Diagnostics is the combination of hard key.
User should press "xxx" and "yyy" altogether.

After pressing the hard button for entry, OP displays Login window.
Login window has editbox for Passcode input.
Passcode has 4 digits.
Passcode is 1934
After input the passcode and OK button, OP shall wait until get the response from MCB notifying that MCB is idle.
Once Diagnostics window is displayed, all hard buttons except numeric button and 'clear' button shall be disabled.

Below is the main window of Diagnostics.

Figure 2-1 Diagnostics Main window

There are 3 tabs. They are "Information", "Fault History", and "Test Routines".
Each tab has several sub items and they're listed as below.

Contents

- Information
  - A. General
  - B. HFSI
  - C. Software Version
  - D. Usage Counters
- Fault History
  - A. Fault Log
  - B. Fault Counters
- Test Routines
  - A. Copier
  - B. Fax
  - C. Network
  - D. Other

Detail of each tab and items will be explained in the following chapters.
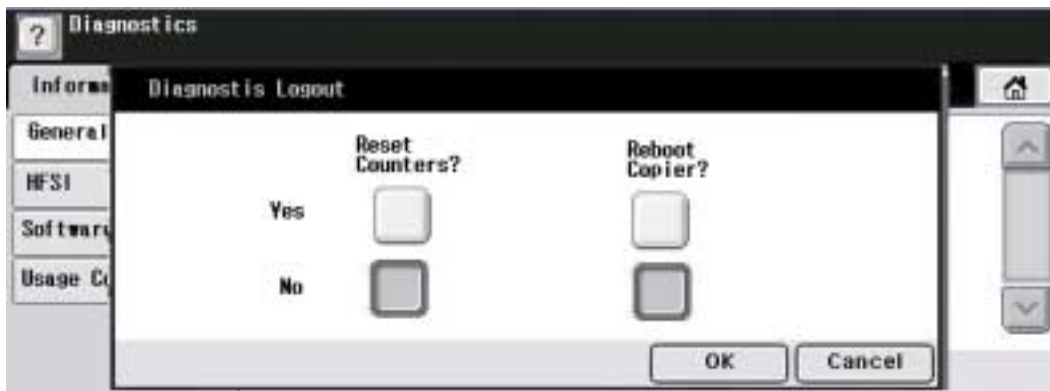
4.5.2.1 Logout

Figure 2-2 General item window

By pressing the Home button, exit Diagnostics mode.
When exit Diagnostics mode, a popup window shall display.
By default, Reset Counters is No, Reboot Copier is Yes.

4.5.3 Information Tab

Flowchart
N/A

Information Tab provides detail information of the machine.

4.5.3.1 General

Figure 3-1 General item window

When user selects General, OP displays Machine Serial Number, Network IP Address and Images since last call.

4.5.3.2 HFSI

HFSI shows the usage of "High Frequency Service Items".

Figure 3-2 HFSI item window

When user select "HFSI", OP displays the list of HFSI read from the MCB.
In the list, there are "Item", "Status", "Actual", and "Max.Life".

- User Behavior
  User can select one item in the list to reset the counter using "Reset" button or to edit the Max.Life and threshold value using "Edit" button.

- Items in this column are:
  DADF Roller Life Page
  DADF Rubber Pad Life Page
  T1 P-up Roll Life Page
  Retard Roll Life Page
  T2 P-up Roll Life Page
  T3 P-up Roll Life Page
  T4 P-up Roll Life Page
  Bypass Rubber Pad Life page
  Transfer Roll Life Page
  Fuser Roll Life Page
  Fuser Unit Life page
  Heat Roll Life Page
  Pressure Roll Life Page

- Status
  The possible values in this column are 'OK', 'Check', 'Negative' and 'Off'.

  OK : Actual counter is smaller than the threshold value
  Check : Actual counter is bigger than threshold value but smaller than Max.Life
  Off : Actual counter exceeds Max.Life
  Negative : There is no counter to display. In this case, it shall display '-' in the Status and Max Life column.

- Actual
  Values in this column are actual counts for HFSI usage
  Values in this column shall use delimiter(,) every 1000 unit

- Max. Life
  Values in this column are maximum life limits set for HFSI.

There are 3 buttons titled "Reset" and "Edit".

- Reset
  This button is used to reset the actual counter after replacing the HFSI unit.
  This button is disabled before user select one item in the list and enabled once user select any of the items in the list.
  Once user presses, a confirmation window shall display to user confirm again. The window is displayed as below.
  If user confirms reset, it will reset the counter to 0.
  If the counter of selected item is 0, 'Reset' button shall be disabled.
  If user selects 'OK' or 'Cancel' button, a confirmation window shall return to the previous window and display pressed 'HFSI' tab
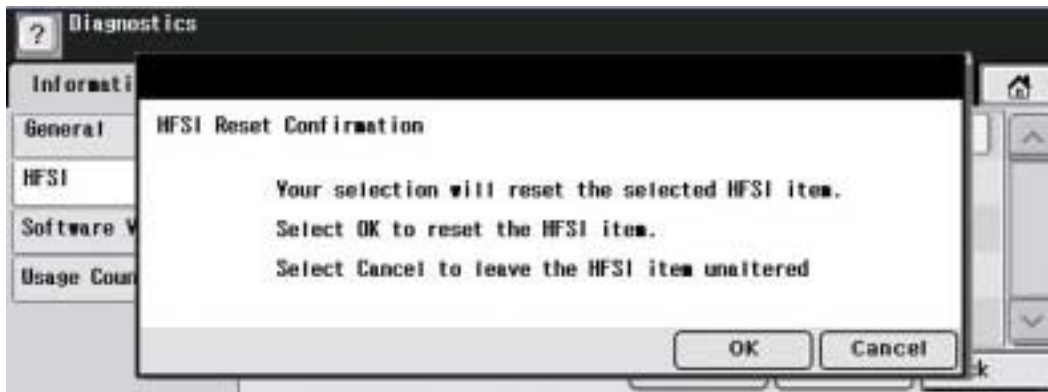
Figure 3-3 HFSI item Reset window

- Edit
  "Edit" button is disabled until user selects one item in the list.
  Selecting "Edit" button causes edit window to be displayed.
  There are two input filed for 'Maximum Life' and for 'Threshold'.

Figure 3-4 HFSI item Edit window

By default the Threshold data field is displayed as selected.
Each data filed shall display default value or the last-saved value entered by the service engineer.
The data field shall support the numeric characters of 0 to 9
The hard keypad characters of '#', 'phone' and '*' are not supported and shall generate an invalid entry message if selected.
The hard keypad characters of 'c' shall delete all characters displayed within the selected data filed.
By selecting 'Cancel', window moves back to HFSI window without saving user's setting.
By selecting 'OK' button, window moves back to HFSI window saving user's setting
Threshold value shall not be greater than Maximum Life.

4.5.3.3 Software Version

Figure 3-4 Software Version item window

- Items in this column are:
      Main Controller
      Image Output Terminal
      User Interface
      Network Controller
      Document Feeder
      Tray 2 Firmware
      Tray 3 Firmware
      Tray 4 Firmware

The items in the Software Version shall be same as those of Machine Status > Machine Infor > Machine Details > Software Version.

4.5.3.4 Usage Counters

Figure 3-5 Usage Counter item window

- Items in this column are:
  Total Impressions
  Black Impressions
  Black Copied Impressions
  Black Printed Impressions
  Sheets
  Copied Sheets
  Black Copied Sheets
  Printed Sheets
  Black Printed Sheets
  2 Sided Sheets
  Copied 2 Sided Sheets
  Black Copied 2 Sided Sheets
  Printed 2 Sided Sheets
  Black Printed 2 Sided Sheets
  Fax Images Received
  Images Sent
  Server Fax Images Sent
  Network Scanning Images Sent
  Email Images Sent
  Maintenance Impressions
  Black Maintenance Impressions
  Known Jams in the IOT
  Known Jams in Finishing Device(s)
  Attempted Sheet Feeds from Internal trays
  Actual sheet feeds from Internal trays
  Normal Level Power On Hours
  Power Save Hours
  Attempted Original Sheet Feeds in the DADF

The items in the Usage Counter shall be same as those in the Machine Status > Machine Infor > Billing Counters.

4.5.4 Fault History Tab

4.5.4.1 Fault Log

Figure 4-1 Fault Log item window

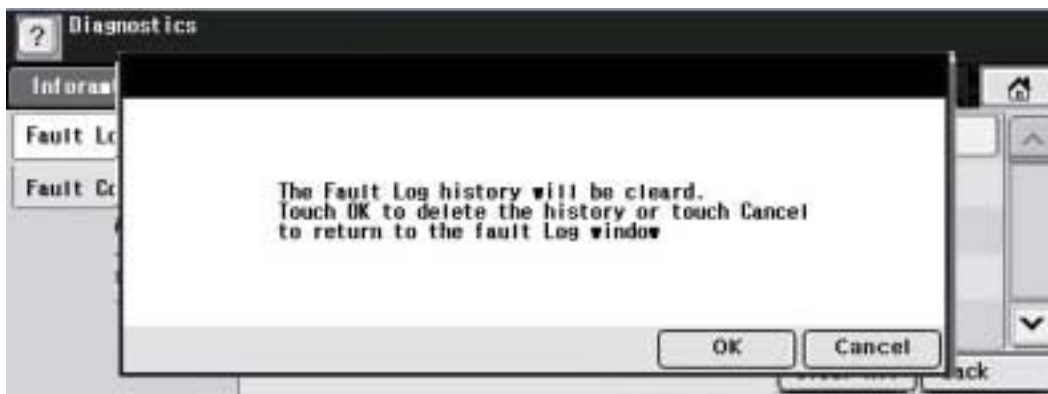Fault log window shall display errors last error first.

Figure 4-2 Fault Log item Clear All window

Once user confirms to clear Fault Log, the list shall be empty.

4.5.4.2 Fault Counters

Figure 4-3 Fault Counters window

Fault Counters window displays Fault group with number and name.
They are
  01 Feeder
  02 Fuser
  03 Motor Fan
  04 LSU
  05 Option Interface
  06 CRU
  07 Finisher
  08 DADF
  09 FDI
  10 Controller
  11 Scanner
  12 Mismatch Type
  13 Network
  14 Cloning
  18 ax Memory State
  21 Tray
  24 MSOK

User shall select one item in the list at a time and multiple selection shall not be supported.
User can select 'Non Zero' or 'All'
By default, 'Non Zero' shall be selected..
When press 'OK', Fault Counters Detail Window (Figure 4-4) shall be displayed.

Figure 4-4 Fault Counters Detail window

Fault Counters Detail window shall display Fault code, description and value (counter) among the selected Fault Group.
Items of displayed Fault codes are different based on the selection of 'Non Zero' or 'All' When selected 'Non Zero', Fault codes in the selected Fault Group having non zero counter shall be displayed When selected 'All', all Fault codes in the selected Fault Group shall be displayed.
Display order of Fault code is upward.

4.5.5 Test Routines Tab

4.5.5.1 Copier

4.5.5.1.1 NVM Read/Write

Figure 5-1 Copier item window

When press Engine/DADF Test Routines, OP shall send test mode entry command.
(CMD_COPY_COMP_ENTERMODE)
Only when the response for CMD_COPY_COMP_ENTERMODE is OK, user can move into Engine/DADF Test Routines.

Figure 5-2 Copier item NVM Read/Write window

* Items in this column are:
  - 10 - 100   StandBy Temperature offset
  - 10 - 105   Run Temperature offset
  - 10 - 110   Low Power Temperature offset
  - 10 - 115   101-185 mm Temperature offset
  - 10 - 120   186-216 mm Temperature offset
  - 10 - 125   60 gms Temperature offset
  - 10 - 130   90 gms Temperature offset
  - 10 - 135   Bond Temperature offset
  - 10 - 140   Transparency Temperature offset
  - 10 - 145   Cardstock Temperature offset
  - 10 - 150   Envelopes Temperature offset
  - 10 - 155   Labels Temperature offset
  - 10 - 200   Fuser Life Page Counter

10 - 210	Heat Roll Life Page Counter
10 - 220	Pressure Roll Life Page Counter
10 - 300	Pick-up interval delay
10 - 310	Pick-up interval delay [Special paper]
07 - 100	Top Registration Tray1 Simplex
07 - 200	Top Registration Tray2 Simplex
07 - 300	Top Registration Tray3 Simplex
07 - 400	Top Registration Tray4 Simplex
07 - 500	Top Registration Bypass Simplex
07 - 110	Side Registration Tray1 Simplex
07 - 210	Side Registration Tray2 Simplex
07 - 310	Side Registration Tray3 Simplex
07 - 410	Side Registration Tray4 Simplex
07 - 510	Side Registration Bypass Simplex
07 - 120	Top Registration Tray1 Dup_long (2nd side)
07 - 220	Top Registration Tray2 Dup_long (2nd side)
07 - 320	Top Registration Tray3 Dup_long (2nd side)
07 - 420	Top Registration Tray4 Dup_long (2nd side)
07 - 520	Top Registration Bypass Dup_long (2nd side)
07 - 130	Side Registration Tray1 Dup_long (2nd side)
07 - 230	Side Registration Tray2 Dup_long (2nd side)
07 - 330	Side Registration Tray3 Dup_long (2nd side)
07 - 430	Side Registration Tray4 Dup_long (2nd side)
07 - 530	Side Registration Bypass Dup_long (2nd side)
07 - 140	Top Registration Tray1 Duplex (1st side)
07 - 240	Top Registration Tray2 Duplex (1st side)
07 - 340	Top Registration Tray3 Duplex (1st side)
07 - 440	Top Registration Tray4 Duplex (1st side)
07 - 540	Top Registration Bypass Duplex (1st side)
07 - 150	Side Registration Tray1 Duplex (1st side)
07 - 250	Side Registration Tray2 Duplex (1st side)
07 - 350	Side Registration Tray3 Duplex (1st side)
07 - 450	Side Registration Tray4 Duplex (1st side)
07 - 550	Side Registration Bypass Duplex (1st side)
06 - 100	Vertical Magnification
06 - 110	Horizontal Magnification
08 - 100	Pick up roller Life Page Counter
08 - 110	Forward roller Life Page Counter
08 - 120	Retard roller Life Page Counter
08 - 130	Tray2 Pick-up Roller Life Page Counter
08 - 140	Tray3 Pick-up Roller Life Page Counter
08 - 150	Tray4 Pick-up Roller Life Page Counter
08 - 160	Bypass Rubber Pad Life Page Counter
09 - 100	LD Light Level
09 - 110	MHV Control Bias Control
09 - 120	THV Control Bias Control
09 - 130	Deve Bias Control
09 - 200	Drum Life Page Counter
09 - 210	Toner Cartridge Life Page Counter
09 - 240	Drum PWM
09 - 140	Detack Bias Control
09 - 230	Transfer Roller Life Page Counter
05 - 700	ADF Roller Life Page Counter
05 - 710	ADF Rubber Pad Life Page Counter

Edit button shall be disabled until any NVM item is selected.

Edit button shall be disabled when read only NVM is selected.

Search edit box has 00-000 as a default. User shall input the whole number to find a specific NVM by pressing Find button.

If matching NVM is found, the page including the specified NVM shall be displayed and the NVM is shown as selected.

If matching NVM is not found, error message such as "Invalid NVM number" shall be displayed on the status area and search edit box displays default number.

Figure 5-3 Copier item NVM Read/Write Edit window

When press Reset, value shall be Default value without confirmation popup window.

NVM name shall be displayed top of Default value string.

When press OK, confirmation popup window shall displayed.

Confirmation window shall display "Touch OK to save the value or Cancel to return"

4.5.5.1.2 NVM Initialization

Figure 5-4 Copier item NVM Initialization window

By default, none of items is selected and Initialize button shall be disabled.
There shall be Back button.
When Back button is pressed, NVM Initialization window return the previous window and NVM Initialization button shall be changed to the normal image
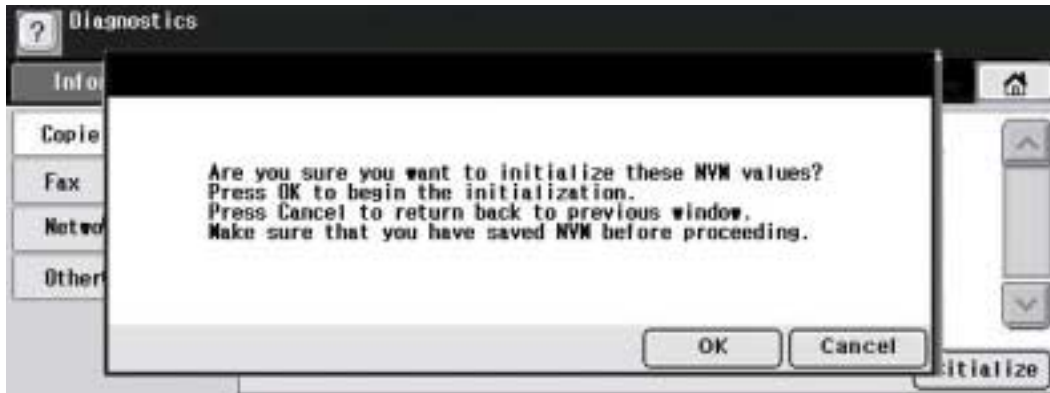

Figure 5-5 Copier item NVM Initialization Confirmation window

When OK/Cancel is selected, move back to Figure 5-4.
When press OK button, OK and Cancel button are disabled until get the result from MCB.
When press OK button, SR shall show the initialization progress status and result.
When the result is get, pop up window shall be disappeared.
When press Cancel button, return to the previous window

4.5.5.1.3 Engine/DADF Test Routines

Figure 5-6 Copier item Engine/DADF Test Routines Find Component window

When exit this window, OP shall send exit command.
(CMD_COPY_COMP_EXITMODE)
By default, all Test routines will be displayed.
By default, search edit box has 00 .
OK/Reset button shall be disabled until any test routine is selected.
Maximum number of selection is 3.
Reset will deselect all selected test routines.
User select test routine by touching the row and deselect touching it again.
User input chain number in search edit box and only all test routines in the chain shall be displayed.

Figure 5-7 Copier item Engine/DADF Test Routines window

By default, Start/Stop/Stop All shall be disabled.
Start button shall be enabled when selected item is not running.
Multiple selection shall not be supported.
Stop shall be enabled only when the selected item is running.
Stop All shall be enabled when there is any running test item.
Back button shall be disabled when there is any running test item.

4.5.5.2 Fax

Figure 5-8 Fax item window

4.5.5.2.1 NVM Read/Write

Figure 5-9 Fax item NVM Read/Write window

For the behavior, refer to 4.5.5.1.1

Figure 5-10 Fax item NVM Read/Write Edit window

For the behavior, refer to 4.5.5.1.1
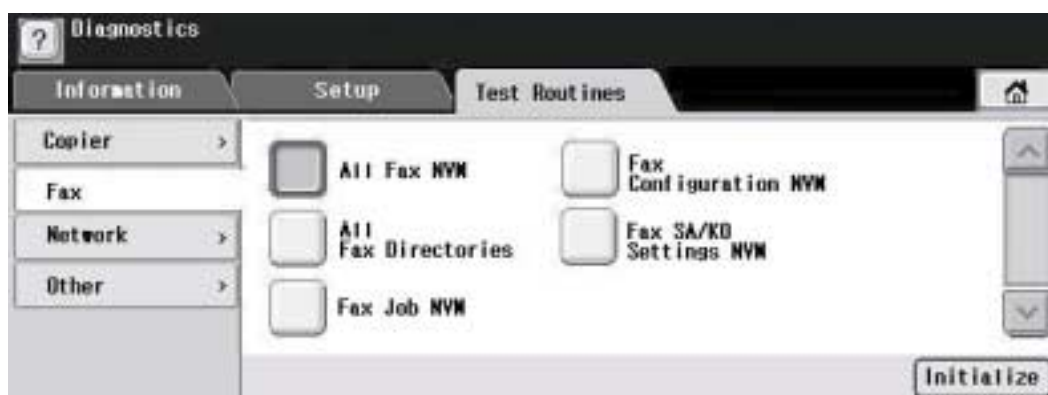
4.5.5.2.2 NVM Initialize

Figure 5-11 Fax item NVM Initialize Edit window
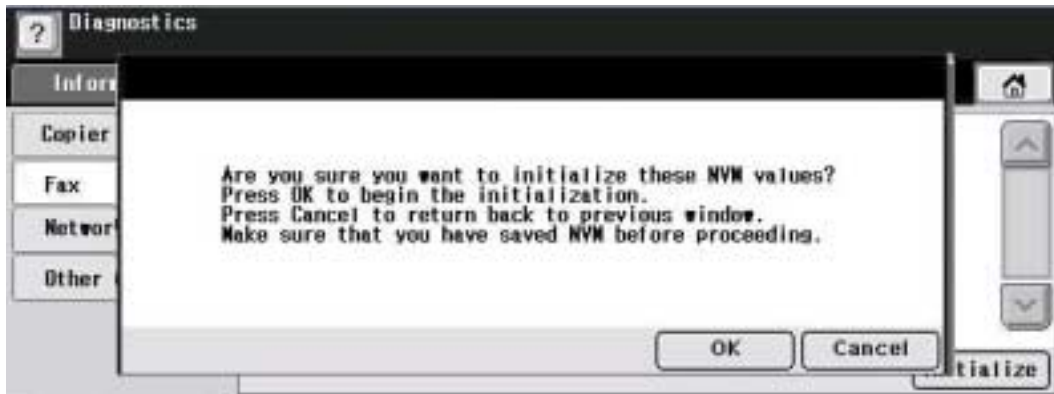
For the behavior, refer to 4.5.5.1.2.

Figure 5-12 Fax item NVM Initialize Confirmation window

For the behavior, refer to 4.5.5.1.2.

4.5.5.2.3 Protocol Report

Figure 5-13 Fax item Protocol Report window

By pressing the Print, starts printing.

4.5.5.2.4 Fax Routines

Figure 5-14 Fax item Fax Routines window

For the behavior, refer to 4.5.5.1.3

Figure 5-15 Fax item Fax Routines Find window

For the behavior, refer to 4.5.5.1.3

4.5.5.3 Network

Figure 5-16 Network item window

4.5.5.3.1 NVM Initialization

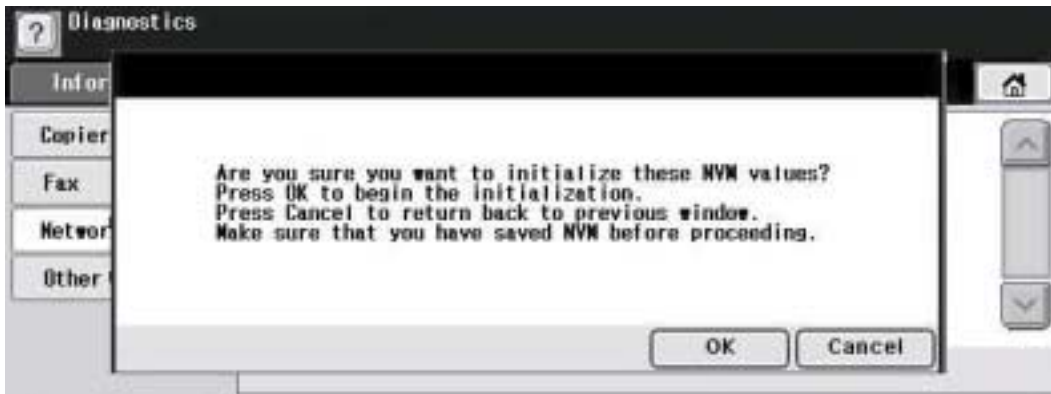Figure 5-16 Network item NVM Initialization window

For behavior, refer to 4.5.5.1.2

Figure 5-17 Network item NVM Initialization Confirmation window

4.5.5.4 Other
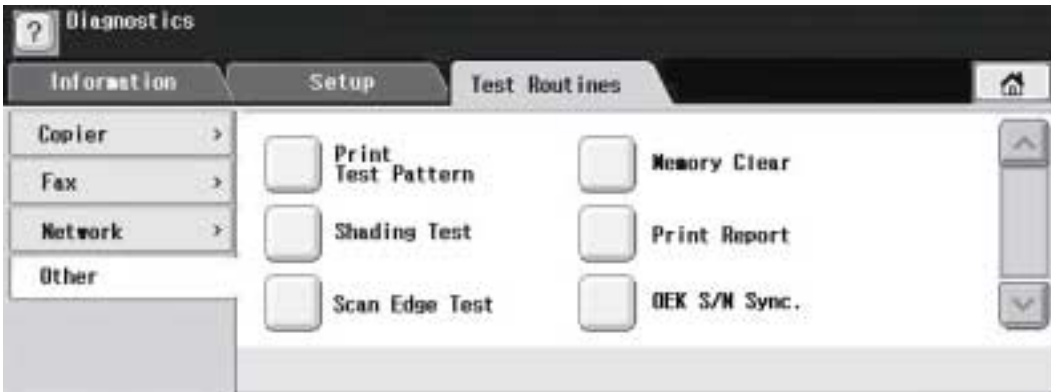

Figure 5-18 Other item window
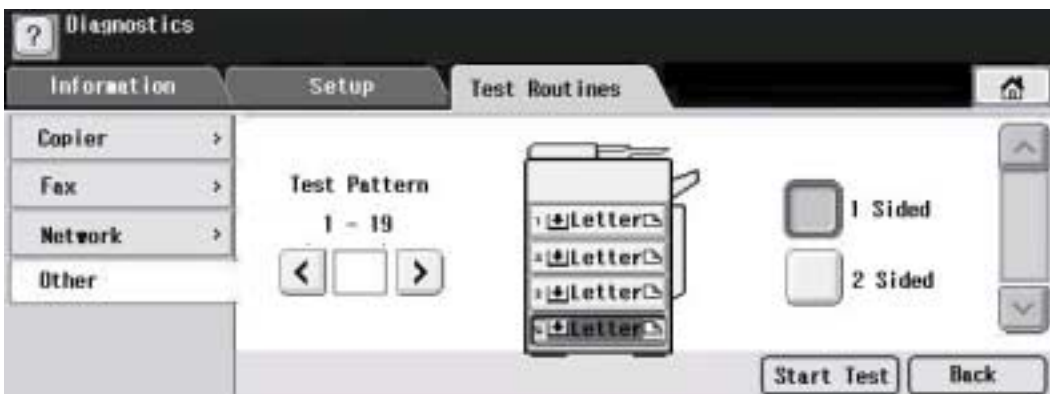
4.5.5.4.1 Print Pattern

Figure 5-19 Other item Print Pattern window

For printing Test Pattern, use Report Print Command.
By default, Test Pattern number shall be 1.
User shall select paper source by selecting tray of the image.
User shall select simplex/duplex printing option by selecting 1 sided /2 sided button.

4.5.5.4.2 Shading Test

Figure 5-20 Other item Shading Test window

4.5.5.4.3 Scan Edge Test

Figure 5-21Other item Scan Edge Test window

4.5.5.4.4 Memory Clear

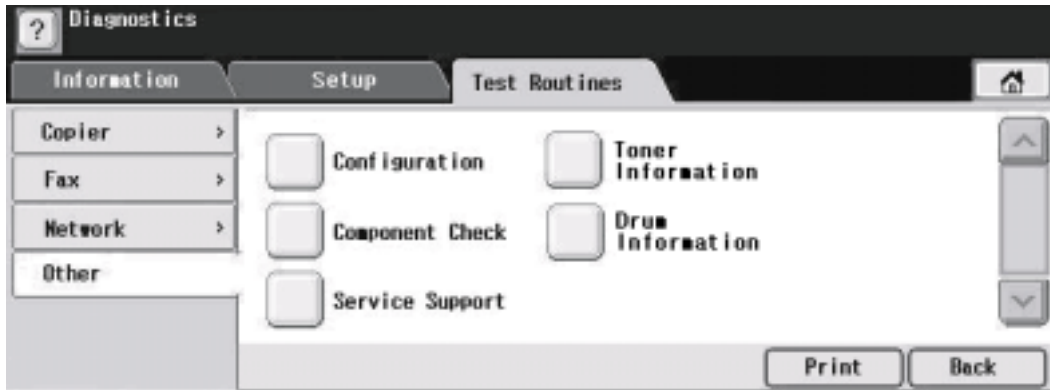Figure 5-22Other item Memory Clear window

4.5.5.4.5 Print Report

Figure 5-23Other item Print Report window

4.5.5.4.6 OEK S/N Sync.

Figure 5-24 OEK S/N Sync. window

4.5.6 Firmware Upgrade

4.5.6.1 Port 9100 Download （Machine and User PC should be connected to network）

1) Copy ipsend.exe and firmware file to local folder.

2) Execute dos prompt at same location as above

3) Type "ipsend.exe [ip address] [firmware file name]" and Press Enter

4.5.6.2 SWS

1) Open Internet Explorer

2) Type ip address of machine at the address bar, and press enter

3) Go to maintenance, Select firmware file by browse button

4) Press Upgrade button

4.5.6.3 Local USB Download

1) Copy usblist2.exe and firmware file to local folder.

2) Execute dos prompt at same location as above

3) Type "usblist2.exe[firmware file name]" and Press Enter

4.6 Consumables and Replacement Parts

4.6.1 Maintenance part

To avoid print quality and paper feed problems resulting from worn parts and to maintain your printer in top working condition the following item swill need to be replaced at the specified number of pages or when the life span of each item has expired.

Items	Yield (Average)
DADF rubber pad	Approx. 50,000 pages
Multi-purpose tray rubber pad	Approx. 200,000 pages
DADF feed roller	Approx. 50,000 pages
Multi-purpose tray feed roller	Approx. 200,000 pages
Transfer roller	Approx. 100,000 pages
Fuser unit	Approx. 200,000 pages
Paper Feed roller	Approx. 200,000 pages

We highly recommend that an authorized service provider, dealer or the retailer where you bought printer performs this maintenance activity.

4.6.2 Printing machine's report

You can print the machine's information and job report.

1. Press Machine Setup on the control panel.
2. Press Machine Status > Machine Info. tab > Print/Report.
3. Select the report type, then the right side of the screen shows the list to print.
4. Select the list to print.
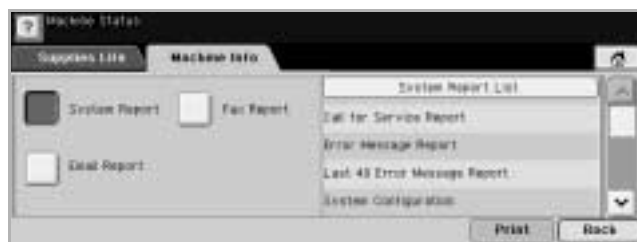
5. Press Print.
   Note : You can use SynchThru Web Service to print the machine's configuration or browse the status. Open the internet browser in the networked computer, and type the machine's IP address. When SynchThru Web Service is opened, click Information > Print information.

4.6.3 Clearing memory

When you want to delete all the data, including data from mail box, received fax, or user settings, in the flash memory of the machine, use the memory clearing function.

※ This function(Clearing memory) of the SCX-6345N is not supported

4.6.4 Calibrating the touch screen

When pointing positions of the touch screen is incorrect, you can correct the pointing position using the calibration feature.

1. Press and hold the numeric key 0. While you are pressing the key 0, turn on the machine to enter the calibration mode.
2. When the machine enters to the calibration mode, press + mark in numerical order.
3. When the screen shows the job done, press any number key on the control panel to validate the touch screen.
4. When the calibration screen shows up again, press + mark in numerical order.
5. When the machine completes the calibration, turn off and on the machine again.
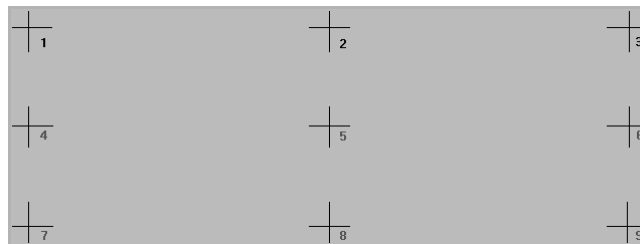
4.6.5 Checking the supplies life

If you want to know the supplies' life within the machine, follow the next step.

1. Press Machine Setup on the control panel.
2. Press Machine Status.
3. Press down arrow to browse all the supply list, measurement, and remains.

4.6.6 Checking the machine's serial number

If you want to check your machine's serial number from the screen, follow the next step.

1. Press Machine Setup on the control panel.
2. Press Machine Status > Machine Info. tab > Machine Details.

4.6.7 Clearing the toner empty message

When you want to set the machine not to show the toner empty and replace the toner message, follow the next steps.

1. Press Machine Setup on the control panel.
2. Press Admin Setting. When the login message pops up, then enter password and press OK.
3. Press General > Ignore Toner Empty Status.
4. Press On.
5. Press OK.

4.6.8 Cleaning your machine

To maintain print and scan quality, follow the cleaning procedures below each time the toner cartridge is replaced or if print and scan quality problems occur.

Caution : Cleaning the machine cabinet with cleaning materials that contain large amounts of alcohol, solvent, or other strong substances can discolor or damage the cabinet.

4.6.8.1 Cleaning the outside

Clean the machine cabinet with a soft lint-free cloth. You can dampen the cloth slightly with water, but be careful not to let any water drip onto or into the machine.

4.6.8.2 Cleaning the inside

Contact a service representative to clean the inside of the machine.

4.6.8.3 Cleaning the scan unit

Keeping the scan unit clean helps ensure the best possible copies. We suggest that you clean the scan unit at the start of each day and during the day, as needed.

1. Slightly dampen a soft lint-free cloth or paper towel with water.

2. Open the scanner lid.

3. Wipe the surface of the scanner glass and DADF glass until it is clean and dry.

4. Wipe the underside of the scanner lid and white sheet until it is clean and dry

5. Close the scanner lid

1	white sheet
2	DADF glass
3	scanner lid
4	scanner glass
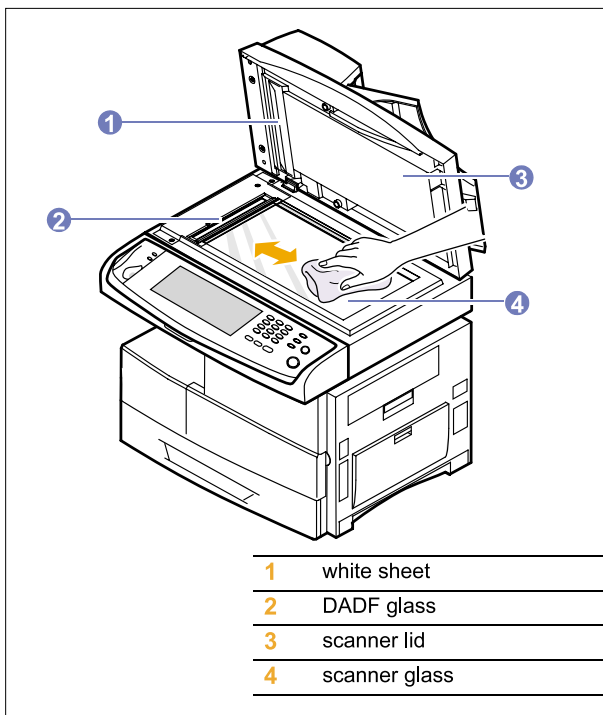
4.6.9 Maintaining the toner cartridge

Toner cartridge storage

To get the most from the toner cartridge, keep the following guidelines in mind:
 · Do not remove the toner cartridge from its package until ready for use.
 · Do not refill the toner cartridge. The machine warranty does not cover damage caused by using a refilled cartridge.
 · Store toner cartridges in the same environment as your machine.

Expected cartridge life

The toner cartridge yield depends on the amount of toner that print jobs require. Average yield for a new toner cartridge is 20,000 standard pages in accordance with ISO/IEC 19752 standard. (Average yield for the original toner cartridge supplied with the machine is 20,000 standard pages.) The actual number may also be different depending on the print density of the pages you print on, and the number of pages may be affected by operating environment, printing interval, media type, and media size. If you print a lot of graphics, you may need to change the cartridge more often.

4.6.9.1 Replacing the toner cartridge

When the toner cartridge is completely empty:
 · Toner Empty appears on the display.
 · The Status LED lights red.
 · The machine stops printing. The incoming faxes are saved in memory.
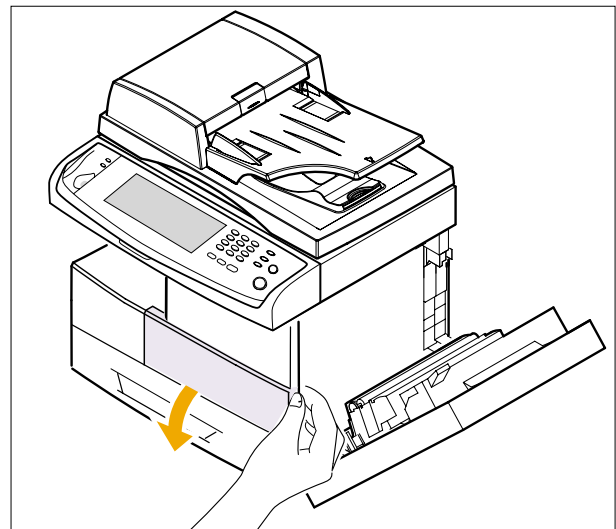
At this stage, the toner cartridge needs to be replaced. For order information for toner cartridges.
Note : You can set the machine to disregard the Toner Empty message and to continue printing.

1. Open the side cover.
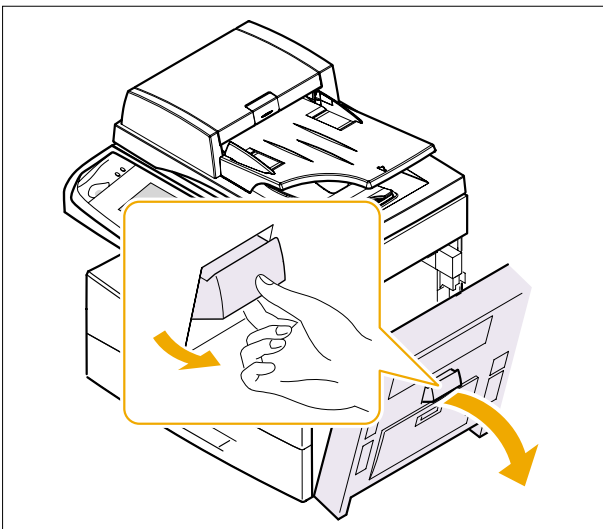
2. Open the front cover.

3. Turn the cartridge locking lever towards right until it sounds 'click', to release the toner cartridge.
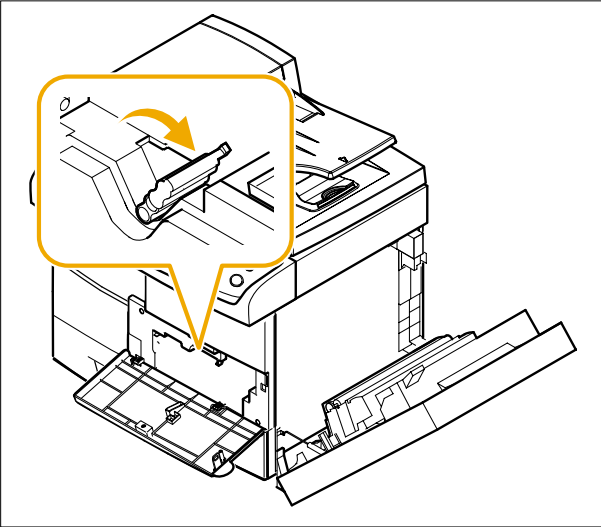
4. Lift the locking lever and pull the toner cartridge out.
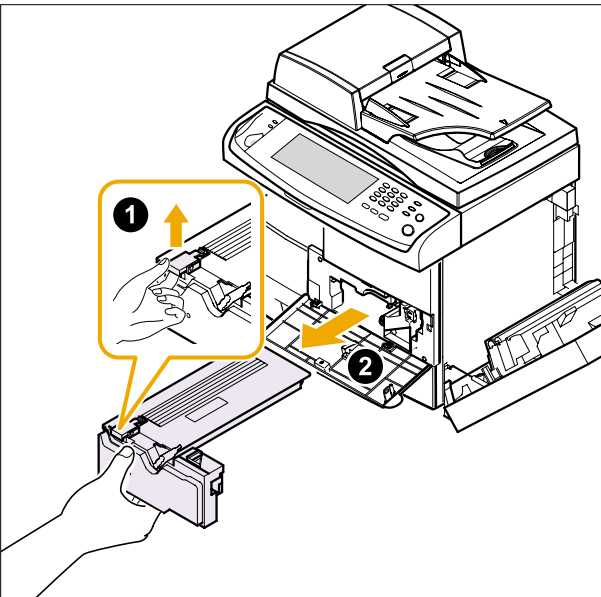
5. Remove the new toner cartridge from its bag.

6. Hold the toner cartridge by the handle and slowly insert the cartridge into the opening in the machine.

7. Slide the new toner cartridge in until it locks in place.

8. Turn the cartridge locking lever towards left until it sounds 'click'.
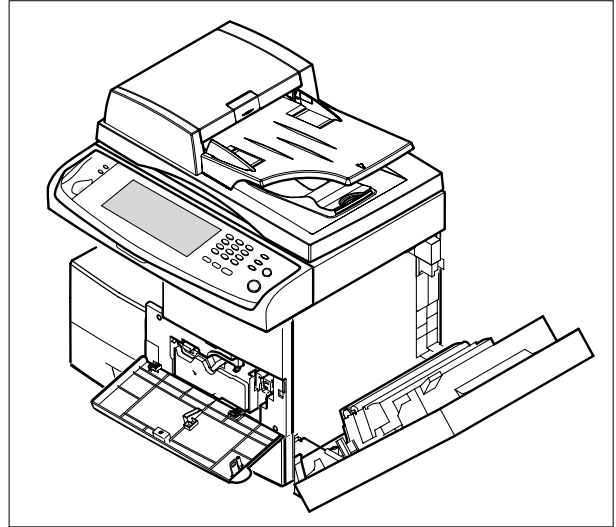
9. Close the front cover, then the side cover.

4.6.9.2 Replacing the drum cartridge

Expected cartridge life
The useful life of the drum cartridge is approximately 60,000 copies. The LCD displays Drum Warning when the drum is near the end of life.
Approximately 6,000 more copies can be made, but you should have a replacement drum cartridge in stock.
· Replace Drum appears on the display.
· The Status LED lights red.
For order information for drum cartridges.

1. Open the side cover.
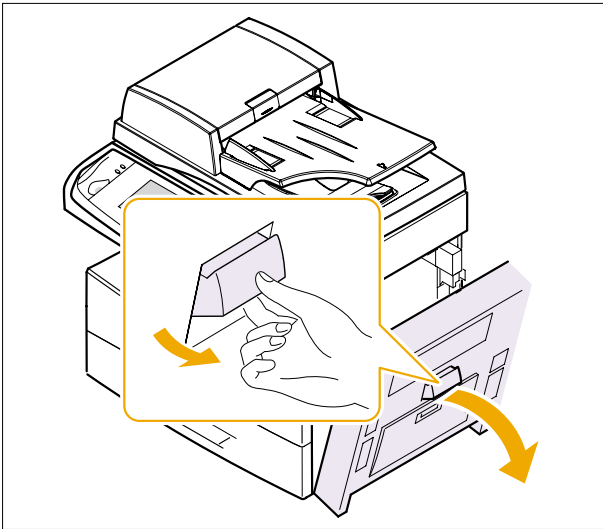
2. Open the front cover.

3. Turn the cartridge locking lever towards right until it sounds 'click', to release the toner cartridge.
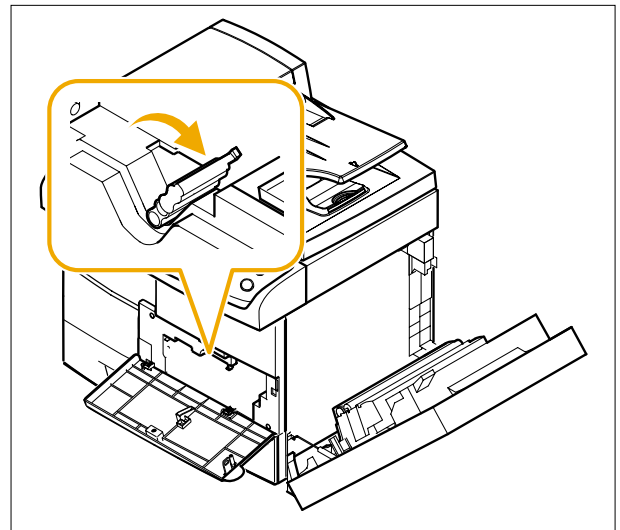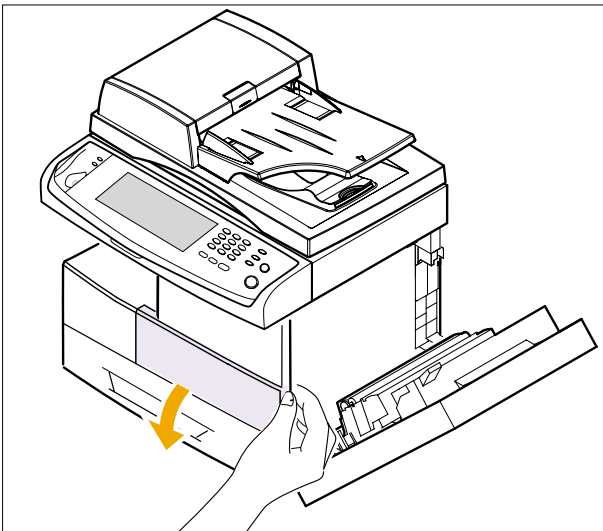

4. Lift the locking lever and pull the toner cartridge out.
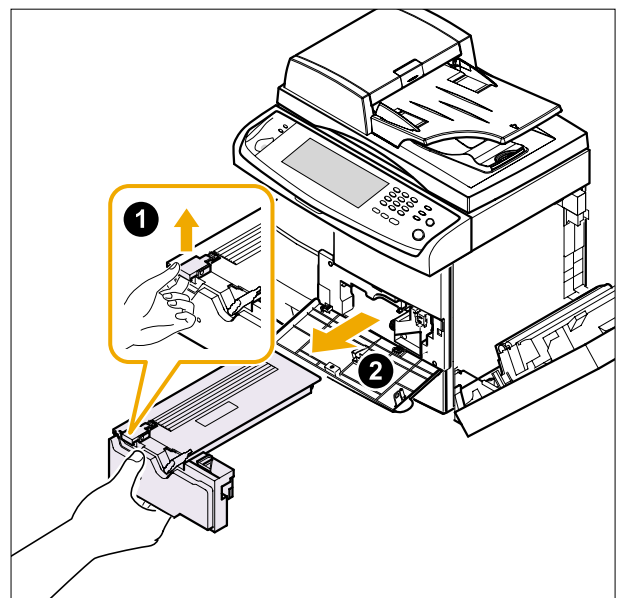
Note : The toner cartridge must be removed to replace the drum cartridge.

5. Pull the used drum cartridge out.
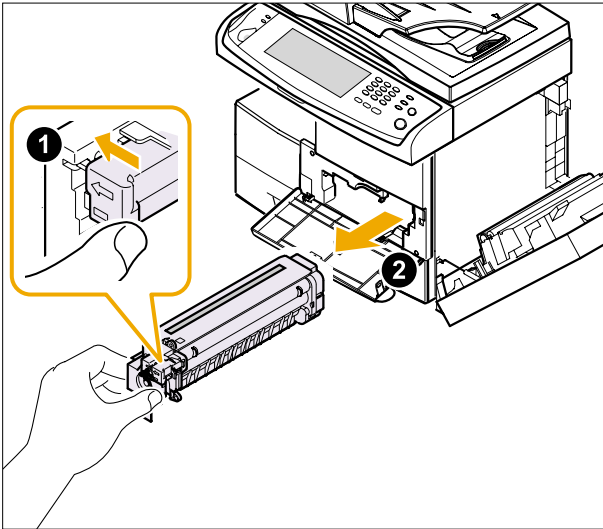
Note : Help the environment by recycling your used drum cartridge. Refer to the recycling brochure packed with the drum cartridge for details.

6. Thoroughly shake the drum cartridge side to side for five or six times.
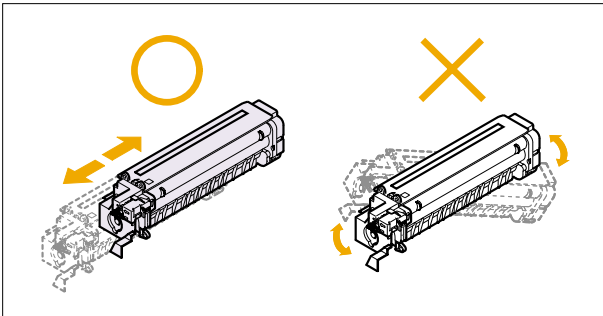
7. Unpack the new drum cartridge and slide it into place, making sure not to touch the surface of the drum.
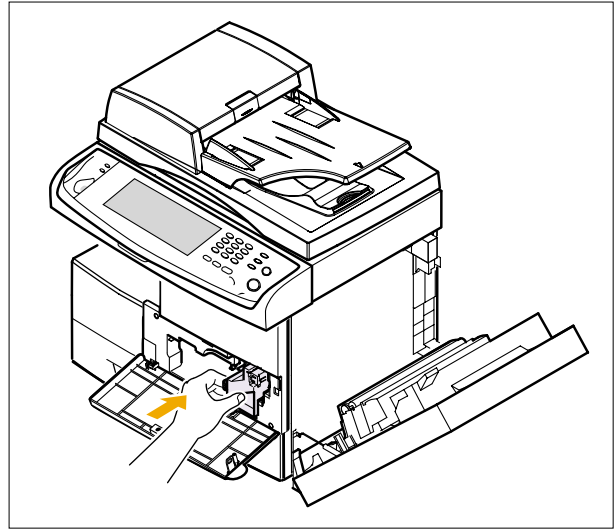
8. Turn the cartridge locking lever towards left until it sounds 'click'.
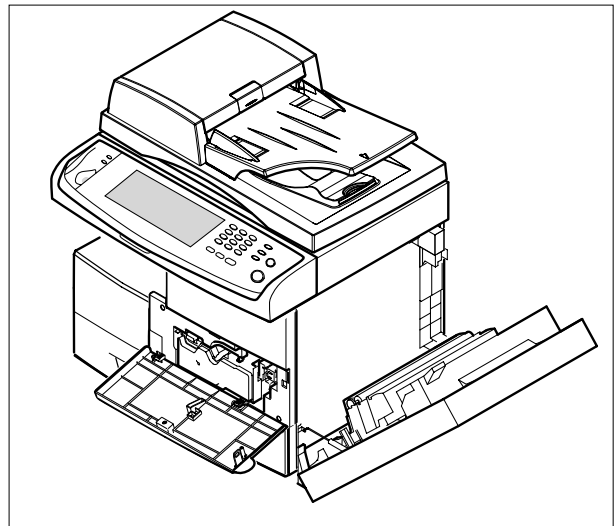
9. Close the front cover, then the side cover.

Note : If you do not reset the counter, Drum Warning may appear before the current drum cartridge's time is up.

4.6.10 Managing your machine from the website

If you have connected your machine to a network and set up TCP/IP network parameters correctly, you can manage the machine via Samsung's SynchThru Web Service, an embedded web server. Use SynchThru Web Service to:
· View the machine's device information and check its current status.
· Change TCP/IP parameters and set up other network parameters.
· Change the printer properties.
· Set the machine to send email notifications to let you know the machine's status.
· Get support for using the machine.

To access SynchThru Web Service:
1. Start a web browser, such as Internet Explorer, from Windows.
2. Enter the machine IP address (http://xxx.xxx.xxx.xxx) in the address field and press the Enter key or click Go.
   Your machine's embedded website opens.

4.7 Option Installing

Your machine is a full-featured one that has been optimized to meet most of your printing needs. Recognizing that each user may have different requirements, however, Samsung makes several accessories available to enhance your machine's capabilities.

This chapter includes:
· Precautions when installing accessories
· Installing a memory DIMM

4.7.1 Precautions when installing accessories

Disconnect the power cord
Never remove the control board cover while the power is being supplied.
To avoid the possibility of an electrical shock, always disconnect the power cord when installing or removing ANY internal or external accessories.

Discharge static electricity
The control board and internal accessories (network interface card or memory DIMM) are sensitive to static electricity. Before installing or removing an internal accessories, discharge static electricity from your body by touching something metal, such as the metal back plate on any device plugged into a grounded power source. If you walk round before finishing installation, discharge any static electricity once again.

4.7.2 Installing a memory DIMM

Your machine has a dual in-line memory module (DIMM) slot. Use this DIMM slot to install additional memory.
Your machine has 256 MB of memory which can be expanded to 384 MB.
This machine comes with 128 MB of on-board memory and a 128 MB DIMM. To expand the memory of your machine, you must remove the existing DIMM and purchase a larger one.
The order information is provided for optional memory DIMM.

1. Turn the machine off and unplug all cables from the machine.

2. Open the control board cover by grasping it and slide toward you.

| 1 | control board cover |
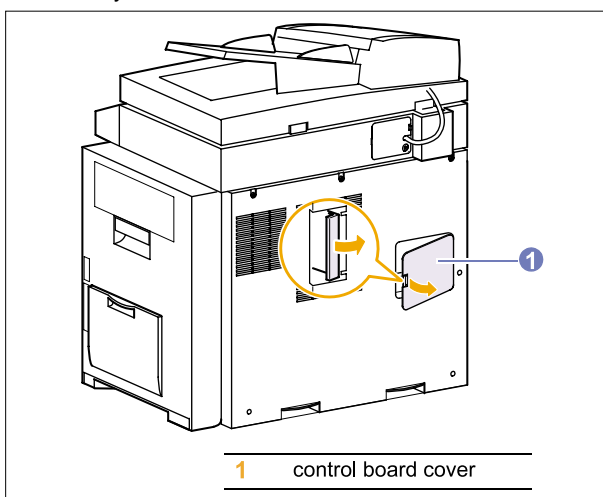
3. Completely open the latch on each side of the DIMM slot. Remove the preinstalled memory DIMM.

| 1 | latch |
| 2 | memory DIMM |
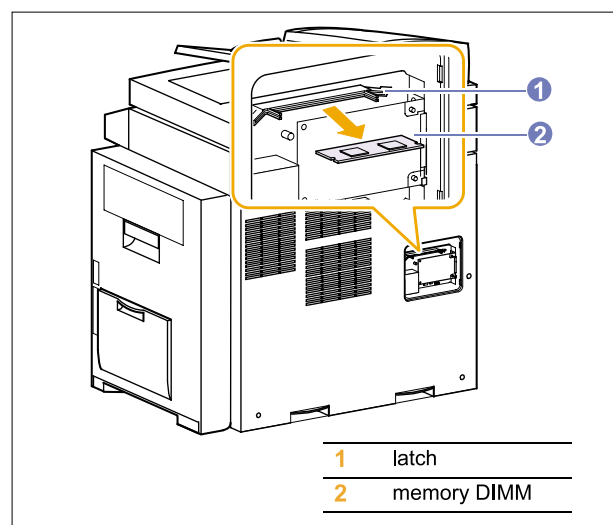
4. Take out a new memory DIMM from the plastic bag.

5. Holding the memory DIMM by the edges, align the notches on the memory DIMM with the grooves on the memory DIMM slot.
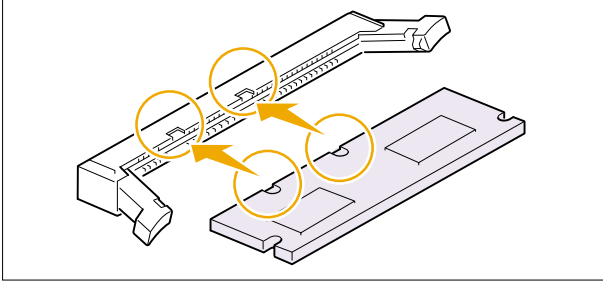
Note: The notches and grooves illustrated above may not match those on an actual DIMM and the slot.

6. Push the DIMM straight into the DIMM slot until it snaps into place. Make sure the latches fit over the notches located on either side of the DIMM.
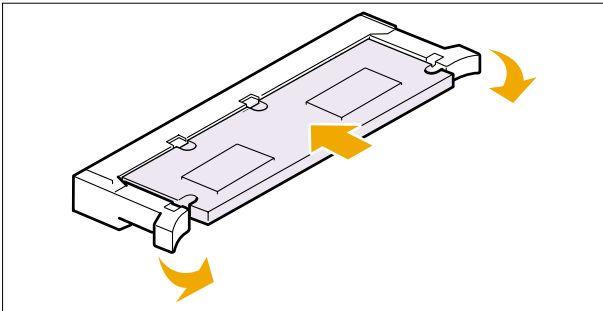
7. Replace the control board cover.
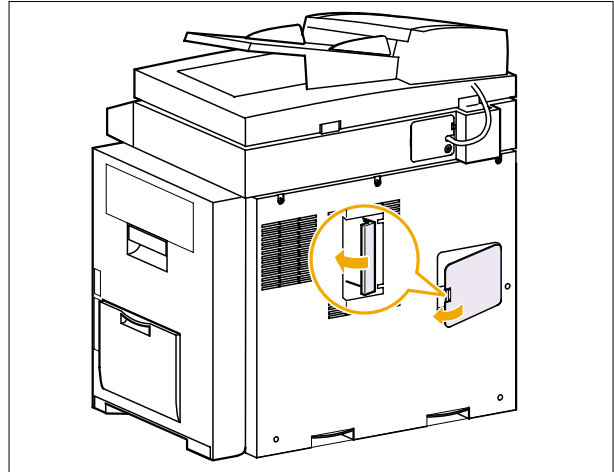
8. Reconnect the power cord and printer cable, and turn the machine on.

4.7.3 Activating the added memory in the PS printerproperties

After installing the memory DIMM, you need to select it in the printer properties of the PostScript printer driver so that you can use it.

1. Make sure that the PostScript printer driver is installed on your computer.
   For details about installing the PS printer driver, see theSoftware Section.
2. Click the Windows Start menu.
3. For Windows 98/Me/NT 4.0/2000, select Settings and thenPrinters.
4 Select the Samsung SCX-6x45 Series PS printer.
5 Click the right mouse button on the machine icon and select Properties.
6. For Windows 98/Me, select Device Options. For Windows NT 4.0/2000/XP/2003, select Device Settings.
7. Select the amount of memory you installed from Printer Memory in the Installable Options section
   For Windows 98, select Installable Options > VMOption > changesetting for:VMOption > change memory.
8. Click OK.

4.8 Display LED and Error Messages

4.8.1 Display LED

The S a us LED on he con rol panel shows he s a us of your machine.
See he able below o know your machine's s a us.

ED or LED button	LED status		Description
Status (LED)	Off	⚪	Power Off
	Green On	🟢	Ready

	Green Blink	☀️	. Copy Mode : Copy job is in progress
			. Fax Mode : Fax job (RX, TX) is in progress
			. Scan / Email : Scan or Email job is in progress
			. Printing:
			  - Slow Blinking : Data processing
			  - Fast Blinking : Engine is printing

	Red On	🔴	Errors that need userís intervention such as paper jam, toner empty, tray empty, cover open
	Red Blink	🟡	Recoverable errors that userís intervention is not needed to recover happens such as paper mismatching. The machine is in the warning status such as end of consumables.
Power Saver (LED button)	Blue Off	⚪	The machine is not in power saver mode
	Blue On	🔵	The machine is in power saver mode
Interrupt (LED button)	Blue Off	⚪	The machine is not in interrupt printing mode
	Blue On	🔵	Then machine is in interrupt printing mode

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-6345N.

Display	Meaning	Suggested solutions
Ambient Temperature Sensor Fault	The sensor for the inner temperature of the machine is not working properly.	Turn the machine off and turn it on again.
BOOTP server error. An Auto IP address has been established.	BOOTP server does not work. The machine is working with auto IP setting function.	Set the network parameters again or assign a new static IP address.
BOOTP server error. An Auto IP is not working	The BOOTP server does not work, and the auto IP setting is failed.	Set the network parameters again or assign a new static IP address.
CCD Lock	The CCD (Charged Couple Device) lock has been locked. The CCD does not detect its home location or move.	Unlock the CCD lock. Or turn off the machine and on again. Try again.
Check Fax Kit	The fax kit is not installed, or the fax is not working properly.	Reinstall the fax kit.
Check Hard Drive	The hard disk drive does not work properly.	Turn the machine off and turn it on again.
Check Tray 2 Feed Area **Check Tray 3 Feed Area** **Check Tray 4 Feed Area**	Paper has jammed in the tray feed area. Or the tray cover is opened.	Clear the jam.
DADF Duplex Feeding Jam	The lead edge of the document failed to actuate the scan sensor within the correct time after actuating the duplex sensor.	Lift up the document input tray and remove the jammed original.
DADF Duplex Jam	The lead edge of the document failed to actuate the duplex sensor within the correct time when the document was fed the wrong way.	Lift up the document input tray and remove the jammed original.
DADF Exit Jam	The lead edge of the document failed to actuate the gate sensor within the correct time after actuating the scan sensor.	Open the DADF cover and remove the jammed original.
DADF Oversize Document Detected	Oversizeddocument or double-feeding of originals.	Open the DADF cover and remove the jammed original. Check the document size whether it is supported.
DADFRegistration Jam	The originals are jammed in DADF.	Open the DADF cover and remove the jammed original.

Display	Meaning	Suggested solutions
DHCP server error. An Auto IP address has been established.	DHCP server does not work. The machine is working with the setting IP by auto IP setting function.	Set the network setting again or assign a new static IP address.
DHCP server error. An Auto IP is not working.	The DHCP server does not work, and the auto IP setting is failed.	Set the network setting again or input the new static IP addre.
Drum Cartridge Initializi	It is the mixing time when installing the new drum cartridge up to 180 sec.	Wait about 180 seconds until the machine is ready.
Drum Communication Error	Communication between the drum cartridge and the machine has failed The drum cartridge is invalid.	Reinstall the drum cartridge. If the problem persists, replace it.
Drum Warning	The drum cartridge is near the end of its life.	Ensure a replacement cartridge in stock.
Duplex Jam 0	Paper has jammed during duplex printing.	Clear the jam.
Duplex Jam 1	Paper has jammed during duplex printing.	Clear the jam.
Duplex Jam 2	Paper has jammed during duplex printing.	Clear the jam.
Ejector Fault	Ejector unit is not operating.	Remove paper from the output tray (finisher). If this error message shows on the screen again, cycle power. If the problem persists, call for service.
Fax Memory is empty.	There is no more available fax memory. No more fax data can be received.	Delete the received fax data in the memory. Call for service to delete fax memory.
Fax Memory is low.	Available fax memory is now 1MB.	Delete the received fax data in the memory to secure memory.
Feed Jam at MP Tray	Paper Misfed from multi-purpose tray	Clear the jam.
Feed Jam at Tray 1	Paper misfed from tray	Clear the jam.
Feed Jam at Tray 2		
Feed Jam at Tray 3		
Feed Jam at Tray 4		
Finisher Duplex Jam	Paper jammed in the stacker.	Open the stacker door and remove jammed paper by lowering guide 1a or 1b.
Finisher Interface Error	Communication error has occurred between the stacker and the machine.	Turn the machine off and turn it on again.
Finisher Jam 0	Paper jammed in the stacker.	Open the stacker door and remove jammed paper by lowering guide 1a or 1b.
Finisher Jam 1		
Finisher Jam 2	Paper jammed in the stacker exit part.	Pull jammed paper from the stacker exit.
Finisher Stacker Full	The stacker is full of printouts.	Remove printouts from the stacker.
Front Jogger Fault	Front Jogger is not operating.	Open the finisher door and clear any jammed paper (if there is). If this error message shows on the screen again, cycle power.
Fuser error	There is a problem in the fuser unit.	Unplug the power cord and plug it back in.
Fuser High Error		
Fuser Low Error		
Fuser unit error		

Display	Meaning	Suggested solutions
GUI to MCB Communications Fault	A communication error has occurred.	Turn the machine off and turn it on again.
Install Drum Cartridge.	The drum cartridge is not installed, or the CRUM (Consumer Replaceable Unit Monitor) in the cartridge is not connected.	Install the drum cartridge. If it is already installed, try to reinstall the drum cartridge.
Install Staple Cartridge.	The staple cartridge is not installed.	Install the staple cartridge following the steps explained on the back of the finisher door. If you want to continue the print job and disregard of this error message, go to Admin Setting to adjust the option.
Install Toner Cartridge.	The toner cartridge is not installed or the CRUM (Consumer Replaceable Unit Monitor) in the cartridge is not properly connected.	Try to reinstall the toner cartridge.
Invalid Drum cartridge.	The drum cartridge you have installed is not for your machine.	Install a Samsung-genuine drum cartridge, designed for your machine.
Invalid Toner Cartridge	The toner cartridge you have installed is not for your machine.	Install a Samsung-genuine toner cartridge, designed for your machine.
IP address conflict	The IP address is used in other place elsewhere.	Check the IP address or obtain a new IP address.
Jam at Fuser	Paper has jammed in the fuser area.	Clear the jam.
Jam in Tray 2	Paper has jammed in the feeding area of the tray.	Clear the jam.
Jam in Tray 3		
Jam in Tray 4		
LSU Hsync Error	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back inches.
LSU Motor Error		
Main motor failure	There is a problem in the motor unit.	Unplug the power cord and plug it back in. If the problem still persists, please call for service.
MCB to DADF Communications Fault	The communication error has occurred.	Turn the machine off and turn it on again.
MCB to NIC Communications Fault		
MCB to Tray 2 Communications Fault		
MCB to Tray 3 Communications Fault		
MCB to Tray 4 Communications Fault		
MCB Watchdog Detects Software Failure	MCB software is not responding.	Turn the machine off and turn it on again.
Memory Failure	Memory access failed.	Turn the machine off and turn it on again.
Network cable is disconnected	The network cable is disconnected.	Connect the network cable properly.
Network card is not installed	The network card is not installed.	Install the network card.

Display	Meaning	Suggested solutions
Non Genuine Drum, Replace Drum	The drum cartridge installed is not a genuine cartridge. This message appears when you selected Continue at Non Genuine Drum, Replace Drum prompt.	Install the Samsung-genuine drum cartridge.
Non Genuine Drum, Replace Drum1	The drum cartridge installed is not a genuine cartridge. This message appears when you selected Stop at Non Genuine Drum, Replace Drum1 prompt.	Install the Samsung-genuine drum cartridge.
Non Genuine Toner, Replace Toner	The toner cartridge installed is not a genuine cartridge. This message appears when you selected Continue at Non Genuine Toner, Replace Toner prompt.	Install the Samsung-genuine drum cartridge.
Non Genuine Toner, Replace Toner1	The toner cartridge installed is not a genuine cartridge. This message appears when you selected Stop at Non Genuine Toner, Replace Toner1 prompt.	Install the Samsung-genuine drum cartridge.
Output Bin full	The printed papers are full on the output tray.	Remove printed outs from the output tray.
Paddle Fault	Paddle unit is not operating.	Open the finisher door and clear any jammed paper (if there is). If this error message shows on the screen again, cycle power.
Paper Sensed in DADF.	When the machine is on, jammed paper is detected in the DADF.	Open the DADF cover and remove the jammed original.
Rear Jogger Fault	Rear Jogger is not operating.	Open the finisher door and clear any jammed paper (if there is). If this error message shows on the screen again, cycle power.
Registration Jam	Paper has jammed in the registration area.	Clear the jam.
Replace Drum	The drum cartridge is at the end of its life. When the drum replacement. message appears on the screen and if you select Continue, this message displays.	Replace a drum cartridge with a Samsung-genuine drum cartridge.
Replace Drum1	The drum cartridge is at the end of its life. When the drum replacement. message appears on the screen and if you select Stop, this message displays.	Replace a drum cartridge with a Samsung-genuine drum cartridge.
Replace toner	The toner cartridge had run out at least once before.	Replace a drum cartridge with a Samsung-genuine drum cartridge.
Scan Feeding Jam	The lead edge of the document failed to actuate the scan sensor within the correct time after actuating the registration sensor.	Open the DADF cover and remove jammed original.
SMPS Fan failure	There is a problem with the SMPS (Switch Mode Power Supply) Fan.	Unplug the power cord and plug it back in.

Display	Meaning	Suggested solutions
Stacker Fault	Stacker unit is not operating.	Remove paper from the output tray (finisher). If this error message shows on the screen again, cycle power.
Stapler Empty	Stapler is run out.	Order Staple Cartridge. And replace it.
Stapler Fault	Stapler is not operating.	Remove paper from the output tray (finisher) and open the finisher door to clear the jammed paper. If this error message shows on the screen again, cycle power.
Support Finger Fault	Support Finger unit is not operating.	Remove paper from the output tray (finisher). If this error message shows on the screen again, cycle power.
Toner Cartridge Communication Error	Communication between the toner cartridge and the machine has failed.	Reinstall the toner cartridge. If the problem persists, replace it.
Toner Empty, Replace Toner1	The toner in the cartridge has run out. The machine stops print job.	Replace the toner cartridge with a Samsung-genuine toner cartridge.
Toner Low	The toner cartridge is almost empty.	Ensure a replacement cartridge is in stock.
Toner Page Count Reached, Replace Toner	The toner page count is expired. When the printed page related message appears on the screen, if you select Continue, this message displays.	When the toner pagecount reached message appears on the screen, press Continue to continue the printing job. Or replace a toner cartridge with a Samsung-genuine toner cartridge.
Toner Page Count Reached, Replace Toner1	The toner page count has expired. When the printed page related message appears on the screen, if you press Stop, this message displays.	Replace a toner cartridge with a Samsung-genuine toner cartridge.
Toner Sensor Error	The drum cartridge has some mechanical problem.	Turn the machine off and turn it on again. If the problem persists, replace the drum cartridge.
Toner Supply error	Not supplied toner to the drum cartridge.	Remove the sealing tape from the drum cartridge, and check the lever for the shutter on the toner cartridge.
Use Auxiliary Access	The credit is not enough to access the job according to Foreign Device.	Insert credit into the Foreign Device.

4.8.3 Machine Clean

■ Clean every 10,000sheets or every 6months to maintain in good condition.
(When the Transfer Roller expires due to long usage.)

■ Clean in following order; Paper Path Parts, Transfer Roller, Toner Cartridge and Drum Cartridge in the Inner Frame.

■ Clean with Vacuum Cleaner and Dry rag or Soft cloth.

4.8.3.1 Cleaning Instructions

1. Paper Path Parts

  - Cleaning Kit : Vacuum Cleaner and Dry rag or Soft cloth.
  - Mal Affects : Dust particles from paper can be copied at worst making spot stains on the paper.
  - Follow the display listed on the figure below.

2. Cleaning-Transfer Roller

  - Cleaning Kit : Vacuum Cleaner and Dry rag or Soft cloth.
  - Mal Affects : Dust particles from paper can be copied at worst making spot stains on the paper.
  - When exchanging the Transfer Roller clean the area.
  - Follow the display listed on the figure below.

4. Cleaning-Frame Inside

  - Cleaning Kit : Vacuum Cleaner and Dry rag or Soft cloth.
  - Mal Affects : The toner can leak and pollute the interior, affecting the print quality.
  - Recommend an Engineer or highly experienced worker to clean.

Open the Cover.

Remove the Cartridge.

Remove the Cartridge.
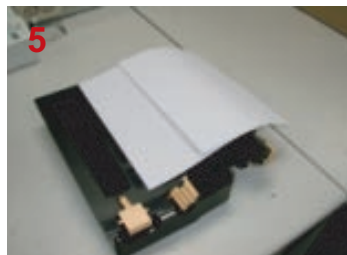
Cover with a piece of paper and lay it on a flat surface.

Clean the Paper Path Parts.

Clean the Paper Path Parts.
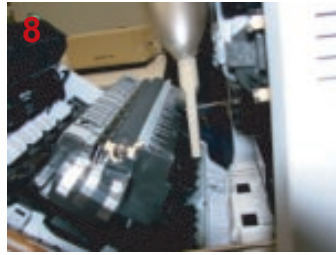
Clean the Paper Path Parts.

Release the Transfer Roller.

Clean the Transfer Roller Unit Parts.

Clean the Transfer Roller Unit Parts.
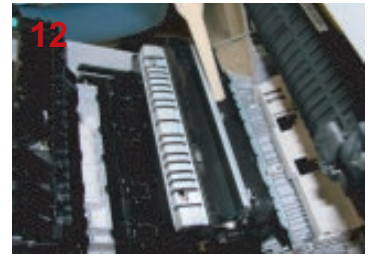
Clean the Transfer Roller Unit Parts.

Clean the Transfer Roller Unit Parts.

Reassemble the Transfer Roller.

Clean the Frame Inside.

Reassemble the Cartridge.

Reassemble the Cartridge.

4.8.3.2 Cleaning advisories of the parts.

1. Make sure the main cord is unplugged before the cleaning.

2. Do not use flammable liquid cleaner or spray products for cleaning.

3. Avoid making scratches while cleaning the parts.

4. Avoid direct contact by hand on the Transfer Roller.

5. Avoid exposing inner parts for a long duration of time.
   The surface of OPC Drum can be affected by direct light if exposed for a long time.
   (1~2 minutes is enough time for cleaning)

6. OPC surface must not be scratched.

5. Disassembly and Reassembly

5.1 General Precautions on Disassembly

When you disassemble and reassemble components, you must use extreme caution. The close proximity of cables to moving parts makes proper routing a must.
If components are removed, any cables disturbed by the procedure must be restored as close as possible to their original positions. Before removing any component from the machine, note the cable routing that will be affected.

Whenever servicing the machine, you must perform as follows:

1. Check to verify that documents are not stored in memory.

2. Be sure to remove the toner cartridge before you disassemble parts.

3. Unplug the power cord.

4. Use a flat and clean surface.

5. Replace only with authorized components.

6. Do not force plastic-material components.

7. Make sure all components are in their proper position.

Releasing Plastic Latches

Many of the parts are held in place with plastic latches. The latches break easily; release them carefully.
To remove such parts, press the hook end of the latch away from the part to which it is latched.
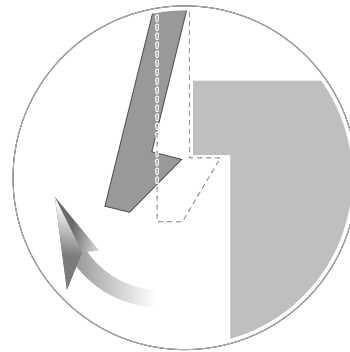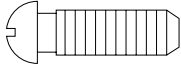
5.1.1 Screws used in the printer

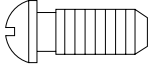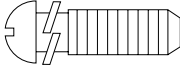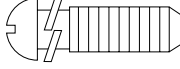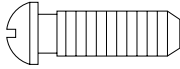| No.	SEC_Code	Location	Description & Specification	QT'y
S1 (BH Short)	6001-000130	HDD	SCREW-MACHINE;BH,+,M3,L6,ZPC(WHT), SWRCH18A,-,-	4
S2 (~WH Long)	6002-000440	GND EXIT ROLL	SCREW-TAPPING;PWH,+,-,2,M3,L8,ZPC(BLK), SWRCH18A,-	1
		SENSOR	SCREW-TAPPING;PWH,+,-,2,M3,L8,ZPC(BLK), SWRCH18A,-	1
S3 (~WH Long)	6003-000196	BRACKET_JOINT+MAIN FRAME	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		FAN-DC INVERTER	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		GROUND_OPE SIDE	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		PBA SUB-AIR_TMP	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		PLATE-P_FEED UPPER	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		STOPPER_M FAN80	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		UNIT SUPPORT SCAN	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		BRACKET-P_CHANNEL	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		BRACKET-P_SUP SCAN F	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	3
		CBF HARNESS_HVPS(3P	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		ELA HOU-CVR OPN	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		ELA HOU-TERMINAL	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		FAN-DC LSU	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		FRAME-M_COVER REAR	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		GROUND-P_OPC CONTACT	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		HOLDER-M_DEVE CONN	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		HOLDER-M_FUSER TERM	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		HOLDER-P_FUSER	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		MEA UNIT-DAMPER,L	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		MEA UNIT-F DR	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1

No.	SEC_Code	Location	Description & Specification	QT'y
		MEA UNIT-REGI F	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		MEA UNIT-REGI R	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		HOLDER_CST_R	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		HOLDER_FEED_MP	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		UNIT MP	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		UNIT_BASE_PLATE_R	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	5
		UNIT_HOLDER_PAD	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		BRACKET_ARM_FR	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		GUIDE_PICKUP_BASE	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	3
		SPEAKER	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		HOUSING_BASE_LEFT:3	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	3
		PBA DADF	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		COVER-EXIT BRK	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		COVER-EXIT REAR	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
		COVER-FRONT ASSY	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		COVER-PANEL MFP	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		COVER-UPPER ASSY	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	5
		DRIVE-FUSER	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		DRIVE-MAIN	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	7
		EXIT-ASSY	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	4
		LSU GND	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	1
		OPE ASSY	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	3
		SIDE-COVER ASSY	SCREW-TAPTITE;PWH,+,B,M3,L10,NI PLT, SWRCH18A	2
S4 (BH Short)	6003-000269	BASE FRAME+MAINFRAME	SCREW-TAPTITE;BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	5
		CAP_INLET	SCREW-TAPTITE;BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		GROUND_FUSER	SCREW-TAPTITE;BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1

No.	SEC_Code	Location	Description & Specification	QT'y
		GROUNND_DRV	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		UNIT-SUPPORT	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	7
		VARISTOR	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		BASE PLATE_R	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		ELA FEED UPPER DP	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		GUIDE-P_SHIELD SMPS	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		GUIDE_FEED_UPPER	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	3
		HOUS_CST_SENSOR	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	3
		BRACKET_HANDLE_	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		BRACKET_HANDLE_L	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		GROUND_TOP	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		HOLDER_CST	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		BRACKET-P_JOINT BASE	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		HOUS_PICKUP	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	4
		PLATE_BEAM_BASE	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		CBF_HARNESS_GND	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		GROUND-P_SPRING SCAN	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		GUIDE_SHIELD_SMPS	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		PLATE_FINISHER_REAR	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	4
		SHIELD_MAIN LOWER	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	7
		(dadf motor)	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		duplex motor	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	2
		WHITE BAR	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		COVER-M BARRIER	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		HVPS	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	4
		IH + SHIELD ASSY	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	5

No.	SEC_Code	Location	Description & Specification	QT'y
S5 (BH Long)	6003-001256	IH ASSY	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		MAIN BD	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	5
		SMPS ASSY	SCREW-TAPTITE:BH,+,-,S,M3,L6,ZPC(YEL), SWRCH18A,-	1
		PLATE-P_FINISHER F	SCREW-TAPTITE:BH,+,B,M4,L10,NI PLT, SWRCH18A	2
		COVER-EXIT- BOTTOM	SCREW-TAPTITE:BH,+,B,M4,L10,NI PLT, SWRCH18A	2
		LSU ASSY	SCREW-TAPTITE:BH,+,B,M4,L10,NI PLT, SWRCH18A	4
		REAR COVER	SCREW-TAPTITE:BH,+,B,M4,L10,NI PLT, SWRCH18A	6
		SCAN-ASSY	SCREW-TAPTITE:BH,+,B,M4,L10,NI PLT, SWRCH18A	7
S6 (PH Long)	6006-001078	SMPS	SCREW-TAPTITE:WSP,PH,+,M3,L10,ZPC(YEL), SWRCH18A	4

5.2 Customer Replaceable Units

There are 3 replaceable Customer Replaceable Units (CRUs) on the machine:

· **Toner Cartridge**
· **Drum Cartridge**
· **Staples**
· **Fuser Unit**

The machine will display a message on the touch screen when any of the above need to be reordered. This message is a warning that the unit is nearing the end of its life. Only replace the unit when a message actually instructs you to do so.

To replace a CRU, follow the instructions on the User Interface or refer to the relevant sections below.

CAUTION: When replacing consumables, DO NOT remove the covers or guards that are fastened with screws. You cannot maintain or service any of the parts that are behind these covers and guards. DO NOT attempt any maintenance procedure unless specifically described in the documentation supplied with your machine.
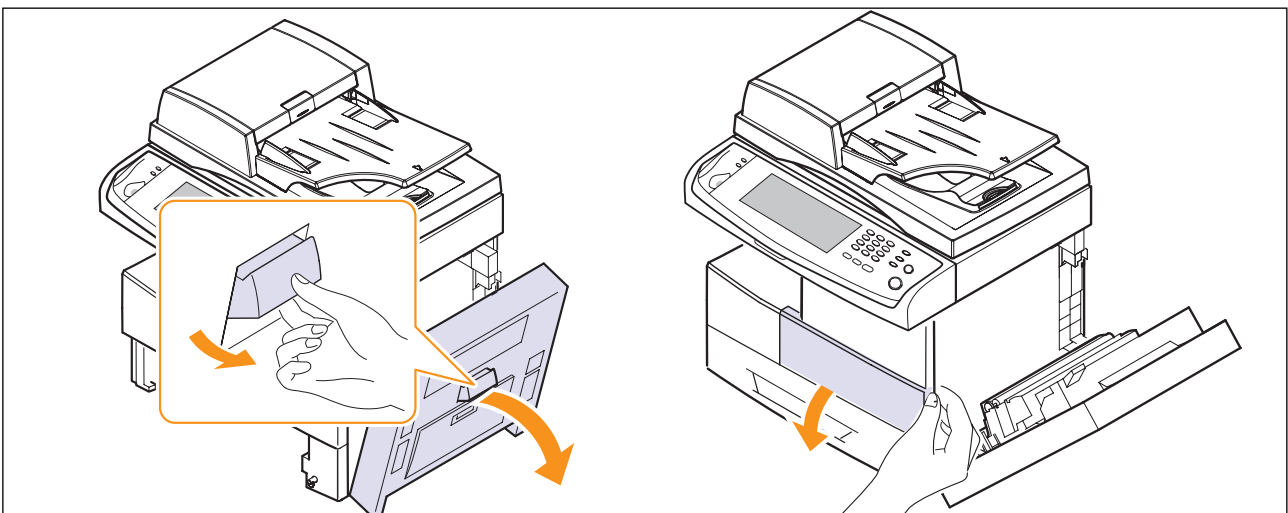
5.2.1 Toner Cartridge

This procedure shows you how to remove a used toner cartridge and replace it with a new toner cartridge.

New toner cartridges have a capacity of approximately 20,000 images with an average area coverage of ISO19752 Std.. The machine will indicate the percentage of toner used and the number of days remaining. When the notification message is enabled, the machine will tell you when you will need to order a new cartridge and when to fit it.

If the feature is enabled, a message will appear on the display screen advising you to replace the toner cartridge. If you want to replace the toner cartridge now, open the front door. The instructions on the screen will tell you how to fit a new cartridge.

If you do not want to replace the toner cartridge now you can select the Abort button. The machine will continue to operate but will NOT make copies or prints.

1. Open the right side cover

2. Open the front cover.

3. Turn the locking lever clockwise

Locking lever

4. Lift the latch to release the toner cartridge and remove the used toner cartridge.

Latch
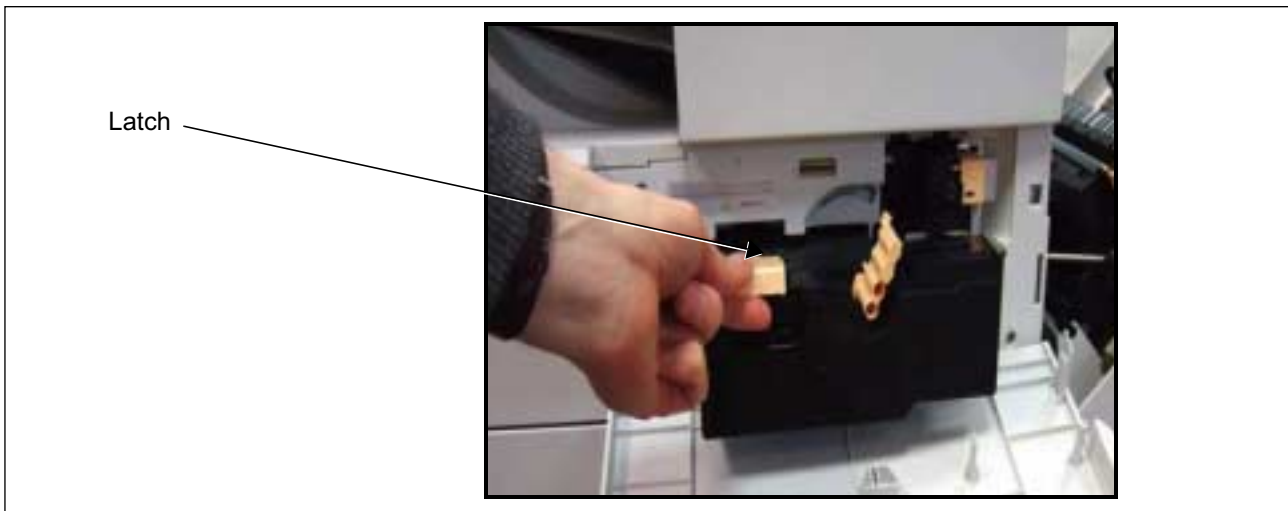
The instructions that are packed with the new toner cartridge will tell you how to dispose of the used toner cartridge.

⚠ **WARNING:** Only install the correct samsung Toner Cartridge in the machine.

5. Before unpacking the new toner cartridge, shake well to distribute the toner. Remove from packaging.

6. To fit the new toner cartridge, slide the top of the cartridge into the grooves at the top of the cartridge slot.

7. Turn the locking lever counter-clockwise.

8. Close the front cover.

9. Close the right side door.

10. Press the Confirm button on the machine display.
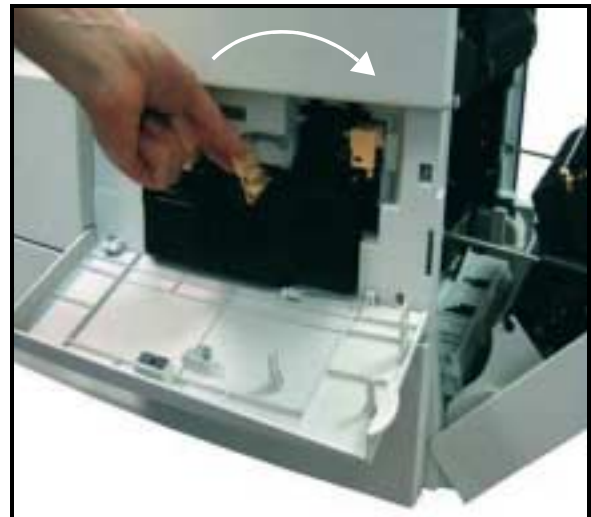
ⓘ *If after fitting a new toner cartridge the front door will not close, check that the toner cartridge is positioned and latched correctly.*

If you have replaced the toner cartridge as a result of a "Replace the Toner Cartridge" message on the machine display, the machine will assume that you have fitted a new cartridge and reset the toner usage counters and messages.

If, however, you have fitted a new toner cartridge without being instructed to do so by the machine display, the toner usage counters will need to be reset manually. This is done in the Access tools mode using the Supplies Management - Toner Cartridge Re-order Notification feature.

5.2.2 Replacing the Drum Cartridge

This procedure shows you how to remove a used Drum Cartridge and replace it with a new one.

Depending on the type of Drum Cartridge, approximately 60,000 images are provided. The machine will tell you when you need to order a new cartridge and when to replace the cartridge.

The Drum Cartridge can be recycled so please follow the disposal instructions you receive with the new items.

⚠ **WARNING:** Remove the toner cartridge before attempting to remove the ^{M} Drum Cartridge.

1. Open the right side cover.
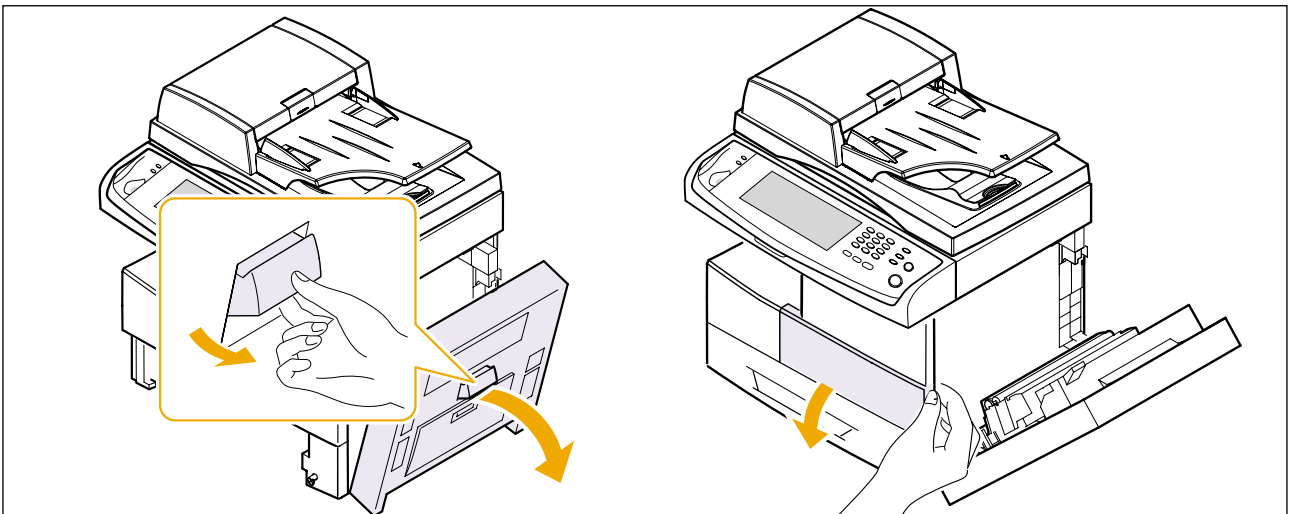
2. Open the front cover.

3. Turn the locking lever clockwise.

Locking lever
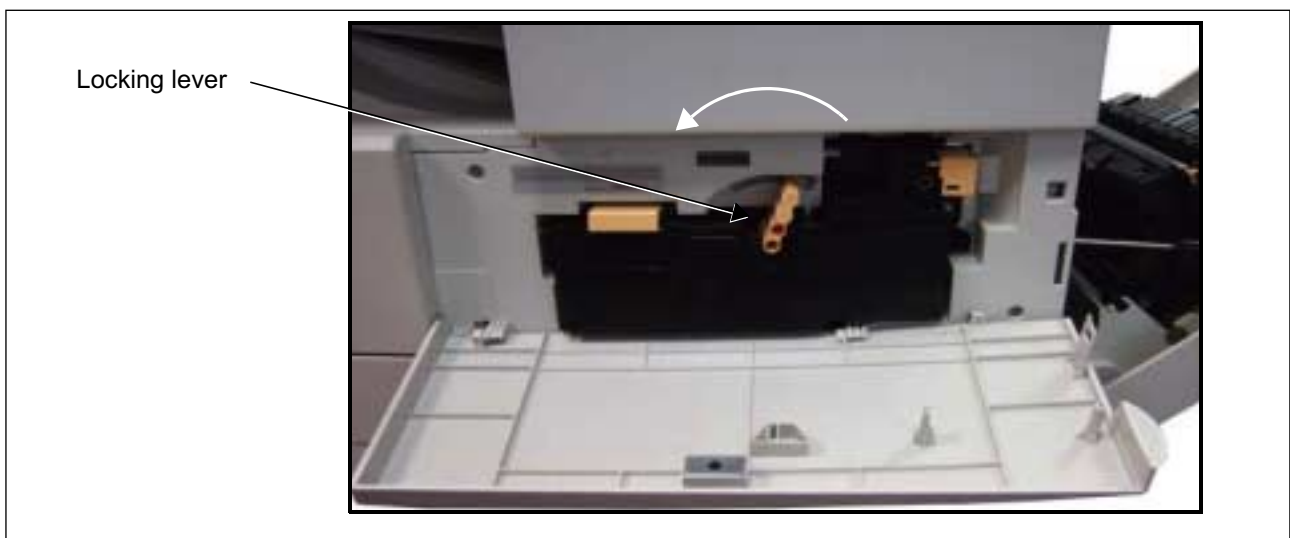
4. Lift the latch to release the toner cartridge and remove the toner cartridge.

Latch
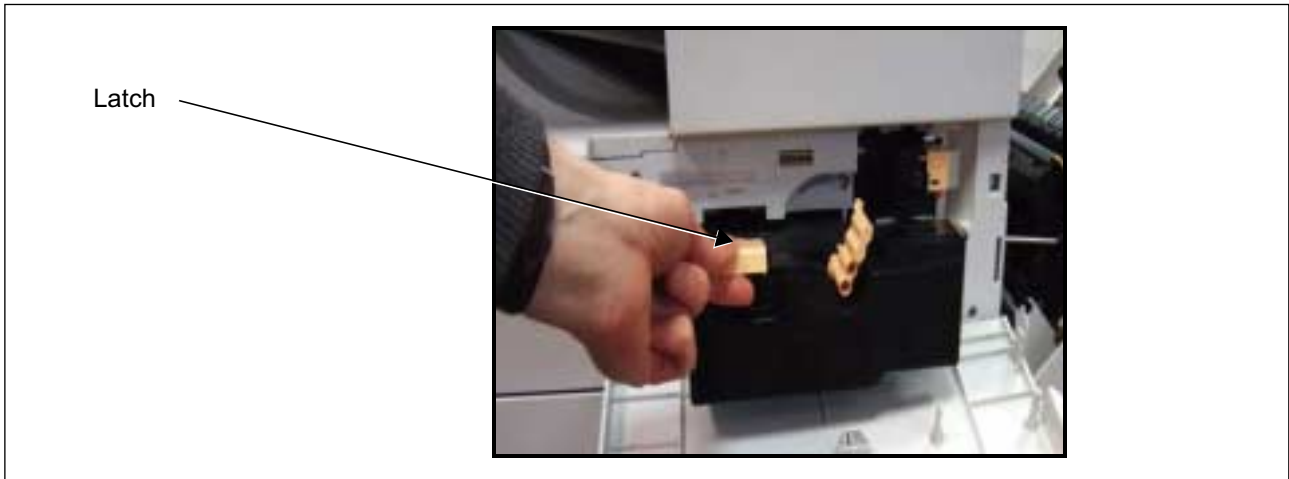
5. Squeeze the retaining clip and remove the used SMart Kit ™ Drum Cartridge.

Retaining Clip
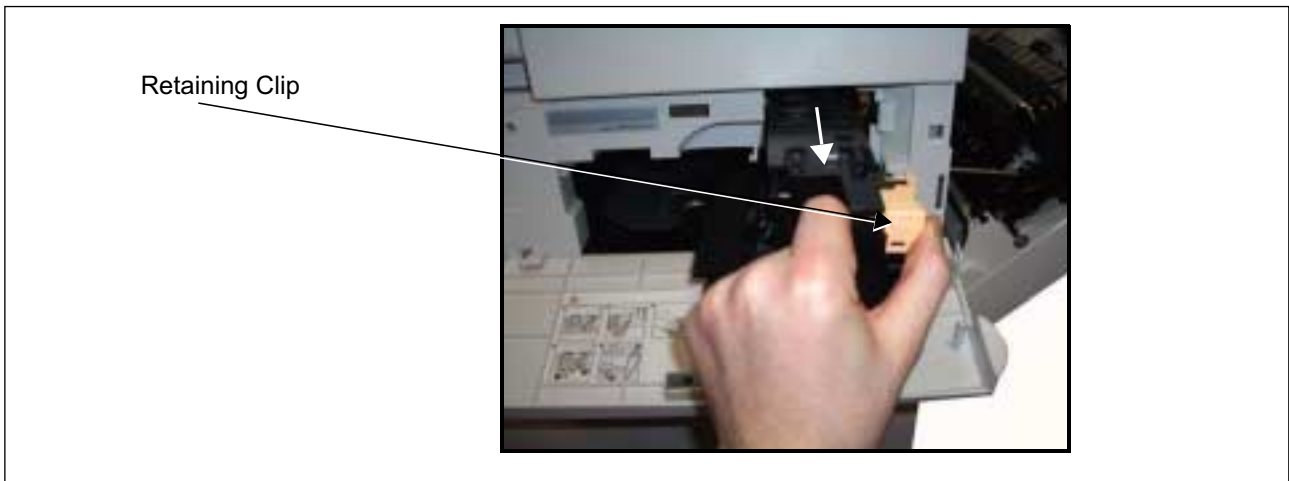
6. Hold the empy Drum Cartridge away from you to avoid spilling any toner residue and dispose of it according to the instructions contained in the new Drum Cartridge box.

⚠ **WARNING:** Only install the correct samsung Drum Cartridge in the machine.

7. Unpack the new Drum Cartridge.

8. Remove the protective paper and seal tape from the cartridge.

9. Slide the Drum Cartridge into the frame in the machine.

10. Replace the toner cartridge (see above).

11. Rotate the latch to lock the cartridge in place. Close the front door. If the front door will not close, check that the Drum Cartridge is positioned and latched correctly.

12. Close the side door.

13. Press the Confirm button on the machine display.

5.2.3 Staples

This procedure shows you how to remove a used staples unit and replace it with a new staples unit.The machine will tell you when you need to order a new cartridge and when to replace the cartridge.

1. Open front left cover.
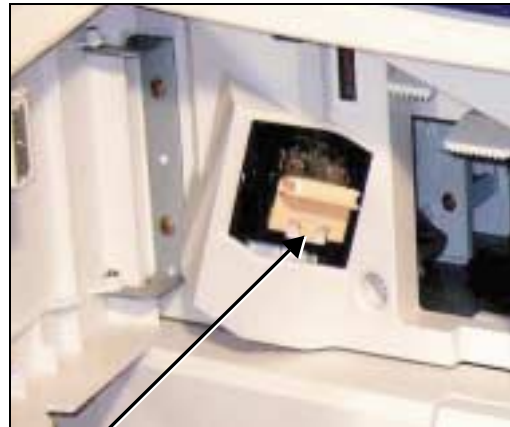
Staples Unit

2. Use the latch to pull out the staples unit. Remove the staples unit.

3. Lift the empty staple pack from the staple unit.

⚠ **WARNING:** Ensure that you have the correct Staples unit for your machine. Units for similar samsung machines may look the same but WILL NOT WORK.

4. Unpack the new staples pack.

5. Place staples pack back into the staples unit.

6. Ensure the unit is the correct way up. Slide the staples unit securely into the machine.

7. Close the front left cover.
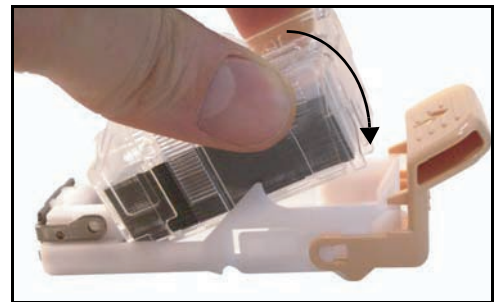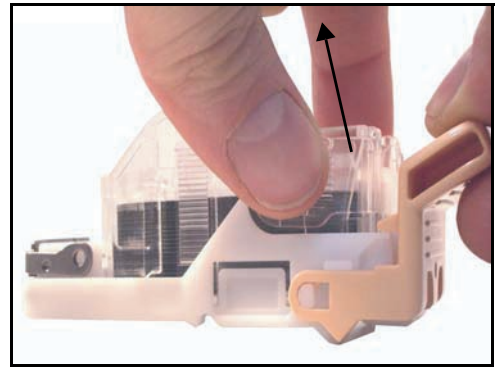
5.2.4 Fuser Unit

1. Open the side door.
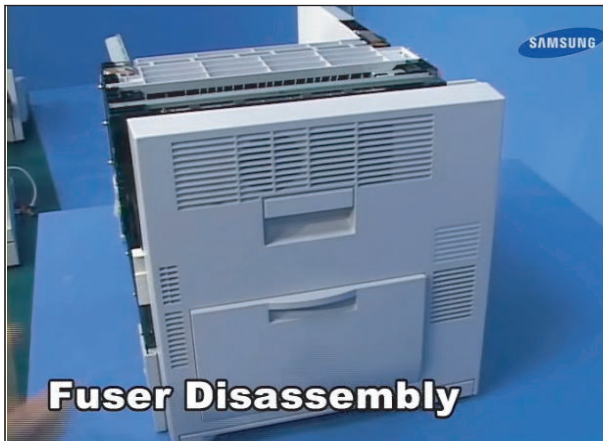
2. Remove the four screw and take out Fuser Unit.
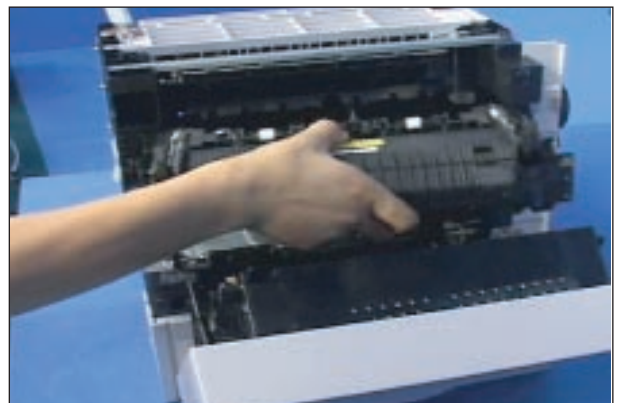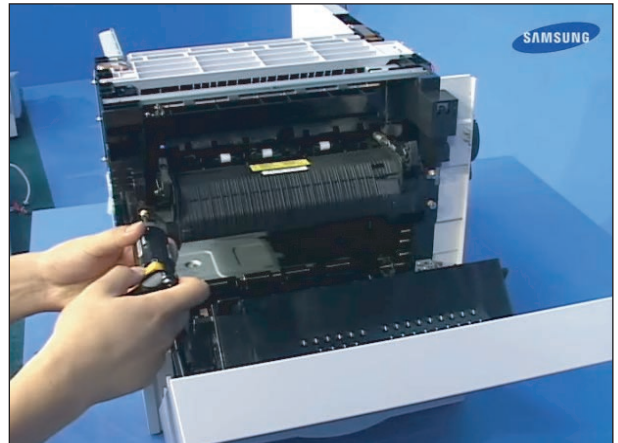
5.3 General Disassembly

5.3.1 Cover

1.Unplug the finisher harness connector.

2. Open front left cover.

3. Remove the finisher on machine.

Pushing Lever

4. Remove the screw cap of the side cover.

Screw cap

6. Take out the frame case.

5. Remove the screw of the side cover.

7. Frame to the case, shown below.

8. Open the side duplex cover.

9. Remove the cassette tray.

10. Remove the two screws securing the front cover ass'y.

11. Remove the two scres securing the Deve cover.

12. Frame to the case, shown below.

14. Remove the two screws of the stand base by hand.

13. Remove the two screws.

15. Remove the five screws securing the rear cover ass'y.

16. Take off the rear cover ass'y.

17. Frame to the case, shown below.

5.3.2 Finisher Ass´y

1. Pull the connector from the SET.

2. Pull the Finisher carefully from the SET with pushing the latch.

3. Release the stacker from the Finisher in the direction of arrow.

4. Use the latch to replace the staple unit
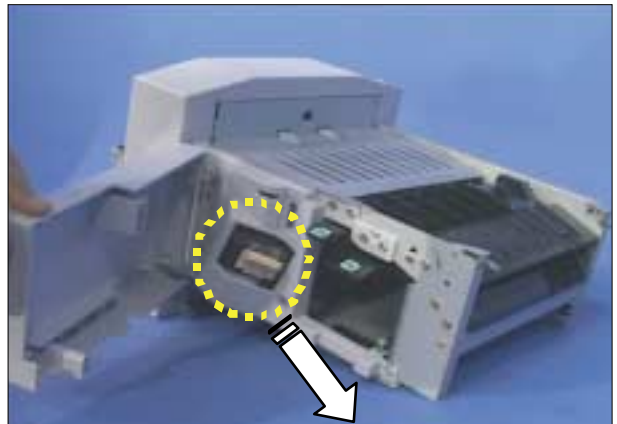
5.3.3 DADF Ass'y

1. Remove the one screw, and pull the cover in the direction of big arrow with releasing the hook in the direction of small arrow.
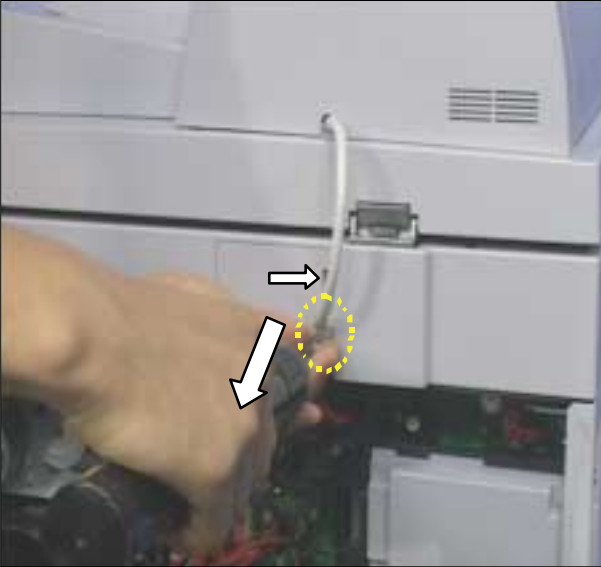
2. Pull the Scanner from the SET in the direction of arrow.
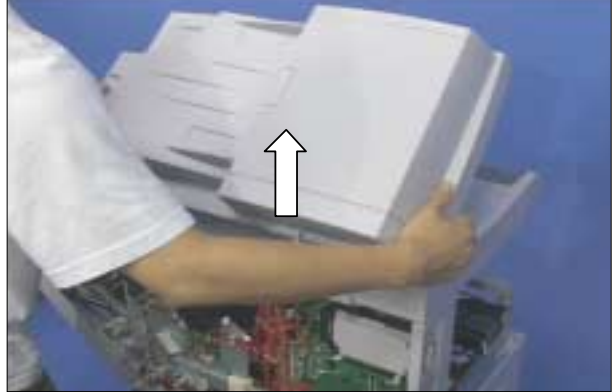
5.3.4 Platen Cover Ass'y

1. Remove the two screws, and pull the stacker cover.

2. Remove the two screws after pulling the Cassette.

3. Open the front cover and remove the two screws.

4. Remove the four screws.
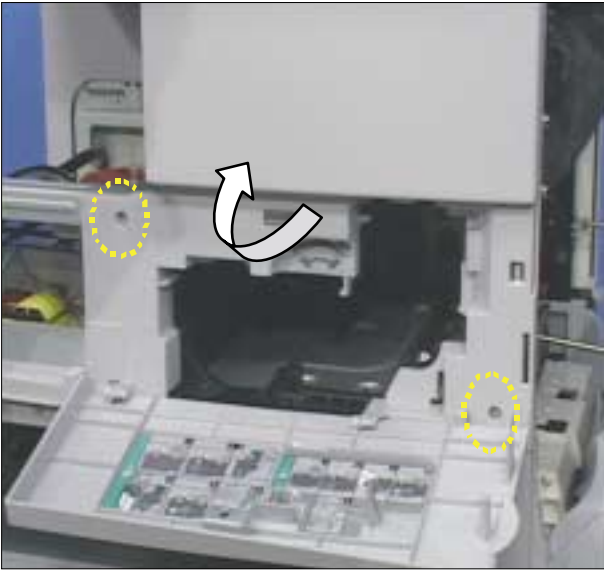
5. Remove the two pins and six screws.
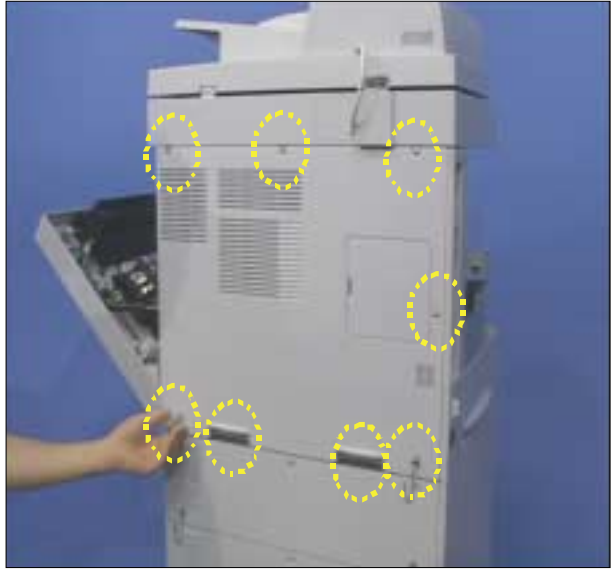
6. Remove the three screws and unplug the three connectors.
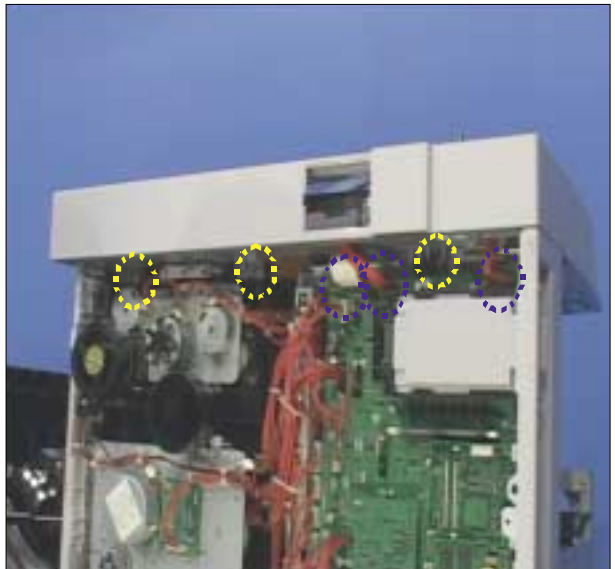
5.3.5 Fax Unit

1. Remove the two screws, and pull the FAX from the SET.
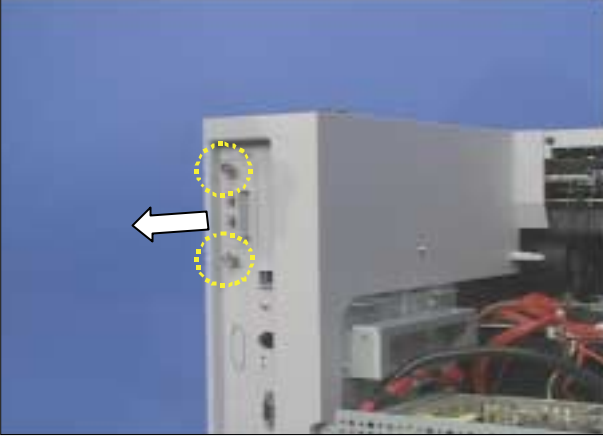
5.3.6 PBA(Main BOARD)

1. Remove the one screw and pull the USB board.

2. Unplug the hook and pull the sub board.

3. Unplug the connectors from the main board and remove five screws.
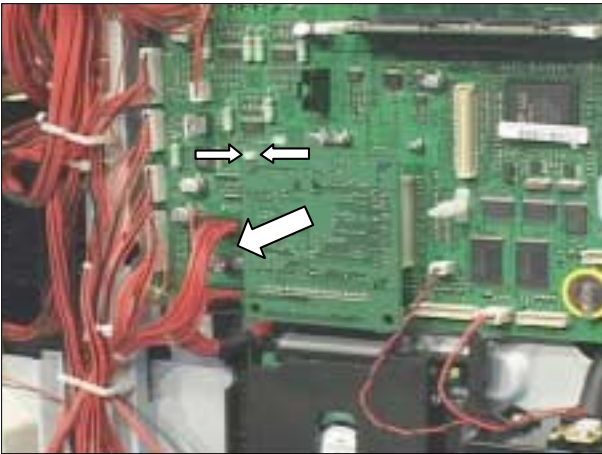
5.3.7 PBA(SMPS & IH board)

1. Remove the one screw.

2. Pull the SMPS and unplug the connectors.

3. Remove the one screw, and pull the cover in the direction of arrow.
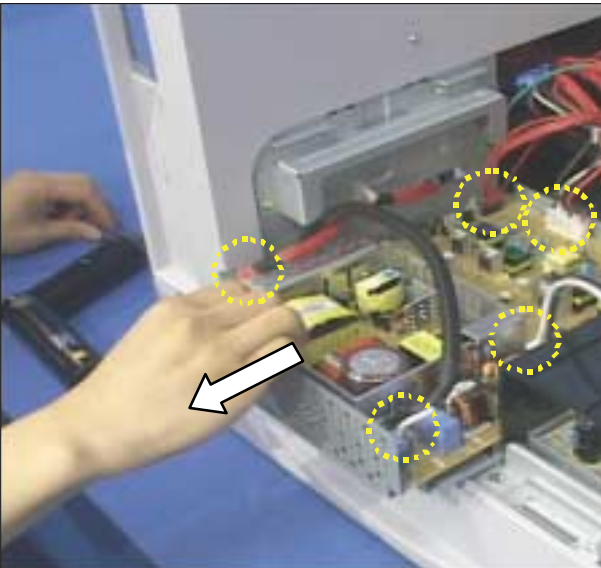
4. Remove the one screw, unplug the connectors and pull the IH board.
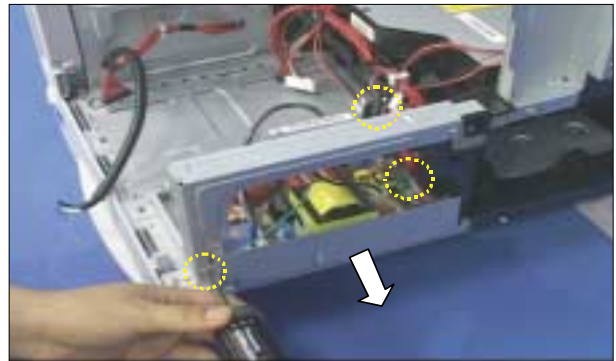
5.3.8 Transfer Roller

1. Push the latch in the two directions and pull the Transfer Roller.

5.3.9 Exit Roller

1. Remove the five screws and the exit cover.

2. Remove the four screws and pull the Exit Ass'y in the direction of arrow.
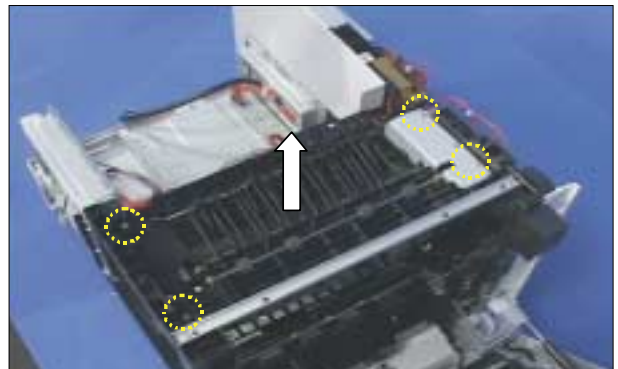
5.3.10 LSU Unit

1. Remove the six screws (including one ground screw) and pull the LSU in the direction of arrow.
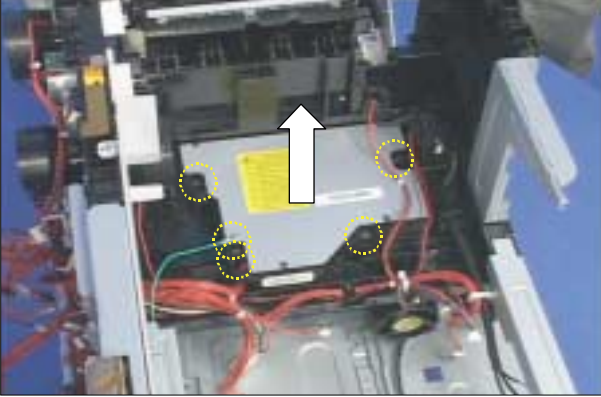
5.3.11 Drive-Exit Ass ᾿ y

1. Pull the fan in the direction of arrow.

2. Remove the four screws and unplug the threw connector from the motors.

3. Pull the Drive-Exit Ass ᾿ y in the direction of arrow.
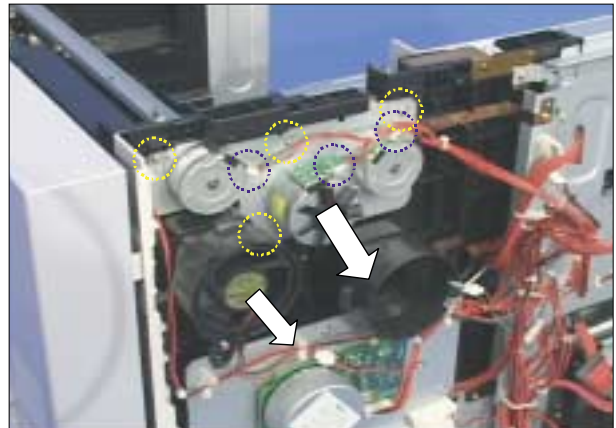
5.3.12 Drive-Main Ass'y

1. Unplug the mold e-ring and pull the three clutch.

2. Remove the duct and unplug the two connectors (main motor, dc motor).

3. Remove the seven screws and pull the Drive-Main Ass'y in the direction of arrow.
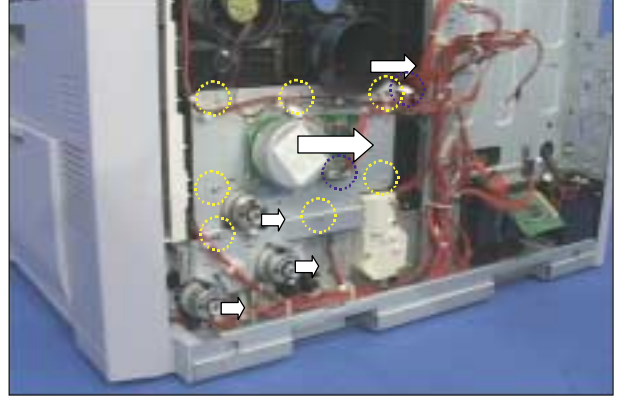
5.3.13 MP Ass'y

1. Remove the one screw, and release the one gear and press in the yellow circle.
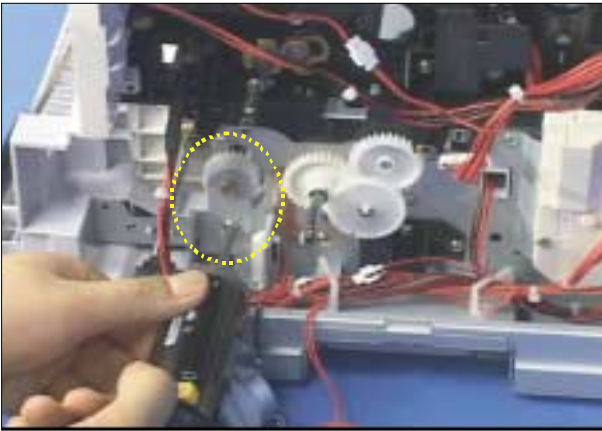
2. Remove the one screw and friction pad.

3. Remove the two screws.
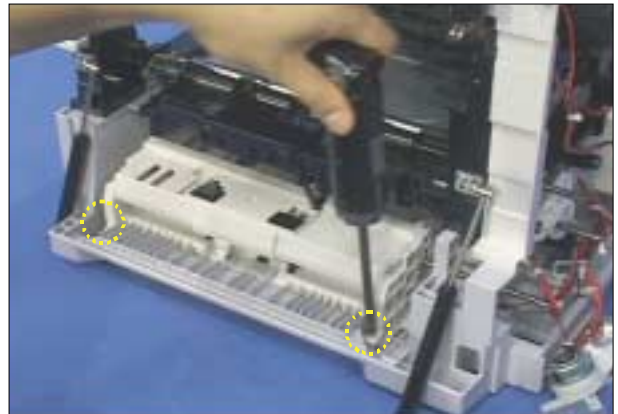
4. Release the MP Ass'y from the SET in the direction of arrow.
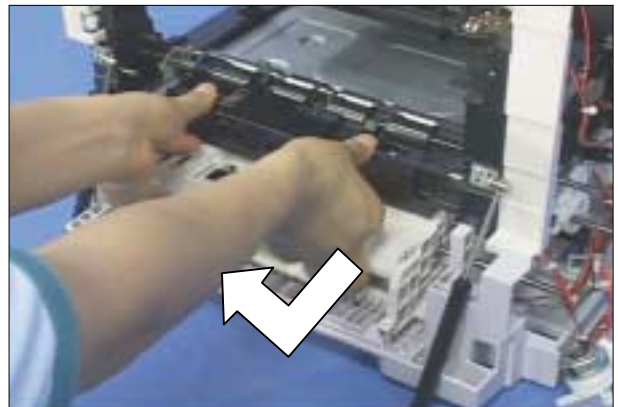
5.3.14 Engine Parts

1. Before you remove the Engine Parts, you should remove:

   - Cover Parts (Refer to 5.3.1)

2. Open the Side Duplex Cover.
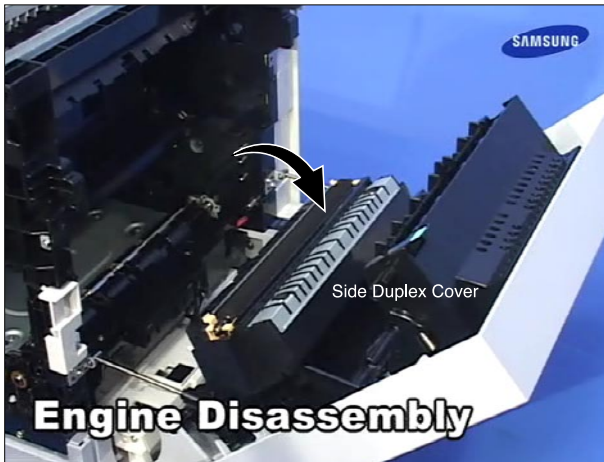
3. Release the Transfer Roller, as shown below.
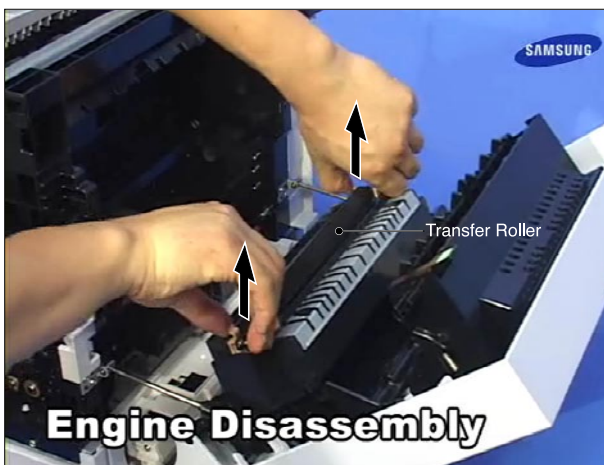
4. Remove the five screws securing the Upper Cover Unit, as shown below.
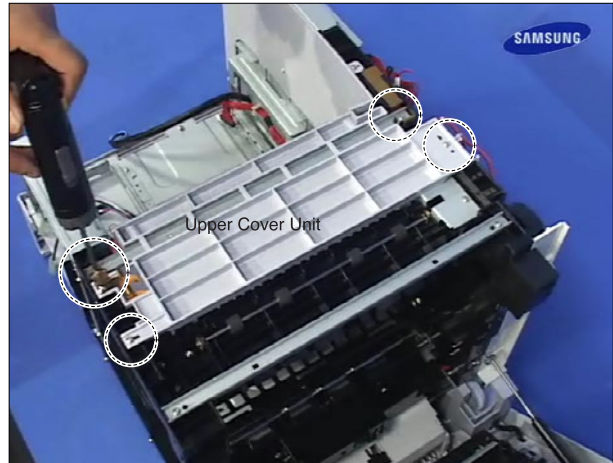
5. Lift the Upper Cover Unit.
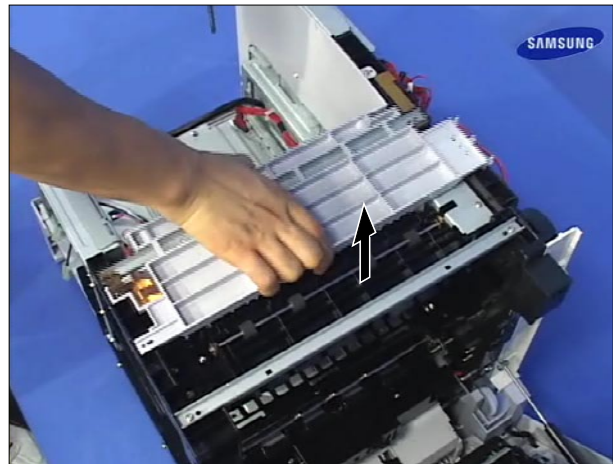
6. Remove the four screws securing the Exit Ass'y, as shown below.
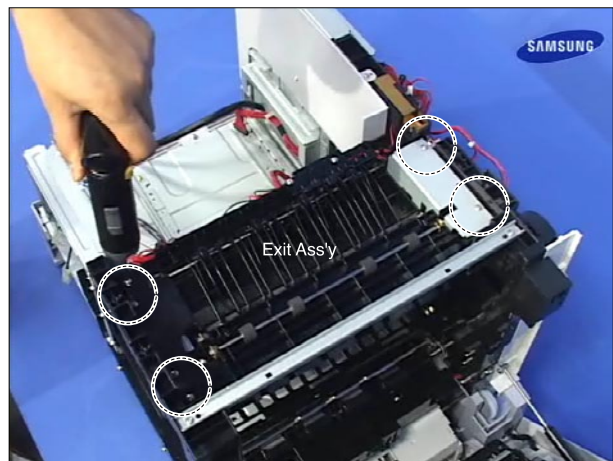
7. Lift the Exit Ass'y.
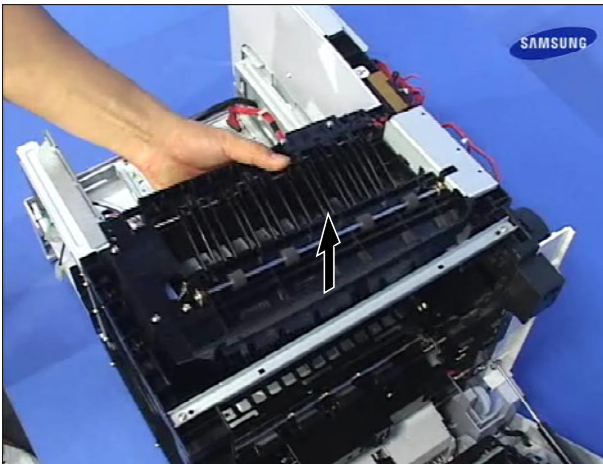
8. Remove the four screws securing the LSU and then remove the one screw securing the Ground Cable, as shown below.
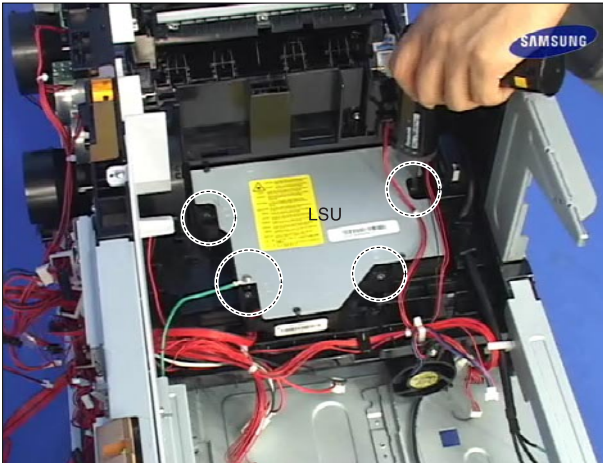
9. Lift the LSU.
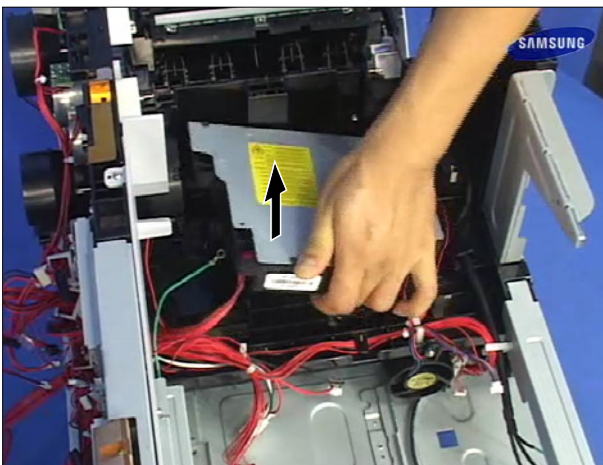
10. Remove the four screws securing the Fuser Drive and then pull the Duct(with Fan), as shown below.
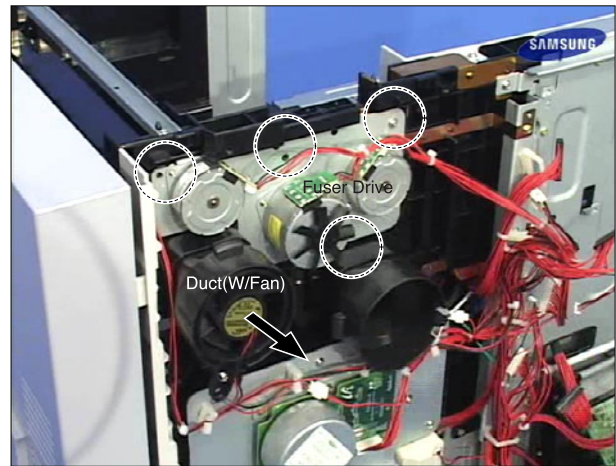
11. Remove the Fuser Drive.
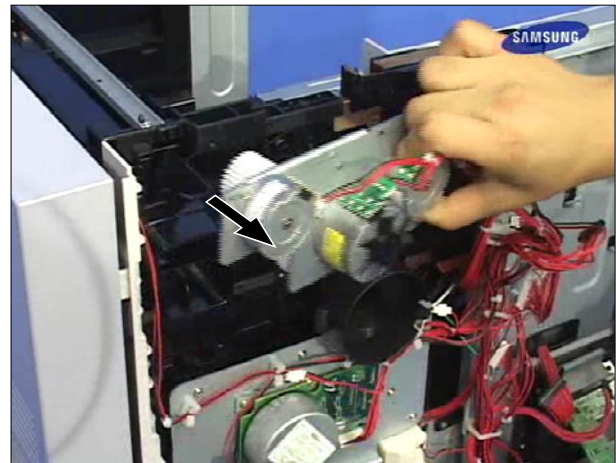
12. Remove the three Fixer securing the Clutchs and then pull the all Clutchs, as shown below.
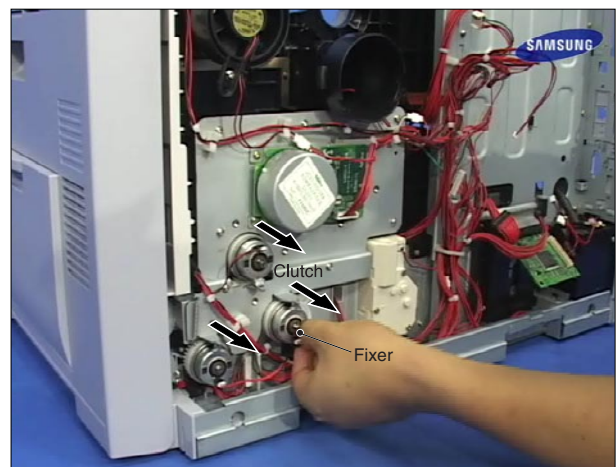
13. Remove the seven screws securing the Main Drive, as shown below.
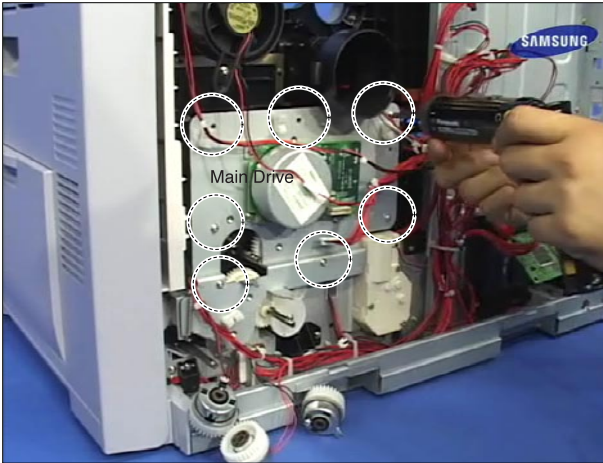
14. First release the Harness from the Cable Clamp, and then remove the Main Drive, as shown below.
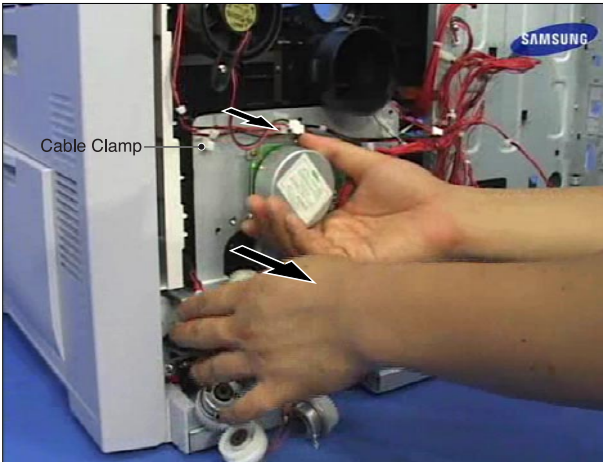
15. Pull the Damper Units securing the both side of the Side Duplex Cover in the direction of arrow, as shown below.

16. Apply light pressure to the both side of the Side Duplex Cover and pull it in the direction of arrow, as shown below.
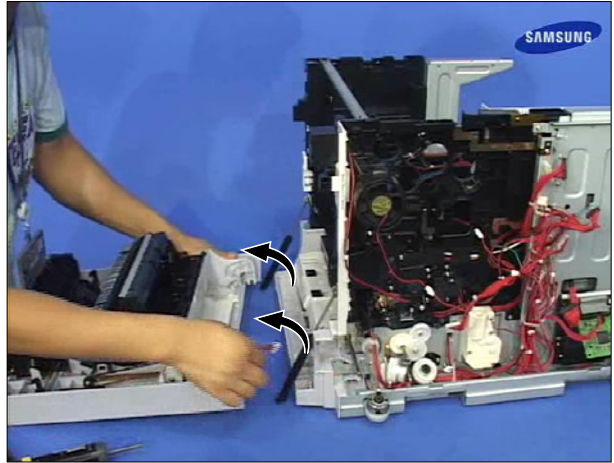
17. Remove the one screw securing the Bracket and remove it. Then release the Harness from the Cable Clamp.
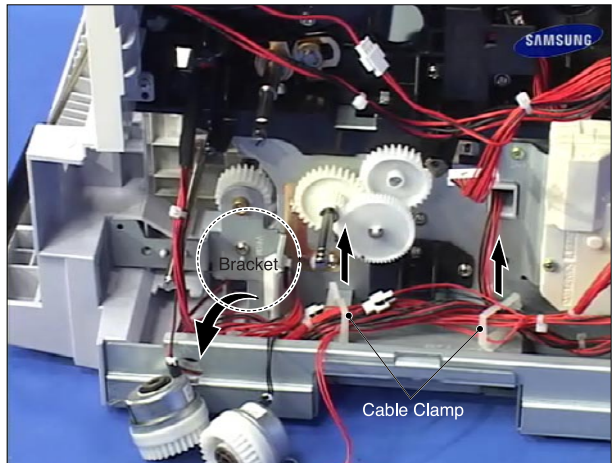
18. Remove the one screw securing the Holder Pad Unit and remove it.
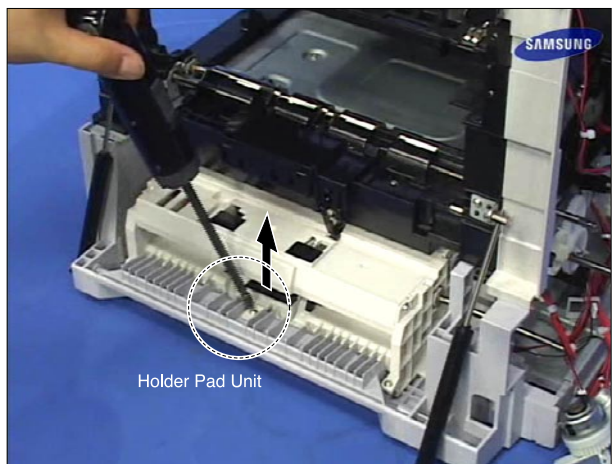
19. Remove the four screws securing the MP Unit.
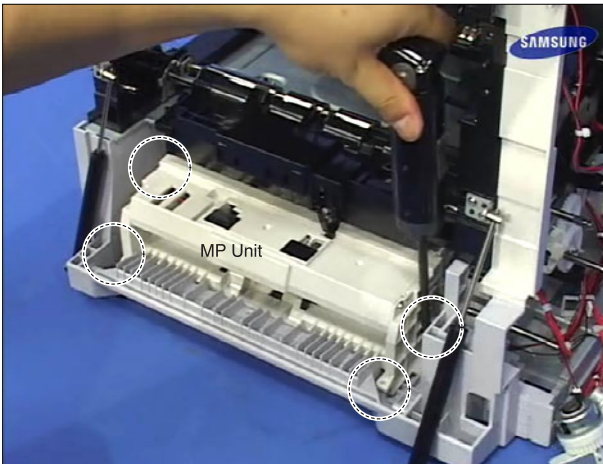
20. First lift the MP Unit, and then pull it in the direction of arrow, as shown below.
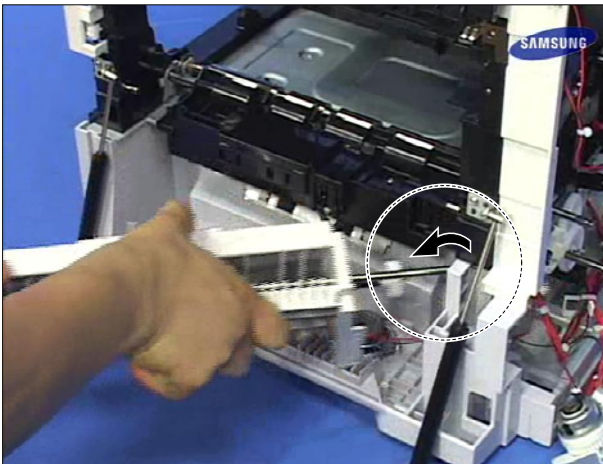
21. First turn over the frame, and then release the three Rollers, as shown below.
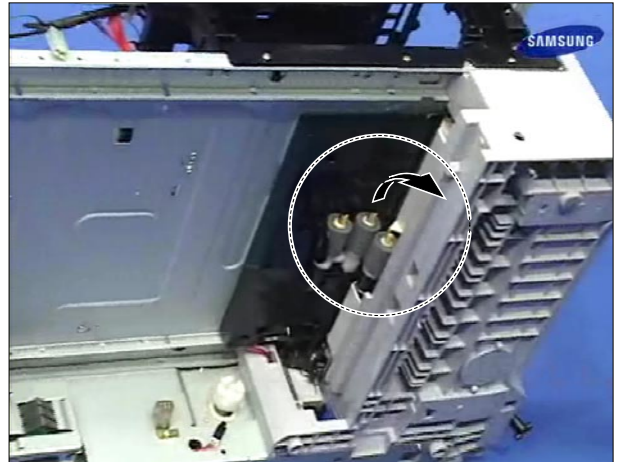
6. Troubleshooting

6.1 Procedure of Checking the Symptoms

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

```
        ┌──────────────┐
        │   Power On    │
        └──────────────┘
               │
               ▼
          ◇ OP Panel        No     ┌─────────────────────────┐
          ◇  ON?          ────────▶│ - No Power              │
                                   │ - Power Module error    │
               │ Yes               │ - Main PBA error        │
               │                   │ - LCD Panel error       │
               ▼                   └─────────────────────────┘
        ◇ Ready or       No     ◇ Indicate        Yes   ┌─────────────────┐
        ◇ Power save   ──────▶  ◇ Error Massage  ─────▶ │ Refer to         │
                                                         │ Error Massage    │
               │ Yes                  │                  │ <Chapter 4.8.2>  │
               │                      │ No               └─────────────────┘
               ▼                      │
        ┌──────────────┐◀────────────┘
        │  Test Print  │
        └──────────────┘
               │
               ▼
          ◇ printing       No     ┌─────────────────────────┐
          ◇ Quality is   ──────▶  │ Refer to "Solution       │
          ◇ Nomal?               │ of 6.2.3 Print Quality"  │
                                  └─────────────────────────┘
               │ Yes
               ▼
        ┌──────────────┐
        │     END      │
        └──────────────┘
```
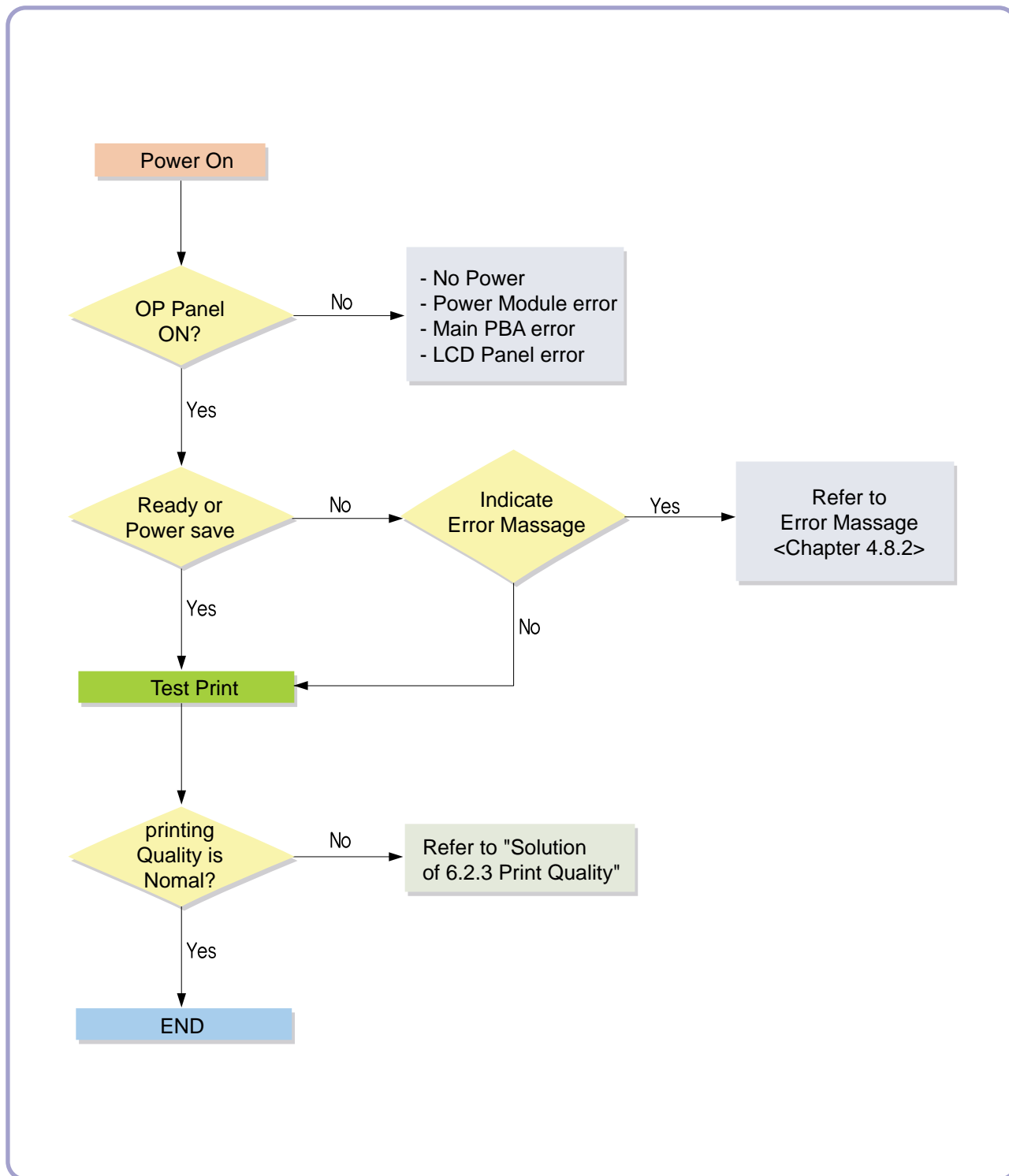
6.2 Solution

The following chart lists some conditions that may occur and the recommended solutions. Follow the suggested solutions until the problem is corrected. If the problem persists, please call for service.

6.2.1 Paper feeding problems
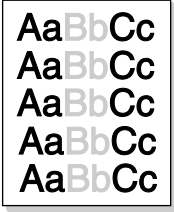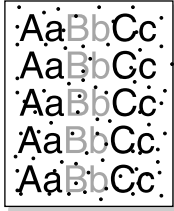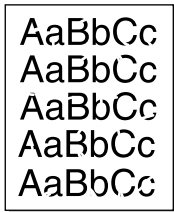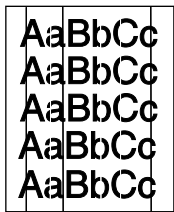
Condition	Suggested solutions
Paper is jammed during printing.	Clear the paper jam.
Paper sticks together.	• Ensure that there is not too much paper in the tray. The tray can hold up to 550 sheets of paper, depending on the thickness of your paper. • Make sure that you are using the correct type of paper. • Remove paper from the tray and flex or fan the paper. • Humid conditions may cause some paper to stick together.
Multiple sheets of paper do . not feed	• Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight. • If multiple sheets have caused a paper jam, clear the paper jam.
Paper does not feed into the machine.	• Remove any obstructions from inside the machine. • Paper has not been loaded correctly. Remove paper from the tray and reload it correctly. • There is too much paper in the tray. Remove excess paper from the tray. • The paper is too thick. Use only paper that meets the specifications required by the machine. • If an original does not feed into the machine, the DADF rubber pad may require to be replaced. Contact a service representative.
The paper keeps jamming.	• There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the multi-purpose tray. • An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. • There may be debris inside the machine. Open the front cover and remove the debris. • If an original does not feed into the machine, the DADF rubber pad may require to be replaced. Contact a service representative.
Transparencies stick together in the paper exit.	Use only transparencies specifically designed for laser printers. Remove each transparency as it exits from the machine.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.
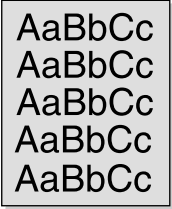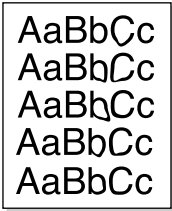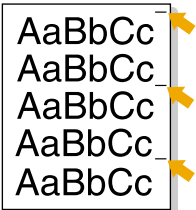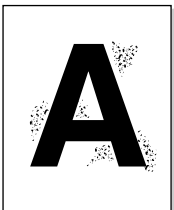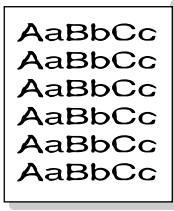
6.2.2 Printing problems
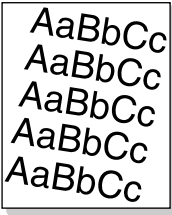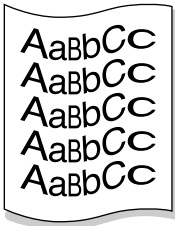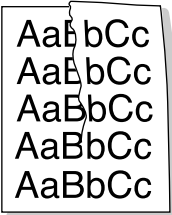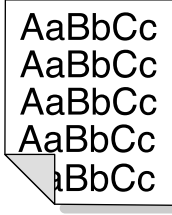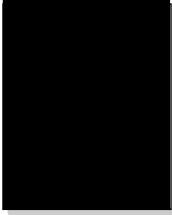
Condition	Possible cause	Suggested solutions
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default printer.	Select Samsung SCX-6x45 Series PCL 6 as your default printer in your Windows.
	Check the machine for the following: • The front cover is not closed. Close the cover. • Paper is jammed. Clear the paper jam. • No paper is loaded. Load paper. • The toner cartridge is not installed. Install the toner cartridge. If a system error occurs, contact your service representative.	
	The connection cable between the computer and the machine is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job. You can also try using a different printer cable.
	The port setting is incorrect.	Check the Windows printer setting to make sure that the print job is sent to the correct port. If the computer has more than one port, make sure that the machine is attached to the correct one.
	The machine may be configured incorrectly.	Check the printer properties to ensure that all of the print settings are correct.
	The printer driver may be incorrectly installed.	Repair the printer software. See the Software Section.
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error.
The machine selects print materials from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications, the paper source selection is found under the Paper tab within the printer properties. Select the correct paper source. See the printer driver help screen.
A print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings.
	If you are using Windows 98/Me, the Spool Setting may be set incorrectly.	From the Start menu, choose Settings and then Printers. Right-click the Samsung SCX-6x45 Series PCL 6 machine icon, choose Properties, click the Details tab, and then choose the Spool Settings button. Select the desired spool setting.

Condition	Possible cause	Suggested solutions
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application. See the printer driver help screen.
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use.
The machine prints, but the text is wrong, garbled, or incomplete.	The printer cable is loose or defective.	Disconnect the printer cable and reconnect. Try a print job that you have already printed successfully. If possible, attach the cable and the machine to another computer and try a print job that you know works. Finally, try a new printer cable.
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and then back on again.
Pages print, but are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. If necessary, replace the toner cartridge.
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
When you are using Windows 98, the illustrations print incorrectly from Adobe Illustrator.	The setting in the software application is wrong.	Select Download as Bit Image in the Advanced Options window of the graphic properties and print the document again.
PDF file does not print correctly- some parts are missing in graphics, text or illustrations.	Incompatibility between the PDF file and the Acrobat products.	Printing the PDF file as an image may enable the file to print. Turn on Print As Image from the Acrobat printing options. Note: It Will take longer to print when you print a PDF file as an image.
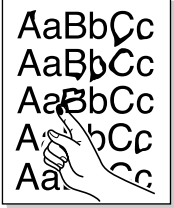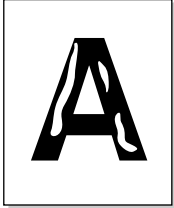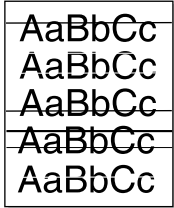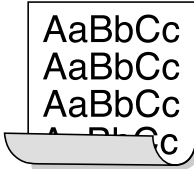
6.2.3 Printing quality problems

Condition	Suggested solutions
Light or faded print AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	If a vertical white streak or faded area appears on the page: • The toner supply is low. You may be able to temporarily extend the toner cartridge life. If this does not improve the print quality, install a new toner cartridge. • The paper may not meet paper specifications; for example, the paper is too moist or too rough. • If the entire page is light, the print resolution setting is too low or the toner save mode is on. Adjust the print resolution and turn the toner save mode off. • A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. Contact a service representative. • The surface of the LSU part inside the machine may be dirty. Clean the LSU, contact a service representative.
Toner specks AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	• The paper may not meet specifications; for example, the paper is too moist or too rough. • The transfer roller may be dirty. Clean the inside of your machine. Contact a service representative. • The paper path may need cleaning. Contact a service representative.
Dropouts AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	If faded areas, generally rounded, occur randomly on the page: • A single sheet of paper may be defective. Try reprinting the job. • The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper. • The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. • If these steps do not correct the problem, contact a service representative.
Vertical lines AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	If black vertical streaks appear on the page: • The drum inside the printer has probably been scratched. Remove the drum cartridge and install a new one. If white vertical streaks appear on the page: • The surface of the LSU part inside the machine may be dirty. Clean the LSU. Contact a service representative.

Condition	Suggested solutions
Gray background AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	If the amount of background shading becomes unacceptable: • Change to a lighter weight paper. • Check the machine's environment: very dry (low humidity) or high humidity (higher than 80% RH) conditions can increase the amount of background shading. • Remove the old drum and toner cartridge and then, install a new one.
Toner smear AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	• Clean the inside of the machine. Contact a service representative. • Check the paper type and quality. • Remove the drum and toner cartridge and then, install a new one. See page 9.4.
Vertical repetitive defects AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	If marks repeatedly appear on the printed side of the page at even intervals: • The drum and toner cartridge may be damaged. If a repetitive mark occurs on the page, print a cleaning sheet several times to clean the cartridge; contact a service representative. After the printout, if you still have the same problems, remove the drum and toner cartridge and then, install a new one. • Parts of the machine may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages. • The fusing assembly may be damaged. Contact a service representative.
Background scatter A	Background scatter results from bits of toner randomly distributed on the printed page. • The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. • If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. • If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or the printer properties.
Misformed characters AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	• If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try a different paper. • If characters are improperly formed and producing a wavy effect, the scanner unit may need service. For service, contact a service representative.

Condition	Suggested solutions
Page skew AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	• Ensure that the paper is loaded properly. • Check the paper type and quality. • Ensure that the paper or other material is loaded correctly and the guides are not too tight or too loose against the paper stack.
Curl or wave AaBbCC AaBbCC AaBbCC AaBbCC AaBbCC	• Ensure that the paper is loaded properly. • Check the paper type and quality. Both high temperature and humidity can cause paper curl. • Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.
Wrinkles or creases AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	• Ensure that the paper is loaded properly. • Check the paper type and quality. • Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.
Back of printouts are dirty AaBbCc AaBbCc AaBbCc AaBbCc aBbCc	Check for leaking toner. Clean the inside of the machine. Contact a service representative.
Black pages	• The drum cartridge may not be installed properly. Remove the cartridge and reinsert it. • The drum cartridge may be defective and need replacing. Remove the drum cartridge and install a new one. • The machine may require repair. Contact a service representative.

Condition	Suggested solutions
Loose toner 	• Clean the inside of the machine. Contact a service representative. • Check the paper type and quality. • Remove the drum and toner cartridge and then, install a new one. • If the problem persists, the machine may require repair. Contact a service representative.
Character Voids 	Character voids are white areas within parts of characters that should be solid black: • If you are using transparencies, try another type of transparency. Because of the composition of transparencies, some character voids are normal. • You may be printing on the wrong surface of the paper. Remove the paper and turn it around. • The paper may not meet paper specifications.
Horizontal stripes 	If horizontally aligned black streaks or smears appear: • The drum and toner cartridge may be installed improperly. Remove the cartridge and reinsert it. • The drum and toner cartridge may be defective. Remove the toner cartridge and install a new one. • If the problem persists, the machine may require repair. Contact a service representative.
Curl 	If the printed paper is curled or paper does not feed into the machine: • Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.
An unknown image repetitively appears on a next few sheets or loose toner, light print, or contamination occurs.	You printer is probably being used at an altitude of 2,500 m(8,200 ft)or above. The high altitude may affect the print quality such as loose toner or light imaging. You can set this option through Printer Settings Utility or Printer Tab in printer driver's properties. Refer to the Software Section for detail.

6.2.4 Copying problems

Condition	Suggested solutions
Copies are too light or too dark.	Use Darkness to darken or lighten the background of the copies.
Smears, lines, marks, or spots appears on copies.	• If defects are on the original, press Darkness to lighten the background of your copies. • If no defects are on the original, clean the scan unit.
Copy image is skewed.	• Ensure that the original is face down on the scanner glass or face up in the DADF. • Check that the copy paper is loaded correctly.
Blank copies print out.	Ensure that the original is face down on the scanner glass or face up in the DADF.
Image rubs off the copy easily.	• Replace the paper in the tray with paper from a new package. • In high humidity areas, do not leave paper in the machine for extended periods of time.
Frequent copy paper jams occur.	• Fan the stack of paper, then turn it over in the tray. Replace the paper in the tray with a fresh supply. Check/adjust the paper guides, if necessary. • Ensure that the paper is the proper paper weight. 75 g/m 2 bond paper is recommended. • Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Toner cartridge produces fewer copies than expected before running out of toner.	• Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner. • The machine may be turned on and off frequently. • The scanner lid may be left open while copies are being made.

6.2.5 Scanning problems

Condition	Suggested solutions
The scanner does not work.	• Make sure that you place the original to be scanned face down on the scanner glass, or face up in the DADF. • There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate. • Check that the USB or parallel cable is connected properly. • Make sure that the USB or parallel cable is not defective. Switch the cable with a known good cable. If necessary, replace the cable. • If you are using a parallel cable, ensure that it is compliant with IEEE 1284 standards. • Check that the scanner is configured correctly. Check scan setting in the SmarThru Configuration or the application you want to use to make certain that the scanner job is being sent to the correct port.
The unit scans very slowly.	• Check if the machine is printing received data. If so, scan the document after the received data has been printed. • Graphics are scanned more slowly than text. • Communication speed slows in scan mode because of the large amount of memory required to analyze and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer user's guide.
Message appears on your computer screen: • "Device can't be set to the H/W mode you want." • "Port is being used by another program." • "Port i s Disabled." • "Scanner is busy receiving or printing data. When the current job is completed, try again." • "Invalid handle." • "Scanning has failed."	• There may be a copying or printing job in progress. When that job is complete, try your job again. • The Selected port is currently being used. Restart your computer and try again. • The printer cable may be improperly connected or the power may be off. You must use a parallel cable that supports IEEE 1284 bi-directional communications. • The scanner driver is not installed or the operating environment is not set up properly. • Ensure that the machine is properly connected and the power is on, Then restart your computer. • The USB cable may be improperly connected or the power may be off. • Do not use parallel and USB cables at the same time.

6.2.6 Network Scan problems

Condition	Suggested solutions
I cannot find a scanned image file.	You can check the scanned file's destination in the Advanced page in the Network Scan program's Properties screen.
I cannot find the scanned image file after scanning.	• Check if the scanned file's application is on your computer. • Check Send image immediately to the specified folder using an associated default application in the Advanced page in the Network Scan program's Properties screen to open the scanned image immediately after scanning.
I forgot my ID and PIN.	Check your ID and PIN in the Server page in the Network Scan program's Properties screen.
I cannot view the Help file.	To view the Help file, you need to have Internet Explorer 4 service pack 2 or above.
I cannot use the Samsung Network Scan Manager	Check your operating system. Supporting operating systems are Windows 98/Me/NT 4.0/2000/XP/2003.

6.2.7 Fax problems

Condition	Suggested solutions
The machine is not working, there is no display and the buttons are not working.	• Unplug the power cord and plug it in again. • Ensure that there is power to the electrical outlet.
No dial tone sounds.	• Check that the phone line is connected properly. • Check that the phone socket in the wall is working by plugging in another phone.
The numbers stored in memory do not dial correctly.	Make sure that the numbers are stored in memory correctly. Print a Phone Book list.
The original does not feed into the machine.	• Make sure that the paper is not wrinkled and you are putting it in correctly. Check that the original is the right size, not too thick or thin • Make sure that the DADF is firmly closed. • The DADF rubber pad may need to be replaced. Contact a service representative.
Faxes are not received automatically.	• The receiving mode should be set to Fax. • Make sure that there is paper in the tray. • Check to see if the display shows any error message. If it does, clear the problem.
The machine does not send.	• Make sure that the original is loaded in the DADF or on the scanner glass. • Sending should show up on the display. • Check the fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank spaces or is of poor-quality.	• The fax machine sending you the fax may be faulty. • A noisy phone line can cause line errors. • Check your machine by making a copy. • The toner cartridge may be empty. Replace the toner cartridge.
Some of the words on an incoming fax are stretched.	The fax machine sending you the fax had a temporary document jam.
There are lines on the originals you send.	Check your scan unit for marks and clean it.
The machine dials a number, but a connection with the other fax machine fails.	The other fax machine may be turned off, out of paper, or cannot answer incoming calls. Speak with the other machine operator and ask her/him to sort out the problem.
Faxes do not store in memory.	There may not be enough memory space to store the fax. If the display shows the Memory Full message, delete from memory any faxes you no longer need and then try again to store the fax.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top.	You may have chosen the wrong paper settings in the user option setting. For details about paper settings.

6.2.8 Common Windows problems

Condition	Suggested solutions
"File in Use" message appears during installation.	Exit all software applications. Remove all software from the StartUp Group, then restart Windows. Reinstall the printer driver.
"Error Writing to LPTx" message appears.	• Ensure that the cables are connected correctly, the machine is on. • If bi-directional communication is not turned on in the driver, it will also cause this message.
"General Protection Fault", "Exception OE", "Spool32", or "Illegal Operation" messages appear.	Close all other applications, reboot Windows and try printing again.
"Fail To Print", "A printer timeout error occurred." messages appear.	These messages may appear during printing. Just keep waiting until the machine finishes printing. If the message appears in standby mode or after printing has been completed, check the connection and/or whether an error has occurred.

6.2.9 Common PostScript problems

The following situations are PS language specific and may occur when several printer languages are being used.

Problem	Possible Cause	Solution
PostScript file cannot be printed.	The PostScript driver may not be installed correctly.	• Install the PostScript driver, referring to the Software Section. • Print a configuration page and verify that the PS version is available for printing. • If the problem persists, contact a service representative.
"Limit Check Error" message appears.	The print job was too complex.	You might need to reduce the complexity of the page or install more memory.
A PostScript error page prints.	The print job may not be PostScript.	Make sure that the print job is a PostScript job. Check to see whether the software application expected a setup or PostScript header file to be sent to the machine.
The optional tray 2 is not selected in the driver.	The printer driver has not been configured to recognize the optional tray 2.	Open the PostScript driver properties, select the Device Settings tab, and set the Tray2 option of the Installable Options section to Installed.
When print a document in Macintosh with Acrobat Reader 6.0 or higher, colors print incorrectly.	The resolution setting in the printer driver may not be matched with that in Acrobat Reader.	Make sure that the resolution setting in your printer driver matches that in Acrobat Reader.

6.2.10 Common Linux problems

Problem	Possible Cause and Solution
The machine does not print	• Check if the printer driver is installed in your system. Open Unified Driver configurator and switch to the Printers tab in Printers configuration window to look at the list of available printers. Make sure that your machine is displayed on the list. If not, please, invoke Add new printer wizard to set up your device. • Check if the printer is started. Open Printers configuration and select your machine on the printers list. Look at the description in the Selected printer pane. If its status contains "(stopped)" string, please, press the Start button. After that normal operation of the printer should be restored. The "stopped" status might be activated when some problems in printing occurred. For instance, this could be an attempt to print document when port is claimed by a scanning application. • Check if the port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (port), the situation of simultaneous access of different "consumer" application to the same port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. You should open ports configuration and select the port assigned to your printer. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present owner is not functioning properly. • Check if your application has special print option such as "-oraw". If "-oraw" is specified in the command line parameter then remove it to print properly. For Gimp front-end, select "print" -> "Setup printer" and edit command line parameter in the command item.
The machine does not appear on the scanners list	• Check if your machine is attached to your computer. Make sure that it is connected properly via the USB port and is turned on. • Check if the scanner driver for your machine is installed in your system. Open Unified Driver configurator, switch to Scanners configuration, then press Drivers. Make sure that driver with a name corresponding to your machine's name is listed in the window. Check if the port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (port), the situation of simultaneous access of different "consumer" application to the same port is pos-sible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. This can usually happen while starting scan procedure, and appropriate message box appears. • To identify the source of the problem, you should open ports configuration and select the port assigned to your scanner. port's symbol /dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1 and so on. USB ports start at / dev / mfp4, so scanner on USB:0 relates to / dev / mfp4 respectively and so forth sequentially. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present port's owner is not functioning properly.

Problem	Possible Cause and Solution
The machine does not scan	• Check if a document is loaded into the machine. • Check if your machine is connected to the computer. Make sure if it is connected properly if I/O error is reported while scanning. • Check if the port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (port), the situation of simultaneous access of different "consumer" application to the same port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. This can usually happen while starting scan procedure, and appropriate message box will be displayed. To identify the source of the problem, you should open ports configuration and select the port assigned to your scanner. port's symbol /dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1 and so on. USB ports start at /dev/ mfp4, so scanner on USB:0 relates to /dev/mfp4 respectively and so forth sequentially. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present port's owner is not functioning properly.
I cannot scan via Gimp Front-end.	• Check if Gimp Front-end has "Xsane: Device dialog." on the "Acquire" menu. If not, you should install Xsane plug-in for Gimp on the your computer. You can find Xsane plug-in package for Gimp on Linux distribution CD or Gimp home page. For the detail information, refer to the Help for Linux distribution CD or Gimp Front-end application. If you wish to use other kind of scan application, refer to the Help for application.
I encounter error "Cannot open port device file" when printing a document.	Please avoid changing print job parameters (via LPR GUI, for example) while a print job is in progress. Known versions of CUPS server break the print job whenever print options are changed and then try to restart the job from the beginning. Since Unified Linux Driver locks port while printing, the abrupt termination of the driver keeps the port locked and therefore unavailable for subsequent print jobs. If this situation occurred, please, try to release the port.
I encounter error "Cannot open port devicaPDF file does not print correctly-some parts are missing in graphics, text or illustrations.e file" when printing a document.	Incompatibility between the PDF file and the Acrobat products. Printing the PDF file as an image may enable the file to print. Turn on Print As Image from the Acrobat printing options. Note: It Will take longer to print when you print a PDF file as an image.
The machine does not print.	The CUPS (Common Unix Printing System) version distributed with SuSE Linux 9.2 (cups-1.1.21) has a problem with ipp (Internet Printing Protocol) printing.

6.2.11 Common Macintosh problems

Problem	Possible Cause and Solution
PDF file does not print correctly-some parts are missing in graphics, text or illustrations.	Incompatibility between the PDF file and the Acrobat products. Printing the PDF file as an image may enable the file to print. Turn on Print As Image from the Acrobat printing options. **Note:** It Will take longer to print when you print a PDF file as an image.
The document has printed, but the print job has not disappeared from the spooler in Mac OS 10.3.2.	Update your Mac OS to OS 10.3.3. or higher.
Some letters are not displayed normally during the Cover page printing.	This problem is caused because Mac OS can not create the font during the Cover page printing. English alphabet and numbers are displayed normally at the Cover page.

6.2.12 General solution

Error	LCD NOT DISPLAY
[Description]	Engine is warming up properly but LCD does not display anything on.
[Wrong Part]	1. Main Controller 2. OPE 3. SMPS
[Check and Cause]	1. Check 24V on Main controller. 2. If 24V from Main controller is normal, Check the CCFL inverter harness on PE_Main. 3. If not, check the F 71 on SMPS.
[Solution]	1. 24V power and CCFL inverter harness connection are on normal, replace OPE_Main first and retry. 2. Keep on problem with 24V on, replace the Main controller. 3. Replace the SMPS.

Error	LSU Error
[Description]	LSU sync Error displays on LCD
[Wrong Part]	1. Drum Cartridge 2. Main Controller 3. Cover Open Connector
[Check and Cause]	1. Check LSU 5V/24VS 2. Main Controller LSU Part defect 3. Micro Switch Harness
[Solution]	1. Replace Drum Cartridge and retry 2. Replace Main Controller. 3. Replace Micro Switch Assy

Error	Cover Open
[Description]	The cover open massage displays on even when the print cover is closed.
[Wrong Part]	1. Hook Lever in the side cover / Micro Switch
[Check and Cause]	1. The Hook Lever in the top cover may be defective. 2. Check the CN8-4 on Main B°ØD and the micro switch on the rear side of set.
[Solution]	1. Replace the hook lever, if defective. 2. Check Cover Open harness. Replace Cover Open S/W 3. Replace the Main Control board.

Error	Fuser
[Description]	Fuser Error
[Wrong Part]	1. Thermostat Open 2. Check IH Fan 3. IH PBA 4. Main PBA
[Check and Cause]	1. Detach AC connector and measure the resistance between them whether it is below 10ohm. If it is over mega ohm, replace it. 2. Replace IH Fan. 3. Replace IH PBA 4. Replace main PBA.

Error	Vertical Black Line and Black Band
[Description]	1. Straight thin black vertical line occurs in the printing. 2. Dark black vertical band occur in the printing.
[Wrong Part]	1. Cleaning blade 2. Charge roller
[Check and Cause]	1. Damaged cleaning blade in the drum cartridge 2. Contamination of the charge roller in the drum cartridge
[Solution]	1. If causes 1 and 2 occur in the drum Cartridge, replace the drum cartridge and try again to print out.

Error	Vertical White Line
[Description]	White vertical voids in the image.
[Wrong Part]	1. LSU 2. Drum Cartridge
[Check and Cause]	1. Foreign matter stuck onto the window of internal lenses of LSU mirror. 2. Foreign matter or toner particles between the magnetic roller and doctor blade. 3. It may occur when Burr and foreign substances are on the window of the drum cartridge frame. 4. If the fuser is defective, voids occur periodically at the top of a black image.
[Solution]	1. Foreign matter stuck onto the window : Clean the LSU window with recommended cleaner(IPA) Clean the window with a clean cotton swab. 2. Foreign matter in the LSU : Open the cover of LSU and clean with a cotton swab on the surface of the reflex mirror. 3. No 3. : Remove the foreign matter and burr of the exposure window. (the drum cartridge frame) 4. No. 4. : Open the front cover and check ribs that corresponds to the position of the voids. Remove if found. 5. If the problems are not solved, replace the drum cartridge.
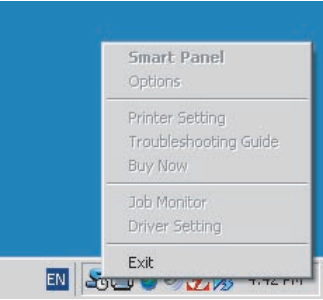
Error	Light Image
[Description]	1. The printed image is light, with no ghost.
[Wrong Part]	1. Drum Cartridge 2. HVPS
[Check and Cause]	1. The state of low toner in drum cartridge when the toner of toner cartridge is almost consumed. 2. Ambient temperature is below than 10 ℃. 3. Bad contact caused by the toner stains between the high voltage terminal in the HVPS and the one in the set. 4. Abnormal output from the HVPS.
[Solution]	1. Replace the drum cartridge and try to print out. 2. Wait 30 minutes after printer is powered on before you start printing. 3. Clean up the contaminated area by the toner. 4. Replace the HVPS if the problems are not solved by the above four directions.

Error	Dark Image or black
[Description]	The printed image is dark.
[Wrong Part]	1. HVPS
[Check and Cause]	1. No charge voltage in the HVPS board. 2. Charge voltage is not turned on due to the bad contacts between power supply in the side of the drum cartridge and charge terminal of HVPS.
[Solution]	1. Clean the high voltage charge terminal. 2. Check the state of the connector which connects the engine board and HVPS. 3. Replace the HVPS if not solved by the above direction 1 and 2.

Error	Background
[Description]	Light dark background appears in whole area of the printing.
[Wrong Part]	1. HVPS 2. Low Q/M of developer (High T/C of developer)
[Check and Cause]	1. Does recycle paper be used? 2. Has the life of the developer(carrier+toner) ended? 3. Is the HVPS normal?
[Solution]	1. The Drum cartridge is basically designed to print 60K sheets with simplex mode. If it prints more than 60K sheets, (around 50K sheets) a background can be occurred. 2. The drum cartridge is not guaranteed if using recycle paper. 3. Replace the drum cartridge when the life of it has been ended. 4. Clean the bushing part of the transfer roller. 5. If the problem is still not solved, replace the drum cartridge.

Error	Toner Supply Error
[Description]	The poor supply of toner in the printing.
[Wrong Part]	1. Toner feed roller 2. Toner supply DC motor
[Check and Cause]	1. The state of rotation of toner feed roller 2. Is the toner supply motor normal?
[Solution]	1. Replace the toner cartridge. 2. Replace the toner supply motor.

Error	RF_ID
[Description]	Drum Cartridge and Toner Container can't be detected
[Wrong Part]	1. RF_ID Coupler and Tag 2. Main PBA
[Check and Cause]	1.Check RF_ID Tag attached on Drum and Toner 2.Check the DEVE Harness and RF_ID coupler 3.Check Main PBA
[Solution]	1.Replace Drum cartridge and Toner container 2.Replace DEVE Harness and RF_ID coupler. 3.Replace Main PBA

Error	Smart Panel not support
[Description]	Smart Panel only supports USB and Network port.
[Check and Cause]	· If file is printer port, smart panel show below warning message when user try to launch smart panel. Also printer name is not displayed in the menu of tray icon. Error Please install supported driver or port. OK Smart Panel Options Printer Setting Troubleshooting Guide Buy Now Job Monitor Driver Setting Exit
[Solution]	If IP address or USB port name for model A is linked to printer port of model B, Smart Panel for model B works improperly because model B is not connected.

6.2.13 Troubleshooting flowchart

```
No Power
    │
    ▼
Check whether the LED on Main PBA is flickered on.
    │ NO
    ▼
Check 5V/24V on SMPS and 3.3V on Main PBA
    │
    ├── NO ──▶ Replace SMPS
    │
    └── Yes ──▶ Replace Main PBA
```

No Display on LCD

Engine is warming up properly but LCD does not display anything on.

Check 24V on Main controller

NO → Replace SMPS

Yes → Check the CCFL inverter harness on OPE_Main

NO

Yes → Replace OP_Main

LSU Error

LSU error massage is displayed

Check LSU_5V/24VS with side cover closed

No → Check 5V/24VM on Main Controller

Yes → Replace LSU

No → Replace SMPS

Yes → Reinstall Developer

No → Replace OPC

Cover Open

The cover open massage displays on even when the print cover is closed.

No → Is the Hook lever Ok?

Yes → Check Micro Switch

No → Replace Side Cover

No → Replace Micro Switch

Yes → Replace Main Controller

Fuser Error

Low Heat Error is displayed on LCD

Is IH Fan ok?

No → Check IH_FAN_24V(CN7 - 16)

Yes → Check resistance AC connector below 10ohm

Check IH_FAN_24V(CN7 - 16) → Yes → Replace IH FAN

Check IH_FAN_24V(CN7 - 16) → No

Check resistance AC connector below 10ohm → Yes → Check IH_24V(CN7 - 15) with Side Cover closed

Check resistance AC connector below 10ohm → No → Replace Fuser

Check IH_24V(CN7 - 15) with Side Cover closed → No → Go to Cover Open Session

Check IH_24V(CN7 - 15) with Side Cover closed → Yes → Replace IH PBA

Replace Fuser

Go to Cover Open Session

Replace IH PBA

RF_ID

Drum Cartridge and Toner Container can't be detected.

Is RF_ID Tag attached on Drum and Toner?

No → Replace Drum, Toner or Both

Yes

Check DEVE Harness and RF_ID Coupler

No → Replace Deve Harness, RF_ID Coupler or Both

Yes → Replace Drum, Toner or Both

No → Replace Main Controller

Sheet Guide Retard : JC63-00747A
MEA Unit-Roller PU : JC97-02259A
MEA Unit-Cassette : JC97-02273A

```
Double feeding occurs
         |
         v
Is there the Sheet Guide
Retard in the regular
position?
    |          |
   Yes         NO
    |          v
    |    Adjust the Sheet Guide Retard
    |    to the regular position
    |          |
    v          v
Is there any problem in
the MEA Unit -Roller
PU(Pick -up)?
    |          |
   Yes         NO
    |          |
    v          |
Replace the MEA Unit -      |
Roller PU (Pick -up)        |
    |                       |
    v                       v
Re-printing OK/NG?
    |          |
   OK          NG
    |          v
    |    Replace the MEA Unit -
    |    Cassette
    |          |
    |         NG
    |          v
    |    Replace the SET
    v
   End

    End  (OK)
```
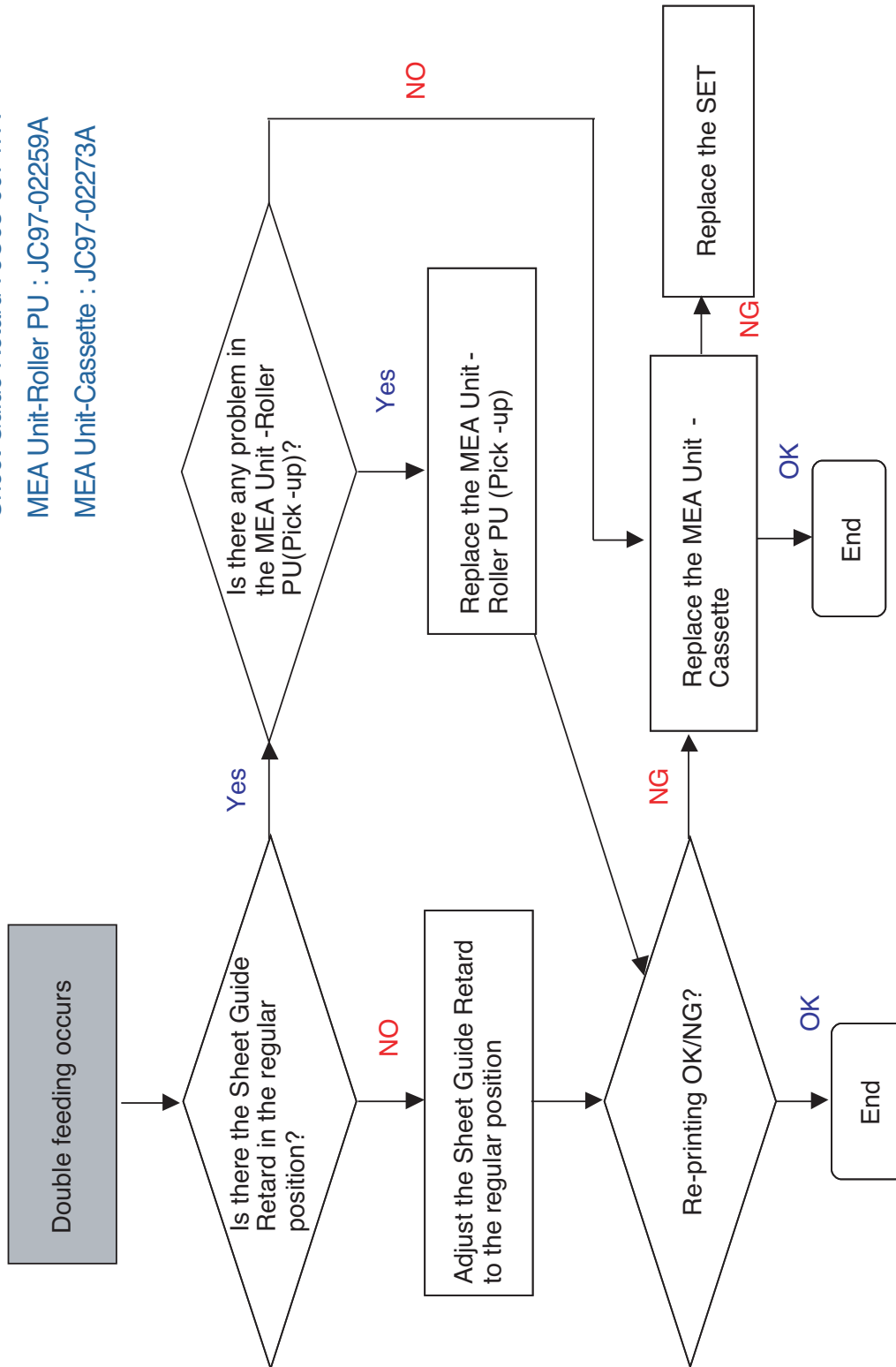
Leg-M_Act No Paper : JC61-01350A   MEA Unit-Roller PU : JC97-02259A

Photo Interrupter : 0604-001095   Leg-M_Act Ready DP : JC61-01435A

Clutch-5K Z32 : JC66-00994A   Motor DC-Main : JC31-00038A

HVPS-Jungfrau : JC44-00103A   MEA Unit-Cassette : JC97-02273A

Check where the jammed paper is located

→

Paper still inside the Tray ?

NO → Check if any object or obstruction is on the path before the forward roller. If any, remove it or them. → **OK** → End

Yes →

Pull out the tray and start the printing job with Leg - M_Act No Paper on by lift upside. Check if the MEA Unit - Roller PU is rolling or not

→

Does the MEA Unit - Roller PU rotate?

NO → Check if the Photo Interrupter(Registration Sensor) works or not

- You can make sure of it by actuating the Leg - M_Act Ready DP. If it does not work, replace the HVPS - Jungfrau.

→ **OK** → End

Yes →

Replace the MEA Unit - Cassette or the MEA Unit -Roller PU

→ **OK** → End

Check the Clutch -5K Z32 and the Motor DC - Main work or not. If needed, replace them.

→ **OK** → End

Leg-M_Act Ready DP : JC61-01435A   Leg-M_Actuator Exit : JC61-01384A

Photo Interrupter : 0604-001095   Photo Interrupter : 0604-001095

HVPS-Jungfrau : JC44-00103A

Check where the jammed paper is located

↓

Lead edge of paper is located between the Leg -M_Act Ready DP and Leg -M_Actuator Exit?

NO → Push the Leg-M-Act Ready DP down, and check if it returns back quickly.

NO → Replace the Leg -M_Act Ready DP → End

Yes ↓

Does the Photo Interrupter (registration sensor) work properly?

NO → Replace HVPS -Jungfrau → End

Yes ↓

Check the Photo Interrupter (Exit Sensor) works properly or not.

NO → Replace HVPS -Jungfrau → End

Yes (from Lead edge) → Check if any object or obstruct is on the path. If any, remove it.

OK → End

Check if there is Document jam message regardless of removing the document form ADF tray

Yes → Either the Motor step - DADF or PBA Sub - DADF are defected. Replace ELA HOU - DADF Sub Ass'y

NO →

Check if driving unit works

Error message is disappeared?

NO → Replace the PBA Main-MFP

Yes → Replace MEA UNIT - HOLDER ADF RUBBER

NO → Either the Motor step - DADF or PBA Sub - DADF are defected. Replace ELA HOU - DADF Sub Ass'y

Check if ADF is pulling Document

Yes → End

NO →

Motor Step-DADF : JC31-00044A
ELA HOU-DADF Sub : JC96-03579A
PBA Main-MFP : JC92-01690B

PBA Sub-DADF : JC92-01691A
MEA UNIT-HOLDER ADF RUBBER: JC97-01846A

ELA HOU-Fuser : JC96-03724A

Check how the LED is displayed

Over Heat Error

Turn off the printer and stay for 5minute

Turn on the printer

Is the same LED message shown again?

NO → Try to do print job

Yes → Turn off the printer. Replace the ELA HOU-Fuser → End

Is the same LED message shown

NO → OK

Yes → Turn off the printer. Replace the ELA HOU-Fuser → End

ELA HOU-Fuser : JC96-03724A

Check how the LED is displayed

→ Low Heat Error

→ Try to reboot

→ Turn on the printer

→ Is the same LED message shown again?

NO → Try to do print job → Is the same LED message shown

Yes → Turn off the printer. Replace the ELA HOU-Fuser → End

Is the same LED message shown
- NO → OK
- Yes → Turn off the printer. Replace the ELA HOU -Fuser → End

ELA HOU-Fuser : JC96-03724A

```
Check how the LED is
displayed
        ↓
   Over Heat Error
        ↓
Turn off the printer and
stay for 5minute
        ↓
Turn on the printer
        ↓
Is the same LED          Yes →  Turn off the printer. Replace the
message shown again?             ELA HOU-Fuser
        ↓ NO                              ↓
Try to do print job                      End
        ↓
Is the same LED          NO →    OK
message shown
        ↓ Yes
Turn off the printer. Replace the
ELA HOU-Fuser
        ↓
       End
```

Vertical Black Line   and
Vertical Black Band

[Description]
1. Straight thin black vertical line occurs in the printing.
2. Dark black vertical band occur in the printing.

[Wrong Part]
1. Cleaning blade
2. Charge roller

Check where vertical black line or vertical black band is located.

Damaged cleaning blade in the drum cartridge .

YES

Replace the drum cartridge and try again to print out.

YES

End

NO

Contamination of the charge roller in the drum cartridge.

YES

Replace the drum cartridge and try again to print out.

YES

End

Vertical White Line

[Description]
White vertical voids in the image.

[Wrong Part]
1. LSU
2. Drum Cartridge

Check where vertical white line is located.

↓

Foreign matter stuck onto the window of internal lenses of LSU mirror.

→ YES → Clean the LSU window with recommended cleaner(IPA) Clean the window with a clean cotton swab.

↓ NO

Foreign matter or toner particles between the magnetic roller and doctor blade.

→ YES → Replace the drum cartridge and try again to print out.

↓ NO

It may occur when Burr and foreign substances are on the window of the drum cartridge frame.

→ YES → Remove the foreign matter and burr of the exposure window. (the drum cartridge frame)

↓ NO

If the fuser is defective, voids occur periodically at the top of a black image.

→ YES → Open the right cover and check ribs that corresponds to the position of the voids. Remove if found.

↓

If the problems are not solved, replace the drum cartridge.

Light Image

[Description]
The printed image is light, with no ghost.

[Wrong Part]
1. Toner Cartridge
2. HVPS

Check the state of light image.

→ The state of low toner in drum cartridge when the toner of toner cartridge is almost consumed.
— **YES** → Replace the toner cartridge.
— **NO** ↓

→ Bad contact caused by the toner stains between the high voltage terminal in the HVPS and the one in the set
— **YES** → Clean up the contaminated area of contact terminal by the toner.
— **NO** ↓

→ Abnormal output from the HVPS.
— **YES** → Replace the HVPS.
— **NO** ↓

→ Bad contact the dev bias in drum cartrige.
— **YES** → Replace the drum cartridge.

[Description]
The printed image is dark or black.

[Wrong Part]
1. HVPS

Dark Image or Black Image

Check the state of Black image.

Check the state of the connector which connects the engine board and HVPS

→ YES, the state of connector is not good. → Re-connect connector of the engine board and HVPS.

NO ↓

Check the charge voltage output of HVPS

→ YES, No charge voltage in the HVPS board . → Replace the HVPS.

NO ↓

Charge voltage is not turned because of contamination between power supply in the side of the drum cartridge and charge terminal of HVPS.

→ YES → Clean the high voltage charge terminal.

[Descripition]

Light dark background appears in whole area of the printing.

[Wrong Part]

1. HVPS

2. Low Q/M of developer (High T/C of developer)

Background

Check the state of background

Does recycle paper be used?

YES → The drum cartridge is not guaranteed if using recycle paper.

NO →

Check the voltage output of HVPS

YES, the voltage output is not good in the HVPS board. → Replace the HVPS.

NO →

The life of the developer (carrier + toner)

YES, the life of it has been ended . → The Drum cartridge is basically designed to print 60K sheets with simplex mode. If it prints more than 60K sheets, a background can be occurred. Replace the drum cartridge when the life of it has been ended.

[Description]

The poor supply of toner in the printing.

[Wrong Part]

1. Toner feed roller
2. Toner supply DC motor

Toner Supply Error

Check the toner supply error.

The state of rotation of toner feed roller in the toner cartridge.

YES, the rotation of feed roller is not good.

Replace the toner cartridge.

NO

Is the toner supply motor normal?

NO(abnormal)

Replace the toner supply motor.

5. Exploded Views and Parts List

Contents

DIGITAL LASER MFP

SCX-6345N

The keynote of Product

The alternative of A3 copier models.

1. Print Speed:
   · Simplex Print: Up to 45 ppm/Ltr, 43 ppm/A4
   · Duplex Print: Up to 40 ppm/A4

2. Main Processor: SPGPv3(400MHz) + CIP4e

3. Device Memory(SDRAM):
   · 256MB System Memory (FAX:16MB), Max. 384MB
   · Option : 128MB (DIMM Slot 1EA)

4. Toner(20K), Drum(60K)

5. Standard:
   · Copy
   · Direct Print & N/W Print
   · Direct Scan (USB)
   · DADF
   · HDD(40GB)

6. Option:
   · N/W Scan/OEK(Option Enable Key)
   · FAX/Smart DAA, Single LIU
   · SCF (550 sheet)
   · Finisher with Stapler
   · Ext. Memory: 256MB
   · Stand: Short/Tall

7. Machine Life: 1,000K Pages
   · Average Monthly Print Volume: 10K Pages

5.1 Main
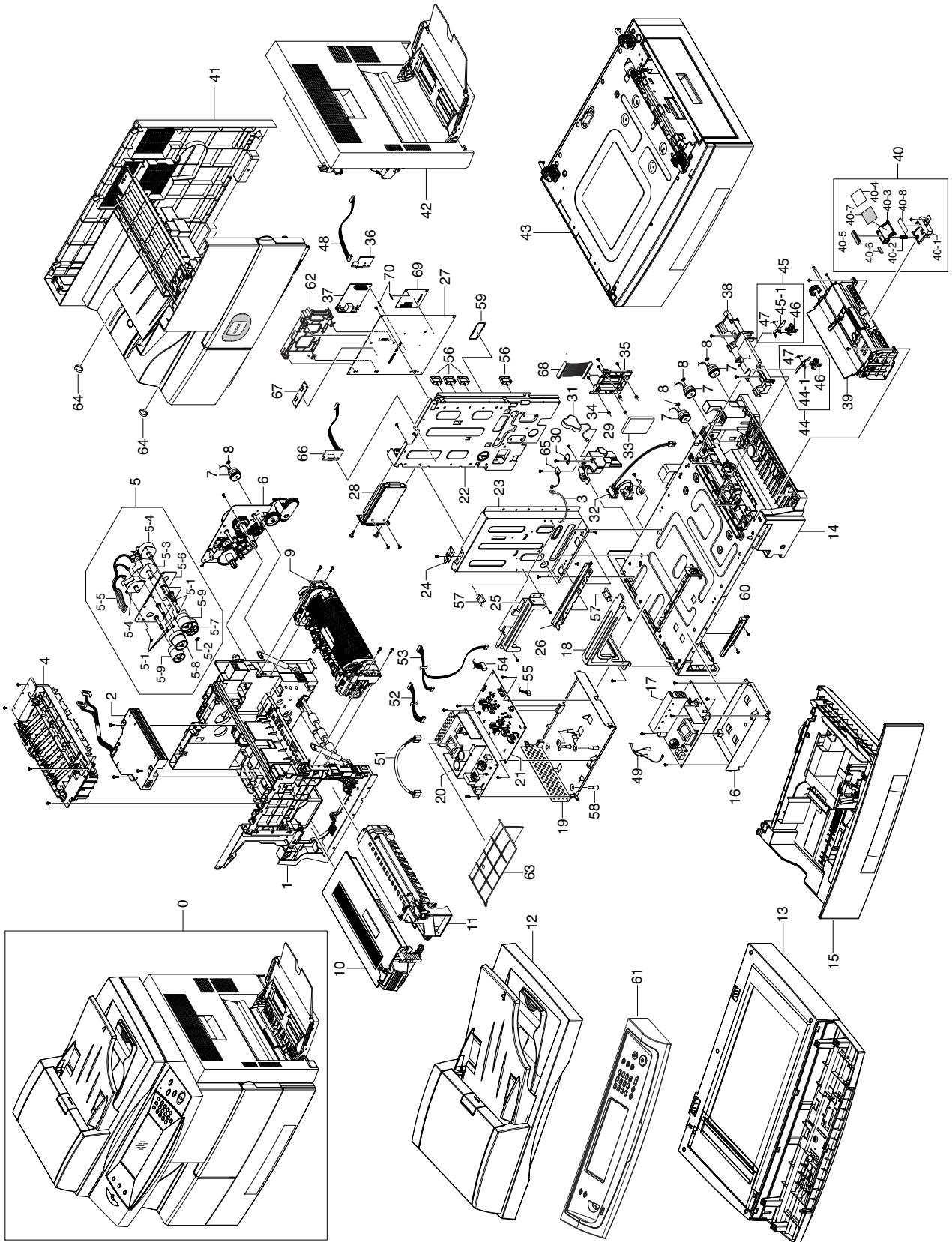
Main Parts List

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.1-0	SCX-6345N	SET	SNA	-	
5.1-0	SCX-6345NJ	SET	SNA	-	
5.1-1	JC96-03552B	ELA HOU-FRAME MAIN	SA	A	
5.1-2	JC59-00025A	UNIT-LSU	SA	A	
5.1-3	JB39-00065A	CBF HARNESS-DRIVER GND	SNA	D	
5.1-4	JC96-03529A	ELA HOU-EXIT	SA	A	
5.1-5	JC96-03537A	ELA HOU-DRIVE FUSER	SA	A	
5.1-6	JC96-03528A	ELA HOU-DRIVE MAIN	SA	A	
5.1-7	JC66-00994A	CLUTCH-5K Z32	SA	B	
5.1-8	JC61-01367A	FIXER-M_E RING 4PI	SA	A	
5.1-9	JC96-03724A	ELA HOU-FUSER	SA	A	
5.1-10	-	ELA HOU-TONER	SNA	A	Sales
5.1-11	-	ELA HOU-DEVE UNIT	SNA	A	Sales
5.1-12	JC96-03553B	ELA HOU-DADF	SA	A	
5.1-13	JC96-03550B	ELA HOU-PLATEN	SA	A	
5.1-14	JC96-03746B	ELA HOU-BASE FRAME	SNA	A	
5.1-15	JC97-02273B	MEA UNIT-CASSETTE	SA	A	
5.1-16	JC63-00831A	SHIELD-P-BD INVERTER	SNA	A	
5.1-17	JC44-00113A	INVERTER-V1	SA	A	AC110
5.1-17	JC44-00114A	INVERTER-V2	SA	A	AC220
5.1-18	JC61-01309A	PLATE-P-FINISHER F	SNA	D	
5.1-19	JC63-00832A	SHIELD-P-SMPS LOWER	SNA	A	
5.1-20	JC44-00093A	SMPS-PSP_TYPE5_V1	SA	A	AC110
5.1-20	JC44-00100A	SMPS-PSP_TYPE5_V2C	SA	A	AC220
5.1-21	JC44-00103A	HVPS-JUNGFRAU	SA	A	
5.1-22	JC63-00827A	SHIELD-P-MAIN LOWER	SNA	D	
5.1-23	JC61-01310A	PLATE-P-SUPPORT SCAN	SNA	D	
5.1-24	JC63-00791A	GROUND-P-SPRING SCAN	SNA	A	
5.1-25	JC61-01311A	PLATE-P-FINISHER REAR	SNA	D	
5.1-26	JC61-01314A	GUIDE-P-SHIELD SMPS	SNA	D	
5.1-27	JC92-01690B	PBA MAIN-MFP	SA	A	SCX-6345N/XAA
5.1-27	JC92-01690D	PBA MAIN-MFP	SA	A	SCX-6345NJ/XAA
-	JC92-01930A	PBA SUB-JSCRIBE	SA	A	SCX-6345NJ/XAA
5.1-28	JC96-04081B	ELA HOU-FAX; Option Unit	SNA	-	
5.1-29	JC67-00113A	CAP-M_INLET	SNA	D	
5.1-30	JC61-00667A	STOPPER-M-FAN80	SA	A	
5.1-31	4302-001183	BATTERY-NIH(2ND)	SA	A	
5.1-32	JC39-00610A	HARNESS-POWER_SW	SA	D	
5.1-33	JC59-00026A	HDD-DISC_HARD	SA	D	
5.1-34	JC73-00215A	RUBBER-DAMPER HDD	SA	D	
5.1-35	JC61-01389A	HOLDER-M_HDD	SNA	A	
5.1-36	JC96-03969A	SIMM MODULE	SNA	-	
5.1-37	JC96-03659B	ELA HOU-NPC3_HIGH	SA	A	SCX-6345N/XAA

Main Parts List
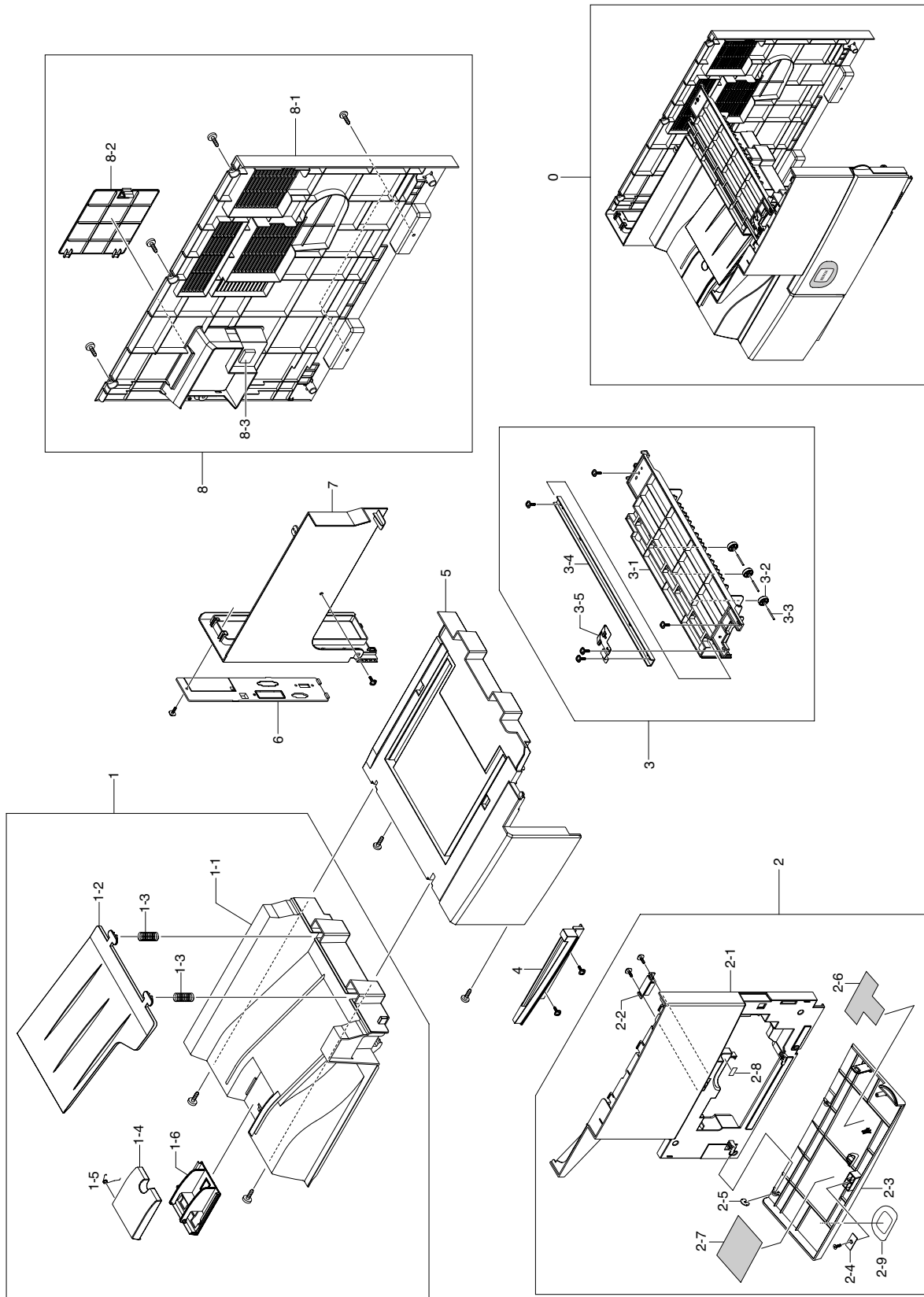
SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.1-37	JC96-03659C	ELA HOU-NPC3_HIGH	SA	A	SCX-6345NJ/XAA
5.1-37	JC96-04115B	ELA UNIT-NPC	SA	A	SCX-6345N/XAA
5.1-37	JC96-04115C	ELA UNIT-NPC	SA	A	SCX-6345NJ/XAA
5.1-38	JC61-01295A	PLATE-M_FEED UPPER	SA	D	
5.1-39	JC96-03557A	ELA HOU-MP	SA	A	
5.1-40	JC97-02260A	MEA UNIT-HOLDER PAD	SA	A	
5.1-40-1	JC61-01415A	GUIDE-M_PAD LOWER	SNA	D	
5.1-40-2	JC61-00013A	SPRING ETC-PAD	SNA	A	
5.1-40-3	JC61-00744A	HOLDER-M-ADF RUBBER UPPER	SNA	B	
5.1-40-4	JC63-01085A	SHEET-GUIDE MP	SNA	D	
5.1-40-5	JB73-00052A	RMO-ADF RUBBER	SA	A	
5.1-40-6	JC73-00079A	RPR-SEAL SIDE	SA	D	
5.1-40-7	JC73-00235A	RUBBER-GUIDE MP	SA	D	
5.1-40-8	JC73-00141A	RPR-PAD CASSETTE	SA	A	
5.1-41	JC97-02285B	MEA UNIT-COVER	SNA	A	SCX-6345N/XAA
5.1-41	JC97-02285C	MEA UNIT-COVER	SNA	A	SCX-6345NJ/XAA
5.1-42	JC96-03525B	ELA HOU-SIDE DUPLEX	SA	D	
5.1-43	JC96-03530B	ELA HOU-SCF; Option Unit	SNA	A	
5.1-44	JC97-02702A	MEA UNIT-ACT FEED	SA	A	
5.1-44-1	JC61-01426A	LEG-M_ACT FEED BASE	SA	D	
5.1-46	JC61-01421A	HOLDER-M_ACT_FEED	SA	D	
5.1-47	6107-001262	SPRING-TS	SNA	A	
5.1-45	JC97-02703A	MEA UNIT-ACT REGI	SA	A	
5.1-45-1	JC61-01408A	LEG-M_ACTUATOR REGI	SA	D	
5.1-46	JC61-01421A	HOLDER-M_ACT_FEED	SA	D	
5.1-47	6107-001262	SPRING-TS	SNA	A	
5.1-48	JC39-00344A	CBF HARNESS-SENSOR_IF	SA	D	
5.1-49	JC39-00546A	HARNESS-FUSER_FR	SA	D	
5.1-51	JC39-00611A	HARNESS-IH_AC	SA	A	
5.1-52	JC39-00460A	HARNESS-SMPS	SA	A	
5.1-53	JC39-00469A	HARNESS-HVPS_IH	SA	A	
5.1-54	JC39-00544A	CBF HARNESS-HVPS(8P)	SA	D	
5.1-55	JC39-00545A	CBF HARNESS-HVPS(3P)	SA	D	
5.1-56	6502-000132	CABLE CLAMP	SA	A	
5.1-57	6502-000132	CABLE CLAMP	SA	A	
5.1-58	6103-000101	SUPPORTER	SNA	A	
5.1-59	JC61-01012A	GUIDE-_M_BUSH HARNESS S	SNA	A	
5.1-60	JC63-00728B	COVER-EXIT BRACKET	SA	A	
5.1-61	JC96-03546C	ELA HOU-OPE	SNA	A	SCX-6345N
5.1-61	JC96-03546V	ELA HOU-OPE	SNA	A	SCX-6345NJ
5.1-62	JC61-01406A	HOLDER-M_LIU	SA	A	
5.1-63	JC63-01050A	COVER-M_BARRIER	SNA	A	
5.1-64	JC67-00164A	CAP-HOLE SCREW	SA	D	

Main Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

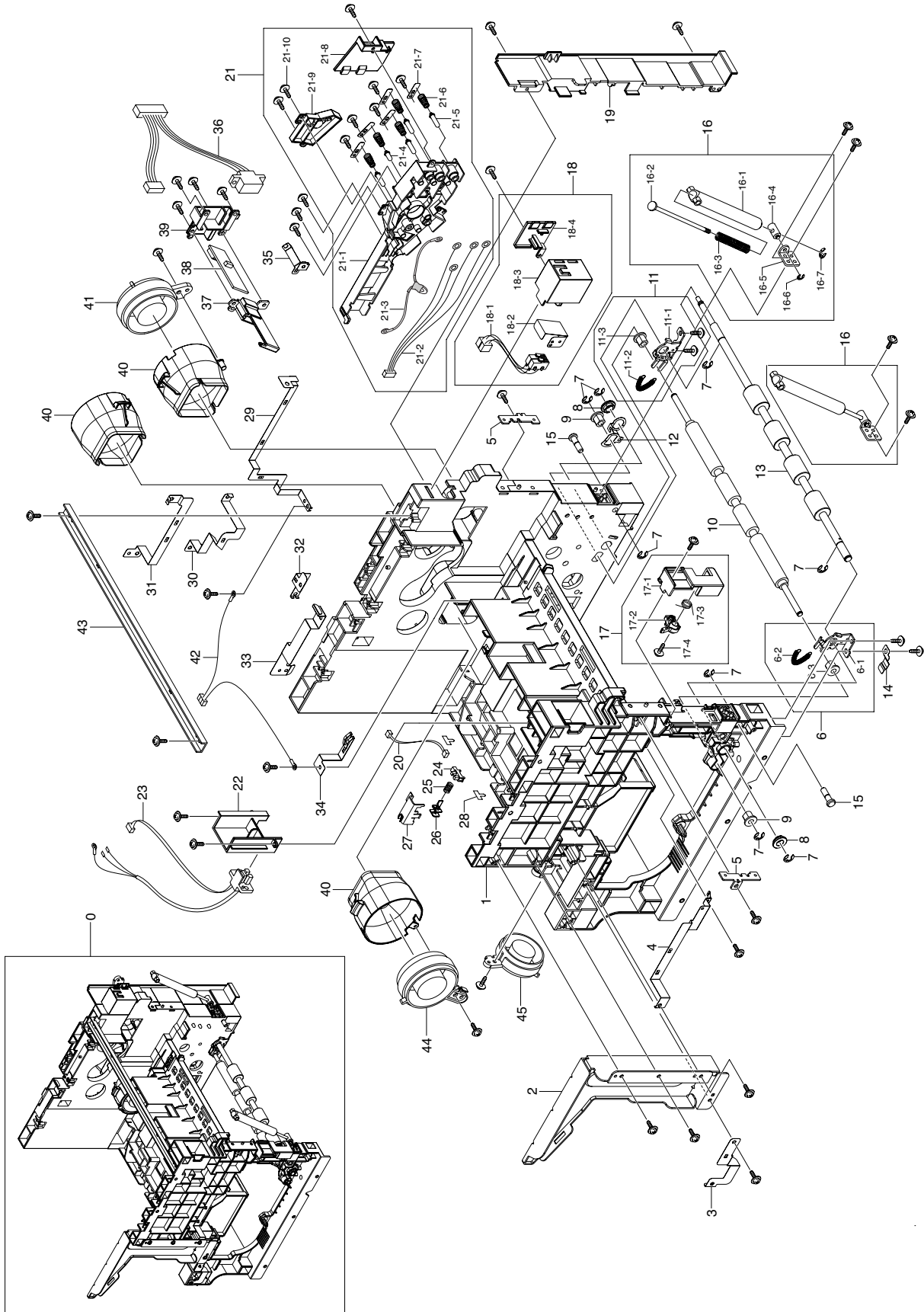| Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.1-65	JC92-01568A	PBA SUB-AIR_TMP	SA	A	
5.1-66	JC96-03150A	ELA HOU-FDI OPTION	SNA	-	
5.1-67	JC92-01543A	PBA SUB-DIMM MODULE	SA	D	
5.1-68	JC39-00511A	CBF HARNESS-HDD	SA	D	
5.1-69	JC92-01698A	PBA ETC-HDD	SA	A	
5.1-70	6045-001009	SPACER-ROUND	SA	D	

5.2 Cover Unit

Cover Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.2-0	JC97-02285B	MEA UNIT-COVER	SNA	A	SCX-6345N
5.2-0	JC97-02285C	MEA UNIT-COVER	SNA	A	SCX-6345NJ
5.2-1	JC97-02258B	MEA UNIT-COVER TOP	SA	A	
5.2-1-1	JC63-00731B	COVER-EXIT REAR	SA	A	
5.2-1-2	JC63-00739B	COVER-GUIDE STACKER	SNA	A	
5.2-1-3	6107-000014	SPRING-CS	SA	A	
5.2-1-4	JC63-00738B	COVER-EXIT STACKER	SNA	A	
5.2-1-5	6107-001262	SPRING-TS	SNA	A	
5.2-1-6	JC63-00737B	COVER-EXIT ST LOWER	SNA	A	
5.2-2	JC97-02706C	MEA UNIT-COVER FRONT	SA	A	
5.2-2-1	JC63-00733B	COVER-FRONT INNER	SNA	A	
5.2-2-2	JC61-00961A	MAGNET-CATCH DELL	SNA	A	
5.2-2-3	JC63-00200B	COVER-FRONT	SA	A	
5.2-2-4	JC61-00962A	PLATE-MAGNET CATCH	SNA	A	
5.2-2-5	6044-000159	RING-C	SA	A	
5.2-2-6	JC68-01622B	LABEL-INSTALLATION	SNA	D	
5.2-2-7	JC68-01622B	LABEL-INSTALLATION	SNA	D	
5.2-2-8	JC68-01694B	LABEL-INSTRUCTION	SNA	B	
5.2-3	JC97-02274B	MEA UNIT-COVER UPPER	SA	A	
5.2-3-1	JC63-00734B	COVER-EXIT UPPER	SNA	A	
5.2-3-2	JC66-01019A	ROLLER-M EXIT DP IDLE	SA	A	
5.2-3-3	JC70-00064A	IPR-PIN ROLLER EXIT	SNA	A	
5.2-3-4	JC61-01353A	BRACKET-P-CHANNEL	SNA	A	
5.2-3-5	JC63-00740A	GROUND-P-OPE	SNA	D	
5.2-4	JC63-00728B	COVER-EXIT BRACKET	SA	A	
5.2-5	JC63-00727B	COVER-EXIT BOTTOM	SA	A	
5.2-6	JC63-00732C	COVER-PANEL MFP	SA	A	SCX-6345N
5.2-6	JC63-00732D	COVER-PANEL MFP	SA	A	SCX-6345NJ
5.2-7	JC63-00731B	COVER-EXIT REAR	SA	A	
5.2-8	JC97-02374B	MEA UNIT-COVER REAR	SA	A	
5.2-8-1	JC63-00729B	COVER-MAIN REAR	SNA	A	
5.2-8-2	JC63-00730B	COVER-REAR DUMMY	SNA	A	
5.2-8-3	JG61-40001A	FOOT-SF4000	SA	A	

5.3 Main Frame

Main Frame Parts List
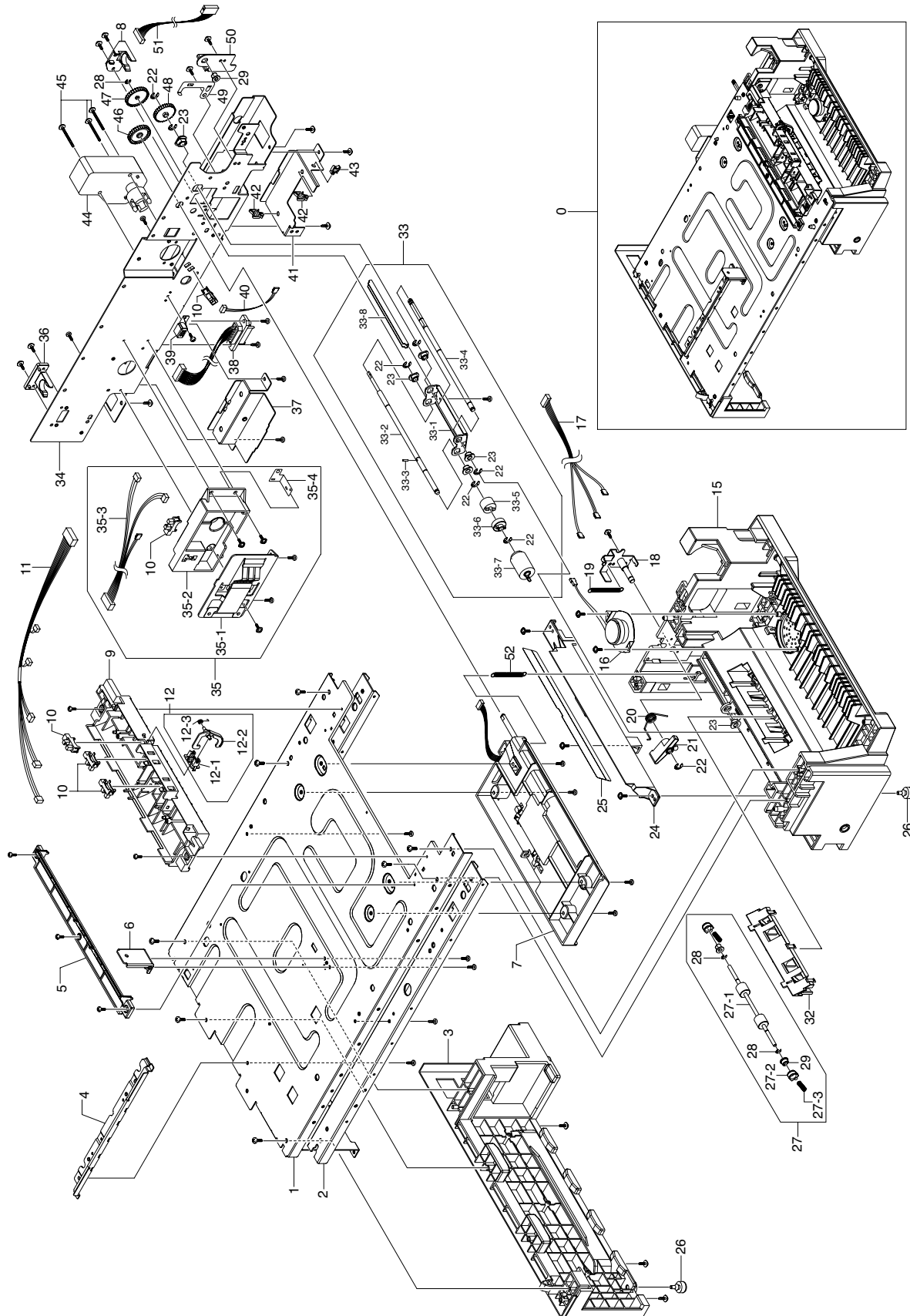
SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.3-0	JC96-03552B	ELA HOU-FRAME MAIN	SA	A	
5.3-1	JC61-01315A	FRAME-M_MAIN	SNA	D	
5.3-2	JC61-01360A	BRACKET-P-SUP SCAN F	SNA	D	
5.3-3	JC63-00801A	GROUND-P-OPE SIDE	SNA	D	
5.3-4	JC63-00802A	GROUND-P-OPC CONTACT	SNA	D	
5.3-5	JC61-01285A	HOLDER-P-FUSER	SNA	D	
5.3-6	JC97-02262A	MEA UNIT-REGI F	SA	A	
5.3-6-1	JC61-01355A	BRACKET-P-REGI F	SNA	D	
5.3-6-2	6107-001257	SPRING-ES	SA	D	
5.3-6-3	JC61-00884A	BUSH-6_D(L)	SNA	A	
5.3-7	6044-000125	RING-E	SA	A	
5.3-8	JC61-00426A	BUSH-8/5	SA	A	
5.3-9	JC61-00423A	BUSH-6_D	SA	A	
5.3-10	JC66-01028A	ROLLER-IDLE REGI	SA	D	
5.3-11	JC97-02261A	MEA UNIT-REGI R	SA	A	
5.3-11-1	JC61-01356A	BRACKET-P-REGI R	SNA	D	
5.3-11-2	6107-001257	SPRING-ES	SA	D	
5.3-11-3	JC61-00884A	BUSH-6_D(L)	SNA	A	
5.3-12	JC63-00804A	GROUND-P-FEED	SNA	D	
5.3-13	JC66-01029A	ROLLER-DR REGI	SA	A	
5.3-14	JC63-00803A	GROUND-P-REGI	SNA	D	
5.3-15	JC66-00960A	SHAFT-DUP GUIDE	SNA	A	
5.3-16	JC97-02301A	MEA UNIT-DAMPER,L	SA	A	
5.3-16-1	JC61-00194A	CASE-DAMPER DUP	SNA	D	
5.3-16-2	JC61-00196A	SHAFT-DAMPER DUP	SNA	D	
5.3-16-3	6107-000014	SPRING-CS	SA	A	
5.3-16-4	JC61-00197A	HINGE-SHAFT DUP	SNA	A	
5.3-16-5	JC61-00310A	BRACKET-L DAMPER DUP	SNA	A	
5.3-16-6	6044-000159	RING-C	SA	A	
5.3-16-7	6044-000125	RING-E	SA	A	
5.3-17	JC97-02263A	MEA UNIT-F DR	SA	A	
5.3-17-1	JC63-00741A	COVER-M_FRONT DUMMY	SNA	D	
5.3-17-2	JC61-01358A	BRACKET-M_SIDE OPEN	SNA	D	
5.3-17-3	JC61-00486A	SPRING ETC-TORSION	SA	A	
5.3-17-4	6003-000221	SCREW-TAPTITE	SNA	D	
5.3-18	JC96-03534A	ELA HOU-CVR OPN	SA	A	
5.3-18-1	JC39-00541A	HARNESS-COVER_SW	SA	D	
5.3-18-2	JC63-00753A	GUARD-P_SW	SNA	A	
5.3-18-3	JC61-01354A	HOUSING-M_SIDE DR SNR	SNA	A	
5.3-18-4	JC63-00760A	COVER-M_SIDE DOOR SNR	SNA	D	
5.3-19	JC61-01316A	FRAME-M_COVER REAR	SNA	D	
5.3-20	JC39-00466A	CBF HARNESS-COVER_EXT	SA	D	
5.3-21	JC96-03535A	ELA HOU-TERMINAL	SA	A	

Main Frame Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.3-21-1	JC61-01357A	HOUSING-M_TERMINAL	SNA	D	
5.3-21-2	JC39-00544A	CBF HARNESS-HVPS(8P)	SA	D	
5.3-21-3	JC96-04056A	ELA HOU-VARISTOR	SA	A	
5.3-21-4	JC70-40912A	ICT-SHAFT HV LARGE	SA	A	
5.3-21-5	JC66-00979A	SHAFT-TERMINAL_16L	SNA	A	
5.3-21-6	JC61-70930A	SPRING ETC-HV SMALL	SA	A	
5.3-21-7	JC61-01330A	PLATE-P-TERMIANL_HV	SNA	A	
5.3-21-8	JC63-00757A	COVER-M_TERMINAL DUP	SNA	D	
5.3-21-9	JC63-00742A	COVER-M_TERMINAL	SNA	D	
5.3-21-10	6003-000221	SCREW-TAPTITE	SNA	D	
5.3-22	JC61-01286A	HOLDER-M_FUSER TERM	SNA	D	
5.3-23	JC39-00546A	HARNESS-FUSER_FR	SA	D	
5.3-24	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.3-25	6107-000014	SPRING-CS	SA	A	
5.3-26	JC61-01361A	LEG-M_BAR FINISHER	SNA	A	
5.3-27	JC63-00830A	COVER-M_ACT	SNA	D	
5.3-28	6502-000132	CABLE CLAMP	SA	A	
5.3-29	JC63-00797A	GROUND-P-P FUSER	SNA	D	
5.3-30	JC63-00789A	GROUND-P-MAIN DRV	SNA	D	
5.3-31	JC63-00790A	GROUND-P-FUSER DRV	SNA	D	
5.3-32	JC63-00798A	GROUND-P-EXIT	SNA	D	
5.3-33	JC63-00800A	GROUND-P-OPE REAR	SNA	D	
5.3-34	JC63-00796A	GROUND-P-H FUSER	SNA	D	
5.3-35	JC63-00799A	GROUND-P-MAIN DRIVE L	SNA	D	
5.3-36	JC39-00646A	HARNESS-DEVE_RF	SA	D	
5.3-37	JC61-01359A	HOUSING-M_COUPLER	SNA	D	
5.3-38	JC92-01862A	PBA-RFID	SA	A	
5.3-39	JC61-01287A	HOLDER-M_DEVE CONN	SNA	D	
5.3-40	JC67-00127A	DUCT-M_FAN LSU	SA	D	
5.3-41	JC31-00025B	FAN-DC	SA	A	
5.3-42	JC39-00545A	CBF HARNESS-HVPS(3P)	SA	D	
5.3-43	JC61-01353A	BRACKET-P-CHANNEL	SNA	A	
5.3-44	JC31-00012B	FAN-DC LSU	SA	D	
5.3-45	JC31-00012C	FAN-DC INVERTER	SA	A	

5.4 Base Frame

Base Frame Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

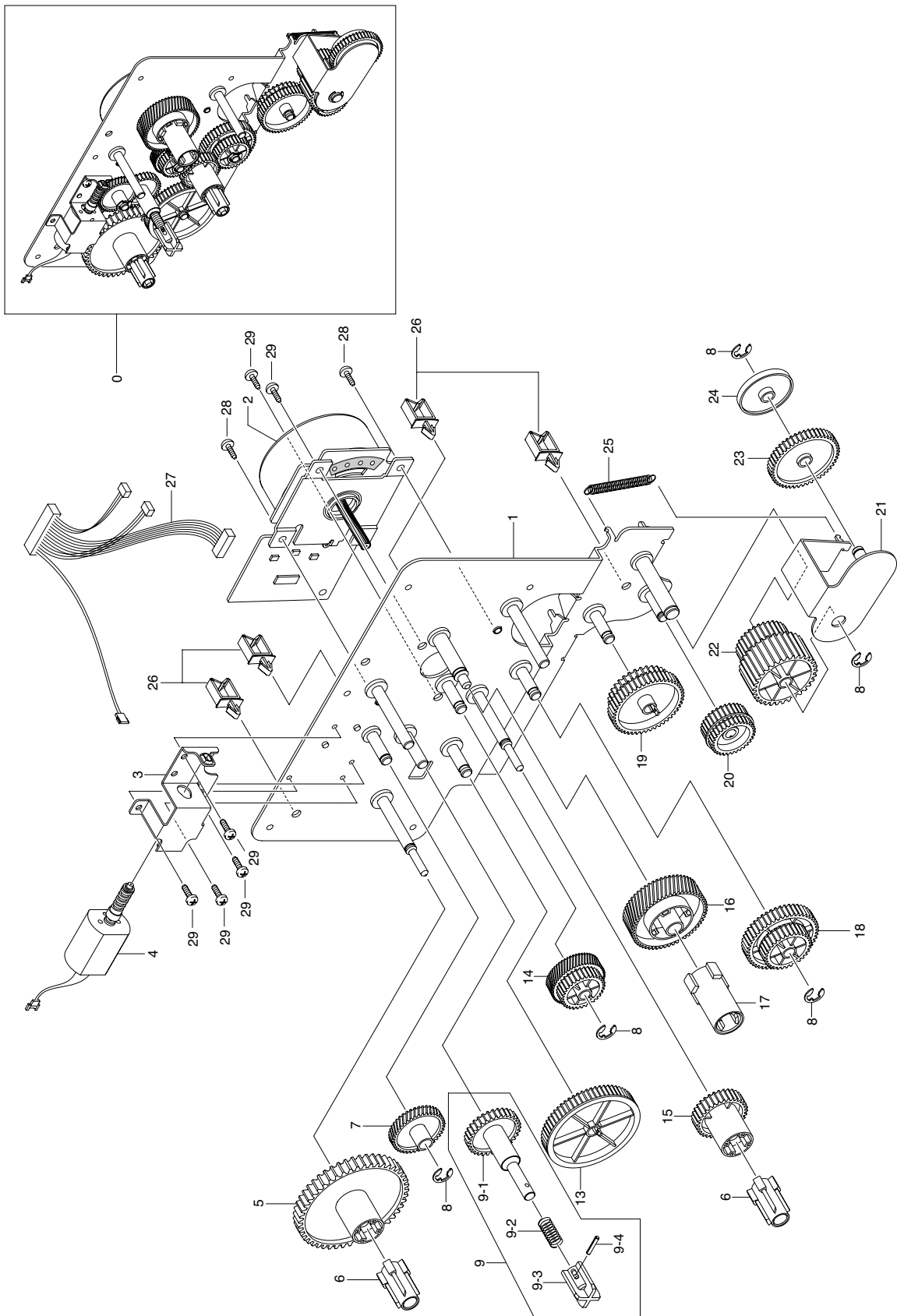| Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.4-0	JC96-03746B	ELA HOU-BASE FRAME	SNA	A	
5.4-1	JC61-01337A	BASE-P-PLATE	SNA	A	
5.4-2	JC61-01312A	PLATE-P-BEAM BASE	SNA	D	
5.4-3	JC61-01342B	HOUSING-BASE LEFT	SNA	A	
5.4-4	JC61-01314A	GUIDE-P-SHIELD SMPS	SNA	D	
5.4-5	JC61-01296A	GUIDE-M_FEED UPPER	SNA	A	
5.4-6	JC61-01347A	BRACKET-P-JOINT BASE	SNA	D	
5.4-7	JC96-03558A	ELA HOU-PICK UP	SA	A	
5.4-8	JC61-01344A	HOLDER-M_CST R	SNA	A	
5.4-9	JC61-01294A	GUIDE-M_FEED DP	SNA	D	
5.4-11	JC39-00512A	CBF HARNESS-REGI	SA	D	
5.4-12	JC97-02704A	MEA UNIT-ACT READY	SNA	A	
5.4-12-1	JC61-01422A	HOLDER-M_ACT READY	SA	A	
5.4-12-2	JC61-01435A	LEG-M_ACT READY DP	SA	A	
5.4-12-3	JB61-00076A	SPRING ETC-TORSION DOC (CC2-F)	SA	D	
5.4-15	JC61-01341B	HOUSING-BASE RIGHT	SA	A	
5.4-16	3001-001858	SPEAKER	SA	D	
5.4-17	JC39-00543A	HARNESS-SPK_MP	SA	D	
5.4-18	JC61-01423A	BRACKET-P-ARM FRIC	SNA	A	
5.4-19	6107-001257	SPRING-ES	SA	D	
5.4-20	6107-001262	SPRING-TS	SNA	A	
5.4-21	JC66-00959A	LEVER-M_ARM FRICTION	SA	D	
5.4-22	6044-000125	RING-E	SA	A	
5.4-23	JC61-00423A	BUSH-6_D	SA	A	
5.4-24	JC61-01313A	GUIDE-M_PICKUP BASE	SNA	D	
5.4-25	JC63-00795A	SHEET-GUIDE FILM BASE	SA	A	
5.4-26	JC61-40001A	FOOT-ML80	SA	A	
5.4-27	JC97-02705A	MEA UNIT-FEED IDLE MP	SA	A	
5.4-27-1	JC66-01027A	ROLLER-RUBBER IDLE	SNA	D	
5.4-27-2	JC61-01434A	HOLDER-M_BUSHING IDLE	SNA	D	
5.4-27-3	JC61-00046A	SPRING ETC-TR R HAWK	SNA	D	
5.4-28	6044-000159	RING-C	SA	A	
5.4-29	JC61-00424A	BUSH-4	SA	A	
5.4-32	JC61-01297A	GUIDE-M_FEED IDLE MP	SA	A	
5.4-33	JC97-02290A	MEA UNIT-RETARD	SA	A	
5.4-33-1	JC61-01348A	BRACKET-P-RETARD	SNA	D	
5.4-33-2	JC66-00937A	SHAFT-RETARD S	SA	A	
5.4-33-3	JC66-00939A	SHAFT-LOCK	SA	A	
5.4-33-4	JC66-00938A	SHAFT-RETARD M	SNA	D	
5.4-33-5	JC67-00126A	COUPLER-TORQUELIMITER	SA	D	
5.4-33-6	JC66-00976A	JOINT-M_RETARD	SA	D	
5.4-33-7	JC97-02259A	MEA UNIT-ROLLER PU	SA	A	
5.4-33-8	JC61-01349A	BRACKET-P-BAR RETARD	SNA	D	

Base Frame Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

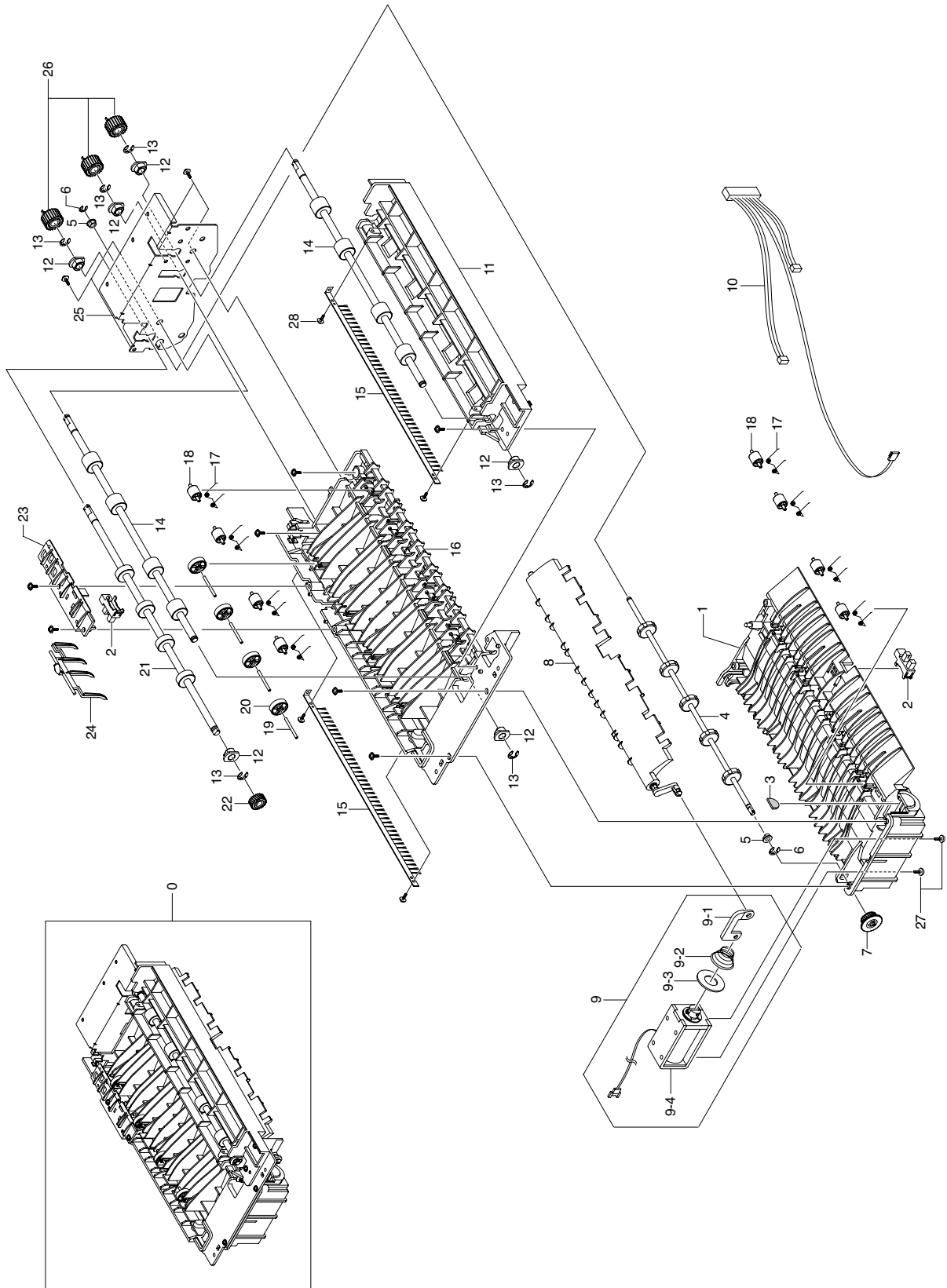| Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.4-34	JC61-01338A	BASE-P-PLATE REAR	SNA	A	
5.4-35	JC96-03735A	ELA HOU-SIZE SENSOR	SA	A	
5.4-35-1	JC96-02127A	ELA HOU-CST SENSOR HAWK16	SA	A	
5.4-35-2	JC61-01343A	HOUSING-M_SIZE SENSOR	SA	D	
5.4-35-3	JC39-00467A	HARNESS-TRAY_SIZE	SA	D	
5.4-35-4	JC63-00794A	GROUND-P-PAPER SIZE	SA	A	
5.4-10	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.4-36	JC61-01345A	HOLDER-M_CST L	SNA	A	
5.4-37	JC61-01340A	BRACKET-P_HANDLE L	SNA	D	
5.4-38	JC39-00472A	HARNESS-SCF_MAIN	SA	D	
5.4-39	JC70-11028A	IPR-GROUND TOP	SA	A	
5.4-40	JC37-00554A	CBF HARNESS-NEAR SEN	SNA	D	
5.4-41	JC61-01436A	BRACKET-P_HANDLE R	SNA	D	
5.4-42	6502-000132	CABLE CLAMP	SA	A	
5.4-43	6502-000132	CABLE CLAMP	SA	A	
5.4-44	JC31-00045A	MOTOR GEARED-P LIFT	SA	A	
5.4-46	JC66-00974A	GEAR-M_FORWARD	SA	D	
5.4-47	JC66-00975A	GEAR-M_RETARD	SA	D	
5.4-48	JC66-00973A	GEAR-M_PICKUP IDLE B	SA	D	
5.4-49	JC63-00833A	GROUND-P-SHAFT RETARD	SA	A	
5.4-50	JC61-01346A	HOLDER-P-MP FEED	SNA	D	
5.4-51	JC39-00468A	HARNESS-DUPLX_MAN	SA	D	
5.4-52	6107-001257	SPRING-ES	SA	D	

5.5 Main Drive

Main Drive Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.5-0	JC96-03528A	ELA HOU-DRIVE MAIN	SA	A	
5.5-1	JC61-01368A	BRACKET-P-MAIN	SNA	D	
5.5-2	JC31-00038A	MOTOR DC-MAIN(BLDC)	SA	D	
5.5-3	JC61-01370A	BRACKET-P-TONER MOTOR	SNA	A	
5.5-4	-	ELA HOU-TONER DRIVE	SNA	B	Sales
5.5-5	JC66-00986A	GEAR-M_AGITATOR	SA	D	
5.5-6	JC72-00743A	PMO-DEV/COUPLING	SA	D	
5.5-7	JC66-00993A	GEAR-M_SUPPLY IDLE	SA	D	
5.5-8	6044-000125	RING-E	SA	A	
5.5-9	JC97-02681A	MEA UNIT-GEAR SUPPLY	SA	A	
5.5-9-1	JC66-00992A	GEAR-M_SUPPLY	SNA	D	
5.5-9-2	JC61-00396A	SPRING ETC-COIL CONTAINER	SA	D	
5.5-9-3	JC72-00621A	JOINT-COUPLING_CONTAINER	SA	D	
5.5-9-4	6043-001028	PIN-SPRING	SA	D	
5.5-13	JC66-00989A	GEAR-M_AGI IDLE	SA	D	
5.5-14	JC66-00983A	GEAR-M_REGI IDLE A	SA	D	
5.5-15	JC66-00985A	GEAR-M_MIXER	SA	D	
5.5-16	JC66-00982A	GEAR-M_OPC BASE	SA	D	
5.5-17	JC67-00115A	OTHER MECHA-M CPL OPC	SA	D	
5.5-18	JC66-00984A	GEAR-M_REGI IDLE B	SA	D	
5.5-19	JC66-00987A	GEAR-M_PICKUP IDLE A	SA	D	
5.5-20	JC66-00988A	GEAR-M_MP IDLE A	SA	D	
5.5-21	JC61-01369A	BRACKET-P-DPX SWING	SNA	A	
5.5-22	JC66-00990A	GEAR-M_MP IDLE B	SA	D	
5.5-23	JC66-00991A	GEAR-M_DUPLEX IDLE	SA	D	
5.5-24	JC67-00116A	OTHER MECHA-M COLLAR DP	SNA	D	
5.5-25	JC61-70950A	SPRING ETC-EXTENSION	SA	A	
5.5-26	6502-000132	CABLE CLAMP	SA	A	
5.5-27	JC39-00475A	HARNESS-MOTOR	SA	D	
5.5-28	6003-000221	SCREW-TAPTITE	SNA	D	
5.5-29	6003-000221	SCREW-TAPTITE	SNA	D	

5.6 Exit Drive
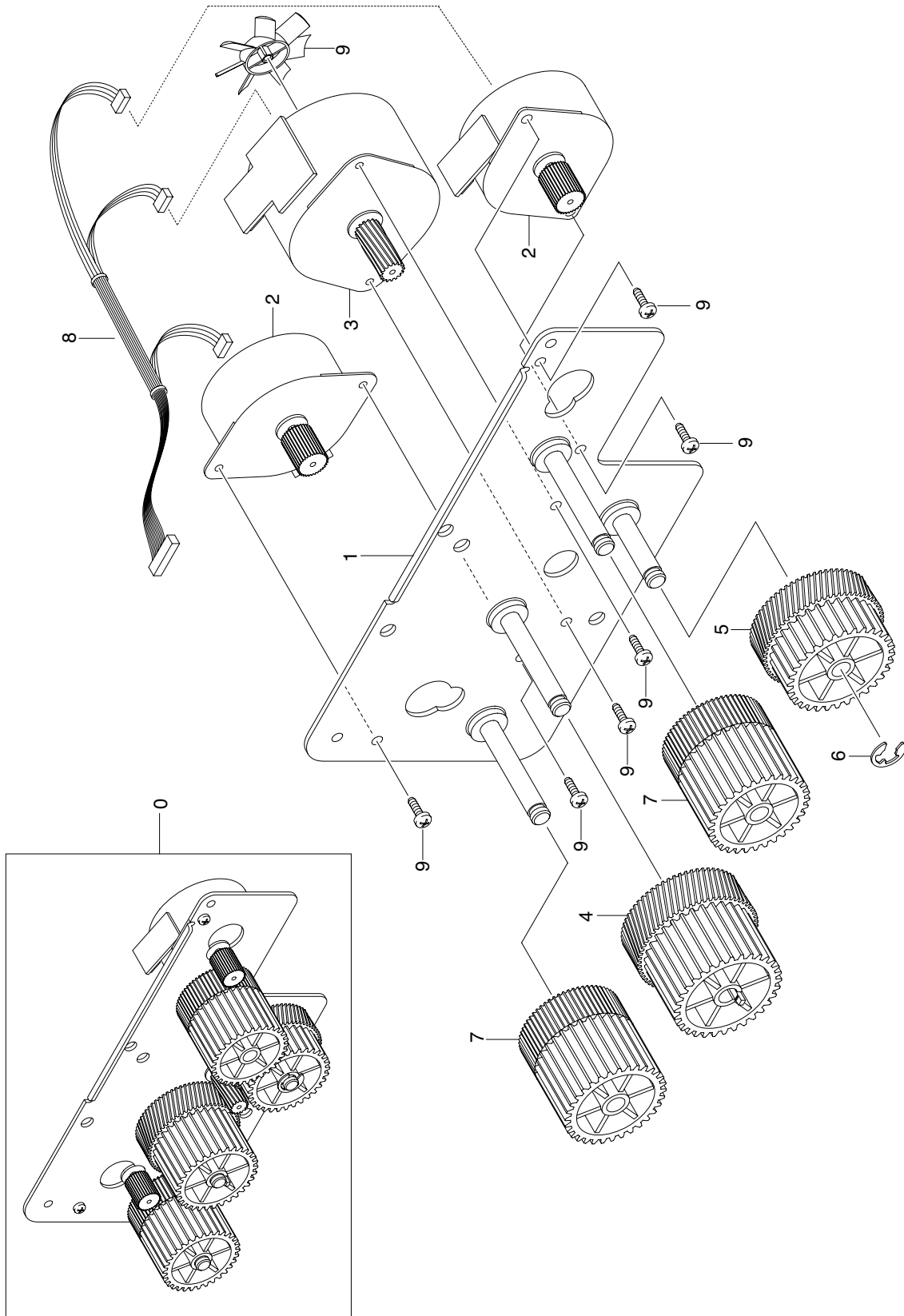
Exit Drive Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.6-0	JC96-03537A	ELA HOU-DRIVE FUSER	SA	A	
5.6-1	JC61-01371A	BRACKET-P-FUSER EXIT	SNA	D	
5.6-2	JC31-00043A	MOTOR STEP-SCAN	SA	D	
5.6-3	JC31-00020B	MOTOR STEP-MAIN	SA	D	
5.6-4	JC66-00996A	GEAR-M_EXIT IDLE A	SA	D	
5.6-5	JC66-00995A	GEAR-M_FUSER IDLE A	SA	D	
5.6-6	6044-000125	RING-E	SA	A	
5.6-7	JC66-00997A	GEAR-M_EXIT IDLE C	SA	D	
5.6-8	JC39-00470A	CBF HARNESS-MOTOR_STP	SA	D	
5.6-9	6003-000221	SCREW-TAPTITE	SNA	D	

5.7 Exit Ass'y

Exit Ass'y Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

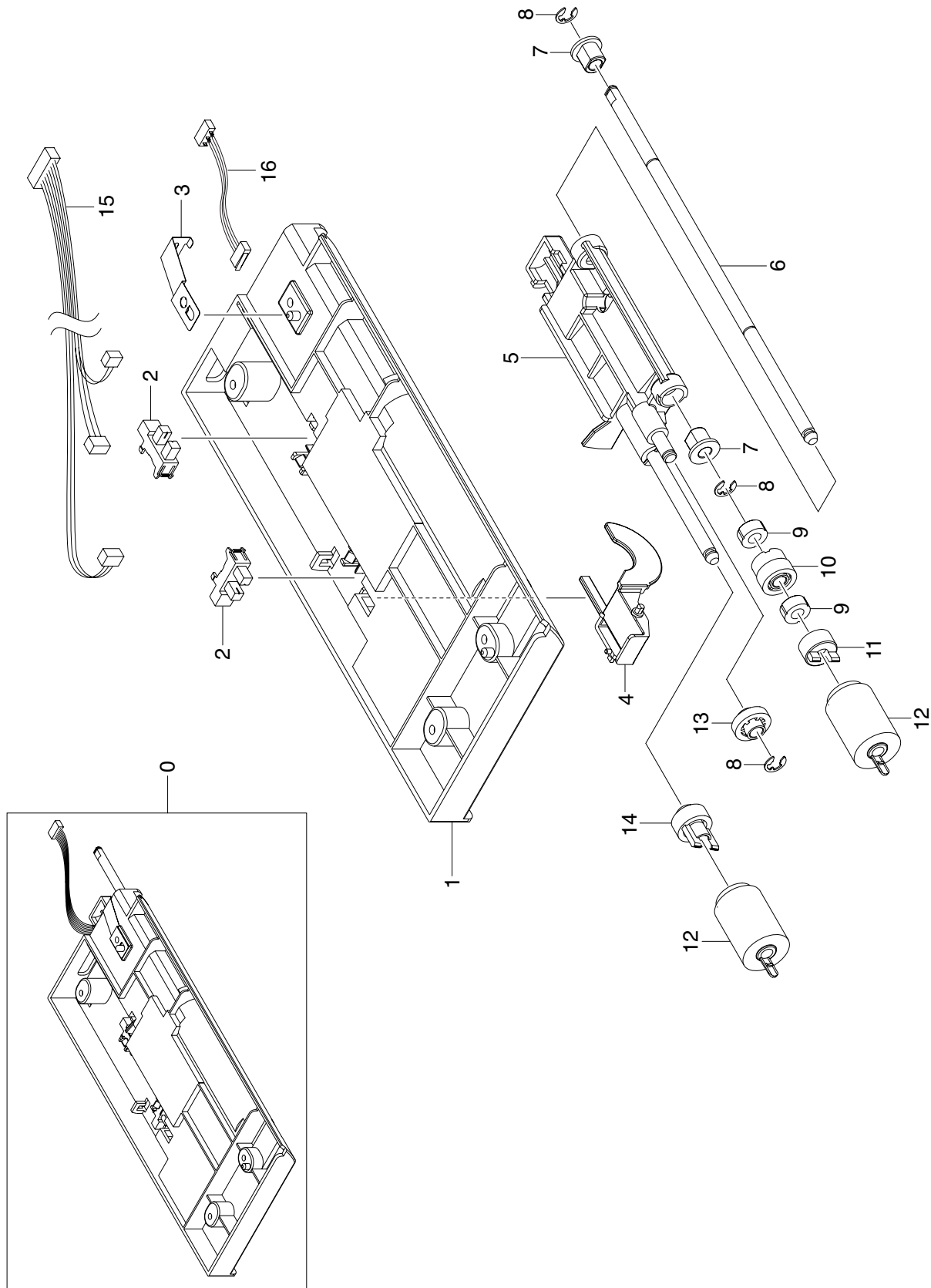| Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.7-0	JC96-03529A	ELA HOU-EXIT	SA	A	
5.7-1	JC61-01302A	GUIDE-M_EXIT LOWER	SNA	D	
5.7-2	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.7-3	JC63-00821A	ABSORBER-DAMPER S	SNA	D	
5.7-4	JC66-01016A	ROLLER-EXIT_LOWER	SNA	A	
5.7-5	JC61-00424A	BUSH-4	SA	A	
5.7-6	6044-000159	RING-C	SA	A	
5.7-7	JC66-01018A	GEAR-M_EXIT LOWER	SA	D	
5.7-8	JC67-00122A	OTHER MECHA-M GATE DP	SA	D	
5.7-9	JC96-03749A	ELA HOU-SOLENOID DP	SA	A	
5.7-9-1	JC61-01332A	GUIDE RAIL-M LINK GATE	SNA	D	
5.7-9-2	JC61-70915A	SPRING ETC-SOLENOID DP	SA	A	
5.7-9-3	JC63-00820A	ABSORBER-DAMPER L	SNA	D	
5.7-9-4	JC33-00008C	SOLENOID-DUPLEX JF	SA	D	
5.7-10	JC39-00471A	HARNESS-EXIT	SA	D	
5.7-11	JC61-01303A	GUIDE-M_EXIT DUPLEX	SNA	D	
5.7-12	JC61-00423A	BUSH-6_D	SA	A	
5.7-13	6044-000125	RING-E	SA	A	
5.7-14	JC66-01014A	ROLLER-EXIT DRV	SNA	A	
5.7-15	JC67-00125A	BRUSH-EXIT	SA	D	
5.7-16	JC61-01301A	GUIDE-M_EXIT UPPER	SNA	D	
5.7-17	6107-001262	SPRING-TS	SNA	A	
5.7-18	JC66-01013A	ROLLER-M IDLE JF	SA	A	
5.7-19	JC70-00064A	IPR-PIN ROLLER EXIT	SNA	A	
5.7-20	JC66-01019A	ROLLER-M EXIT DP IDLE	SA	A	
5.7-21	JC66-01015A	ROLLER-EXIT UPPER	SNA	D	
5.7-22	JC66-01017A	GEAR-M_EXIT UPPER	SA	D	
5.7-23	JC61-01392A	HOLDER-M_ACT OUTBIN	SNA	D	
5.7-24	JC61-01391A	LEG-M LIMIT STACKING	SA	A	
5.7-25	JC61-01393A	BRACKET-P-EXIT	SNA	A	
5.7-26	JC66-01012A	GEAR-M_EXIT	SA	D	
5.7-27	6003-000221	SCREW-TAPTITE	SNA	D	
5.7-28	6003-000221	SCREW-TAPTITE	SNA	D	

5.8 Fuser
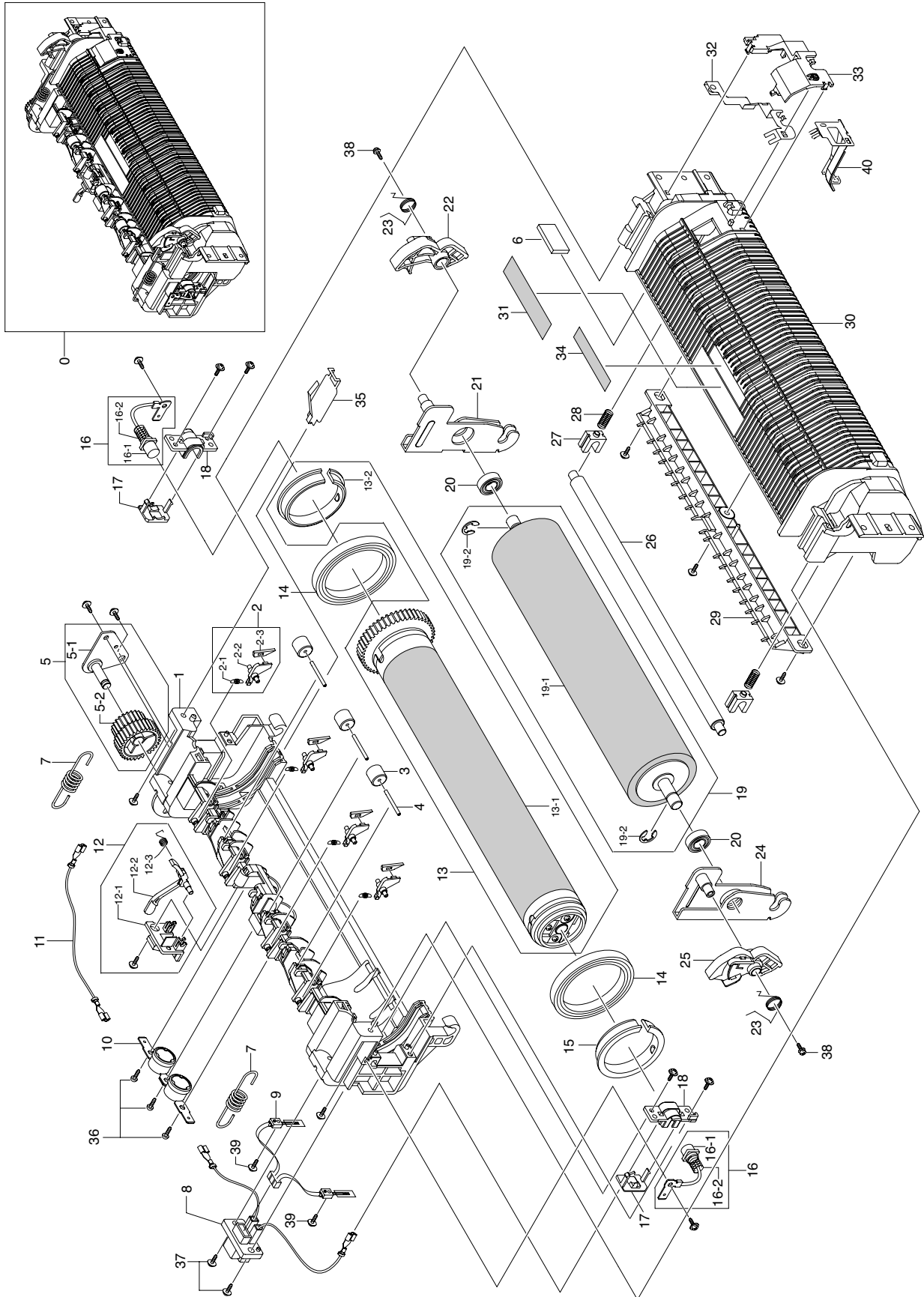
Fuser Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.8-0	JC96-03724A	ELA HOU-FUSER	SA	A	
5.8-1	JC63-00756A	COVER-M UPPER FUSER	SNA	D	
5.8-2	JC97-02294A	MEA UNIT-CLAW	SA	A	
5.8-2-1	6107-001257	SPRING-ES	SA	D	
5.8-2-2	JC61-01383A	HOLDER-M_CLAW	SNA	D	
5.8-2-3	JC67-00121A	OTHER MECHA-FINGER	SNA	D	
5.8-3	JC72-20902A	PEX-ROLLER F/UP(2)	SA	A	
5.8-4	JC70-00064A	IPR-PIN ROLLER EXIT	SNA	A	
5.8-5	JC97-02680A	MEA-BRACKET FUSER	SA	A	
5.8-5-1	JC61-01388A	BRACKET-P-FUSER GEAR	SNA	D	
5.8-5-2	JC66-01011A	GEAR-M DRV Z2228	SA	D	
5.8-7	6107-001257	SPRING-ES	SA	D	
5.8-8	JC39-00618A	HARNESS-FUSER_FU	SA	D	
5.8-9	1404-001355	THERMISTOR-NTC ASSY	SA	A	
5.8-10	4712-001028	THERMOSTAT	SA	A	
5.8-11	JC39-00551A	HARNESS-FUSER_AC	SA	D	
5.8-12	JC97-02288A	MEA UNIT-ACTUATOR	SA	A	
5.8-12-1	JC61-01385A	HOLDER-ACTUATOR	SNA	D	
5.8-12-2	JC61-01384A	LEG-M ACTUATOR EXIT	SNA	D	
5.8-12-3	JC61-00019A	SPRING ETC-ACT, FEED	SA	D	
5.8-13	JC97-02282A	MEA UNIT-ROLLER HEAT	SA	A	
5.8-13-1	JC97-02289A	MEA UNIT-IHR	SNA	D	
5.8-13-2	JC61-01439A	BUSH-M H/R JF	SA	D	
5.8-14	6601-001341	BEARING-BALL	SA	A	
5.8-15	JC61-01439A	BUSH-M H/R JF	SA	D	
5.8-16	JC97-02272A	MEA UNIT-CARBON BRUSH	SA	A	
5.8-16-1	JC61-01331A	PLATE-P-TERMINAL CARBON	SNA	D	
5.8-16-2	6107-000014	SPRING-CS	SA	A	
5.8-17	JC63-00762A	COVER-M_BRUSH LWR	SNA	D	
5.8-18	JC63-00763A	COVER-M_BRUSH UPR	SNA	D	
5.8-19	JC97-02283A	MEA UNIT-ROLLER PR	SA	A	
5.8-19-1	JC66-01036A	ROLLER-PRESSURE JF	SNA	D	
5.8-19-2	6044-000125	RING-E	SA	A	
5.8-20	6601-001341	BEARING-BALL	SA	A	
5.8-21	JC61-01386A	BRACKET-P-PR R	SNA	D	
5.8-22	JC66-01033A	LEVER-M JAM R	SNA	D	
5.8-23	6107-001262	SPRING-TS	SNA	A	
5.8-24	JC61-01387A	BRACKET-P-PR L	SNA	D	
5.8-25	JC66-01034A	LEVER-M JAM L	SNA	D	
5.8-26	JC66-01152A	SHAFT-CLEANING PR	SNA	D	
5.8-27	JC66-10205A	BEARING-PRESSURE R	SA	D	
5.8-28	JC61-00013A	SPRING ETC-PAD	SNA	A	
5.8-29	JC61-01419A	GUIDE-M_INPUT JF	SNA	D	

Fuser Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.8-30	JC63-00755A	COVER-M LOWER FUSER	SNA	D	
5.8-31	JC68-01581A	LABEL(P)-CAUTION HOT	SNA	B	
5.8-32	JC63-00819A	GROUND-P-PR	SNA	D	
5.8-33	JC63-00761A	COVER-M_GROUND	SNA	D	
5.8-34	JC68-01134A	LABEL(P)-BLANK(FUSER)	SNA	A	
5.8-35	JC63-00818A	GROUND-P-HR	SNA	D	
5.8-36	6002-000440	SCREW-TAPPING	SA	A	
5.8-37	6003-000221	SCREW-TAPTITE	SNA	D	
5.8-38	6001-000130	SCREW-MACHINE	SA	A	
5.8-39	6003-000221	SCREW-TAPTITE	SNA	D	
5.8-40	JC63-01175A	GROUND-PR2	SNA	D	

5.9 Pick Up Ass'y

Pick Up Ass'y Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.9-1	JC61-01298A	FRAME-M_BASE PICK UP	SNA	D	
5.9-3	JC63-00743A	GROUND-P-SHAFT PU	SNA	D	
5.9-4	JC61-01350A	LEG-M_ACT NO PAPER	SNA	A	
5.9-5	JC61-01299A	GUIDE-M_UPPER PICK UP	SNA	A	
5.9-6	JC66-00942A	SHAFT-PICK UP	SNA	D	
5.9-7	JC61-00884A	BUSH-6_D(L)	SNA	A	
5.9-8	6044-000125	RING-E	SA	A	
5.9-9	JC66-00977A	CLUTCH-P_ONE WAY	SA	B	
5.9-10	JC66-00941A	GEAR-M_ONE WAY	SA	D	
5.9-11	JC61-01288A	HOLDER-M_IDLE ONE WAY	SA	A	
5.9-12	JC97-02259A	MEA UNIT-ROLLER PU	SA	A	
5.9-13	JC66-00940A	GEAR-M_IDLE PU	SA	D	
5.9-14	JC66-00943A	GEAR-M_PU JOINT	SA	D	
5.9-15	JC39-00462A	HARNESS-SCF_EMPTY	SA	D	
5.9-16	JC39-00477A	HARNESS-MOTOR_SW	SA	D	

5.10 Side Duplex
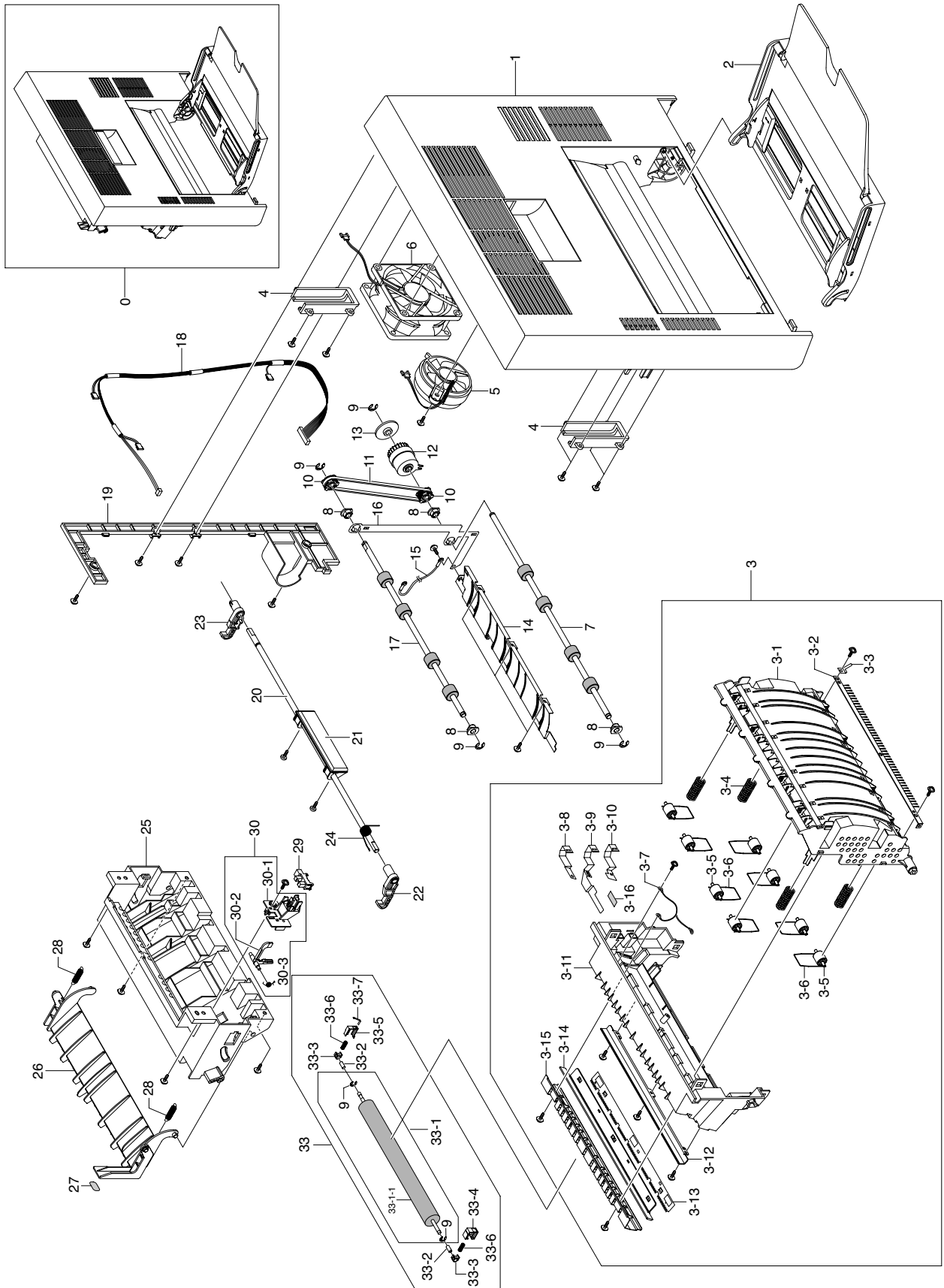
Side Duplex Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.10-0	JC96-03525B	ELA HOU-SIDE DUPLEX	SA	D	
5.10-1	JC63-00775B	COVER-SIDE	SA	A	
5.10-2	JC97-02264B	MEA UNIT-TRAY	SA	A	
5.10-3	JC96-03532A	ELA HOU-DUPLEX	SA	A	
5.10-3-1	JC61-01293A	GUIDE-M_DUPLEX	SNA	D	
5.10-3-2	JC67-00125A	BRUSH-EXIT	SA	D	
5.10-3-3	JC63-00785A	GROUND-P-BRUSH	SNA	D	
5.10-3-4	JC61-70959A	SPRING ETC-SPRING ETC FEED	SA	D	
5.10-3-5	JC66-01013A	ROLLER-M IDLE JF	SA	A	
5.10-3-6	JC65-00012A	TERMINAL-S_IDLE	SA	A	
5.10-3-7	JC39-00187A	CBF HARNESS-ADF ROLLER GND	SA	D	
5.10-3-8	JC63-00786A	GROUND-P-GND	SNA	D	
5.10-3-9	JC63-00788A	GROUND-P-SAW	SNA	D	
5.10-3-10	JC63-00787A	GROUND-P-TR	SNA	D	
5.10-3-11	JC61-01292A	GUIDE-M_FEED	SNA	D	
5.10-3-12	JC61-01291A	GUIDE-P-EARTH TR	SNA	D	
5.10-3-13	JC70-10232D	IPR-E-PLATE SAW(MCK2)	SA	D	
5.10-3-14	JC61-01407A	HOLDER-M_SAW	SNA	D	
5.10-3-15	JC61-01290A	GUIDE-P-TR	SNA	D	
5.10-3-16	0203-001778	TAPE-DOUBLE FACE	SNA	D	
5.10-4	JC61-00175A	BRACKET-COVER DUP	SNA	D	
5.10-5	JC31-00025B	FAN-DC	SA	A	
5.10-6	JC31-00012C	FAN-DC INVERTER	SA	A	
5.10-7	JC66-00970A	ROLLER-DUPLEX READY	SA	A	
5.10-8	JC61-00423A	BUSH-6_D	SA	A	
5.10-9	6044-000125	RING-E	SA	A	
5.10-10	JC66-00971A	PULLEY-M_DUPLEX	SA	D	
5.10-11	6602-001092	BELT-TIMING GEAR	SA	B	
5.10-12	JC66-00972A	CLUTCH-2.5K Z24	SA	B	
5.10-13	JC67-00116A	OTHER MECHA-M COLLAR DP	SNA	D	
5.10-14	JC61-01334A	BRACKET-P-DUPLEX	SNA	D	
5.10-15	JB39-00103A	CBF HARNESS-LIU GND	SA	D	
5.10-16	JC63-00784A	GROUND-P-DUPLEX	SNA	D	
5.10-17	JC66-00969A	ROLLER-DUPLEX	SA	D	
5.10-18	JC39-00474A	HARNESS-DUPLEX	SA	D	
5.10-19	JC67-00112A	CAP-M_SIDE	SNA	D	
5.10-20	JC66-00935A	SHAFT-HANDLE	SNA	D	
5.10-21	JC64-00205B	HANDLE-SIDE	SNA	A	
5.10-22	JC64-00198A	LOCKER-M_FRONT	SA	A	
5.10-23	JC64-00199A	LOCKER-M_REAR	SA	A	
5.10-24	JC61-00479A	SPRING ETC-LOCKER TORSION	SA	D	
5.10-25	JC61-01289A	GUIDE-M_SIDE	SNA	A	
5.10-26	JC61-01308A	GUIDE-M_EXIT	SNA	D	

Side Duplex Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.10-27	JC68-01246B	LABEL(R)-GUIDE_DUPLEX	SNA	D	
5.10-28	JC61-70910A	SPRING ETC-RAIL	SA	A	
5.10-29	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.10-30	JC97-02687A	MEA-ACTUATOR_DUPLEX	SA	A	
5.10-30-1	JC61-01335A	HOLDER-M_ACTUATOR DP	SA	A	
5.10-30-2	JC61-01336A	LEG-M_ACTUATOR DUPLEX	SA	A	
5.10-30-3	JC61-00019A	SPRING ETC-ACT, FEED	SA	D	
5.10-33	JC97-02287A	MEA UNIT-TR	SA	A	
5.10-33-1	JC97-02375A	MEA UNIT-TR SUB	SA	A	
5.10-33-1-1	JC66-01023A	ROLLER-TRANSFER	SA	D	
5.10-33-1-2	6044-000125	RING-E	SA	A	
5.10-33-2	JC61-01694A	BUSH-46D	SA	D	
5.10-33-3	JC72-40228A	PMO-BUSH	SA	D	
5.10-33-4	JC72-00884A	PMO-HOLDER GEAR TR	SA	D	
5.10-33-5	JC72-00883A	PMO-HOLDER GND TR	SA	D	
5.10-33-6	JC61-70906A	SPRING ETC-TR_R	SA	A	
5.10-33-7	JC61-70203A	SPRING ETC-PLATE TR	SA	D	

5.11 MP Unit
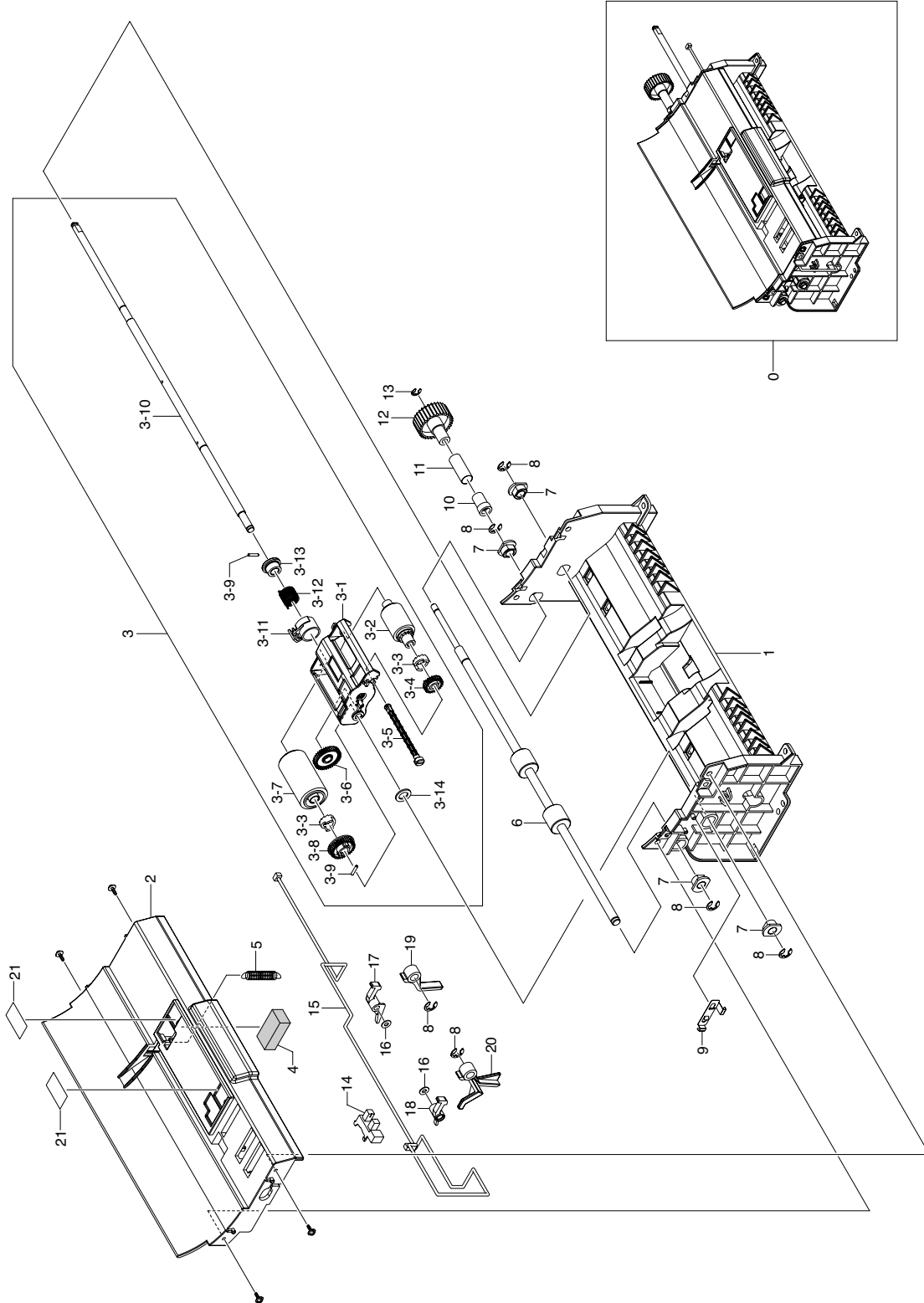
MP Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.11-0	JC96-03557A	ELA HOU-MP	SA	A	
5.11-1	JC61-01351A	FRAME-M_MP LOWER	SNA	D	
5.11-2	JC61-01352A	FRAME-M_MP TOP	SNA	D	
5.11-3	JC96-03533A	ELA HOU-MP PICK UP	SA	A	
5.11-3-1	JC61-01410A	GUIDE-M_PICKUP DOC	SNA	B	
5.11-3-2	JB75-00300A	MEC-PICK UP ROLLER ASSY	SA	A	
5.11-3-3	JB72-00845A	PMO-PICK UP CLUTCH SUB	SA	A	
5.11-3-4	JB66-00105A	GEAR-PICK UP 26	SA	A	
5.11-3-5	JC72-00744A	PMO-SHAFT PICK UP	SA	A	
5.11-3-6	JB66-00102A	GEAR-PICK UP IDEL 38	SA	A	
5.11-3-7	JB75-00299A	MEC-ADF ROLLER ASSY	SA	A	
5.11-3-8	JB66-00104A	GEAR-ADF IDLE 34	SA	A	
5.11-3-9	JB70-00168A	ICT-PIN ADF	SA	A	
5.11-3-10	JC66-00978A	SHAFT-PICK UP MP	SNA	D	
5.11-3-11	JB72-00821A	PMO-ADF COLAR	SA	A	
5.11-3-12	JB61-70904A	SPRING ETC-CLUTCH	SA	A	
5.11-3-13	JC61-00750A	BUSH-M-ADF CLUTCH	SA	D	
5.11-3-14	6031-000019	WASHER-PLAIN	SA	A	
5.11-4	JC72-01375A	SPONGE-DAMPER MP	SNA	D	
5.11-5	6107-001257	SPRING-ES	SA	D	
5.11-6	JC66-01026A	ROLLER-MP DRV	SNA	D	
5.11-7	JC61-00423A	BUSH-6_D	SA	A	
5.11-8	6044-000125	RING-E	SA	A	
5.11-9	JC63-00744A	GROUND-P-MP	SNA	D	
5.11-10	JG72-40732A	PMO-BUSHING HOLDER	SNA	D	
5.11-11	JG70-40534A	ICT-SPRING CLUTCH	SA	D	
5.11-12	JC66-00936A	GEAR-M_MP FEED	SA	D	
5.11-13	6044-000159	RING-C	SA	A	
5.11-14	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.11-15	JC39-00473A	CBF HARNESS-LIMIT_EMT	SA	D	
5.11-16	6031-000019	WASHER-PLAIN	SA	A	
5.11-17	JC66-00958B	LATCH-M_ARM REAR	SNA	D	
5.11-18	JC66-00958A	LATCH-M_ARM FRT	SNA	A	
5.11-19	JC61-01307B	STOPPER-M_PAPER REAR	SNA	A	
5.11-20	JC61-01307A	STOPPER-M_PAPER FRT	SNA	D	
5.11-21	JB63-00058A	SHEET-FILM ASF	SNA	A	

5.12 MP Tray
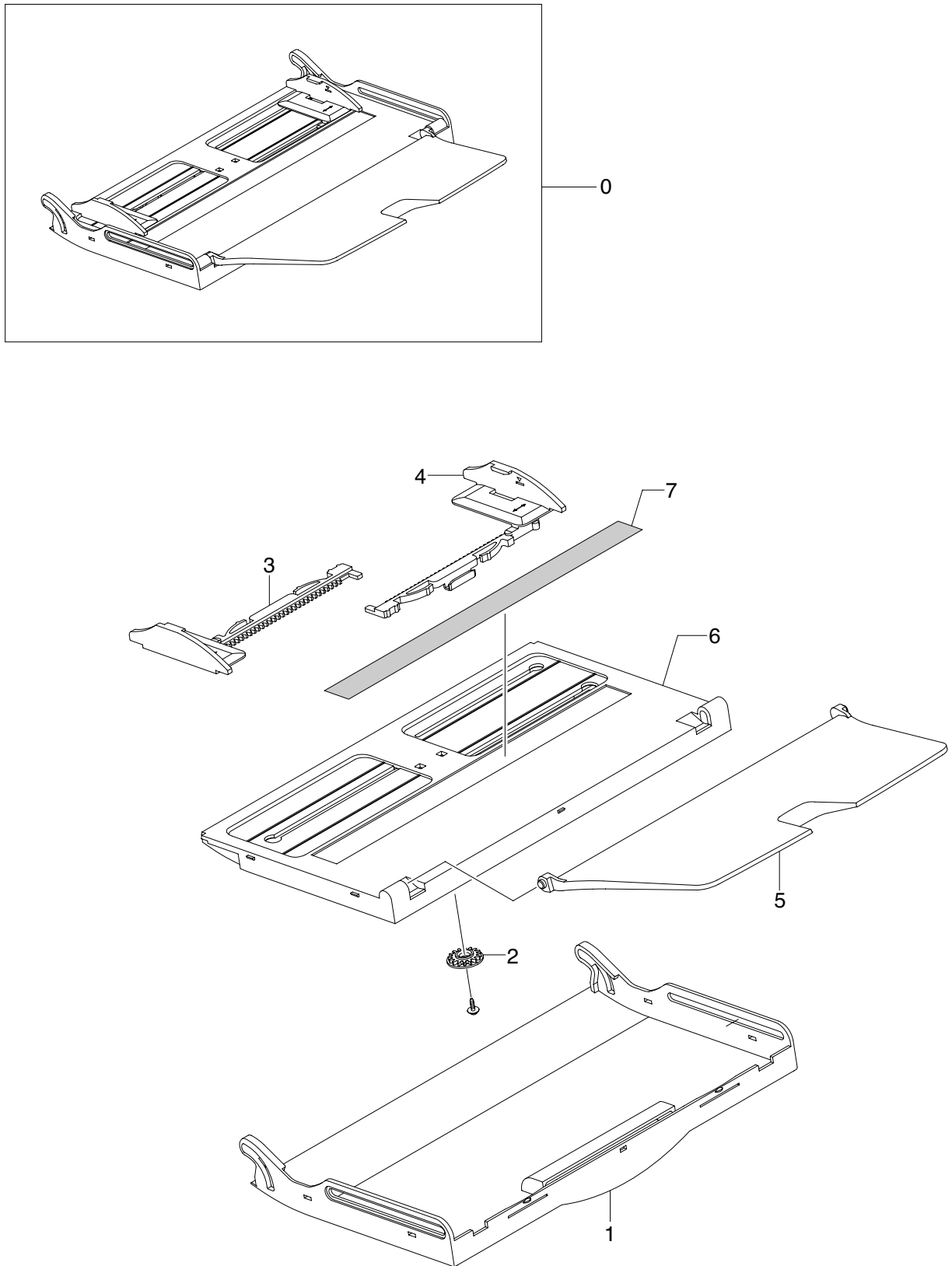
MP Tray Parts List

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.12-0	JC97-02264B	MEA UNIT-TRAY	SA	A	
5.12-1	JC63-00746B	TRAY-COVER LOWER	SNA	A	
5.12-2	JG66-40003A	GEAR-PINION	SA	A	
5.12-3	JC72-01005B	PMO-SIDE GUIDE MP(L)	SA	D	
5.12-4	JC72-01006B	PMO-SIDE GUIDE MP(R)	SA	D	
5.12-5	JC63-00447B	TRAY-M_EXIT_MP_XRX	SA	A	
5.12-6	JC63-00745A	TRAY-M_COVER TOP	SNA	D	
5.12-7	JC68-01622B	LABEL-INSTALLATION	SNA	D	

5.13 OPE(SCX-6345N)
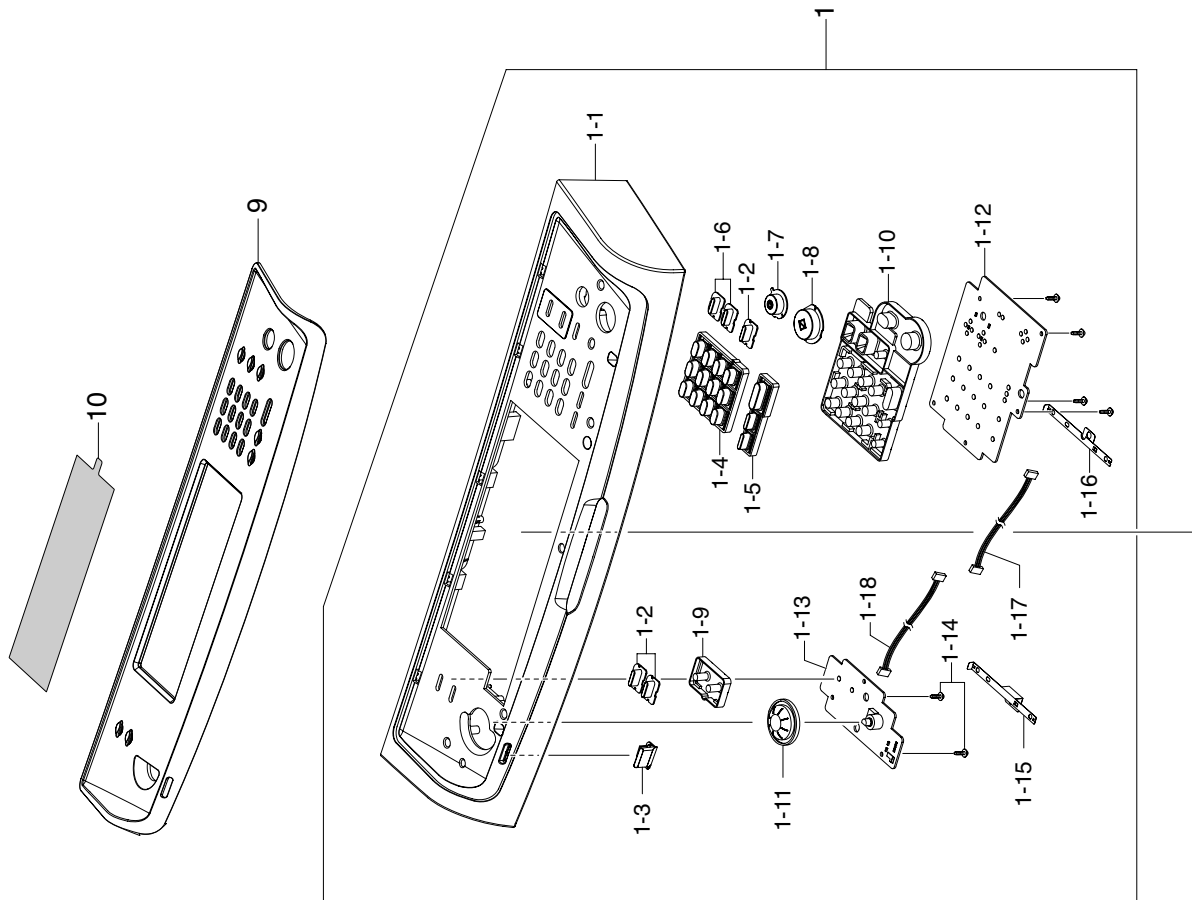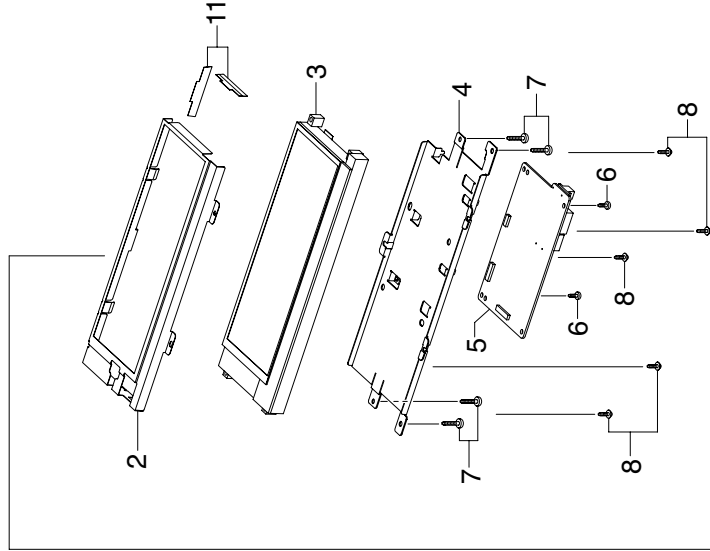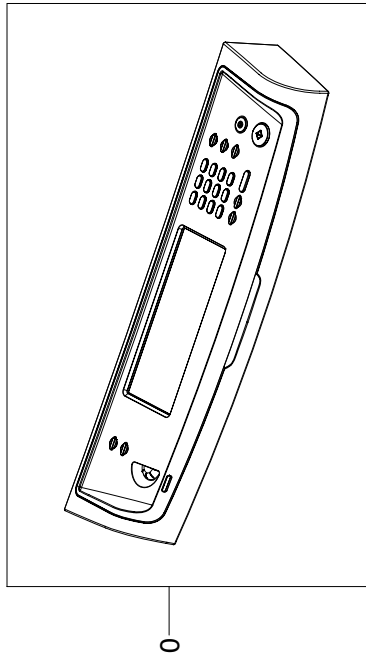
OPE(SCX-6345N) Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.13-0	JC96-03546C	ELA HOU-OPE	SNA	A	SCX-6345N/XAA
5.13-0	JC96-03546V	ELA HOU-OPE	SNA	A	SCX-6345NJ/XAA
5.13-1	JC96-03753C	ELA HOU-OPE COVER	SA	A	
5.13-1-1	JC63-01212A	COVER-OPE	SNA	A	
5.13-1-2	JC64-00287A	KEY-JOB_STATUS	SA	A	
5.13-1-3	JC67-00209A	LENS-STATUS	SNA	D	
5.13-1-4	JC64-00239A	KEY-M_TEL	SNA	A	
5.13-1-5	JC64-00288A	KEY-HOOK	SA	A	
5.13-1-6	JC64-00244A	KEY-M_BLACK	SNA	A	
5.13-1-7	JC64-00289A	KEY-STOP	SA	A	
5.13-1-8	JC64-00290A	KEY-START	SA	A	
5.13-1-9	JC73-00252A	RUBBER-JOB_STATUS	SA	D	
5.13-1-10	JC73-00253A	RUBBER-JOB_START	SA	D	
5.13-1-11	JC64-00291A	KEY-CONTRAST	SA	A	
5.13-1-12	JC92-01693B	PBA-OPE_KEY	SA	A	
5.13-1-13	JC92-01694B	PBA-OPE_KEY_SUB	SA	A	
5.13-1-14	6003-000221	SCREW-TAPTITE	SNA	D	
5.13-1-15	JC63-00814A	GROUND-P-LCD L	SNA	D	
5.13-1-16	JC63-00813A	GROUND-P-LCD R	SNA	D	
5.13-1-17	JC39-00552A	CBF HARNESS-OPE_KEY	SA	A	
5.13-1-18	JC39-00553A	CBF HARNESS-OPE_SUB	SA	A	
5.13-2	JC61-01635A	PLATE-P_LCD	SA	A	
5.13-3	JC07-00010A	LCD-DISPLAY+TOUCH	SA	A	
5.13-4	JC61-01329A	PLATE-P-OPE	SA	A	
5.13-5	JC92-01692B	PBA-OPE_MAIN	SA	A	SCX-6345N
5.13-5	JC92-01692C	PBA-OPE_MAIN	SA	A	SCX-6345NJ
5.13-6	6003-000221	SCREW-TAPTITE	SNA	D	
5.13-7	6003-000221	SCREW-TAPTITE	SNA	D	
5.13-8	6003-000221	SCREW-TAPTITE	SNA	D	
5.13-9	JC63-01211A	COVER-PANEL_FRONT	SA	A	SCX-6345N
5.13-9	JC63-01211T	COVER-PANEL_FRONT	SA	A	SCX-6345NJ
5.13-10	JC63-01043A	SHEET-LCD	SA	A	
5.13-11	JC63-00407A	SHEET-HOLDER PAD R2	SNA	A	

5.14 Platen Ass'y

Platen Ass'y Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.14-0	JC96-03550B	ELA HOU-PLATEN	SA	A	
5.14-2	JC96-03548B	ELA HOU-SCAN LOWER	SA	A	
5.14-2-1	JC63-00767B	COVER-SCAN LOWER	SNA	A	
5.14-2-2	JC96-03547A	ELA HOU-SCAN MOTOR	SA	A	
5.14-2-2-1	JC61-01433A	BRACKET-P-MOTOR PLAT	SNA	A	
5.14-2-2-2	JC31-00048B	MOTOR STEP	SA	A	
5.14-2-2-3	JB66-00083A	GEAR-IDLE	SA	A	
5.14-2-2-4	JC66-00530A	GEAR-REDUCTION73/37	SA	A	
5.14-2-2-5	6044-000125	RING-E	SA	A	
5.14-2-2-6	JC66-00531A	GEAR-TIMING	SA	A	
5.14-2-2-7	JB72-00764A	PMO-HOLDER BELT	SA	A	
5.14-2-3	JC39-00556A	CBF SIGNAL-CCD	SA	D	
5.14-2-4	JC63-00766B	COVER-CCD CABLE	SNA	A	
5.14-2-5	6602-001092	BELT-TIMING GEAR	SA	B	
5.14-2-6	JB72-00763A	PMO-PULLEY	SA	A	
5.14-2-7	JB72-00764A	PMO-HOLDER BELT	SA	A	
5.14-2-8	6044-000125	RING-E	SA	A	
5.14-2-9	JC61-01365A	BRACKET-P-PULLEY	SNA	D	
5.14-2-10	6107-000014	SPRING-CS	SA	A	
5.14-2-11	JC72-00755A	PMO-LEVER SENSOR	SA	D	
5.14-2-12	JB61-70939A	SPRING ETC-EXIT	SNA	D	
5.14-2-13	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.14-2-14	JC92-01695A	PBA SUB-SCAN_IF	SA	A	
5.14-2-15	JC39-00463A	HARNESS-GATE_NEAR	SA	D	
5.14-2-16	JB39-00103A	CBF HARNESS-LIU GND	SA	D	
5.14-2-17	JC39-00459A	HARNESS-SCAN	SA	D	
5.14-2-18	JC39-00241A	CBF HARNESS-MOTOR	SA	A	
5.14-2-19	JC63-00812A	GROUND-P-SCAN LOWER	SNA	A	
5.14-2-20	JC63-00811A	GROUND-P-SCAN IF	SNA	D	
5.14-2-21	JC66-00981A	SHAFT-CCD	SNA	D	
5.14-2-22	JC63-00459A	SHEET-SCAN LOWER	SNA	A	
5.14-2-23	JC96-03982A	ELA HOU-CCDM	SA	D	
5.14-2-24	JC61-01318A	PLATE-P-SCAN LOWER	SNA	A	
5.14-2-25	JC61-01366A	HOLDER-M_CCD	SNA	D	
5.14-2-27	JC61-01776A	PLATE-OPE_GROUND	SNA	A	
5.14-2-28	JC70-00239A	IPR-CHANNEL BASE FRAME	SA	D	
5.14-2-29	6502-000132	CABLE CLAMP	SA	A	
5.14-2-30	JC39-00550A	CBF HARNESS-OPE	SA	D	
5.14-2-31	JC68-00723A	LABEL(R)-LOCK INDICATOR	SNA	D	
5.14-3	JC96-03536B	ELA HOU-SCAN UPPER	SNA	A	
5.14-3-1	JC63-00768B	COVER-SCAN UPPER	SNA	A	
5.14-3-2	JC63-00748B	SHEET-REGI	SNA	A	
5.14-3-3	JC01-00004A	GLASS-SCAN HEATING	SA	D	

Platen Ass'y Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.14-3-4	JC68-00749A	LABEL(P)-SHEET SHADING(B)	SNA	A	
5.14-3-5	JB70-00148A	IPR-HOLDER GLASS	SA	A	
5.14-3-6	JC97-02267B	MEA UNIT-DUMMY UPPER	SA	A	
5.14-3-6-1	JC63-00758B	COVER-ADF GLASS	SNA	A	
5.14-3-6-2	JC68-01622B	LABEL-INSTALLATION	SNA	D	
5.14-3-6-3	JC74-00019A	MCT-GLASS ADF	SA	D	
5.14-3-6-4	JC68-01622B	LABEL-INSTALLATION	SNA	D	
5.14-3-6-5	JC63-00074A	SHEET-DUMMY UPPER	SA	A	
5.14-3-6-6	JC63-01152A	SHEET-ADF GLASS	SNA	A	

5.15 DADF Sub
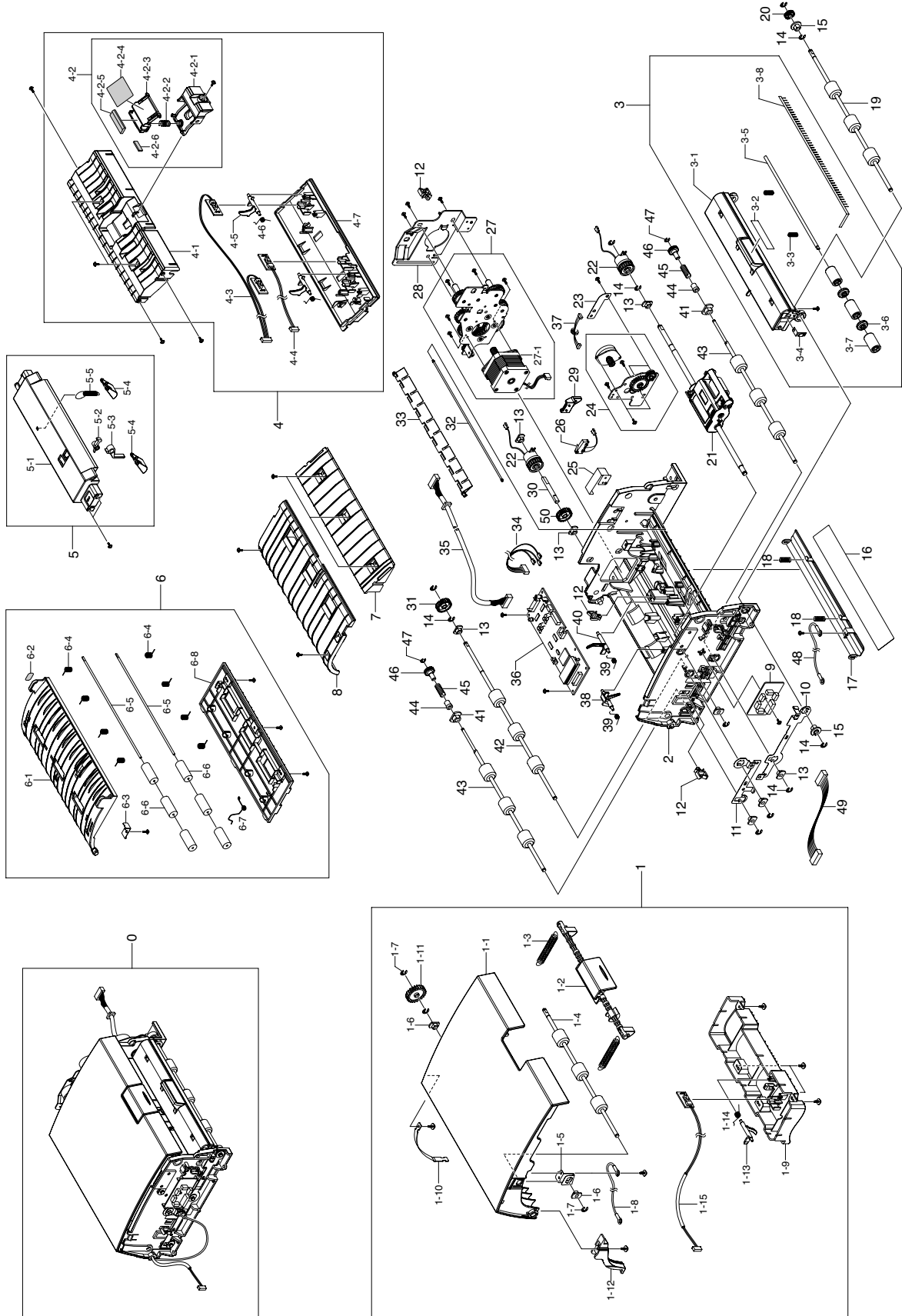
DADF Sub Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.15-0	JC96-03579B	ELA HOU-DADF SUB	SA	A	
5.15-1	JC97-01844C	MEA UNIT-COVER OPEN	SA	A	
5.15-1-1	JC63-00195B	COVER-OPEN	SA	A	
5.15-1-2	JC72-01256B	PMO-LEVER OPEN	SNA	D	
5.15-1-3	JC61-00483A	SPRING ETC-KNOCKUP,MP	SA	A	
5.15-1-4	JC66-00587A	ROLLER-REGI	SNA	D	
5.15-1-5	JC63-00315A	GROUND-P DUPLEX	SNA	D	
5.15-1-6	JC61-00423A	BUSH-6_D	SA	A	
5.15-1-7	6044-000125	RING-E	SA	A	
5.15-1-8	JB39-00103A	CBF HARNESS-LIU GND	SA	D	
5.15-1-9	JC63-00197B	COVER-SENSOR	SA	A	
5.15-1-10	JC72-41396B	PMO-STOPPER EXIT	SA	D	
5.15-1-11	JC66-00565B	GEAR-DADF24(A)	SA	D	
5.15-1-12	JC63-00408B	COVER-HARNESS	SNA	A	
5.15-1-13	JC72-01261A	PMO-ACTUATOR REGI	SNA	D	
5.15-1-14	JB61-00076A	SPRING ETC-TORSION DOC (CC2-F)	SA	D	
5.15-1-15	JC92-01561A	PBA SUB-REGI	SA	A	
5.15-2	JC61-01300A	GUIDE-M_SCAN	SNA	D	
5.15-3	JC97-02305B	MEA UNIT-COVER EXIT	SNA	A	
5.15-3-1	JC63-00196B	COVER-EXIT	SA	A	
5.15-3-2	JC68-01244A	LABEL(R)-COVER_EXIT	SNA	D	
5.15-3-3	JC61-00548A	SPRING ETC-WHITE BAR	SA	A	
5.15-3-4	JC63-00203A	GROUND-P-EXIT COVER	SNA	D	
5.15-3-5	JC66-00661A	SHAFT-EXIT IDLE	SA	D	
5.15-3-6	JC66-00980A	ROLLER-M_DECURL	SNA	D	
5.15-3-7	JC72-00906A	PMO-ROLLER IDLE SCAN	SA	D	
5.15-3-8	JC67-00196A	BRUSH-ANTISTATIC SCAN	SA	A	
5.15-4	JC97-01847A	MEA UNIT-GUIDE_PICK_UP	SA	A	
5.15-4-1	JC61-00733A	GUIDE-M_PICK_UP_UPPER	SNA	D	
5.15-4-2	JC97-01846A	MEA UNIT-HOLDER ADF RUBBER	SA	A	
5.15-4-2-1	JC61-00745A	HOLDER-M-ADF RUBBER LOWER	SNA	D	
5.15-4-2-2	JC61-00013A	SPRING ETC-PAD	SNA	A	
5.15-4-2-3	JC61-00744A	HOLDER-M-ADF RUBBER UPPER	SNA	B	
5.15-4-2-4	JC63-00186A	SHEET-GUIDE ADF	SA	B	
5.15-4-2-5	JB73-00052A	RMO-ADF RUBBER	SA	A	
5.15-4-2-6	JC73-00079A	RPR-SEAL SIDE	SA	D	
5.15-4-3	JC96-03903A	ELA HOU-SUB_DOC_WIDTH	SA	A	
5.15-4-4	JC92-01564A	PBA SUB-EXIT_OPEN	SA	A	
5.15-4-5	JC72-01248A	PMO-ACTUATOR DOC	SA	D	
5.15-4-6	JB61-00076A	SPRING ETC-TORSION DOC (CC2-F)	SA	D	
5.15-4-7	JC61-00732A	GUIDE-M-PICK_UP_LOWER	SNA	D	
5.15-5	JC97-02279A	MEA UNIT-SUPPORT PU	SA	A	
5.15-5-1	JC63-00783A	COVER-M_SUPPORT_PU	SNA	D	

DADF Sub Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.15-5-2	JC66-00958A	LATCH-M_ARM FRT	SNA	A	
5.15-5-3	JC61-01307B	STOPPER-M_PAPER REAR	SNA	A	
5.15-5-4	JC61-00788A	GUIDE-M_DOC SENSOR	SNA	B	
5.15-5-5	JC61-00482A	SPRING ETC-PICKUP	SA	A	
5.15-6	JC97-01843A	MEA UNIT-GUIDE DUPLEX	SA	A	
5.15-6-1	JC61-00734A	GUIDE-M_DUPLEX_UPPER	SNA	D	
5.15-6-2	JC68-01246B	LABEL(R)-GUIDE_DUPLEX	SNA	D	
5.15-6-3	JC63-00834A	GROUND-P-DUPLEX IDLE	SNA	D	
5.15-6-4	JC61-01563A	SPRING ETC-DUP IDLE	SA	A	
5.15-6-5	JC66-01038A	SHAFT-PINCH DUP IDLE	SNA	D	
5.15-6-6	JG72-40663A	PMO-ROLL PINCH	SA	A	
5.15-6-7	JC63-00428A	GROUND-S_REGI	SA	D	
5.15-6-8	JC61-00736A	GUIDE-M_DUPLEX_MID	SNA	D	
5.15-7	JC61-00737A	GUIDE-M_DUPLEX_INNER	SA	D	
5.15-8	JC61-00735A	GUIDE-M_DUPLEX_LOWER	SA	D	
5.15-9	JC92-01725A	PBA SUB-SENSOR_IF	SA	A	
5.15-10	JC63-00808A	GROUND-P-EXIT ROLLER	SNA	D	
5.15-11	JC63-00807A	GROUND-P-SCAN ROLLER	SNA	D	
5.15-12	6502-000132	CABLE CLAMP	SA	A	
5.15-13	JC61-00423A	BUSH-6_D	SA	A	
5.15-14	6044-000125	RING-E	SA	A	
5.15-15	JC61-00884A	BUSH-6_D(L)	SNA	A	
5.15-16	JC63-00810A	SHEET-WHITE BAR	SNA	A	
5.15-17	JC61-01364A	BRACKET-P-WHITE BAR	SNA	D	
5.15-18	JC61-00548A	SPRING ETC-WHITE BAR	SA	A	
5.15-19	JC66-00588A	ROLLER-EXIT	SA	D	
5.15-20	JC66-00571A	GEAR-DADF_EXIT31	SA	D	
5.15-21	JC97-02277A	MEA UNIT-PICK UP_JF	SA	A	
5.15-22	JC66-00972A	CLUTCH-2.5K Z24	SA	B	
5.15-23	JC63-00809A	GROUND-P-DUPLEX MOTOR	SNA	D	
5.15-24	JC96-03556A	ELA HOU-DUPLEX MOTOR	SA	A	
5.15-25	JC70-00218A	IPR-GUARD C/O S/W	SA	D	
5.15-26	JC39-00332A	CBF HARNESS-COVER_OPEN	SA	D	
5.15-27	JC96-03555A	ELA HOU-DADF MOTOR	SA	A	
5.15-27-1	JC31-00044A	MOTOR STEP-DADF	SA	A	
5.15-28	JC63-00307A	COVER-P GEAR	SA	D	
5.15-29	JC61-01437A	HOLDER-M_SWITCH	SNA	A	
5.15-30	JC66-00662A	SHAFT-REGI	SA	D	
5.15-31	JC66-00565B	GEAR-DADF24(A)	SA	D	
5.15-32	JC66-00683A	SHAFT-GATE_DUPLEX	SNA	D	
5.15-33	JC72-01255A	PMO-GATE DUPLEX	SA	D	
5.15-34	JC39-00612A	HARNESS-DADF_CLUT	SA	D	
5.15-35	JC39-00557A	HARNESS-SCAN_IF	SA	D	

DADF Sub Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.15-36	JC92-01691A	PBA SUB-DADF	SA	A	
5.15-37	JC39-00241A	CBF HARNESS-MOTOR	SA	A	
5.15-38	JC72-01249A	PMO-ACTUATOR SCAN	SA	D	
5.15-39	JB61-00076A	SPRING ETC-TORSION DOC (CC2-F)	SA	D	
5.15-40	JC72-01263A	PMO-ACTUATOR DUPLEX	SA	D	
5.15-41	JC61-00720A	BUSH-10_D	SNA	D	
5.15-42	JC66-01037A	ROLLER-DUPLEX SCAN	SNA	D	
5.15-43	JC66-00585A	ROLLER-SCAN	SA	D	
5.15-44	JG72-40732A	PMO-BUSHING HOLDER	SNA	D	
5.15-45	JB61-70904A	SPRING ETC-CLUTCH	SA	A	
5.15-46	JC66-00570A	GEAR-DADF_SCAN31	SA	D	
5.15-49	JC39-00344A	CBF HARNESS-SENSOR_IF	SA	D	
5.15-47	6044-000159	RING-C	SA	A	
5.15-48	JC39-00509A	CBF HARNESS-GND ZENER	SA	A	
5.15-50	JC66-00565B	GEAR-DADF24(A)	SA	D	

5.16 DADF Ass'y
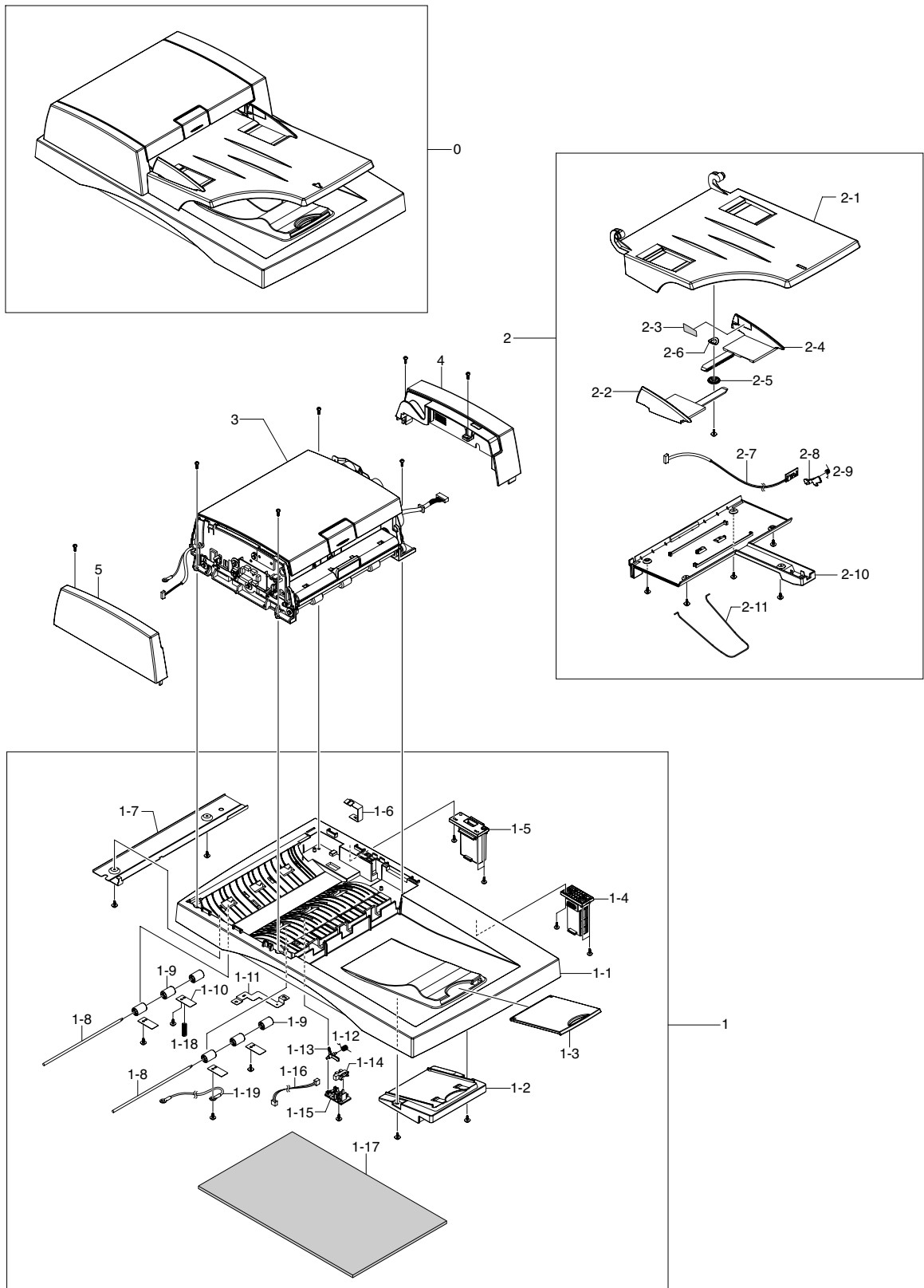
DADF Ass'y Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.16-0	JC96-03553B	ELA HOU-DADF	SA	A	
5.16-1	JC96-03554B	ELA HOU-COVER PLATEN	SA	A	
5.16-1-1	JC63-00772B	COVER-PLATEN	SNA	A	
5.16-1-2	JC61-00746B	GUIDE-EXTENTION	SNA	A	
5.16-1-3	JC72-01251B	PMO-EXTENTION PLATEN	SNA	D	
5.16-1-4	JC97-02635A	MEA UNIT-HINGE	SA	A	
5.16-1-5	JC97-02265A	MEA UNIT-HINGE JF	SA	A	
5.16-1-6	JC63-00805A	GROUND-P-COVER GEAR	SNA	D	
5.16-1-7	JC61-00819A	PLATE-P-DUMMY PLATEN	SA	D	
5.16-1-8	JC66-00661A	SHAFT-EXIT IDLE	SA	D	
5.16-1-9	JC66-01022A	ROLLER-M_IDLE SCF	SNA	A	
5.16-1-10	JC61-01440A	PLATE-P-SCAN PINCH	SNA	D	
5.16-1-11	JC63-00806A	GROUND-P-DUMMY PLATEN	SNA	D	
5.16-1-12	JB61-00076A	SPRING ETC-TORSION DOC (CC2-F)	SA	D	
5.16-1-13	JC61-01363A	LEG-M_ACTUATOR FEED	SNA	D	
5.16-1-14	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.16-1-15	JC61-01362A	HOLDER-M_ACTUATOR	SNA	D	
5.16-1-16	JC39-00463A	HARNESS-GATE_NEAR	SA	D	
5.16-1-17	JC72-00751B	PPR-SPONGE SHEET	SA	D	
5.16-1-18	JC61-00049A	SPRING ETC-TR(KOR)	SNA	D	
5.16-1-19	JB39-00103A	CBF HARNESS-LIU GND	SA	D	
5.16-2	JC97-02266B	MEA UNIT-TX STACKER	SA	A	
5.16-2-1	JC72-01253B	PMO-TX STACKER	SA	D	
5.16-2-2	JC61-00740B	GUIDE-DOC_RIGHT	SNA	A	
5.16-2-3	JC68-01622B	LABEL-INSTALLATION	SNA	D	
5.16-2-4	JC61-01317B	GUIDE-DOC_LEFT	SNA	A	
5.16-2-5	JF72-41354A	PMO-GEAR PINION	SA	D	
5.16-2-6	JF70-10616A	IPR-WASHER SPRING CU	SA	D	
5.16-2-7	JC92-01563A	PBA SUB-LENGTH	SA	A	
5.16-2-8	JC72-01250B	PMO-ACTUATOR LENGTH	SA	D	
5.16-2-9	JB61-00076A	SPRING ETC-TORSION DOC (CC2-F)	SA	D	
5.16-2-10	JC72-01254B	PMO-TX STACKER LOWER	SA	D	
5.16-2-11	JC61-01438A	GUIDE-STACKER WIRE	SNA	A	
5.16-3	JC96-03579B	ELA HOU-DADF SUB	SA	A	
5.16-4	JC63-00201B	COVER-REAR	SA	A	
5.16-5	JC63-00200B	COVER-FRONT	SA	A	

5.17 Cassette
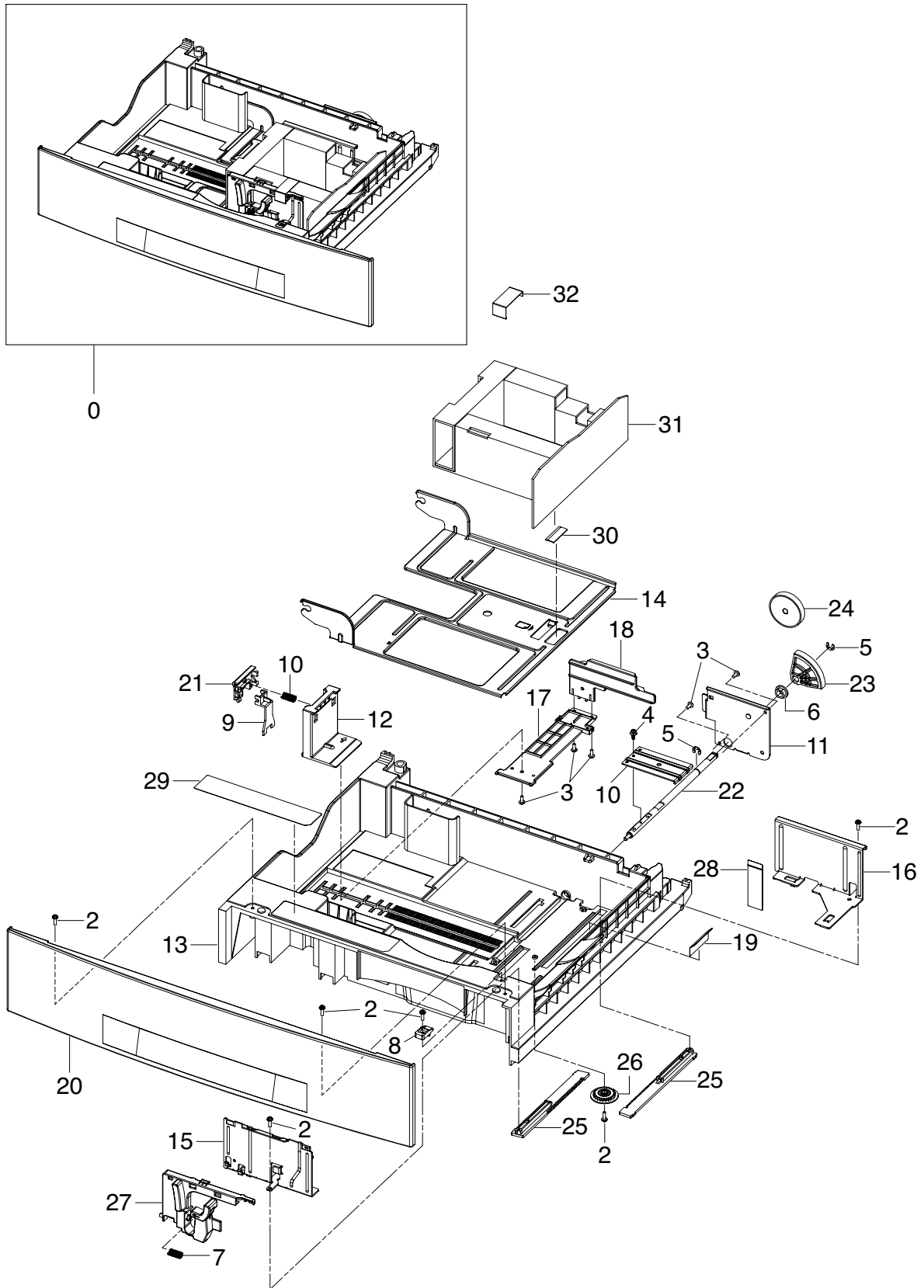
Cassette Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.17-0	JC97-02273B	MEA UNIT-CASSETTE	SA	A	
5.17-1	JC61-01411A	FRAME-M_CASSETTE	SA	D	
5.17-2	JC63-00782B	COVER-CASSETTE	SNA	A	
5.17-3	JC61-01413A	GUIDE-P-SIDE LEFT	SA	A	
5.17-4	JC67-00123A	CAP-M_HANDLE LEFT	SA	D	
5.17-5	JC61-00548A	SPRING ETC-WHITE BAR	SA	A	
5.17-6	JC61-01414A	GUIDE-P-SIDE RIGHT	SNA	D	
5.17-7	JC68-01621A	LABEL(R)-MAX FILL	SA	D	
5.17-8	JC63-00747A	SHEET-GUIDE RETARD	SA	A	
5.17-9	JC66-00956A	GEAR-M_RACK	SNA	D	
5.17-10	JC66-01020A	GEAR-M_PINION 24	SA	D	
5.17-11	JC61-00832A	STOPPER-M_KNOCK UP	SA	A	
5.17-12	JC61-01395A	GUIDE-M_REAR	SA	A	
5.17-13	JC66-00202B	LEVER-LENTH HANDLE	SA	A	
5.17-14	JC61-01304A	GUIDE-M_HOOK	SA	A	
5.17-15	JC61-01412A	PLATE-P-KNOCK UP	SNA	D	
5.17-16	JC69-00494A	PAD-MP(PLUS)	SA	A	
5.17-17	JC61-01416A	SUPPORT-M_BAR PAPER	SNA	D	
5.17-18	JC61-01417A	SUPPORT-M_PUSH PAPER	SNA	D	
5.17-19	JC66-00953A	SHAFT-PLATE LEVER	SNA	D	
5.17-20	JC61-01322A	PLATE-P-LEVER	SNA	D	
5.17-21	6044-000125	RING-E	SA	A	
5.17-22	JC61-01394A	BRACKET-P-LIFTING	SNA	D	
5.17-23	JC61-00426A	BUSH-8/5	SA	A	
5.17-24	JC66-00954A	GEAR-M_LIFTING	SA	D	
5.17-25	JC66-00955A	GEAR-M_LIFT COUPLING	SA	D	
5.17-26	JC68-01622B	LABEL-INSTALLATION	SNA	D	
5.17-27	6001-000130	SCREW-MACHINE	SA	A	

5.18 SCF
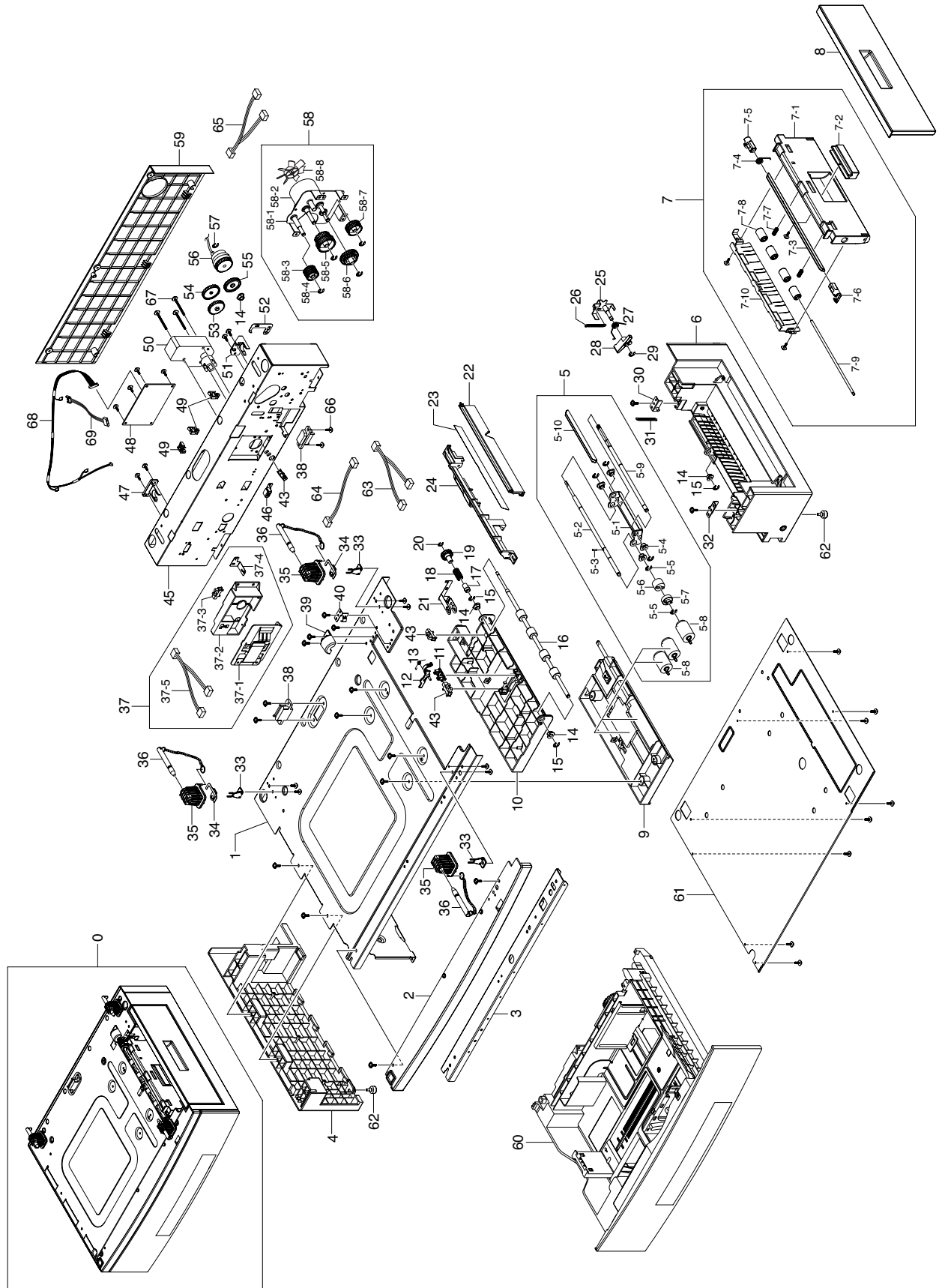
SCF Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.18-0	JC96-03530B	ELA UNIT-SCF; Option Unit	SNA	A	
5.18-1	JC61-01333A	FRAME-P_TOPSCF	SNA	D	
5.18-2	JC63-00771B	COVER-M_FRONTSCF	SNA	A	
5.18-3	JC61-01312A	PLATE-P-BEAM BASE	SNA	D	
5.18-4	JC61-01397B	BASE-M_LEFTSCF	SNA	A	
5.18-5	JC97-02290A	MEA UNIT-RETARD	SA	A	
5.18-5-1	JC61-01348A	BRACKET-P-RETARD	SNA	D	
5.18-5-2	JC66-00937A	SHAFT-RETARD S	SA	A	
5.18-5-3	JC66-00939A	SHAFT-LOCK	SA	A	
5.18-5-4	JC61-00423A	BUSH-6_D	SA	A	
5.18-5-5	6044-000125	RING-E	SA	A	
5.18-5-6	JC67-00126A	COUPLER-TORQUELIMITER	SA	D	
5.18-5-7	JC66-00976A	JOINT-M_RETARD	SA	D	
5.18-5-8	JC97-02259A	MEA UNIT-ROLLER PU	SA	A	
5.18-5-9	JC66-00938A	SHAFT-RETARD M	SNA	D	
5.18-5-10	JC61-01349A	BRACKET-P-BAR RETARD	SNA	D	
5.18-6	JC61-01398B	BASE-M_RIGHT SCF	SNA	A	
5.18-7	JC97-02275A	MEA UNIT-SCF DOOR	SA	A	
5.18-7-1	JC61-01327A	GUIDE-M_DOOR INNER	SNA	D	
5.18-7-2	JC64-00208A	HANDLE-M_DOOR	SNA	D	
5.18-7-3	JC61-01404A	BRACKET-P_HANDLE SCF	SNA	D	
5.18-7-4	6107-001206	SPRINGTS	SNA	D	
5.18-7-5	JC64-00204B	LOCKER-M_RIGHT	SNA	D	
5.18-7-6	JC64-00204A	LOCKER-M_LEFT	SNA	D	
5.18-7-7	JC61-70959B	SPRING FEED	SNA	D	
5.18-7-8	JC66-01022A	ROLLER-M_IDLE SCF	SNA	A	
5.18-7-9	JC66-00661A	SHAFT-EXIT IDLE	SA	D	
5.18-7-10	JC61-01328A	PLATE-P_GUIDE SCF	SNA	D	
5.18-8	JC63-00769B	COVER-M_DOOR SIDE SCF	SNA	A	
5.18-9	JC96-03558A	ELA HOU-PICK UP	SA	A	
5.18-10	JC61-01401A	HOUSING-M_PICKUP SCF	SNA	D	
5.18-11	JC61-01422A	HOLDER-M_ACT READY	SA	A	
5.18-12	JC61-01402A	LEG-M_ACT FEED SCF	SNA	D	
5.18-13	6107-001262	SPRING-TS	SA	A	
5.18-14	JC61-00423A	BUSH-6_D	SA	A	
5.18-15	6044-000125	RING-E	SA	A	
5.18-16	JC66-01025A	MEC_ROLLER_SCF_DRV	SNA	D	
5.18-17	JG72-40732A	PMO-BUSHING HOLDER	SNA	D	
5.18-18	JB61-70904A	SPRING ETC-CLUTCH	SA	A	
5.18-19	JC66-00964A	GEAR-M_FEED SCF	SNA	D	
5.18-20	6044-000159	RING-C	SA	A	
5.18-21	JC63-00825A	GROUND-P_SHAFTSCF	SNA	D	
5.18-22	JC61-01326A	GUIDE-M_PUUPPERSCF	SNA	D	

SCF Parts List

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.18-23	JC63-00754A	SHEET-GUIDEFILMSCF	SA	D	
5.18-24	C61-01325A	GUIDE-M_PULOWERSCF	SNA	D	
5.18-25	JC61-01423A	BRACKET-P-ARM FRIC	SNA	A	
5.18-26	6107-001257	SPRING-ES	SA	D	
5.18-27	6107-001262	SPRING-TS	SNA	D	
5.18-28	JC66-00959A	LEVER-M_ARM FRICTION	SA	D	
5.18-29	6044-000125	RING-E	SA	A	
5.18-30	JC61-01400A	PLATE-P_LOCKER R	SNA	D	
5.18-31	6107-001257	SPRING-ES	SA	D	
5.18-32	JC61-01399A	PLATE-P_LOCKER L	SNA	D	
5.18-33	JC64-00207A	LOCKER-M_GRIPPIN	SNA	D	
5.18-34	JC63-00826A	GROUND-P_TOP	SA	D	
5.18-35	JC61-01403A	HOLDER-M_PIN	SNA	D	
5.18-36	JC66-01021A	SHAFT-PIN LOCK	SA	D	
5.18-37	JC96-03735A	ELA HOU-SIZE SENSOR	SA	A	
5.18-37-1	JC96-02127A	ELA HOU-CST SENSOR HAWK16	SA	A	
5.18-37-2	JC61-01343A	HOUSING-M_SIZE SENSOR	SA	D	
5.18-37-3	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.18-37-4	JC63-00794A	GROUND-P-PAPER SIZE	SA	A	
5.18-37-5	JC39-00548A	CBFHARNESS-SCF_TRAY	SNA	D	
5.18-38	JC39-00547A	CBFHARNESS-SCF	SA	A	
5.18-39	JC67-00124A	CAP-M_GEAR FEED	SNA	D	
5.18-40	JC63-00824A	GROUND-P DOOR INNER	SNA	D	
5.18-43	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.18-45	JC61-01324A	FRAME-P_REAR SCF	SNA	D	
5.18-46	JC70-11028A	IPR-GROUND TOP	SA	A	
5.18-47	JC61-01345A	HOLDER-M_CST L	SNA	A	
5.18-48	JC92-01697A	PBA SUB-SCF	SA	A	
5.18-49	6502-000132	CABLE CLAMP	SA	A	
5.18-50	JC31-00045A	MOTOR GEARED-P LIFT	SA	A	
5.18-51	JC61-01344A	HOLDER-M_CST R	SNA	A	
5.18-52	JC63-00833A	GROUND-P-SHAFT RETARD	SA	A	
5.18-53	JC66-00975A	GEAR-M_RETARD	SA	D	
5.18-54	JC66-00974A	GEAR-M_FORWARD	SA	D	
5.18-55	JC66-00973A	GEAR-M_PICKUP IDLE B	SA	D	
5.18-56	JC66-00994A	CLUTCH-5K Z32	SA	B	
5.18-57	6044-000125	RING-E	SA	A	
5.18-58	JC96-03542A	ELA HOU-SCF DRIVE	SA	A	
5.18-58-1	JC61-01420A	BRACKET-P_SCFDRIVE	SNA	D	
5.18-58-2	JC31-00028B	Motor Pickup SCF	SNA	A	
5.18-58-3	JC66-00966A	GEAR-M_FDIDLE B SCF	SNA	D	
5.18-58-4	6044-000125	RING-E	SA	A	
5.18-58-5	JC66-00965A	GEAR-M_FDIDLEASCF	SNA	D	

SCF Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.18-58-6	JC66-00967A	GEAR-M_PUIDLEASCF	SNA	D	
5.18-58-7	JC66-00968A	GEAR-M_PUIDLECSCF	SNA	D	
5.18-58-8	JC72-00825A	PMO-IMPELLER_DRV	SA	A	
5.18-59	JC63-00770B	COVER-M_REARSCF	SNA	A	
5.18-60	JC97-02273B	MEA UNIT-CASSETTE	SA	A	
5.18-61	JC61-01323A	FRAME-P_BOTTOMSCF	SNA	D	
5.18-62	JC61-40001A	FOOT-ML80	SA	A	
5.18-63	JC39-00461A	HARNESS-SCF_FEED	SNA	D	
5.18-64	JC39-00463A	HARNESS-GATE_NEAR	SA	D	
5.18-65	JC39-00549A	CBFHARNESS-SCF_CLUT	SNA	D	
5.18-66	6009-001390	SCREW-SPECIAL	SNA	D	
5.18-67	6003-000221	SCREW-TAPTITE	SA	D	
5.18-68	JC39-00462A	HARNESS-SCF_EMPTY	SA	D	
5.18-69	JC39-00477A	HARNESS-MOTOR_SW	SA	D	

5.19 Fax Unit
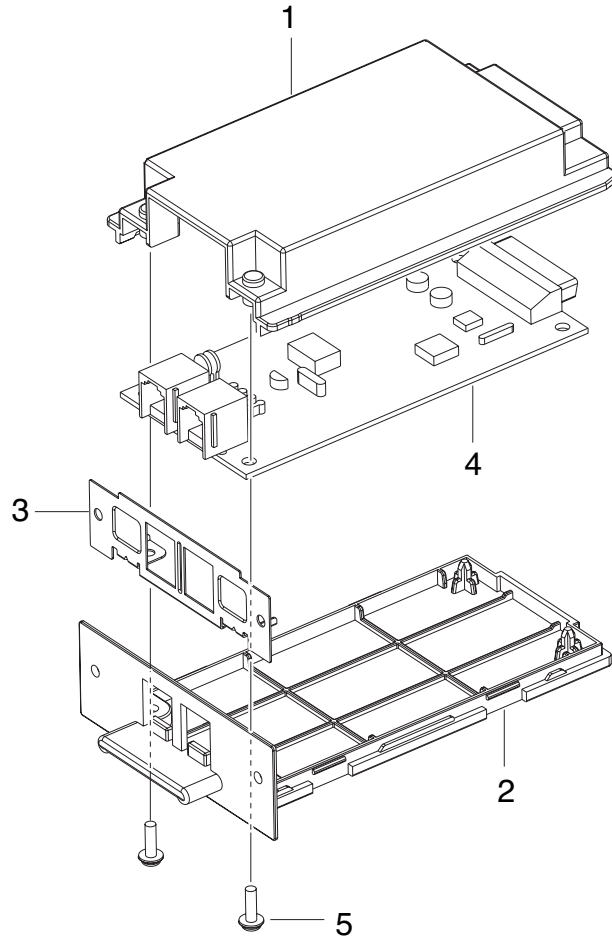
Fax Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.19-0	JC96-04081B	ELA HOU-FAX; Option Unit	SA	A	
5.19-1	JC63-00822B	COVER-M_LIUUPPER	SNA	D	
5.19-2	JC63-00823B	COVER-M_LIUBOTTOM	SNA	D	
5.19-3	JC61-01396A	BRACKET-P_LIU	SNA	D	
5.19-4	JC92-01699A	PBASUB-FAX_PARALLE	SA	D	
5.19-5	6003-000221	SCREW-TAPTITE	SNA	D	

5.20-1 Main
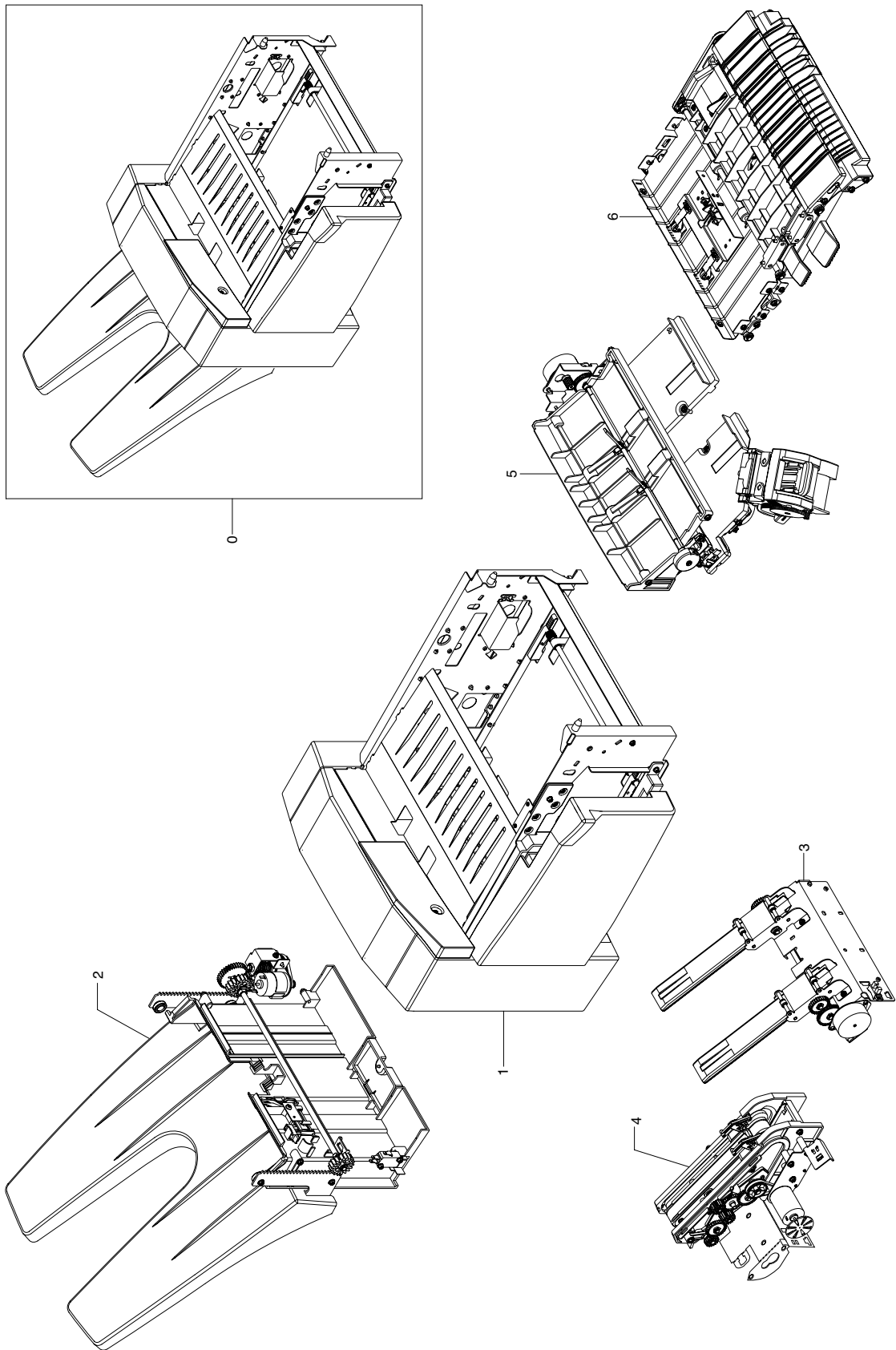
Main Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

| Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-1-0	JC96-03908C	ELA HOU-FINISHER; Option Unit	SNA	-	
5.20-1-1	-	FRAME UNIT	SNA	-	
5.20-1-2	-	STACKER UNIT	SNA	-	
5.20-1-3	-	EXTENTION TRAY UNIT	SNA	-	
5.20-1-4	JC81-03773A	EJECTOR UNIT	SA	-	
5.20-1-5	-	COMPILE UNIT	SNA	-	
5.20-1-6	-	FEED UNIT	SNA	-	

5.20-2 Frame Unit
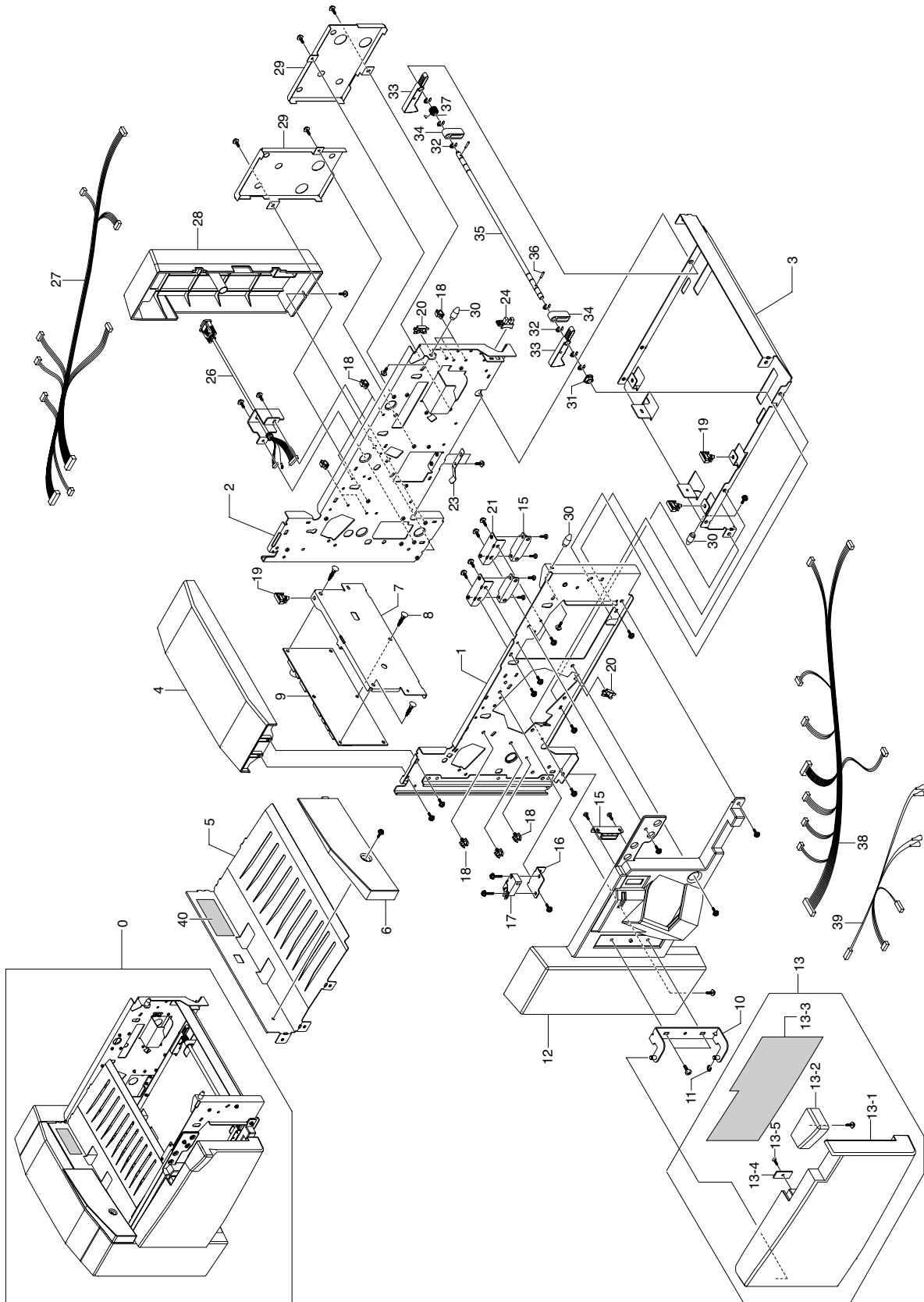
Frame Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-2-0	-	FRAME UNIT	SNA	-	
5.20-2-1	-	ASSY:SIDEPLATE:FRONT	SNA	-	
5.20-2-2	-	ASSY:SIDEPLATE:REAR	SNA	-	
5.20-2-3	-	BASE:LOWER	SNA	-	
5.20-2-4	JC81-03487A	AS-COVER TOP	SA	-	
5.20-2-5	-	STAY:DUPLEX GUIDE	SNA	-	
5.20-2-6	JC81-03767A	AS-COVER SCAN DUMMY	SA	-	
5.20-2-7	-	BKT:MAIN PCB	SNA	-	
5.20-2-8	-	BUTTON LOCKING SUPPORT:BLSS12	SNA	-	
5.20-2-9	JC81-03467A	AS-PCB MAIN ASSYJC81-03467A	SA	D	
5.20-2-10	-	ASSY:HINGE:DOOR	SNA	-	
5.20-2-11	-	E-RING:•'4	SNA	-	
5.20-2-12	JC81-03768A	AS-COVERFRONT	SA	-	
5.20-2-13	JC81-03488A	AS-COVERDOORASSY	SA	-	
5.20-2-13-1	-	COVER-DOOR	SNA	-	
5.20-2-13-2	-	HANDLE-DOOR	SNA	-	
5.20-2-13-3	-	LABEL-STAPLEREPLACE	SNA	-	
5.20-2-13-4	-	MAGNETCATCHPLATE:12x26	SNA	-	
5.20-2-13-5	-	SCREW-TAPTITEFH,+,B,M3,L8	SNA	-	
5.20-2-15	JC81-03468A	AS-MAGNETASSY	SA	D	
5.20-2-16	-	BKT:INTERLOCK:DOOROPEN	SNA	-	
5.20-2-17	JC81-03469A	AS-SWITCHMICRO	SA	D	
5.20-2-18	-	MICROWIRESADDLE	SNA	-	
5.20-2-19	-	SIDELOCKINGSADDLE	SNA	-	
5.20-2-20	-	COVERSADDLE:DS-1	SNA	-	
5.20-2-21	-	BKT:MAGNET:GUIDE	SNA	-	
5.20-2-23	-	LEAFSPRING:EARTH	SNA	-	
5.20-2-24	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.20-2-26	JC81-03470A	AS-MHINTERFACEASSY	SA	D	
5.20-2-27	-	ASSY:M/H:REARFRAME	SNA	-	
5.20-2-28	JC81-03490A	AS-COVERREAR	SA	-	
5.20-2-29	-	BKT:COVER:REAR	SNA	-	
5.20-2-30	-	STUD:SET	SNA	-	
5.20-2-31	JC61-00423A	BUSH-6_D	SNA	A	
5.20-2-32	-	E-RING:•'4	SNA	-	
5.20-2-33	-	HOOK:INSTALL	SNA	-	
5.20-2-34	-	GUIDE:SET	SNA	-	
5.20-2-35	-	SHAFT:HOOK:SET	SNA	-	
5.20-2-36	-	PARALLELPIN:•'2x10	SNA	-	
5.20-2-37	-	T-SPRING:HOOK:SET	SNA	-	
5.20-2-38	-	ASSY:M/H:FRONTFRAME	SNA	-	
5.20-2-39	-	ASSY:M/H:INTERLOCK	SNA	-	
5.20-2-40	-	RATING-LABEL	SNA	-	

5.20-3 Stacker Unit
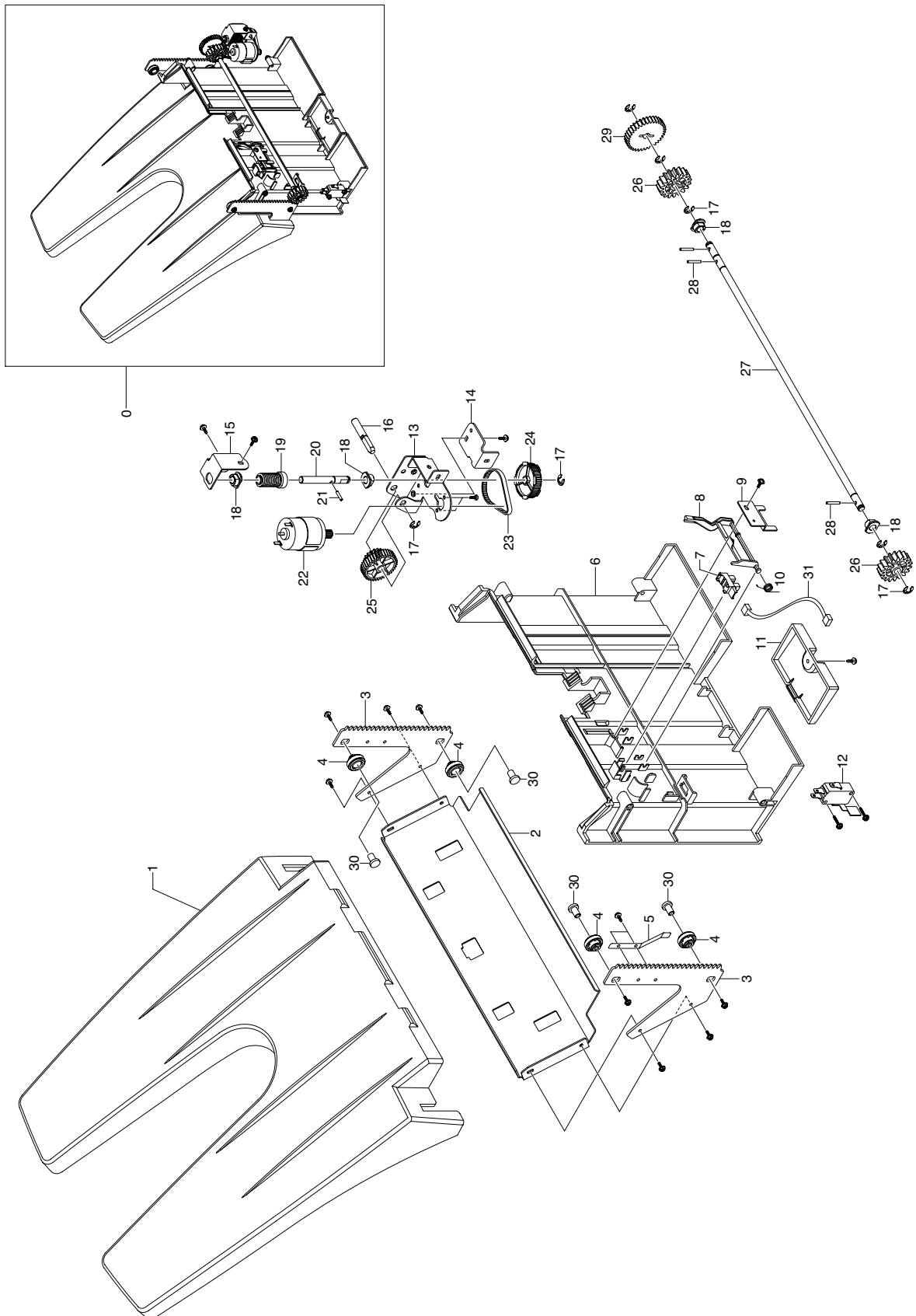
Stacker Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-3-0	-	STACKERUNIT	SNA	-	
5.20-3-1	JC81-03472A	AS-TRAYSTACKER	SA	-	
5.20-3-2	-	STAY:STACKER	SNA	-	
5.20-3-3	-	SIDEFRAME:STACKER	SNA	-	
5.20-3-4	-	ROLLER:STACKER	SNA	-	
5.20-3-5	-	LEAFSPRING:EARTH	SNA	-	
5.20-3-6	-	SHIELD:STACKER	SNA	-	
5.20-3-7	0604-001095	PISENSOR:GP1S73P2	SA	A	
5.20-3-8	-	ACTUATOR:STACKER	SNA	-	
5.20-3-9	-	BKT:SENSOR	SNA	-	
5.20-3-10	-	T-SPRING:ACTUATOR:STACK	SNA	-	
5.20-3-11	-	COVER:PCB	SNA	-	
5.20-3-12	JC81-03471A	AS-MSSTACKERASSY	SA	D	
5.20-3-13	-	BKT:MOTOR:STACKER	SNA	-	
5.20-3-14	-	BKT:SUPPORT:MORTOR	SNA	-	
5.20-3-15	-	BKT:WORM:STACK	SNA	-	
5.20-3-16	-	SHAFT:WORMWHEEL	SNA	-	
5.20-3-17	-	E-RING:4	SNA	-	
5.20-3-18	JC61-00423A	BUSH-6_D	SA	A	
5.20-3-19	JC81-03489A	AS-WORMSTACKER	SA	E	
5.20-3-20		SHAFT:WORM	SNA	-	
5.20-3-21	-	PARALLELPIN:210	SNA	-	
5.20-3-22	JC81-03484A	AS-MOTORDC	SA	D	
5.20-3-23	JC81-03525A	AS-BELTSTACKER	SA	E	
5.20-3-24	JC81-03491A	AS-PULLEYS2M48T	SA	E	
5.20-3-25	JC81-03524A	AS-W_WHEELSTACKER	SA	E	
5.20-3-26	JC81-03492A	AS-GEARPINION18T	SA	E	
5.20-3-27	-	SHAFT:STACKER:DRIVE	SNA	-	
5.20-3-28	-	PARALLELPIN:214	SNA	-	
5.20-3-29	JC81-03523A	AS-GEARSPURZ35	SA	D	
5.20-3-30	-	STUD:STACKER:LIFT	SNA	-	
5.20-3-31	-	ASSY:M/H:STKTOPSNR	SNA	-	

5.20-4 Extension Tray Unit
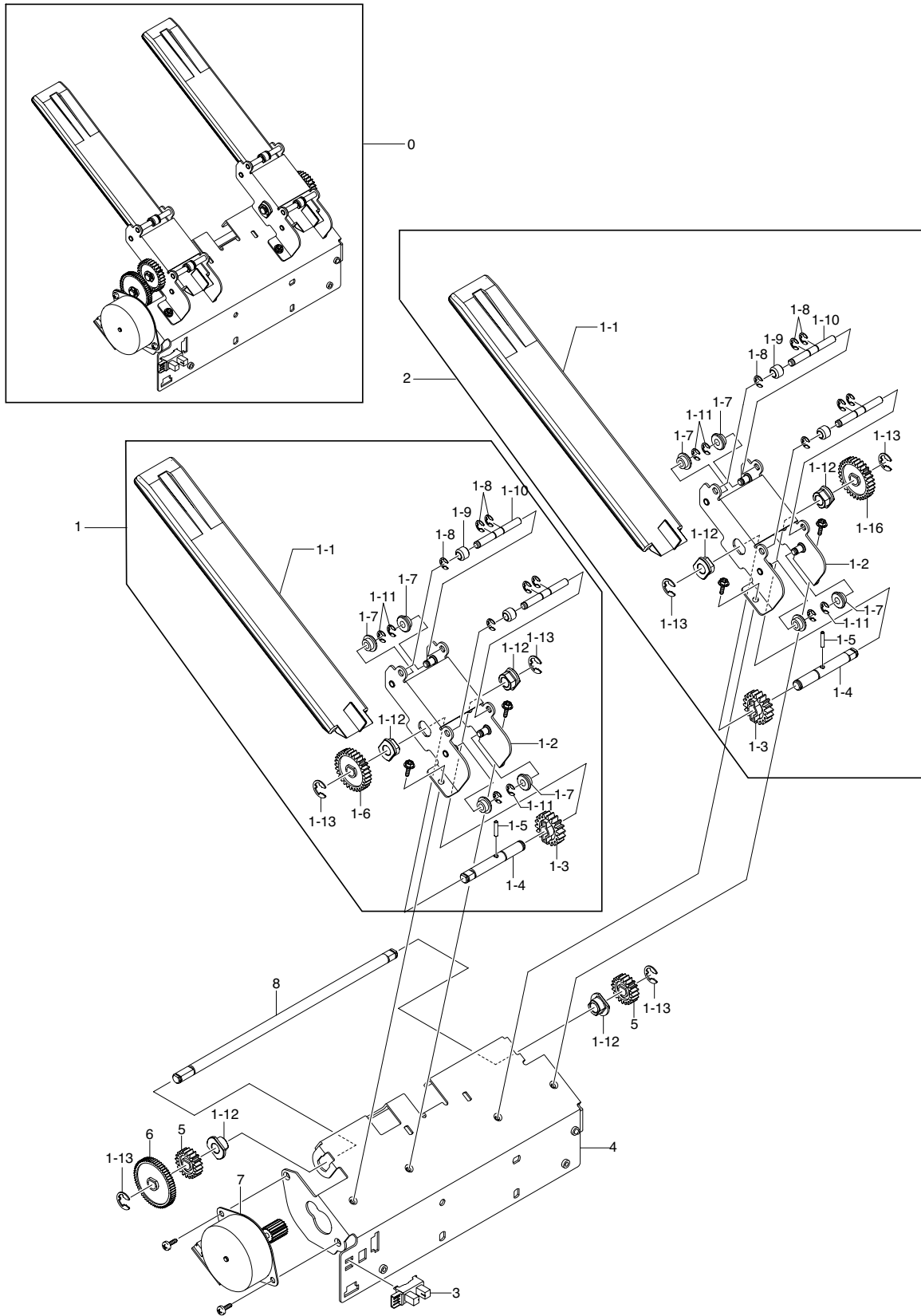
Extension Tray Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-4-0	-	EXTENTIONTRAYUNIT	SNA	-	
5.20-4-1	JC81-03769A	AS-SUPPFINGERASSY_F	SA	-	
5.20-4-1-1-1	JC81-03483A	AS-TRAYBERO	SA	-	
5.20-4-1-1-2	-	BKT:TRAY:BERO:ASSY	SNA	-	
5.20-4-1-1-3	JC81-03494A	AS-RACKPINIONZ18	SA	E	
5.20-4-1-1-4	-	SHAFT:RACKPINION	SNA	-	
5.20-4-1-1-5	-	PARALLELPIN:2x10	SNA	-	
5.20-4-1-1-6	JC81-03521A	AS-GEARZ30	SA	E	
5.20-4-1-1-7	-	ROLLER:BERO:LOWER	SNA	-	
5.20-4-1-1-8	-	E-RING:2.5	SNA	-	
5.20-4-1-1-9	-	ROLLER:BERO:UPPER	SNA	-	
5.20-4-1-1-10	-	SHAFT:ROLLER:BERO	SNA	-	
5.20-4-1-1-11	-	E-RING:3	SNA	-	
5.20-4-1-1-12	JC61-00423A	BUSH-6_D	SA	-	
5.20-4-1-1-13	-	E-RING:4	SNA	-	
5.20-4-2	JC81-03770A	AS-SUPPFINGERASSY_R	SA	-	
5.20-4-2-1-1	JC81-03483A	AS-TRAYBERO	SA	-	
5.20-4-2-1-2	-	BKT:TRAY:BERO:ASSY	SNA	-	
5.20-4-2-1-3	JC81-03494A	AS-RACKPINIONZ18	SA	E	
5.20-4-2-1-4	-	SHAFT:RACKPINION	SNA	-	
5.20-4-2-1-5	-	PARALLELPIN:2x10	SNA	-	
5.20-4-2-1-6	JC81-03521A	AS-GEARZ30	SA	E	
5.20-4-2-1-7	-	ROLLER:BERO:LOWER	SNA	-	
5.20-4-2-1-8	-	E-RING:2.5	SNA	-	
5.20-4-2-1-9	-	ROLLER:BERO:UPPER	SNA	-	
5.20-4-2-1-10	-	SHAFT:ROLLER:BERO	SNA	-	
5.20-4-2-1-11	-	E-RING:3	SNA	-	
5.20-4-2-1-12	JC61-00423A	BUSH-6_D	SA	-	
5.20-4-2-1-13	-	E-RING:4	SNA	-	
5.20-4-3	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.20-4-4	-	FRAME:BERO	SNA	-	
5.20-4-5	JC81-03493A	AS-GEARZ20	SA	E	
5.20-4-6	JC81-03522A	AS-GEARZ60	SA	E	
5.20-4-7	JC81-03473A	AS-MOTORPMASSYZ18	SA	D	
5.20-4-8	-	SHAFT:TRANS:BERO	SNA	-	
5.20-4-8-1-12	JC61-00423A	BUSH-6_D	SA	-	
5.20-4-8-1-13	-	E-RING:4	SNA	-	

5.20-5 Ejector Unit
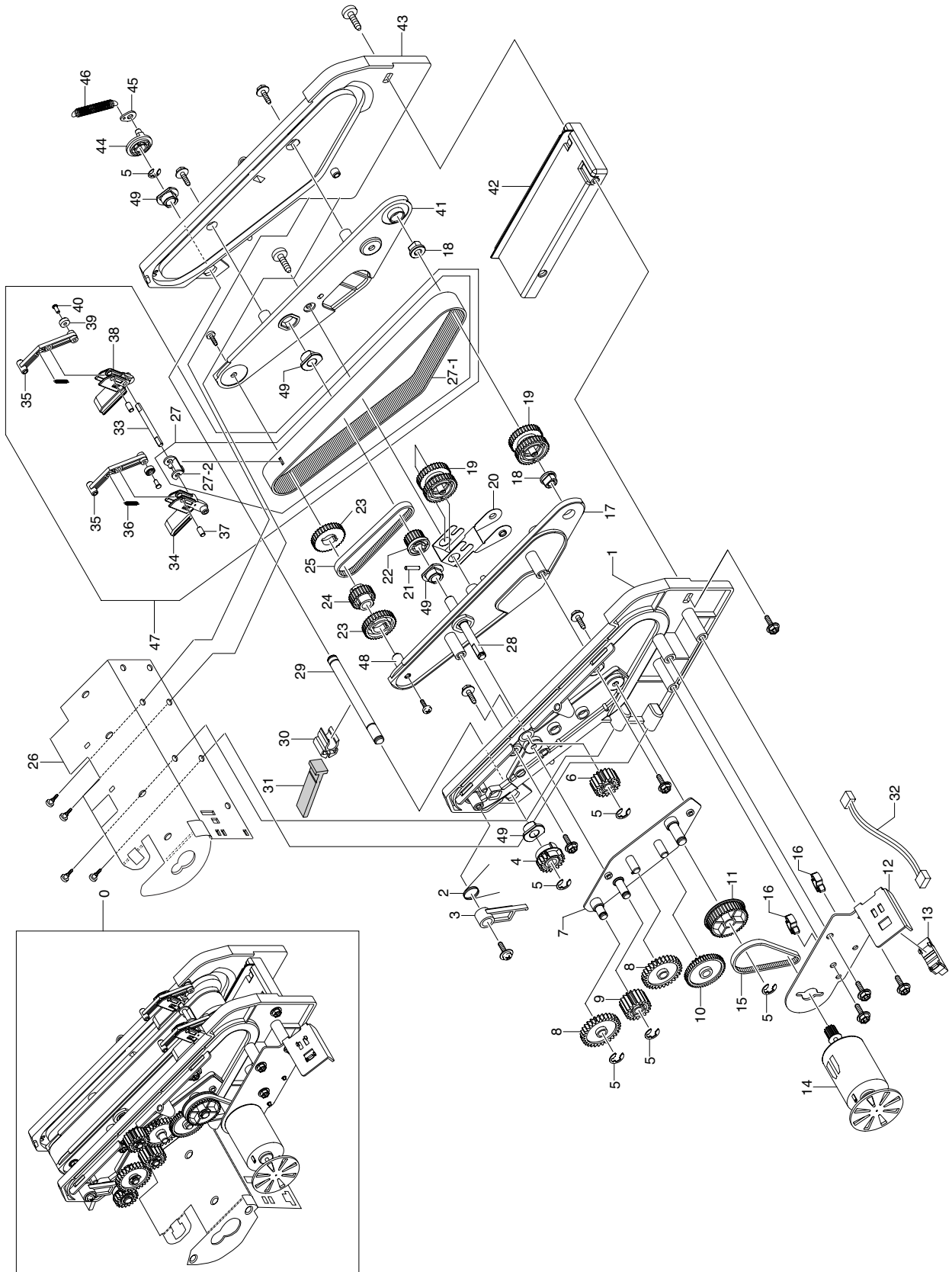
Ejector Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-5-0	JC81-03773A	AS-EJECTORUNITASSY	SA	-	
5.20-5-1	-	FRMAE:FRONT:EJECT	SNA	-	
5.20-5-2	-	T-SPRING:LATCH:SCU	SNA	-	
5.20-5-3	-	HOOK:CAM:EJECT	SNA	-	
5.20-5-4	JC81-03526A	AS-GEARCAMSCU	SA	E	
5.20-5-5	-	E-RING:4	SNA	-	
5.20-5-6	JC81-03495A	AS-SPURGEARZ19	SA	E	
5.20-5-7	-	ASSY:BKT:DRIVING:EJECT	SNA	-	
5.20-5-8	JC81-03504A	AS-SPURGEARZ30	SA	E	
5.20-5-9	JC81-03503A	AS-SPURGEARZ19SCU	SA	E	
5.20-5-10	JC81-03502A	AS-GEARM08Z19M05Z50	SA	E	
5.20-5-11	JC81-03501A	AS-PULLEYS2MT40M05T24	SA	E	
5.20-5-12	-	BKT:DCMOTOR:EJECT	SNA	-	
5.20-5-13	0604-001095	PISENSOR:GP1S73P2	SA	A	
5.20-5-14	JC81-03474A	AS-MOTOREJECT	SA	D	
5.20-5-15	C81-03500A	AS-BELTB35S2M118J	SA	-	
5.20-5-16	-	MICROWIRESADDLE	SNA	-	
5.20-5-17	-	FRAME:BELT:EJECT:FRONT	SNA	-	
5.20-5-18	JC61-00424A	BUSH-4_D	SA	-	
5.20-5-19	C81-03499A	AS-PULLEYS2M34TJ	SA	-	
5.20-5-20	-	PLATESPRING:TIGHTNER:EJECT	SNA	-	
5.20-5-21	-	PARALLELPIN:2x10	SNA	-	
5.20-5-22	JC81-03498A	AS-PULLEYS2M20T	SA	E	
5.20-5-23	JC81-03497A	AS-PULLEYDRVS2M34T	SA	E	
5.20-5-24	JC81-03496A	AS-PULLEYS2M25T	SA	E	
5.20-5-25	JC81-03513A	AS-BELTB35S2M144	SA	E	
5.20-5-26	-	FRAME:BERO	SNA	-	
5.20-5-27	JC81-03512A	AS-BELTASSYEJECT	SA	E	
5.20-5-27-1	-	BELT-EJECTB130S2M370	SNA	-	
5.20-5-27-2	-	HOLER-BELTEJECT	SNA	-	
5.20-5-28	-	SHAFT:BELTTRANS:EJECT	SNA	-	
5.20-5-29	-	SHAFT:SCU	SNA	-	
5.20-5-30	-	HOLDER:SCU	SNA	-	
5.20-5-31	-	PADDLE:SCU	SNA	-	
5.20-5-32	-	ASSY:M/H:EXTTRAYHOMESNR	SNA	-	
5.20-5-33	-	SHAFTD-CUT:GRIPHINGE:EJECT	SNA	-	
5.20-5-34	-	GRIPBASE:FRONT:EJECT	SNA	-	
5.20-5-35	-	GRIPLINK:EJECT	SNA	-	
5.20-5-36	-	E-SPRING:GRIP	SNA	-	
5.20-5-37	-	SHAFT:GRIPHINGE:EJECT	SNA	-	
5.20-5-38	-	GRIPBASE:REAR:EJECT	SNA	-	
5.20-5-39	-	ROLLER:GRIP:EJECT	SNA	-	
5.20-5-40	-	PIN:ROLLER:EJECT	SNA	-	

Ejector Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-5-41	-	FRAME:BELT:EJECT:REAR	SNA	-	
5.20-5-42	-	FRAME:RETURN:EJECT	SNA	-	
5.20-5-43	-	FRAME:REAR:EJECT	SNA	-	
5.20-5-44	-	ROTATOR:CAM:SCU	SNA	-	
5.20-5-45	-	HOOK:SPRING:SCU	SNA	-	
5.20-5-46	-	E-SPRING:CLUTCH:SCU	SNA	-	
5.20-5-47	JC81-03772A	AS-EJTBELTSUBASSY	SA	E	
5.20-5-48	-	SHAFT:BELTPULLEY:EJECT	SNA	-	
5.20-5-49	JC61-00423A	BUSH-6_D	SA	-	

5.20-6 Compile Unit
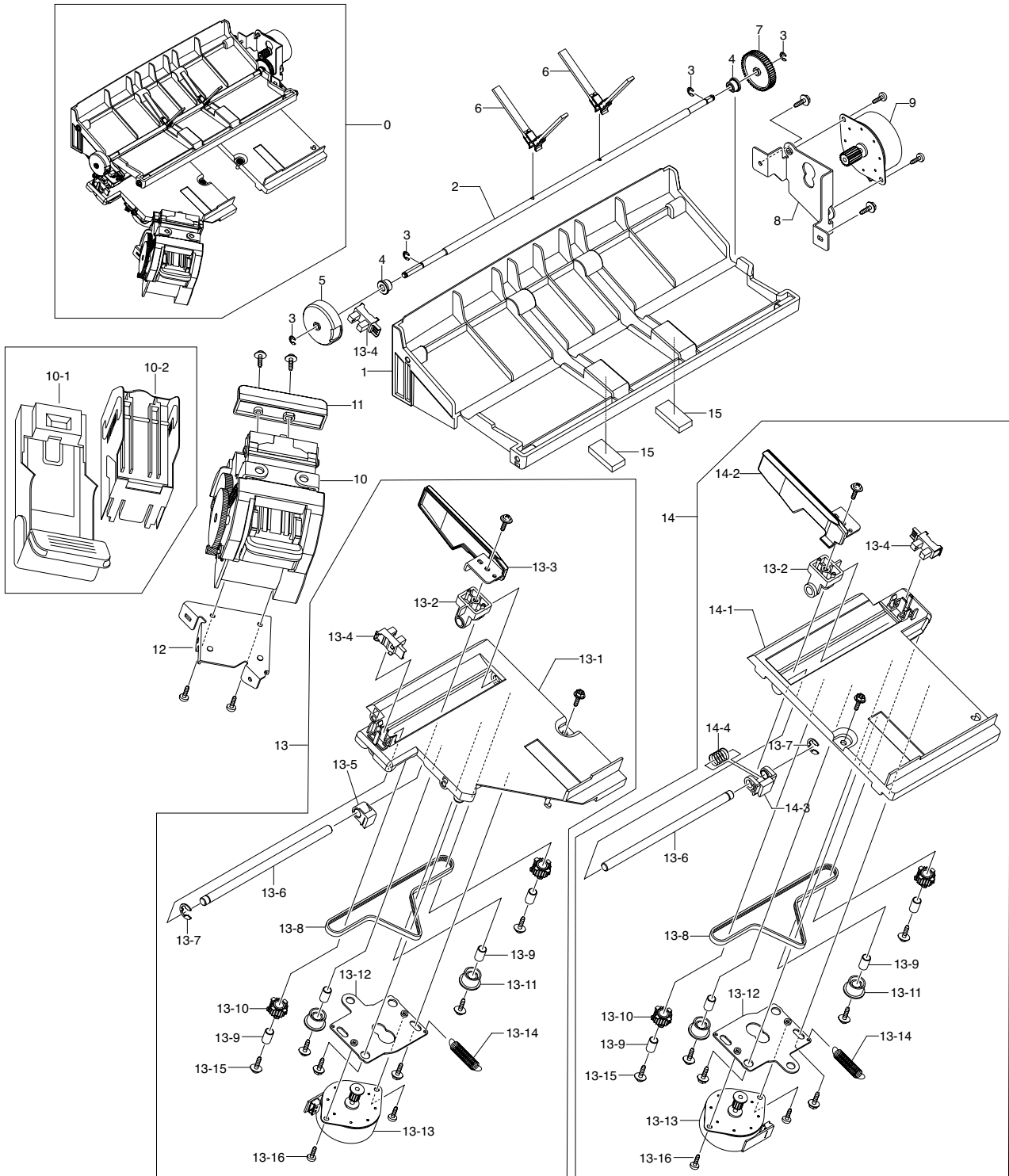
Compile Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-6-0	-	COMPILEUNIT	SNA	-	
5.20-6-1	-	COVER:COMPILE:UPPER	SNA	-	
5.20-6-2	-	SHAFT:PADDLE	SNA	-	
5.20-6-3	-	E-RING:3	SNA	-	
5.20-6-4	JC61-00424A	BUSH-4_D	SA	-	
5.20-6-5	-	ACTUATOR:HOME:PADDLE	SNA	-	
5.20-6-6	JC81-03482A	AS-PADDLECOMPILE	SA	D	
5.20-6-7	JC81-03510A	AS-GEARPADDLEZ56	SA	E	
5.20-6-8	-	BKT:MOTOR:PADDLE	SNA	-	
5.20-6-9	JC81-03473A	AS-MOTORPMASSYZ18	SA	D	
5.20-6-10	JC81-03475A	AS-STAPLERASSYEH-C590	SA	D	
5.20-6-10-1	JC81-03481A	AS-CARTRIDGESTAPLERNo.590X	SA	D	
5.20-6-10-2	JC81-03476A	AS-STAPLESREFILLNo.505XW	SA	-	
5.20-6-11	-	GUIDE:STAPLER	SNA	-	
5.20-6-12	-	BASEBKT:STAPLER	SNA	-	
5.20-6-13	C81-03511A	AS-FRONTJOGGERASSY	SA	-	
5.20-6-13-1	-	FRAME:COMPILE:FRONT	SNA	-	
5.20-6-13-2	-	LMBUSH:TAMPER	SNA	-	
5.20-6-13-3	-	SIDEFENCE:TAMPER:FRONT	SNA	-	
5.20-6-13-4	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.20-6-13-5	-	HOLDER:BELT:TAMPER:FRONT	SNA	-	
5.20-6-13-6	-	LMSHAFT:TAMPER	SNA	-	
5.20-6-13-7	-	E-RING:4	SNA	-	
5.20-6-13-8	JC81-03509A	AS-BELTB40S2M290	SA	E	
5.20-6-13-9	-	HOLLOWSHAFT:D_6	SNA	-	
5.20-6-13-10	JC81-03508A	AS-PULLEYT20TAMPER	SA	E	
5.20-6-13-11	-	ROLLER:TAMPER	SNA	-	
5.20-6-13-12	-	BKT:MOTOR:TAMPER	SNA	-	
5.20-6-13-13	JC81-03486A	AS-MOTORPMASSYS2M12T	SA	D	
5.20-6-13-14	-	E-SPRING:TIGHTNER:TAMPER	SNA	-	
5.20-6-13-15	-	SCREW-TAPTITEM3L10	SNA	-	
5.20-6-13-16	-	SCREW-TAPPINGM3L8	SNA	-	
5.20-6-14	JC81-03507A	AS-REARJOGGERASSY	SA	-	
5.20-6-14-1	-	FRAME:COMPILE:REAR	SNA	-	
5.20-6-14-2	-	SIDEFENCE:TAMPER:REAR	SNA	-	
5.20-6-14-3	-	HOLDER:BELT:TAMPER:REAR	SNA	-	
5.20-6-14-4	-	C-SPRING:TAMPER	SNA	-	
5.20-6-15	-	DAMPER-SPONGE	SNA	-	

5.20-7 Feed Unit
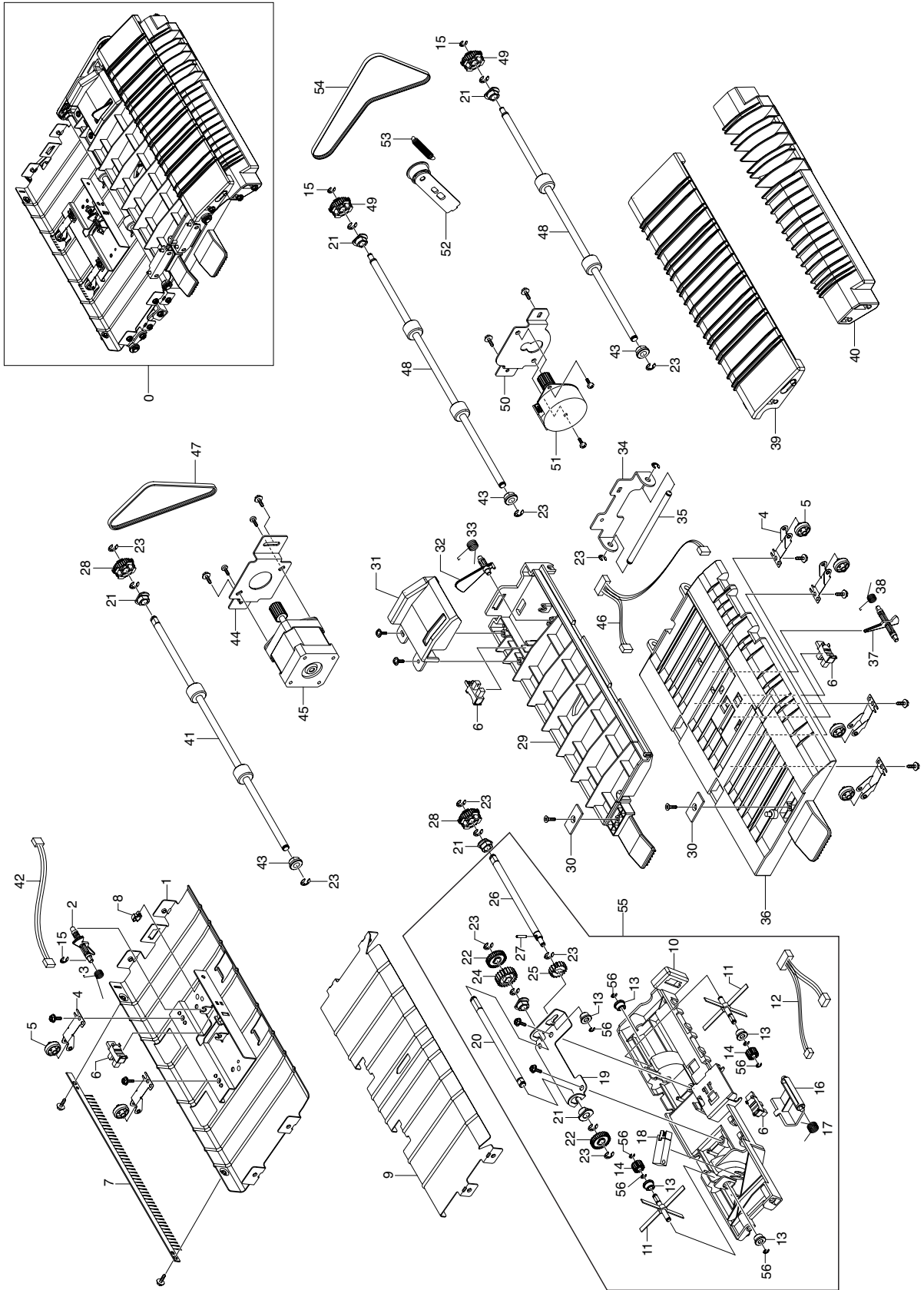
Feed Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-7-0	-	FEEDUNIT	SNA	-	
5.20-7-1	-	GUIDE:EXIT:UPPER:ASSY	SNA	-	
5.20-7-2	-	ACTUATOR:FEED	SNA	-	
5.20-7-3	-	T-SPRING:ACTUATOR:FEED	SNA	-	
5.20-7-4	-	LEAFSPRING:FEED	SNA	-	
5.20-7-5	-	ROLLER:IDLE:FEED	SNA	-	
5.20-7-6	0604-001095	PHOTO-INTERRUPTER	SA	A	
5.20-7-7	JC67-00125A	ANTI-STATICBRUSH	SA	-	
5.20-7-8	-	MICROWIRESADDLE	SNA	-	
5.20-7-9	-	GUIDE:EXIT:LOWER	SNA	-	
5.20-7-10	-	GUIDE:COMPILE	SNA	-	
5.20-7-11	JC81-03506A	AS-PADDLESUBASSY	SA	E	
5.20-7-12	-	ASSY:M/H:EJECTHOMESNR	SNA	-	
5.20-7-13	JC61-00424A	BUSH-4_D	SA	-	
5.20-7-14	JC81-03505A	AS-GEARPDLZ18M05	SA	E	
5.20-7-15	-	E-RING:3	SNA	-	
5.20-7-16	-	ACTUATOR:EJECTOR	SNA	-	
5.20-7-17	-	T-SPRING:ACTUATOR:EJECT	SNA	-	
5.20-7-18	JC81-03480A	AS-SENSORPHOTO	SA	D	
5.20-7-19	-	BKT:PADDLE:SUB	SNA	-	
5.20-7-20	-	SHAFT:TRANS:SUBPADDLE	SNA	-	
5.20-7-21	-	BUSH-6_D	SNA	-	
5.20-7-22	JC81-03520A	AS-GEARSUBPDLZ34	SA	E	
5.20-7-23	-	E-RING:4	SNA	-	
5.20-7-24	JC81-03519A	AS-GEARSUBPDLZ22	SA	E	
5.20-7-25	JC81-03518A	AS-GEARSUBPDLZ18M08	SA	E	
5.20-7-26	-	SHAFT:TRANS:SUBPADDLE:FEED	SNA	-	
5.20-7-27	-	PARALLELPIN:2x10	SNA	-	
5.20-7-28	JC81-03517A	AS-PULLEYT30S2M	SA	E	
5.20-7-29	-	GUIDE:OPEN:DUPLEX	SNA	-	
5.20-7-30	-	MAGNETCATCHPLATE:12x26	SNA	-	
5.20-7-31	-	COVER:ACTUATOR:DUPLEX	SNA	-	
5.20-7-32	-	ACTUATOR:DUPLEX	SNA	-	
5.20-7-33	-	T-SPRING:ACTUATOR:DUPLEX	SNA	-	
5.20-7-34	-	BKT:HINGE:GUIDE	SNA	-	
5.20-7-35	-	SHAFT:HINGE:GUIDE	SNA	-	
5.20-7-36	-	GUIDE:OPEN	SNA	-	
5.20-7-37	-	ACTUATOR:FEED	SNA	-	
5.20-7-38	-	T-SPRING:ACTUATOR:STACK	SNA	-	
5.20-7-39	-	GUIDE:ENTRANCE:UPPER	SNA	-	
5.20-7-40	-	GUIDE:ENTRANCE:LOWER	SNA	-	
5.20-7-41	JC81-03477A	AS-ROLLEREXIT	SA	D	
5.20-7-42	-	ASSY:M/H:EXITSNR	SNA	-	

Feed Unit Parts List

SA : SERVICE AVAILABLE, SNA : SERVICE not AVAILABLE

Drawer#	SEC_Code	Description	*Service	*Grade	Remark
5.20-7-43	-	BEARING:6	SNA	-	
5.20-7-44	-	BKT:MOTOR:FEED:EXIT	SNA	-	
5.20-7-45	JC81-03479A	AS-MOTORHBASSY	SA	D	
5.20-7-46	-	ASSY:M/H:MIDSNR	SNA	-	
5.20-7-47	JC81-03516A	AS-BELTB30S2M244	SA	E	
5.20-7-48	JC81-03485A	AS-ROLLERENT	SA	-	
5.20-7-49	JC81-03515A	AS-PULLEYT33S2M	SA	E	
5.20-7-50	-	BKT:MOTOR:FEED:ENT	SNA	-	
5.20-7-51	JC81-03478A	AS-MOTORPMASSY	SA	D	
5.20-7-52	-	ASSY:BKT:TIGHTNER	SNA	-	
5.20-7-53	-	E-SPRING:TIGHTNER:FEED	SNA	-	
5.20-7-54	JC81-03514A	AS-BELTB30S2M354ENT	SA	E	
5.20-7-55	JC81-03771A	AS-FEEDUNITASSY	SA	E	
5.20-7-56	-	E-RING:2.5	SNA	-	

8. Block Diagram

8.1 System Block Diagram
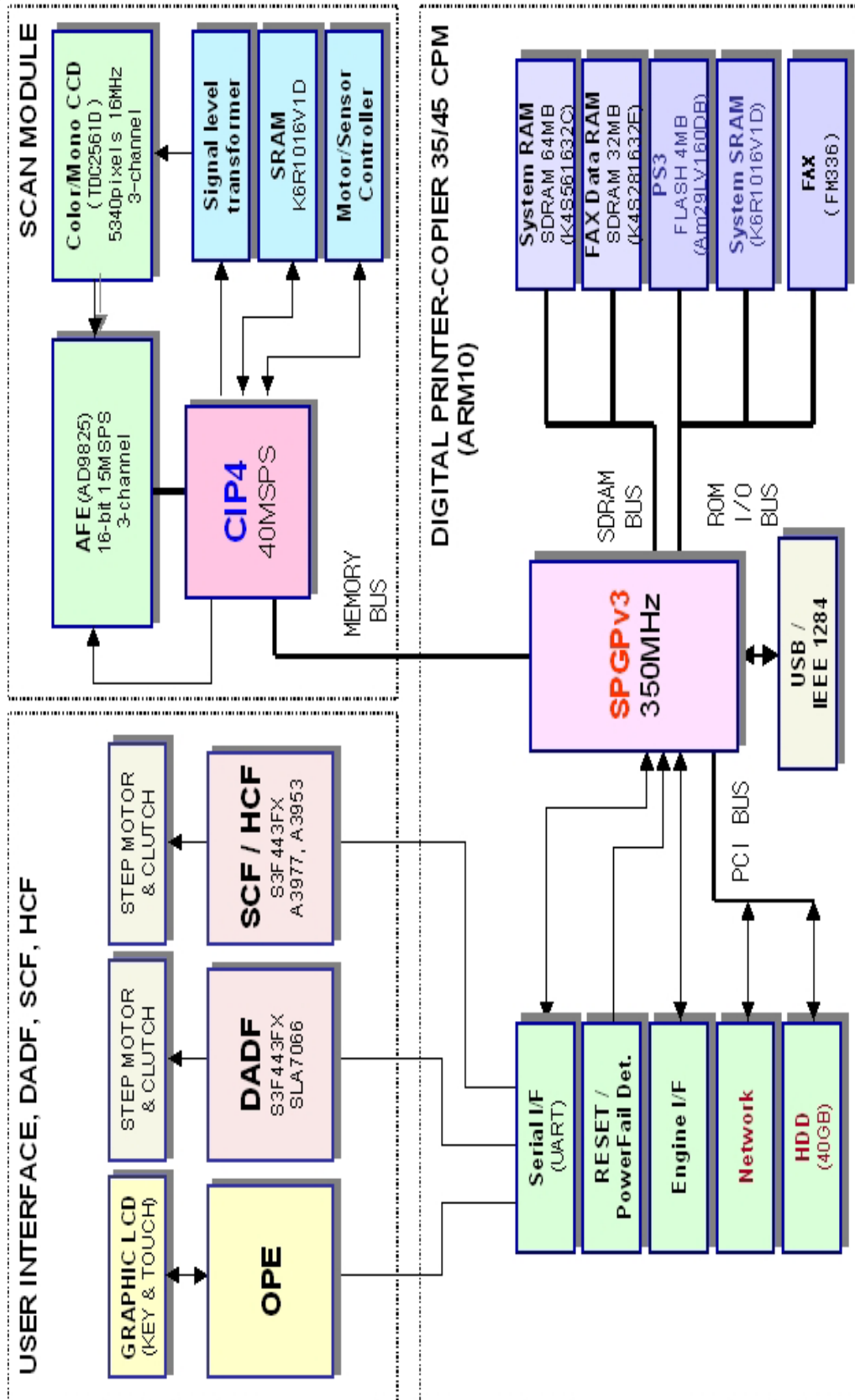
8.2 DADF Block Diagram
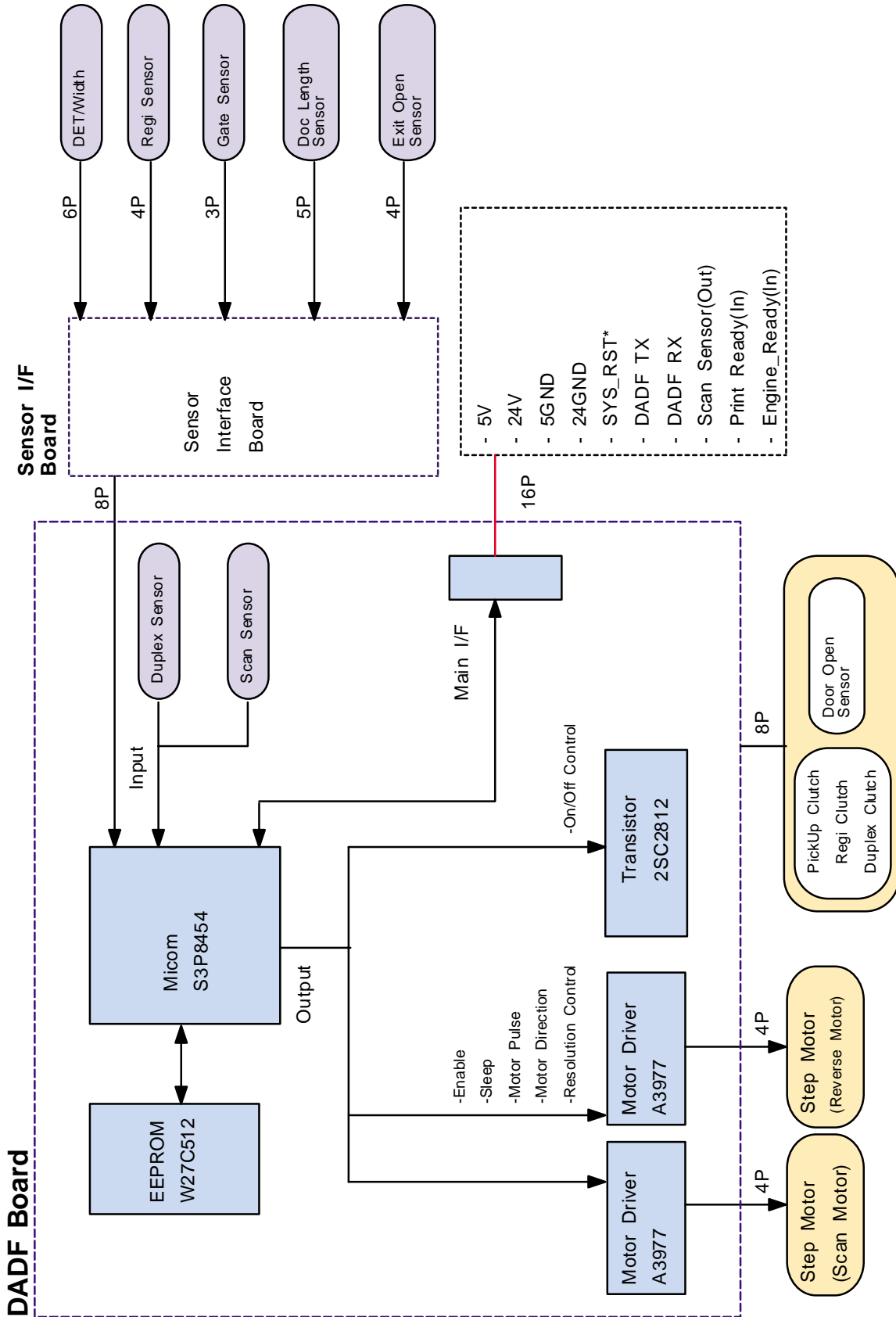
8.3 DADF Control Block Diagram

Samsung Electronics
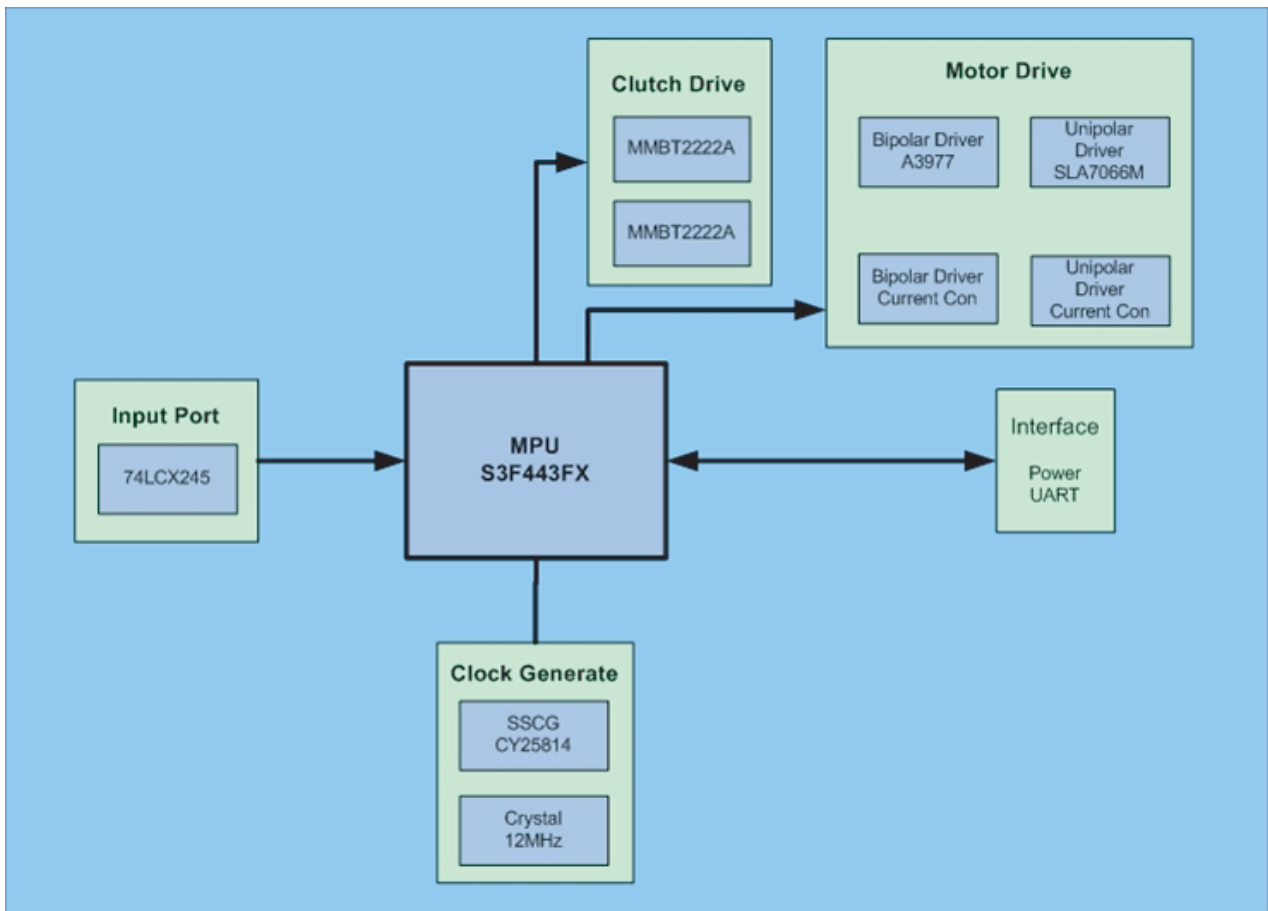
9. Connection Diagram

9.1 System Connection Diagram
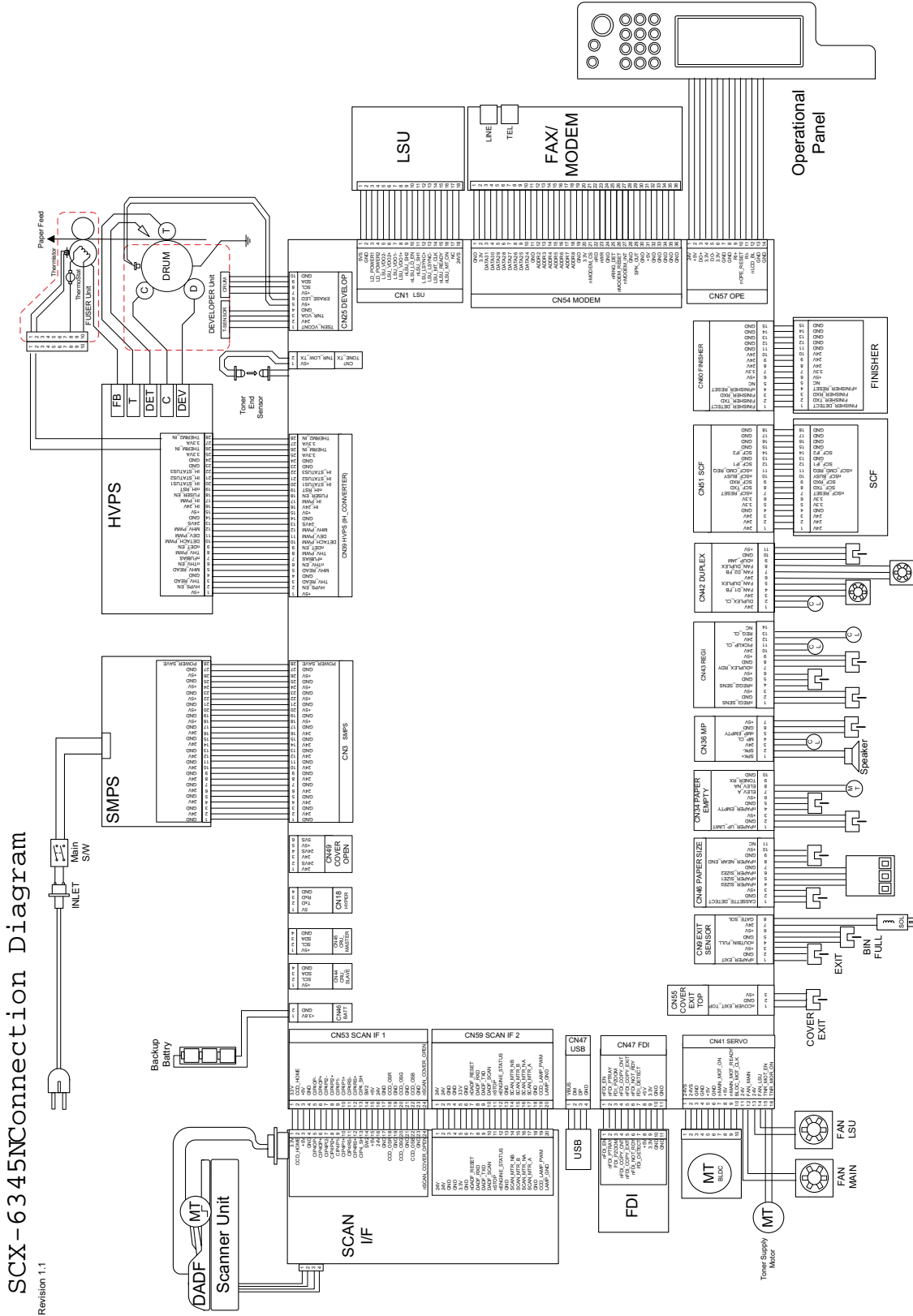
SCX-6345N Connection Diagram

Revision 1.1

9.2 SCF Connection Diagram
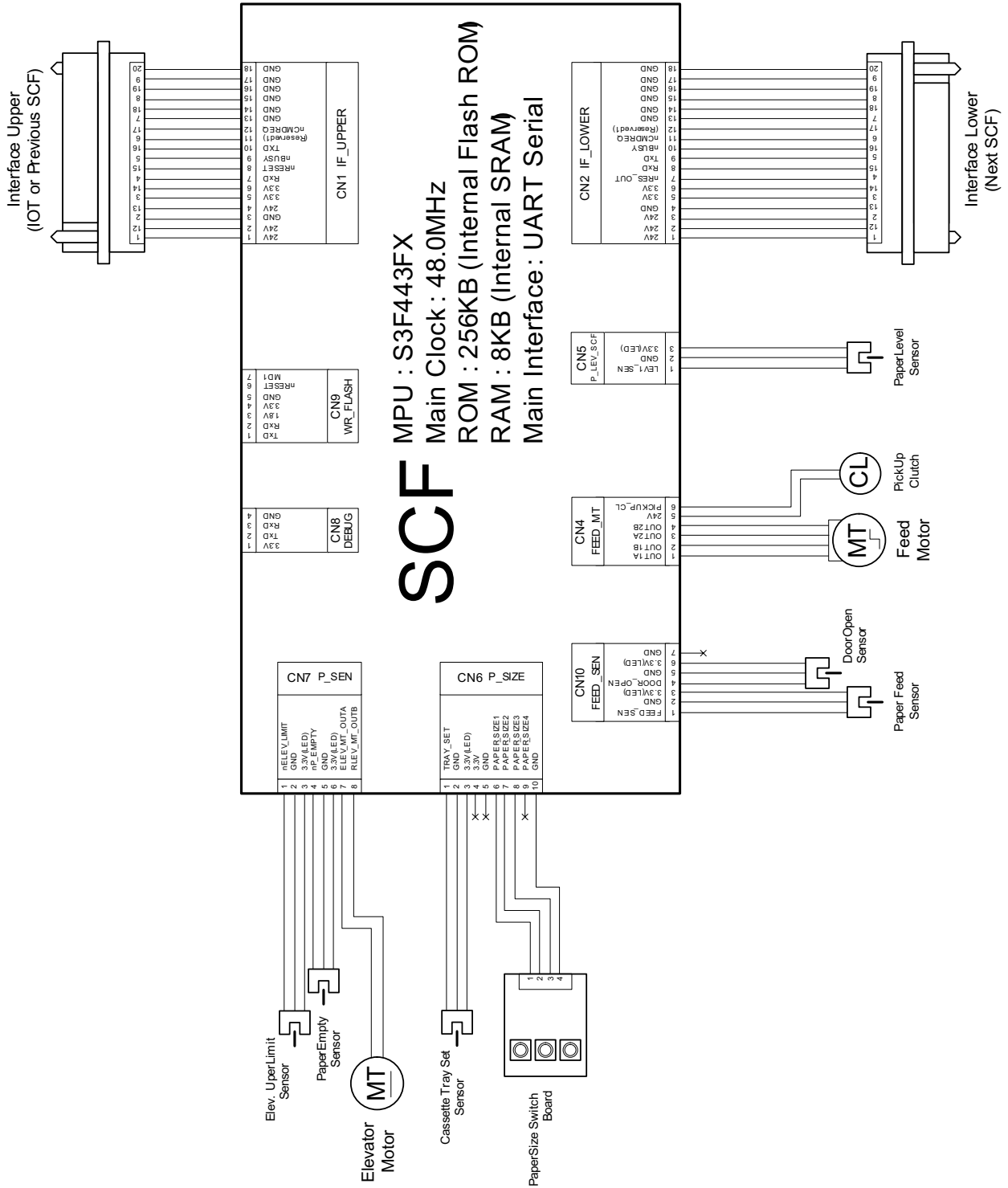
9.3 DADF Connection Diagram
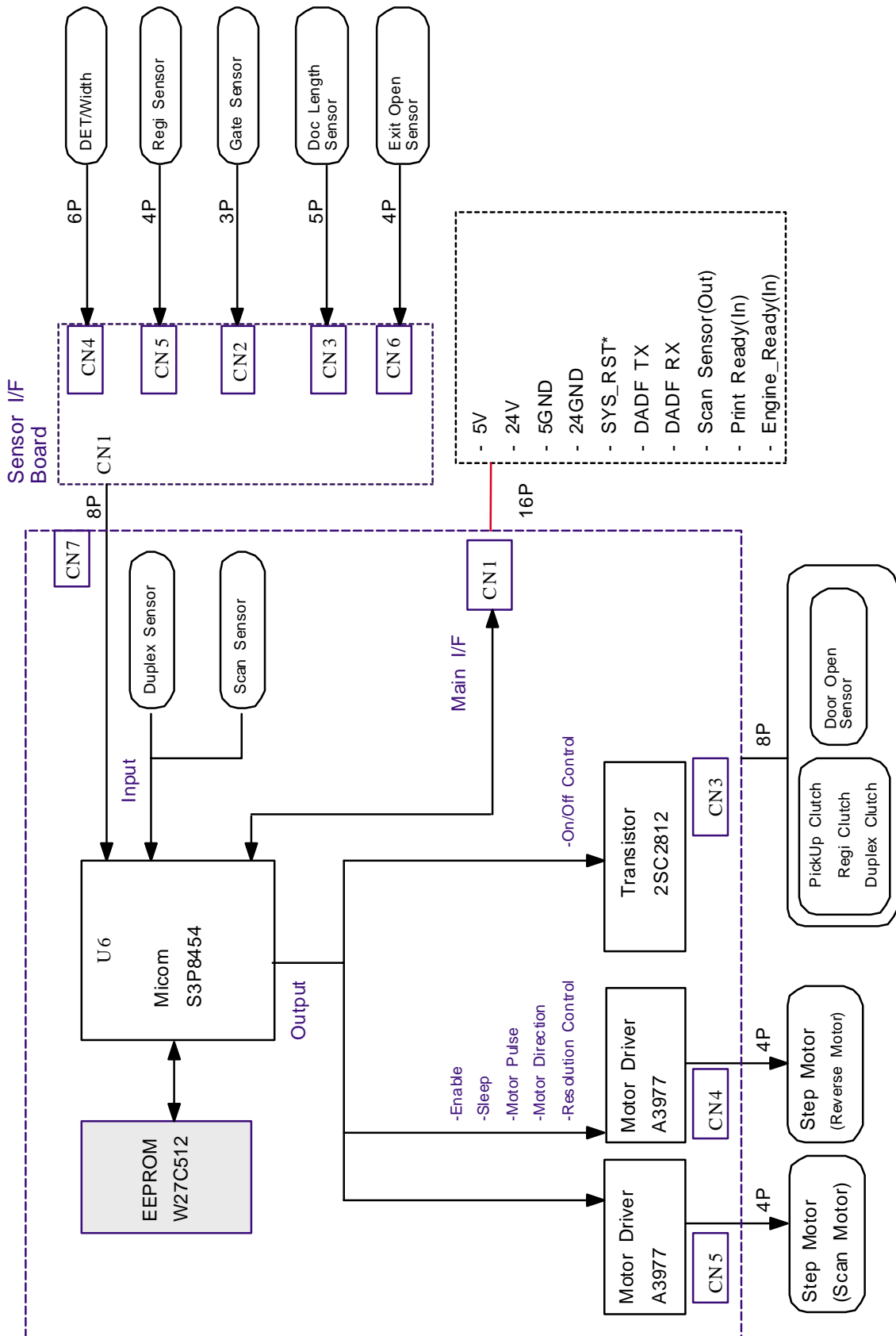
9.4 OP Main Connect Diagram

OP MAIN BOARD

KEY I/F

JTAG I/F

HYPER I/F

KEY SUB I/F

LCD I/F

MAIN I/F

KEY I/F connector
- 1P : 5V
- 2P : KEY_IN0
- 3P : KEY_IN1
- 4P : KEY_IN2
- 5P : KEY_IN3
- 6P : KEY_OUT0
- 7P : KEY_OUT1
- 8P : KEY_OUT2
- 9P : KEY_OUT3
- 10P : KEY_OUT4
- 11P : LED0
- 12P : LED1
- 13P : GND
- 14P : GND

JTAG I/F connector
- 1P : 3.3V
- 2P : TDO
- 3P : nTRST
- 4P : TCK
- 5P : TMS
- 6P : TDI
- 7P : nRESET
- 8P : GND

HYPER I/F connector
- 1P : 3.3V
- 2P : TXD
- 3P : RXD
- 4P : GND

MAIN I/F connector
- 1P : 5V
- 2P : 24V
- 3P : 3.3V
- 4P : RXD+
- 5P : 3.3V
- 6P : RXD-
- 7P : GND
- 8P : GND
- 9P : nRESET
- 10P : TXD+
- 11P : LCD_BL
- 12P : TXD-
- 13P : GND
- 14P : GND

KEY SUB I/F connector
- 1P : 5V
- 2P : KEY_IN4
- 3P : KEY_OUT0
- 4P : KEY_OUT1
- 5P : KEY_OUT2
- 6P : LED2
- 7P : LED3
- 8P : LED4
- 9P : LED5
- 10P : CONTRAST
- 11P : GND

LCD I/F connector
- 1P : VFLM
- 2P : VLINE
- 3P : VCLK
- 4P : LCD_ON
- 5P : 3.3V
- 6P : GND
- 7P : CONTRAST
- 8P : VD0
- 9P : VD1
- 10P : VD2
- 11P : VD3
- 12P : N.C
- 13P : N.C
- 14P : N.C
- 15P : TOUCH_X2
- 16P : TOUCH_Y1
- 17P : TOUCH_X1
- 18P : TOUCH_Y2

OP KEY PBA

KEY I/F

1P : KEY_IN0
2P : 5V
3P : KEY_IN2
4P : KEY_IN1
5P : KEY_OUT0
6P : KEY_IN3
7P : KEY_OUT2
8P : KEY_OUT1
9P : KEY_OUT4
10P : KEY_OUT3
11P : LED1
12P : LED0
13P : GND
14P : GND

OP KEY - SUB PBA

KEY - SUB I/F

1P : 5V
2P : KEY_IN4
3P : KEY_OUT0
4P : KEY_OUT1
5P : KEY_OUT2
6P : LED2
7P : LED3
8P : LED4
9P : LED5
10P : CONTRAST
11P : GND

10. Finisher Unit

10.1 Summary of the Finisher Unit

10.1.1 Product summary

(1) High Speed System : 35ppm with minimized skip-pitches.

(2) Heavy Duty Design : 50 sheets stapling / 500 sheets stacking / 1,000K Life

(3) Paper Spec. : Length (148~357mm)°øWidth (98-216mm) (60~163gsm)

(4) Staple Cartridge : 5,000 staples / cartridge

(5) Configuration : Embed type

10.1.2 Appearance

10.2 System Configuration
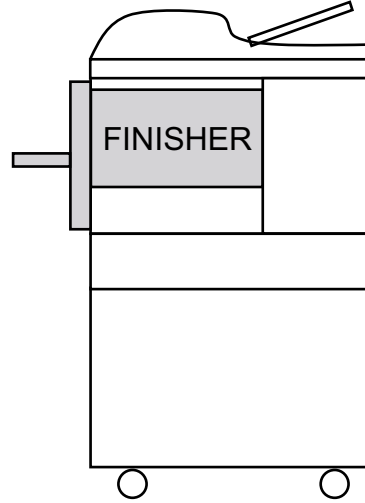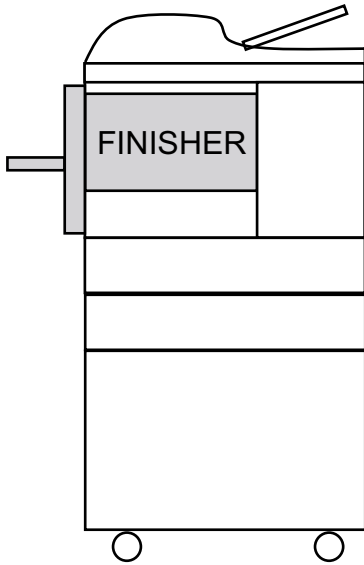
10.3 SPECIFICATION

10.3.1 Physical

(1) Size : Without Stacker : W 498 X D 390 X H 284 (mm)

               With Stacker : W 726 X D 390 X H 300 (mm)

(2) Weight : 11.0 kgf

10.3.2 Connection

< Mechanical connection >

(1) Paper Registration : Center Registration

(2) Docking alignment position : 3 Docking Pins and 2 Latches

< Electrical Connection >

(1) Control command : 3.3V

(2) Connection : D-Sub Connector (Rear side)

(3) Control specification : Gradco I/F Specification for Samsung

< Power Supply >

(1) Power Supply : Engine supplies 24V / 5V / 3.3V to Finisher

(2) Input Power : 24V±10%, 5 V ±5%, 3.3 V ±5%

(3) Rating Current : 24.0 V, 3.0 A (Peak 4.5A for 25ms MAX.)

               5.0 V, 0.5 A

               3.3 V, 0.6 A

10.3.3 Functions

< Basic Function >

(1) Stacking : 500 sheet with 20lb sheet

(2) Stapling : 50 sheet stapling with 20lb sheet

         : 5,000 staples per a stapler cartridge

(3) Offset at Non Staple job : Available

(4) Offset at Stapled job : Available (Gradco cannot avoid infringing the Canon's Patent "JP 2531751" for this stapling with Offset stacking mode)

10.3.4 Media

(1) Paper orientation
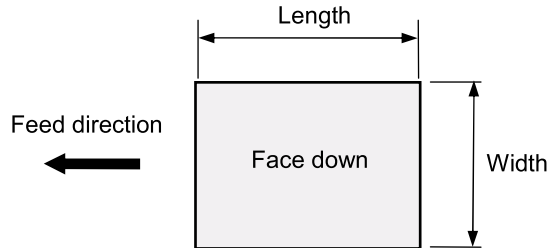
(2) Paper Size : Length (148.357mm) ×Width (98.216mm)

(3) Paper Weight : 60.163g/㎡ (16.53lb)

〈 Operating Mode Table 〉

	Stack	Staple	Offsetting	
Width 98C ~ 182mm	O	X	X	60C ~ 163g/㎡ 16C ~ 53lb
Width 182mC ~216mm	O	O	O	60C ~ 163g/㎡ 16C ~ 53lb
Multi media	O	X	X	(Note1)

Note1) Multi-Media are not guaranteed for the performance(No dropping, No miss-Ordering)

(4) Paper Type : PPC paper (Coefficient of sliding friction: Max. 0.6)
Note1) Tracing paper / Label / OHP / Envelope are not guaranteed for the performance (No dropping, No miss-Ordering)
Note2) Pre punched PPC paper is not guaranteed for the performance

(5) Standard Test Paper (based on Finisher Core Media List from Samsung)

	Type	*Size*	*Weight*	*Manufacturer*
1	Xerox 4024 DP	Letter	20lb	Xerox
2	Xerox Premier	A4	80 g/㎡	Xerox
3	Samsung Premier	A4	75 g/㎡	Samsung

10.4 PERFORMANCE

10.4.1 Input paper conditions

- Paper delivery from Engine :

      Printing : Simplex / Duplex

      Output : Face Down

          Note) Odd pages should be face down exit at duplex print mode.

      Page order : 1 to N

      Registration : Feeding Center

- Engine speed : 35.45ppm

  · Feed Speed (Engine to Finisher)

Conditions	Value	Note
Feed speed from Engine	Max. 282.75mm/sec	
Inter-gap A	Min.1.333sec	
Inter-gap B	Min. 0.3466 sec	
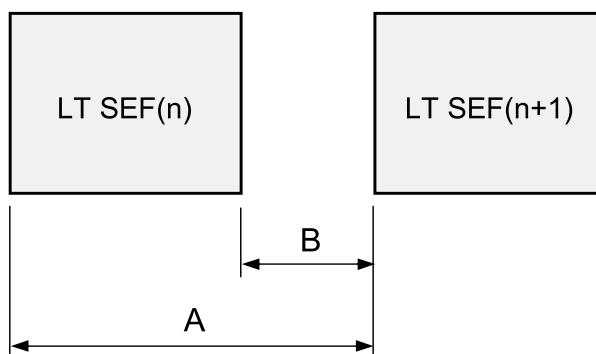
Note) Skip pitch insertion is required between previous and next job at stapling mode, and 1 sheet ejecting with offset .

10.4.2 Curl amount from Engine

(1) Allowance of curl : |A MAX| $\leqq$ 12.7 mm (1/2")

   R $\geqq$ 80 mm

   (Guarantee feeding function, sensing)

(2) Standard condition of curl : |A MAX| $\leqq$ 7 mm

   R $\geqq$ 40 mm

   (Guarantee functions, performance, and reliability)

1) This curl condition insures the stacking performance.

2) Ignore any trouble due to the paper curl of the located the top position in the bunch of sheets without stapled.

3) It is out of spec that paper curl increasing by the time passing.

<Curl measurement method >

Media : Test paper

Environment : Test environment

Method : Measure the curl of 10 sheets on the flat board (grass) immediately after printed out,

$A = MAX(A1,A2,A3,A4)$
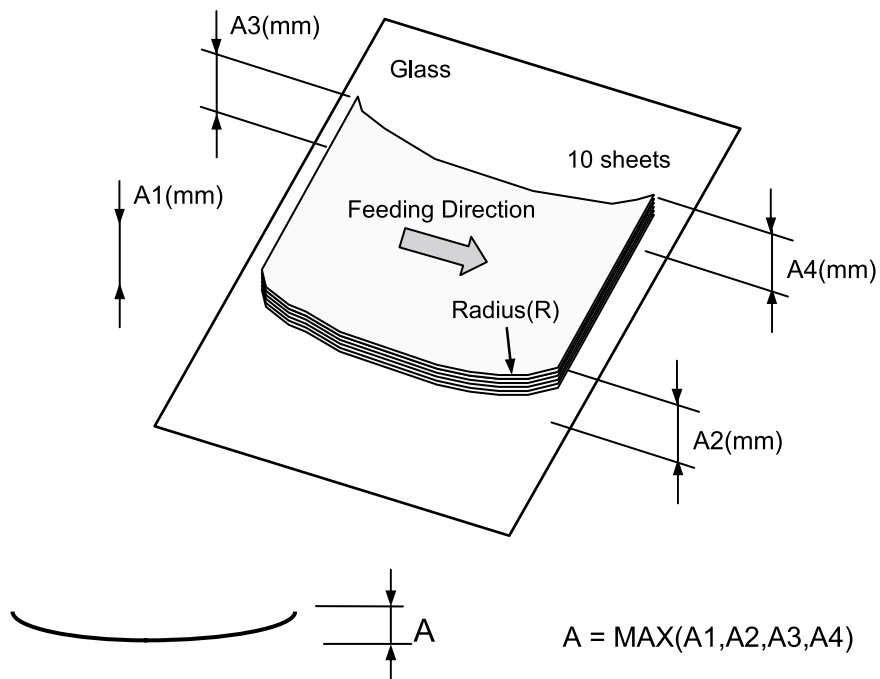
10.4.3 Electric static charge amount from Engine

: $\leq$0.5 kV per sheet
   (Simplex / Duplex)

- Registration and skew from Engine
   : A $\leq$3.0 mm
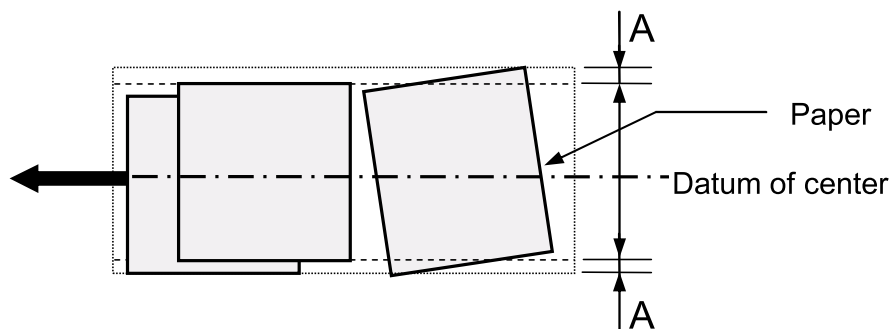
- Standard test pattern of printing : Samsung's Printing Pattern

10.4.4 Stapling

10.4.4.1 Printing orientation
(This finisher can't staple on a suitable position if printing direction is not as follows.)
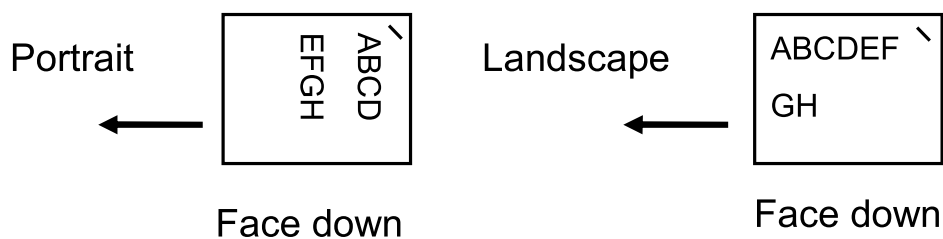
10.4.4.2 Position of stapling

6r 2mm   6r 2mm

ABCDE

FGHIJK
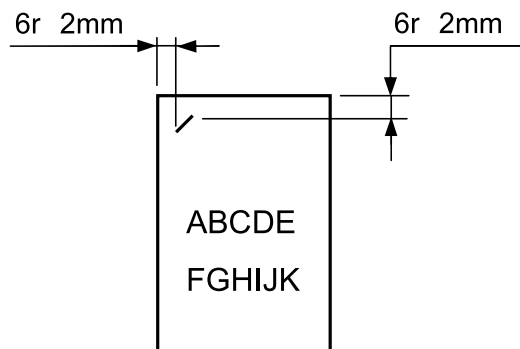
10.4.5 Machine life

: 1,000,000 sheets or 5 years

(Excluding Periodical replacement part)

11. Network Printer Server

11.1 Network Printer

11.1.1 Network Card Model Names

- SCX-5315 Series : McKinley Plus

- SCX-4720 Series : Rocky2_SEC

- SCX-4720FN : Rocky2(Sec)_Plus - Phy B'd Network Basic Model

- SCX-6x20 Series : McKinley2_SEC

- SCX-6x20FN : McKinley2_SEC - Network Basic Model

- SCX-5x30 Series : Elbert - Network On board, Network Basic Model

- SCX-6x22 Series : Elburz - Phy B'd Network, Network Basic Model

- CLX-3160 Series : Iris - Network On board, Network Basic Model

- SCX-4725FN : Whitney2 - Network On board Network Basic Model

- SCX-6x45 Series : Jungfrau - Network Basic Model (PCI)

11.1.2 Optional Network Card Model Names

- ML-00NB, ML-00NC, ML-00NE, ML-00NF, CLP-N600A
  : Optional internal wired network card for PRINTER

- ML-00LB, ML-00LC, ML-00LE, ML-00LF, CLP-N600B
  : Optional internal wired/wireless network card for PRINTER

- ML-00NA
  : Old optional internal wired network card

- SCX-00NB
  : Optional internal wired network card for MFP

- SCX-00LA
  : Optional internal wired/wireless network card for MFP

- SCX-00NA
  : Optional internal wired network card for Mckinley plus only

- SCX-6320NA
  : Optional internal wired network card for Mckinley2 only

11.1.3 External Network Card Model Names

- ML-00LA: External wired/wireless network printer server
- ML-00ND: External wired network printer server

11.2 Printer Connection Method

- Network Card Type

| Printer Main B'd (Printer SW only) | + | Network Card (SW + HW) |

- PHY Board Type

| Printer Main B'd (Printer + Network SW) | + | PHY B'd (HW only) |
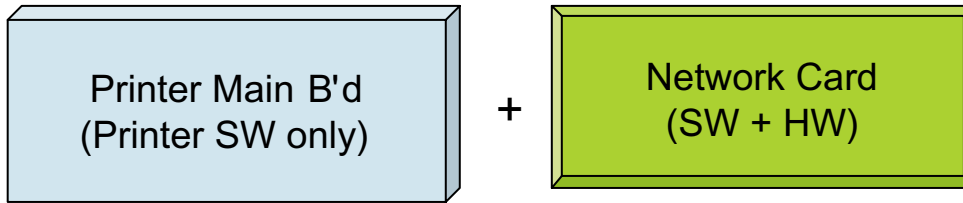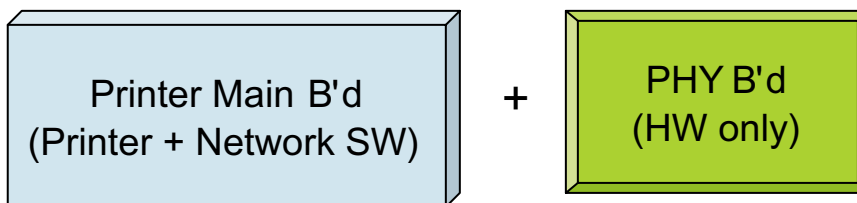
- Network Printer on-board Type

| Printer Main B'd (Printer + Network SW & HW) |
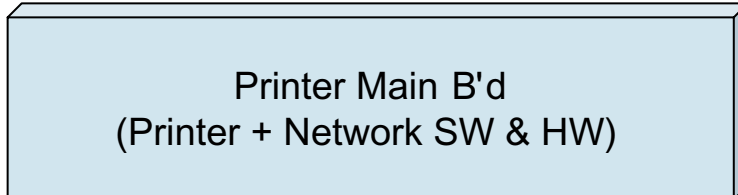
- Network Card (SCX-6320NA/SEE)
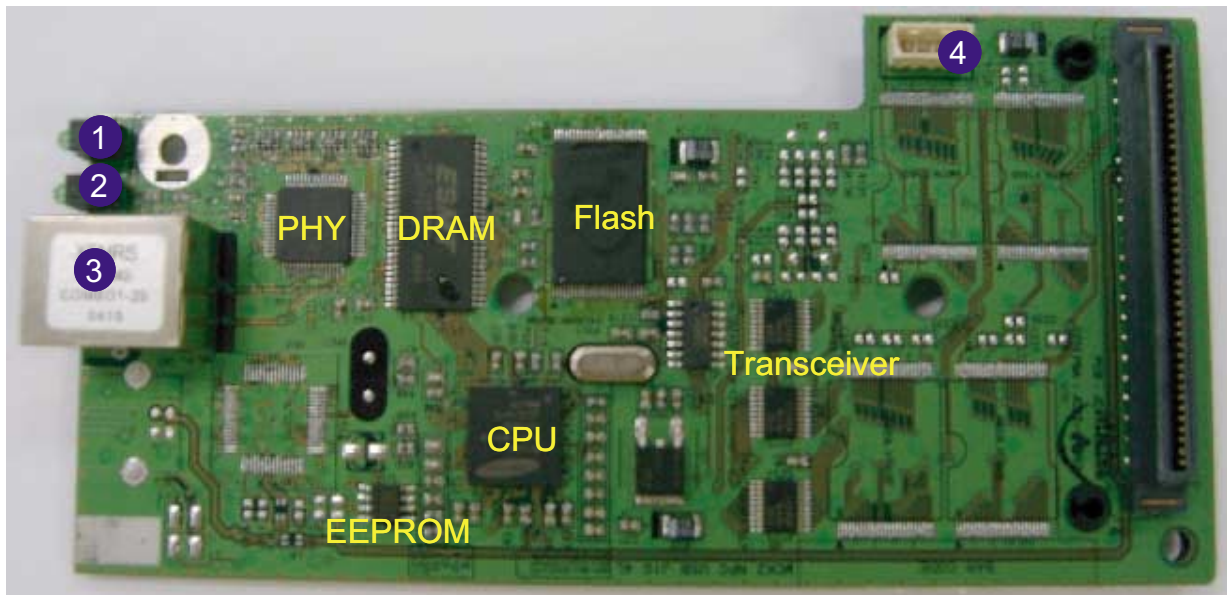
① Link LED   ② Activity LED

③ RJ-45 Modular Jack   ④ Serial Interface for Debugging

- Network Card (NPC3H)

· ML-3561N
· CLP-600N
· ML-00NF/00LF

· CLP-N600A
· CLP-N600B
· SCX-6x45 Series
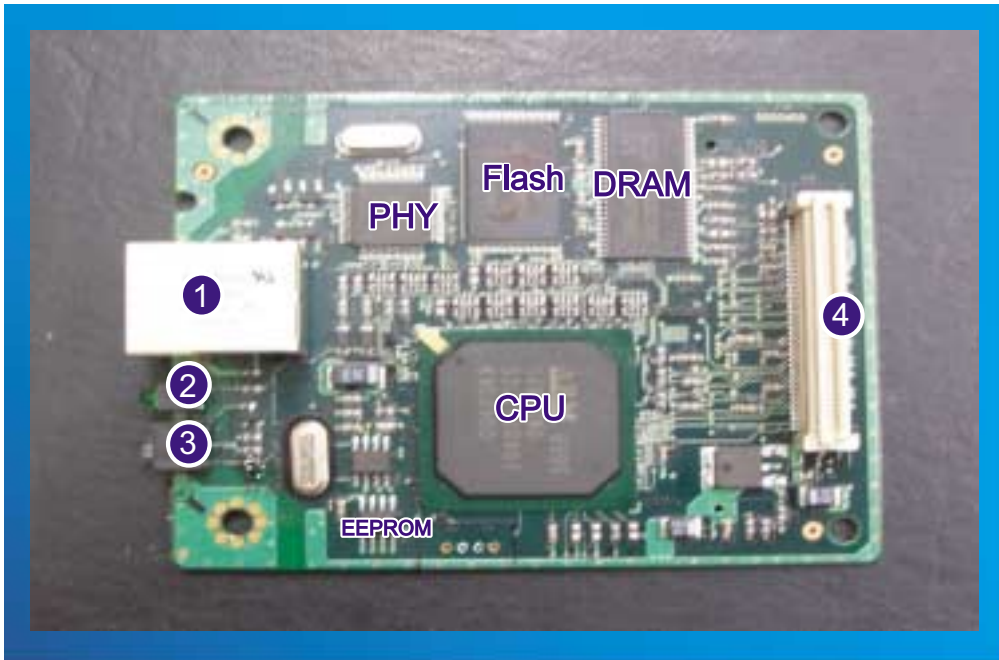
1	RJ-45 Modular Jack	3	Link LED
2	Activity LED	4	Printer I/F Connector

- Link Sequence

Activity LED
Turning Off

LINK LED Always On
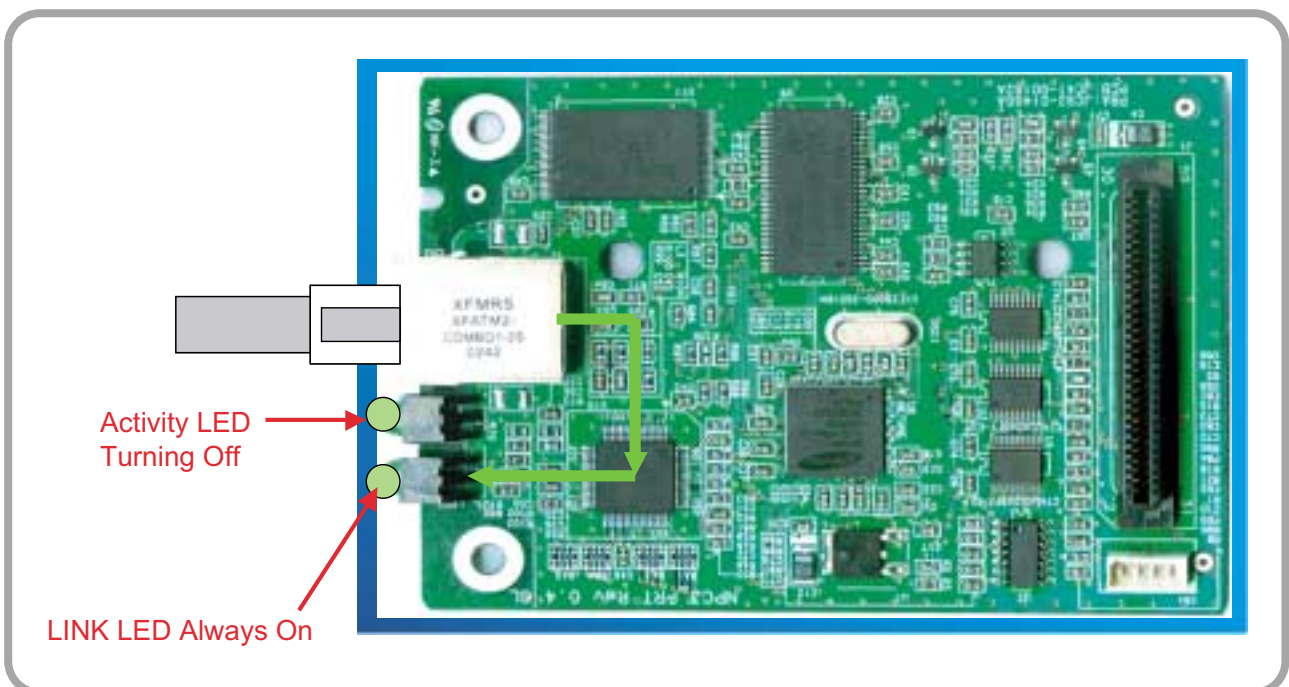
- Network Data Reception
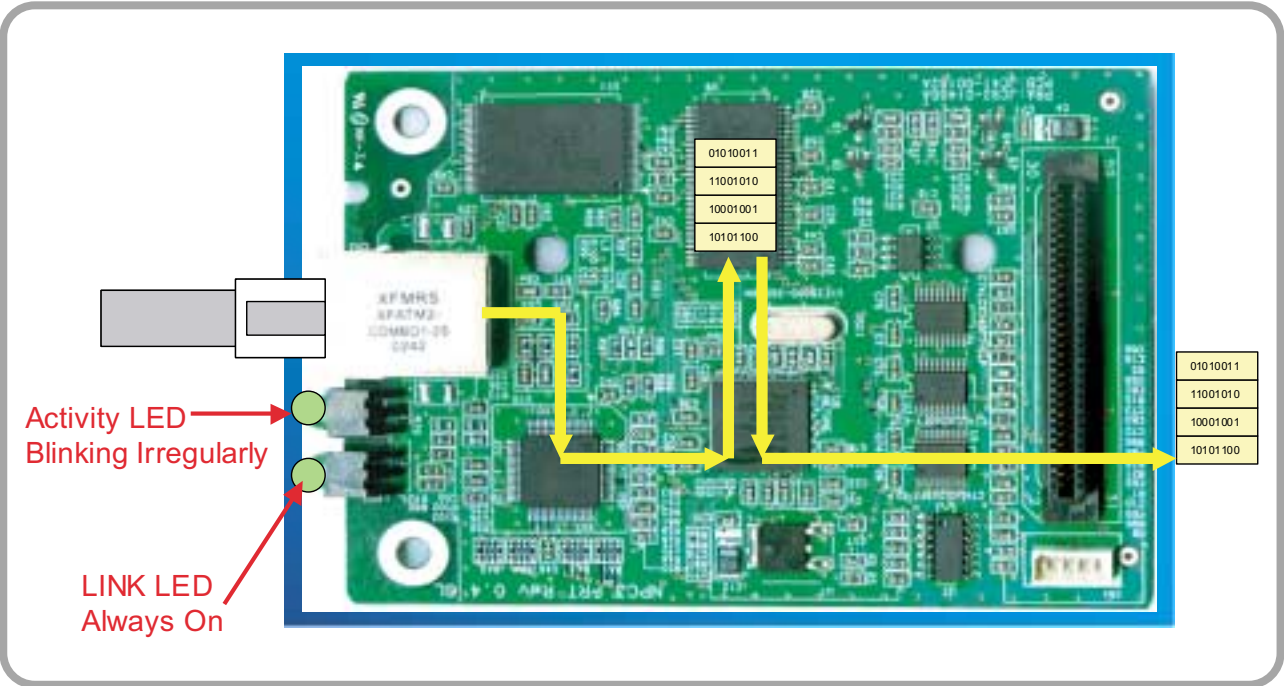
- Network Data Transmission
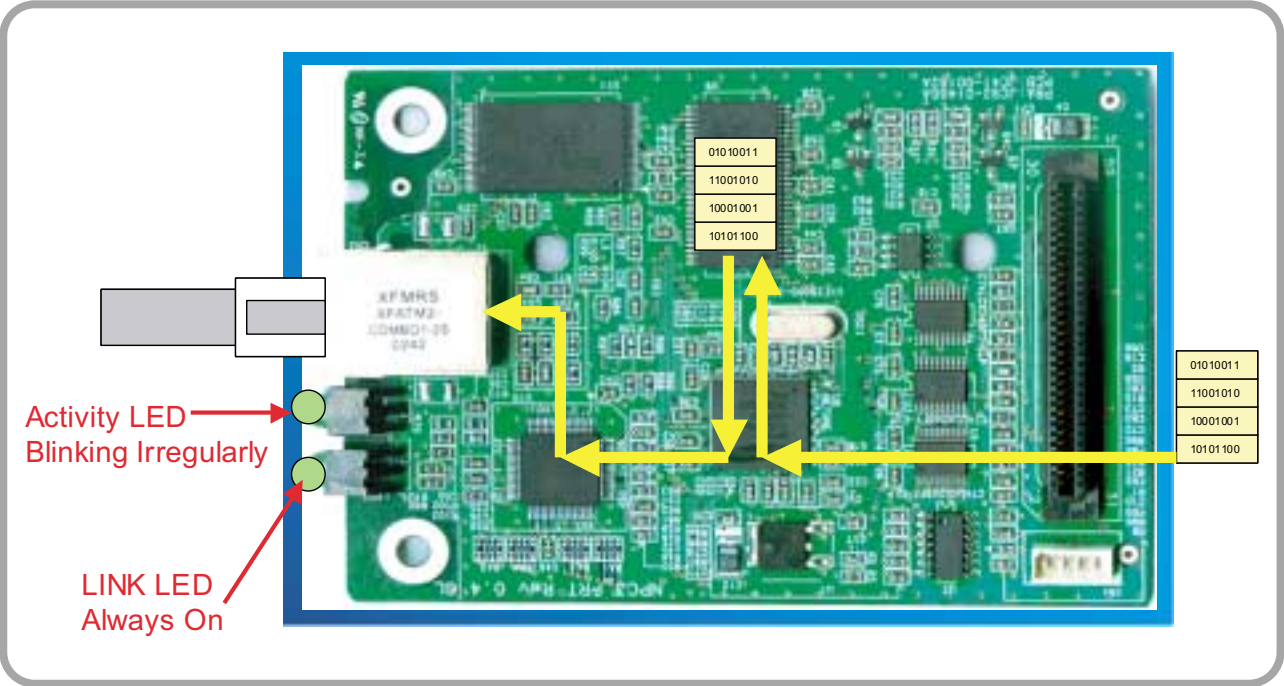
11.3 Network Card Firmware

Firmware Components

- Boot code ROM

- Application code ROM

Boot Code ROM

- Power-on initialization
- Mostly model-independent

Application Code ROM

- Doing major functions
- Model-dependent program

NPC3 Flash Memory

128KB Boot

Up to 2MB Application
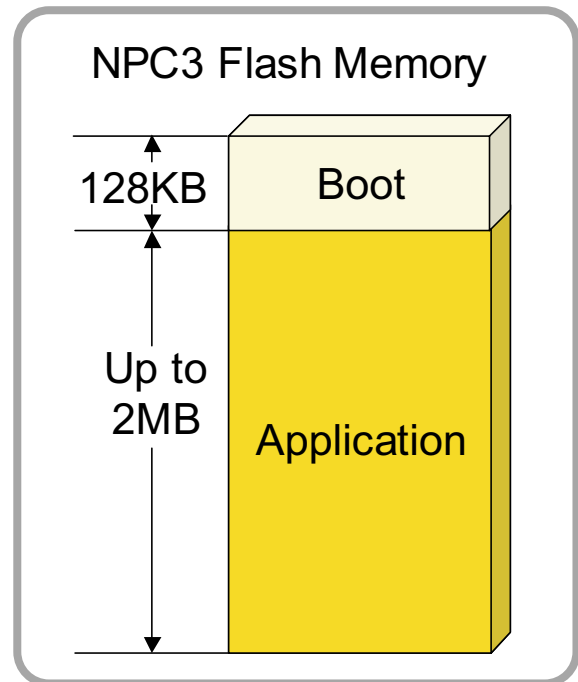
11.4 Network Card Firmware : Upgrade

Firmware Upgrade

- To upgrade network card firmware with latest version
- Use TFTP Protocol (Network Card Type Only)
- Use HTTP Protocol (Embedded Web Server, SWS, SWAS)

Requirements

- Target Network Card
  · Well Configuration of TCP/IP Protocol
  · In Local Area Network with Server Computer

- Server Computer
  · Well Configuration of TCP/IP Protocol
  · Samsung SyncThru Application in case of using TFTP.
  · SyncThru Web Service (SWS) in case HTTP.

11.5 SyncThru Web Admin Service Web based Printer Management Solution

- Detecting device on the network

- Performing Maintenance operations

- Getting detailed reports and statistics on device events

NW Printer   SNMP   MFP

SNMP

SNMP

HTTP

MFP

Administrator's PC
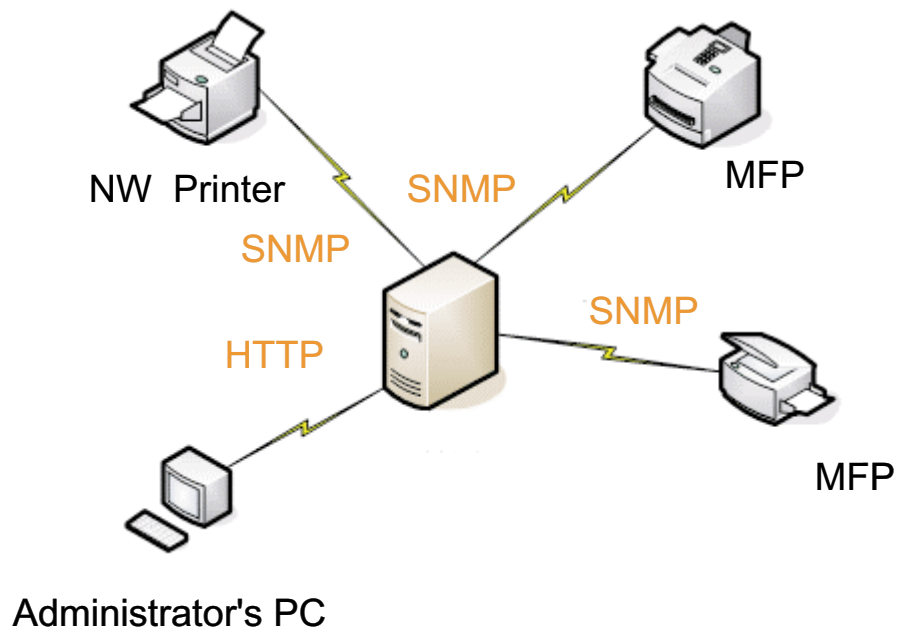
11.5.1 SWAS Features

Version	Model	Remark
3.xx.xx	Kestrel (ML-3560), Dove (ML-3051ND), Falcon (ML-8800), Elbert (SCX-5530FN), DaVinci (CLP-600), DaVinci PDL (CLP-650), Iris (CLX-3160FN)	- Detecting device on the network - Performing Maintenance operations - Display general , Supply, Protocols, Status, Usage meters, Alert, Diagnostics information - Grouping and Managing devices - Setting of detection Protocol - Upgrading Firmware group of device - Reporting information of Alert and Consumables by HTML or Email
4.xx.xx	Oriole (ML-2570), Stork (ML-4551ND), Elbruz (SCX-6322DN), Whitney2 (SCX-4725)	- Discovery Status Checking - Set IP - Online Toner Ordering - SSL / User Authentication - IPv6 - SNMP V3 - 13 Languages (Hungarian, Brazilian Portuguese, Turkish)
Plug-ins	Jungfrau And upcoming model	· Plug-in will be released in the samsung download center · Plug-ins can be installed on the SyncThru4.0 (Add-on functions) - Restrict user permission and monitor actual usage information (Job Accounting Plug-in) - Copy configuration settings into multiple devices (Device Cloning Plug-in) - Add, delete, copy and move files between devices (File Storage Plug-in) - Discovery and monitor about non- network printers (Local Device Discovery Plug-in) - Get the latest driver and management driver files (Driver Management Plug-in) - Pre-configure and install drivers in the remote hosts (Driver Management Plug-in)

11.5.2 Version Identifier

Version 3.00.52
SWAS 3.x and SWAS 4.x is available

Samsung Electronics

11.5.3 SWAS Device Menu

· **Detecting and Displaying devices on the network**
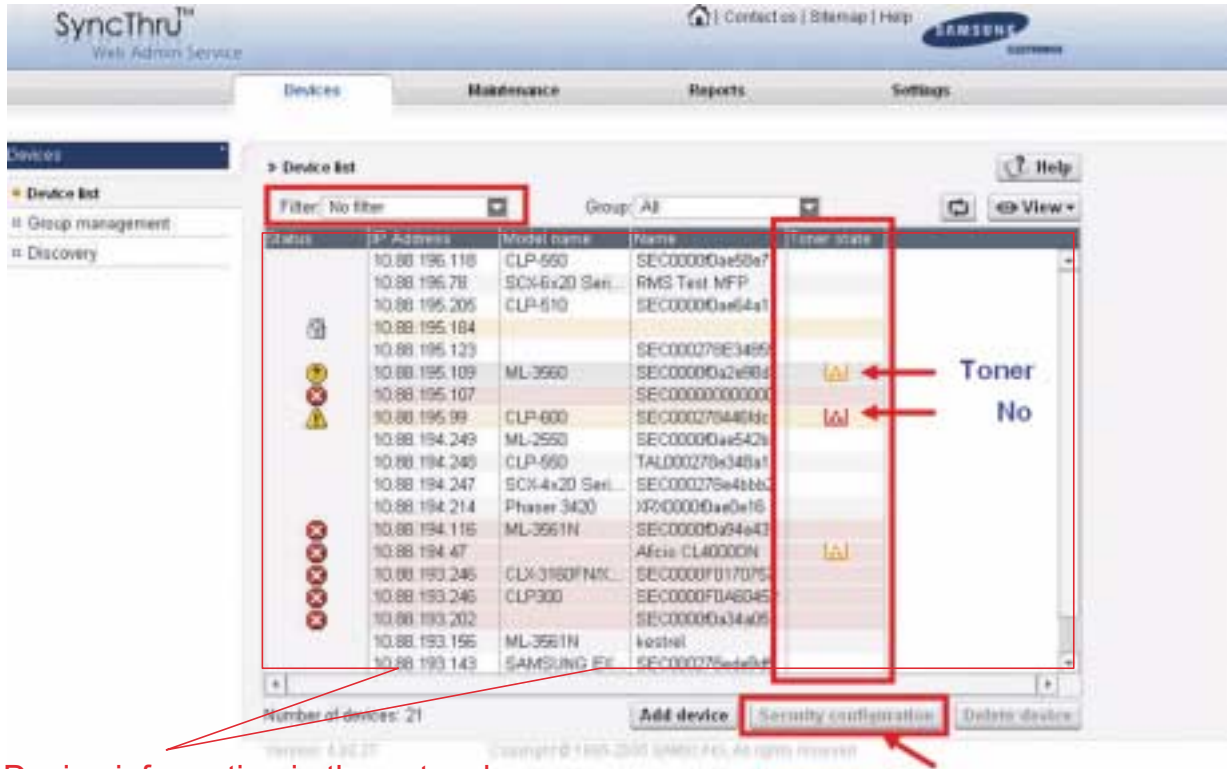
Device information in the network

· **Display general , Supply, Protocols, Status, Usage meters, Alert, Diagnostics information**
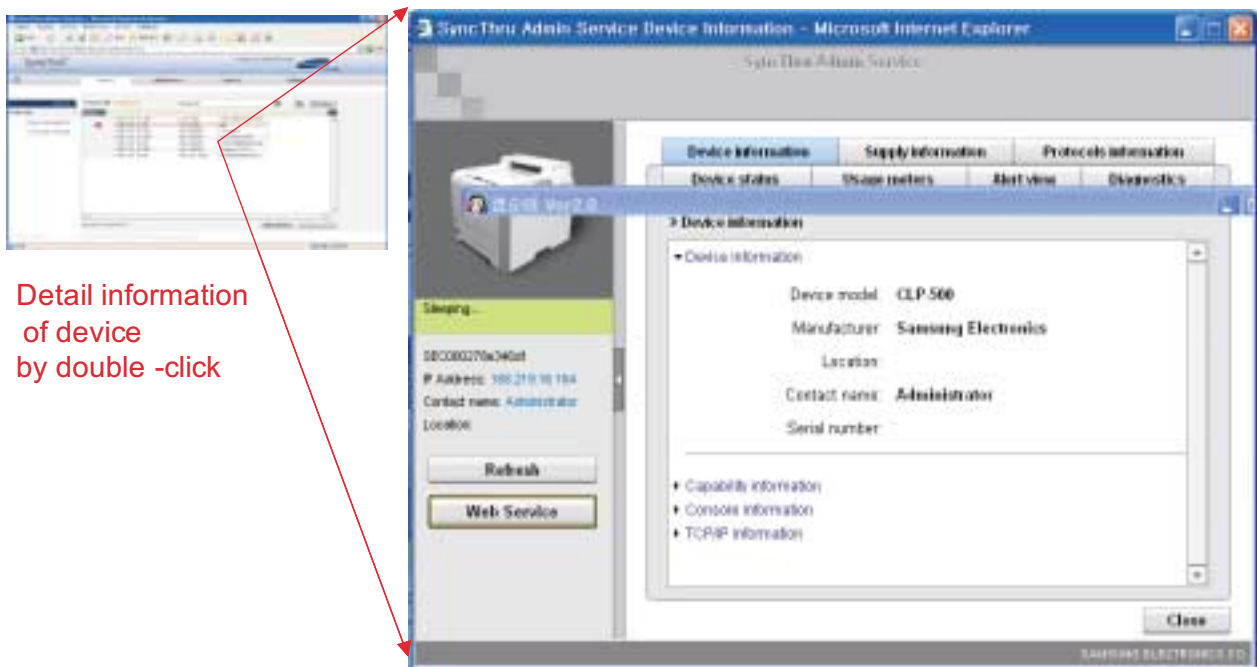
Detail information
of device
by double -click

· **Grouping and Managing devices**

Grouping devices

· **Setting of detection Protocol**

IP broadcasting is a default Setting
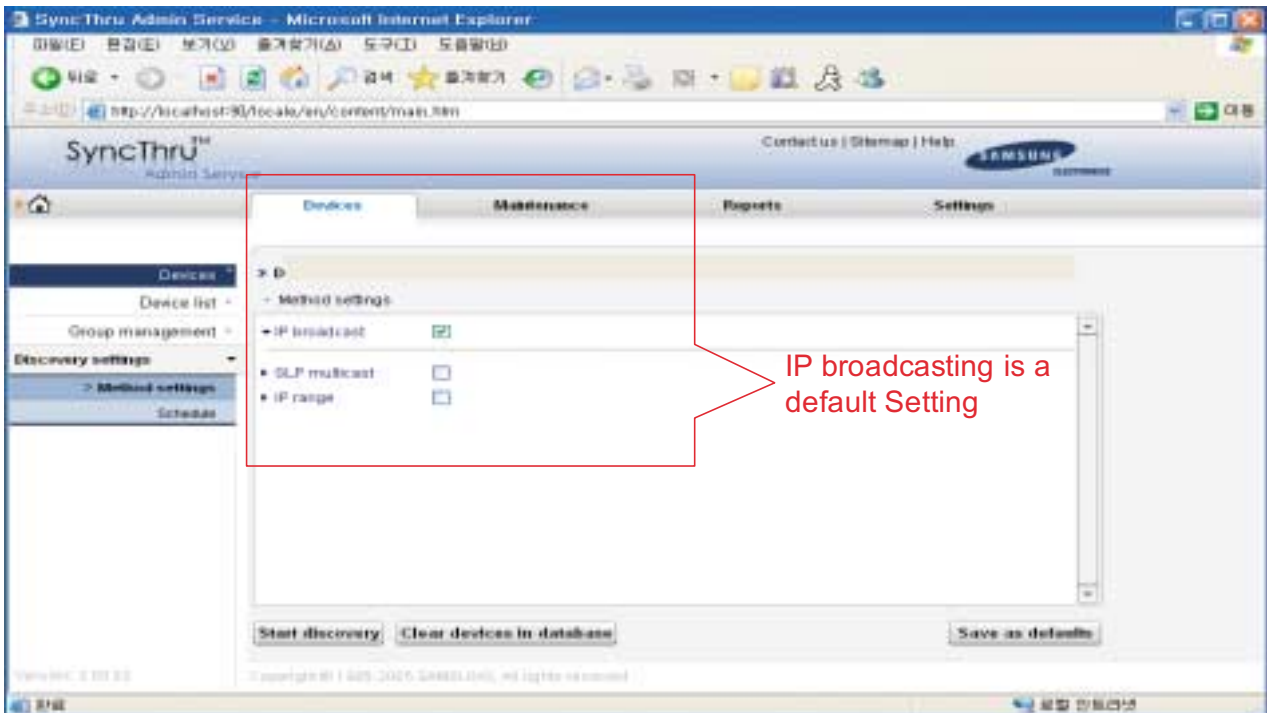
· **Upgrading Firmware to multiple devices**

Upgrading Firmware

· **Reporting information of Alert and Consumables by HTML or Email**

Email and HTML Reporting
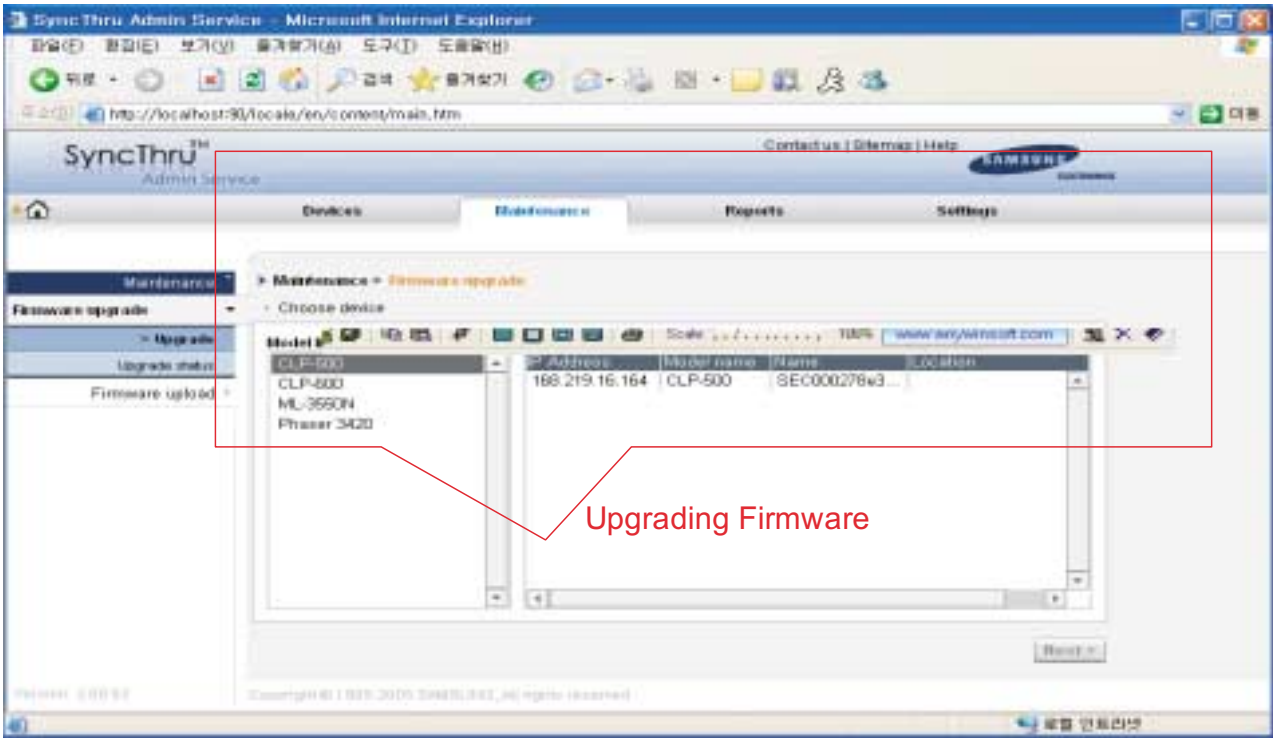
Alert and Consumables Report
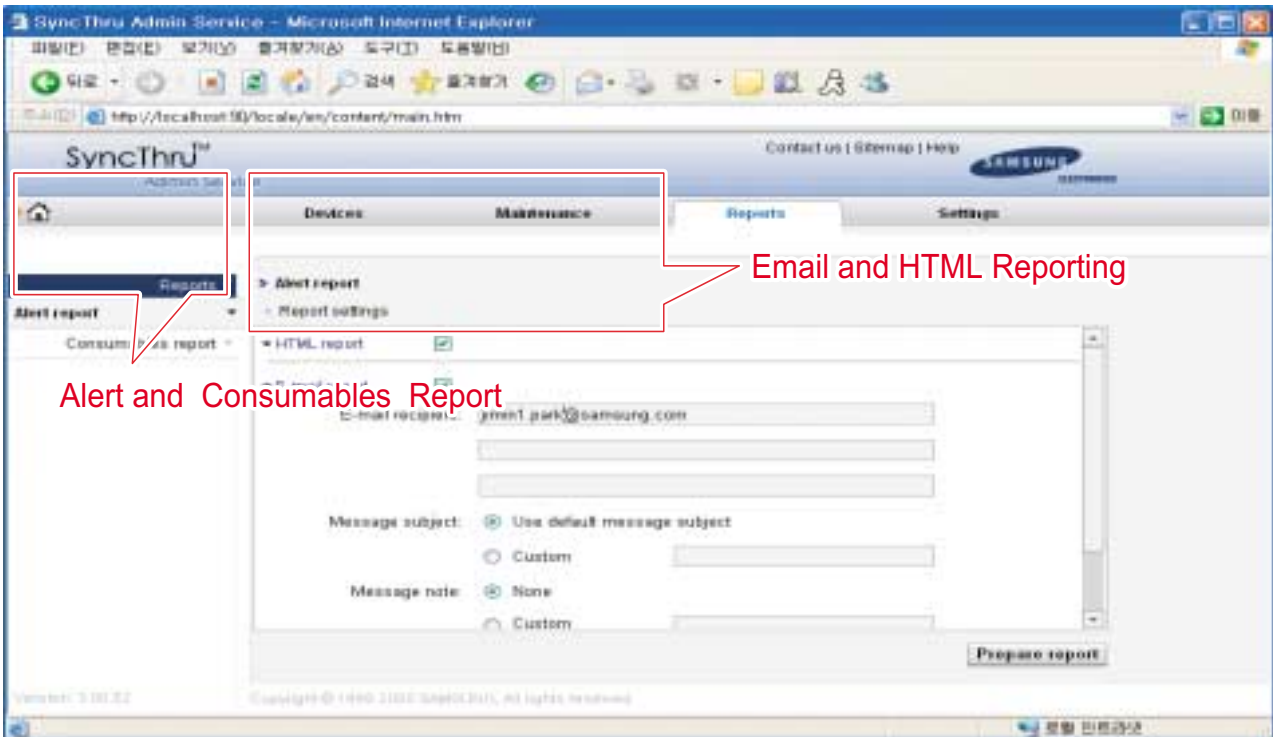
· **Configure SMTP Server and Admin Information**

Configure SMTP

Configure Admin Information

· **Discovery results**

Checking discovery process

· **Set up IP**

Set up IP Address

- **Online toner ordering**

You can set the site for toner order.

This button opens the page set in the toner ordering site.

· Authentication settings

If SSL is not enabled and configured then it's not possible to enable authentication. The link leads to SSL configuration.

Authentication can be enabled with the button.
Authentication works only when SSL is enabled.
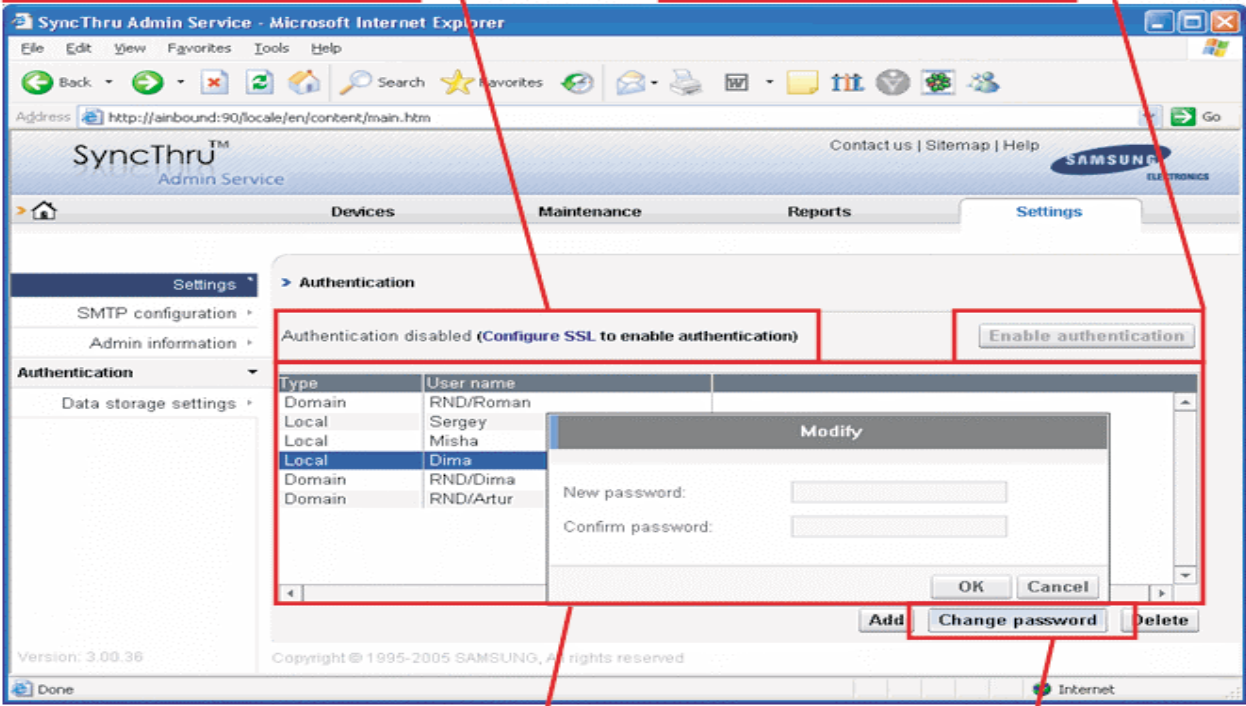
User list shows user accounts both from Domain and Local. The method of authentication is used according the type of user profile (Local or Domain).

Change password for Local users only.

11.6 Samsung SyncThru Web Service: General Information (MFP)

General Information

- Machine Status
- Supplies Status
- Billing/Counters
- Network Information
- Firmware Version
- Print Information

11.7 Samsung SyncThru Web Service: Machine Settings (MFP)

Machine Settings

- System Setup
- Copy Setup
- User Authentication Setup
- E-mail Setup
- E-mail Notification Setup
- Reset
- ...

11.8 Samsung SyncThru Web Service: Network Settings

Network Settings

- General
- NetWare
- TCP/IP
- SLP
- SNMP
- Raw TCP/IP, LPR, IPP
- IP Filtering
- Wireless
- UPnP
- Reset
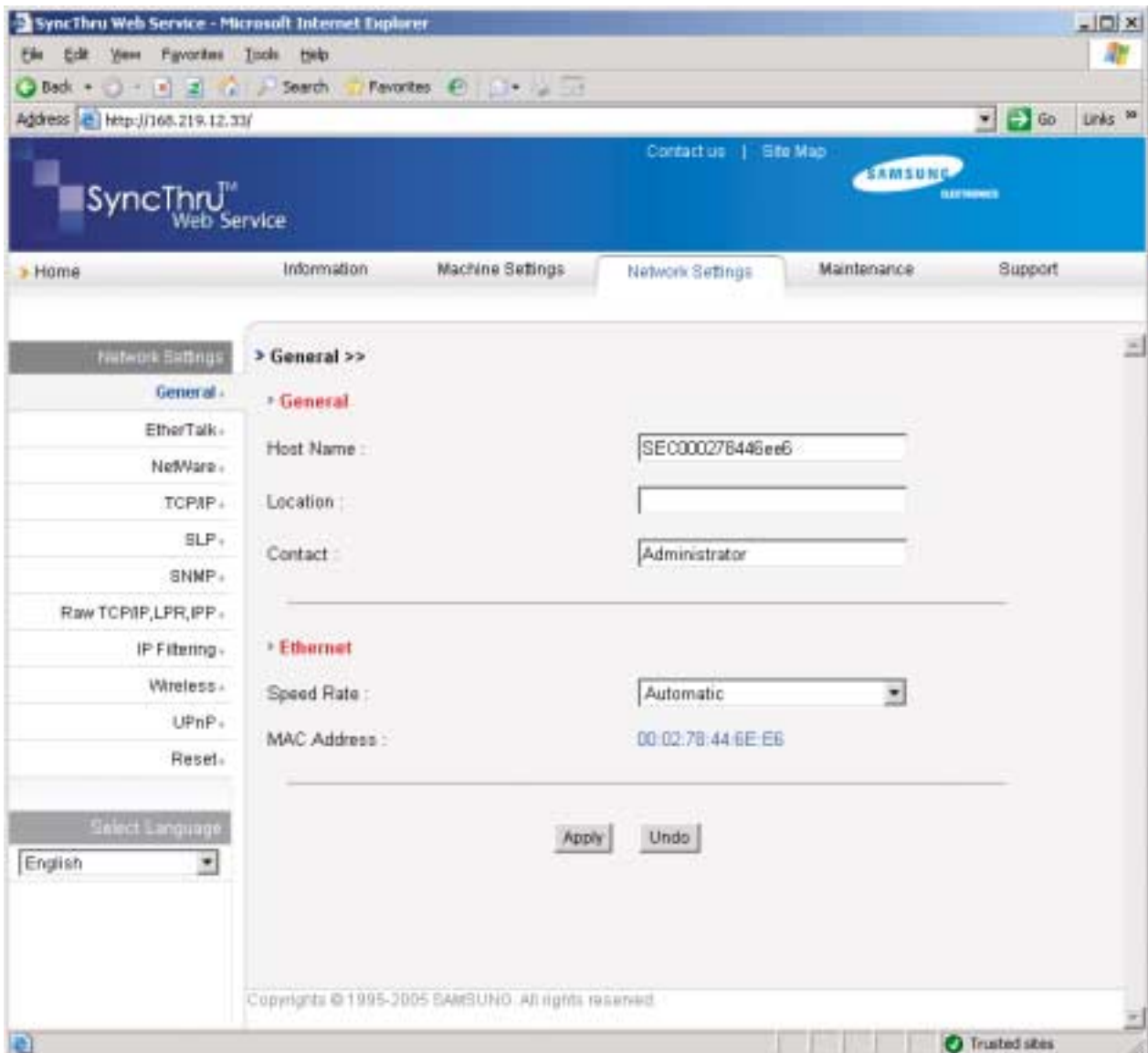
11.9 Samsung SyncThru Web Service: Maintenance

Maintenance

- Firmware Upgrade
- Security
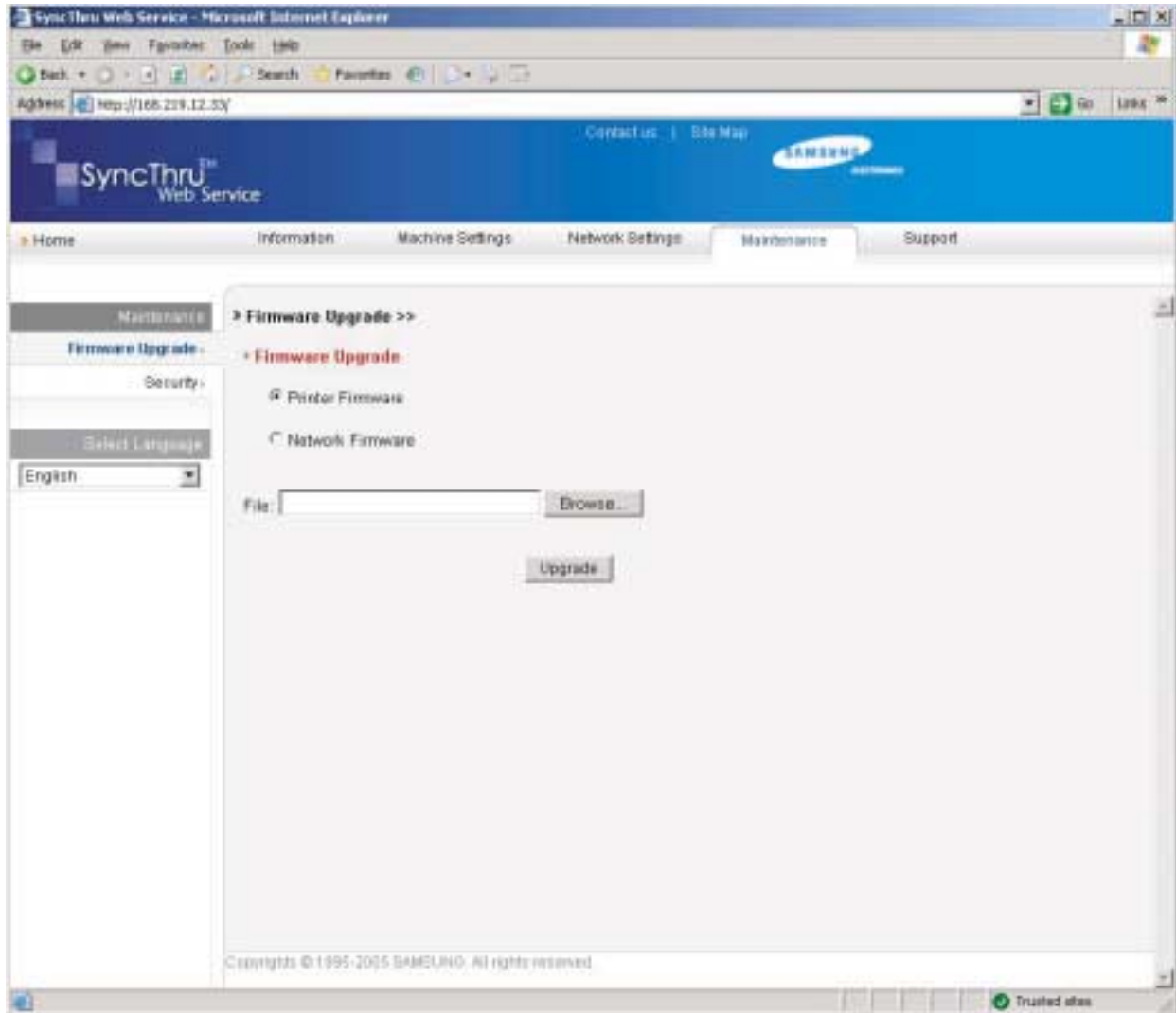
11.10 Samsung SyncThru Web Service: Support

Support

- Contact Information
- Link

11.11 Samsung SyncThru Web Service: Service (MFP)

Service

- http://NPC-IP-Address/service.html
- Tech Mode Password
- Data Setup
- Machine Test
- Report
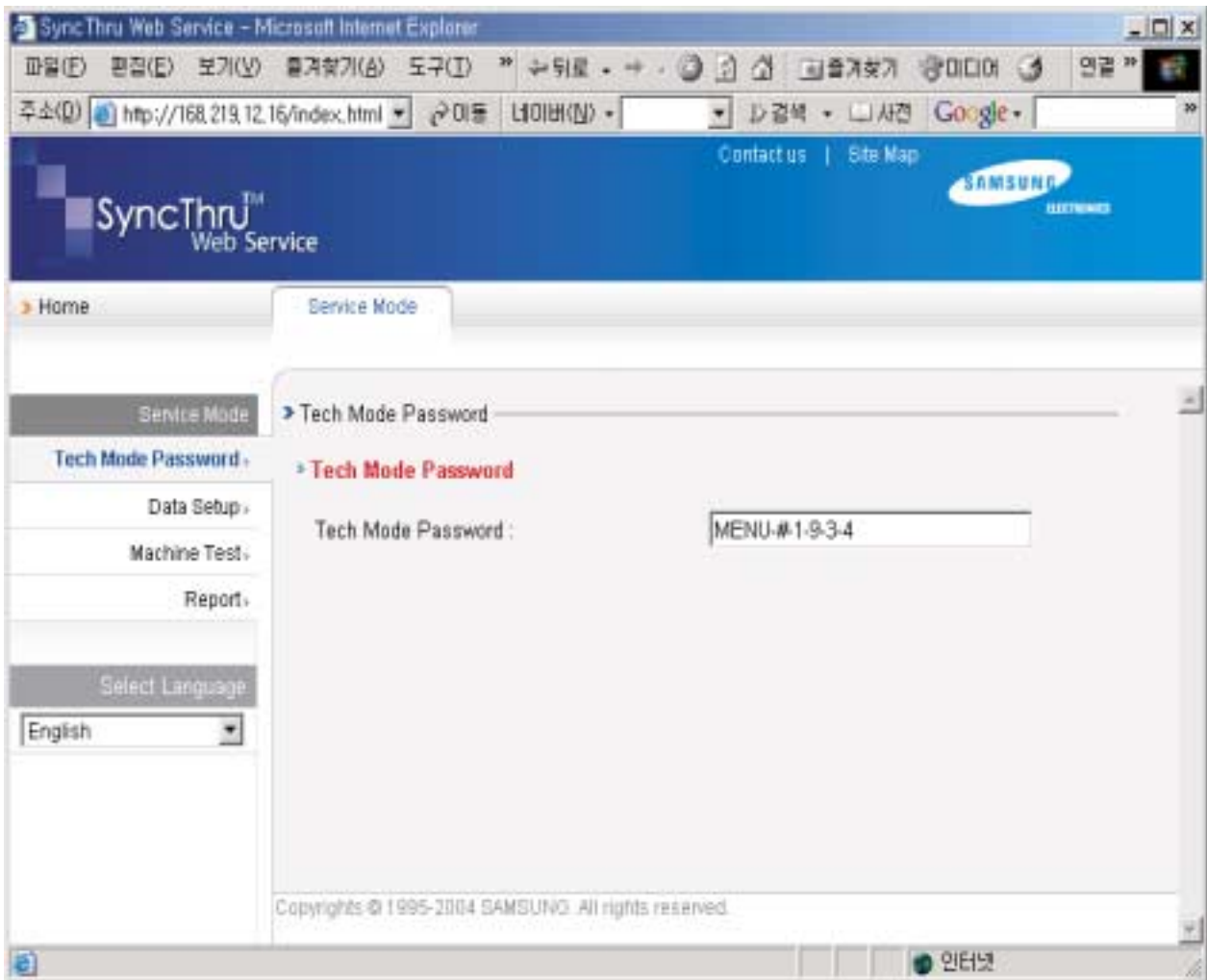
11.12 Samsung SyncThru Web Service: Authentication

General Setup

- Setup
- Enable Guest Account
- General Password
- Log Off Reminder
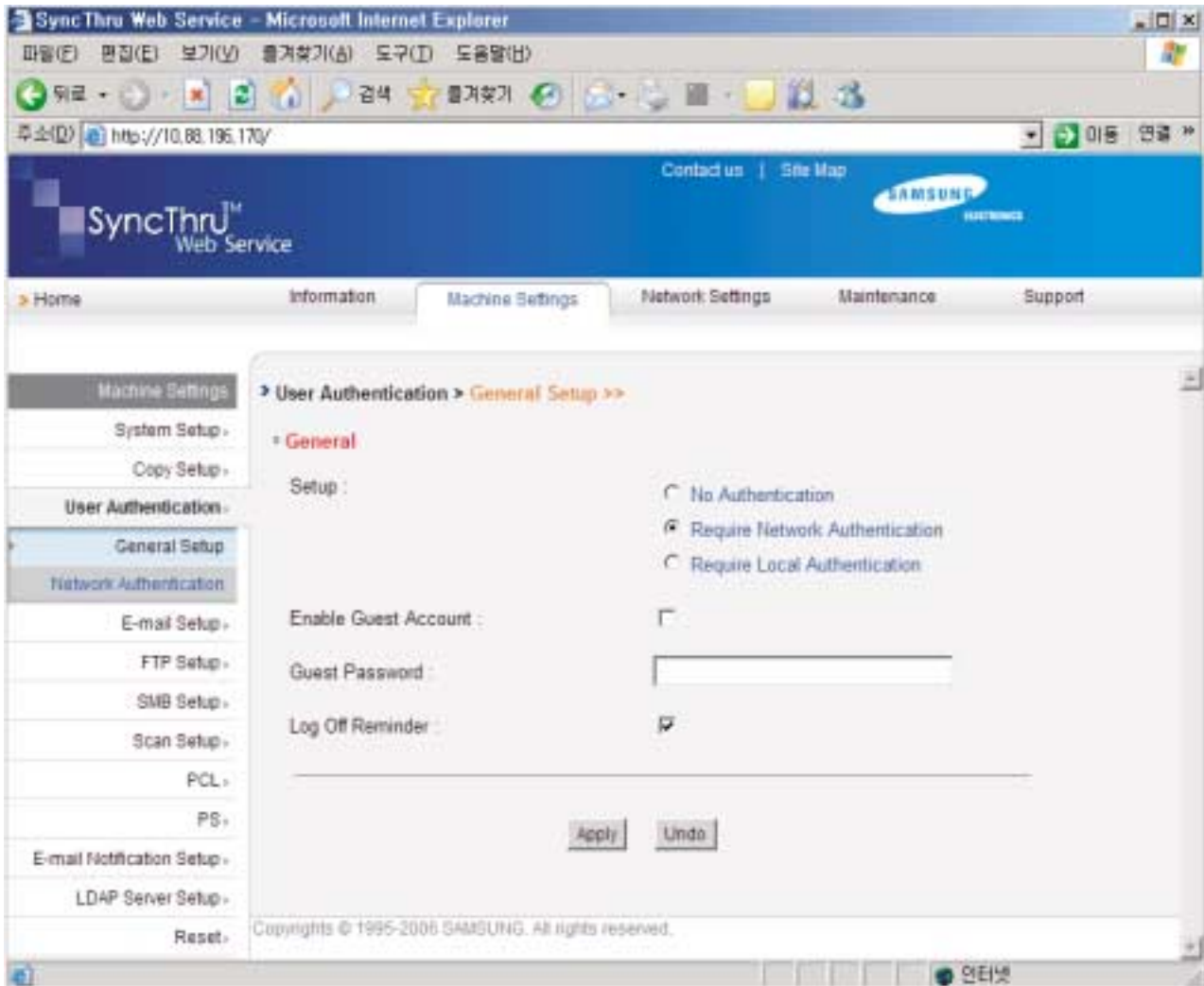
11.13 Samsung SyncThru Web Service: Authentication (Local Authentication)

Local Authentication

- Index

- User Name

- Auth ID

- Password

- E-mail Address

- Phone Number

11.14 Samsung SyncThru Web Service: Authentication (Network Authentication)

Network Authentication (Kerberos Setup)

- Default Realm

- IP address or Host Name

- Kerberos Server and Port

- Backup Realm

- IP address or Host Name

- Kerberos Backup Server and Port

Network Authentication (SMB Setup)

- Default Domain
- IP address or Host Name
- SMB Server and Port
- Backup Domain
- IP address or Host Name
- SMB Backup Server and Port

Network Authentication
(LDAP Setup)

- There is no setup of LDAP Server
  · Server configuration of LDAP Server item is used to Auth Login
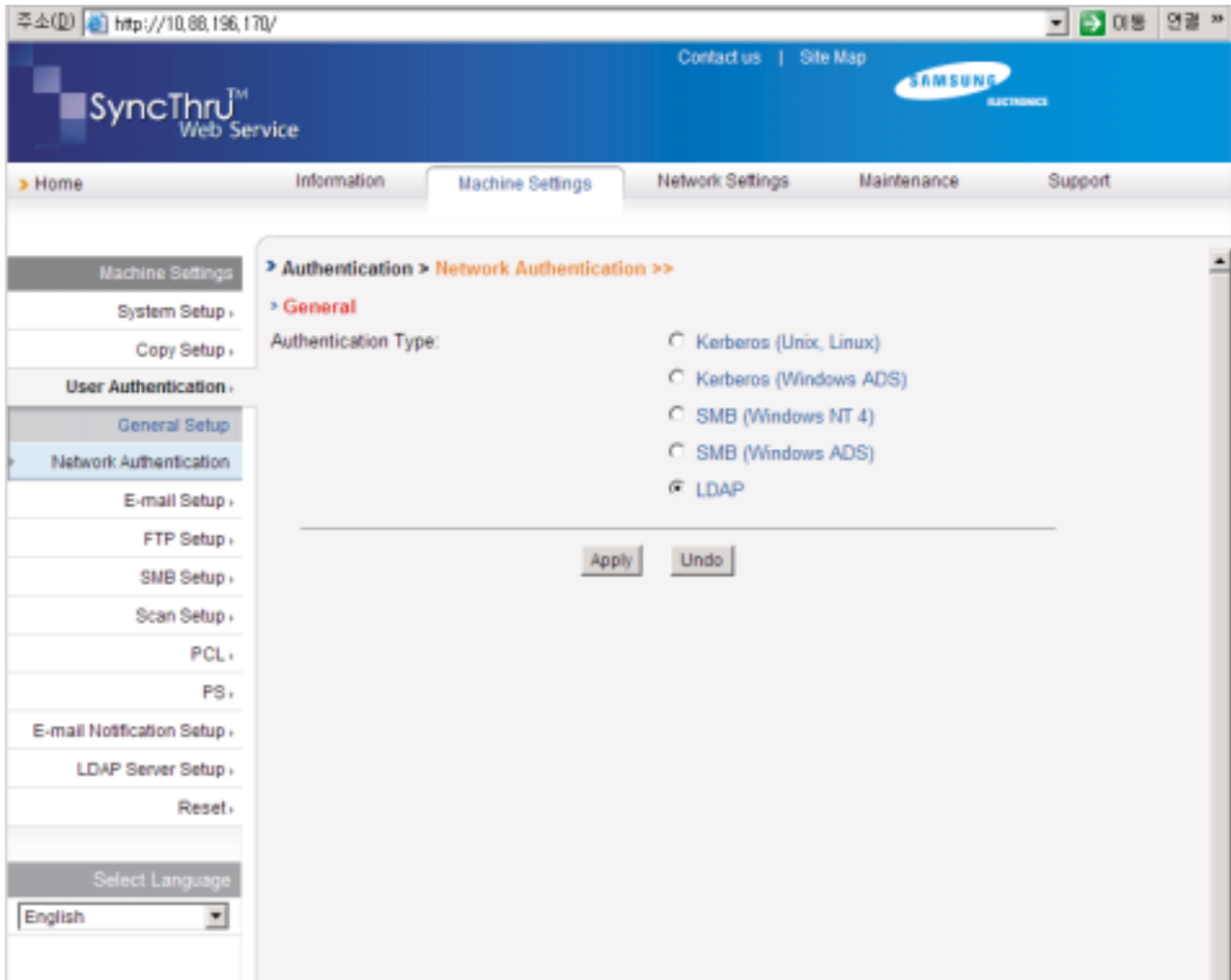
11.15 Samsung SyncThru Web Service: LDAP Server Setup

LDAP Server Setup_1

- IP address or Host Name
- LDAP Server and Port
- Search Root Directory
- Authentication Method
- Match User's Login ID to the Following LDAP attribute:

LDAP Server Setup_2

- Append Root to Base DN

- Login Name

- Password

- Maximum Number of Search Result

- Search Timeout

- LDAP Referral

LDAP Server Setup_3

- Search Name Order
- From: Field Security Options

11.16 Samsung SetIP

Configuration of IP Address

- Mostly used at first installation of network printer

- IP address setting with MAC address only

- MAC address is written on printer's backside

Samsung SetIP Utility

- Running on Microsoft Windows OS only

- Automatic detection of Samsung network printers

- Manual setting of undetected network printers

· Samsung SetIP: Application
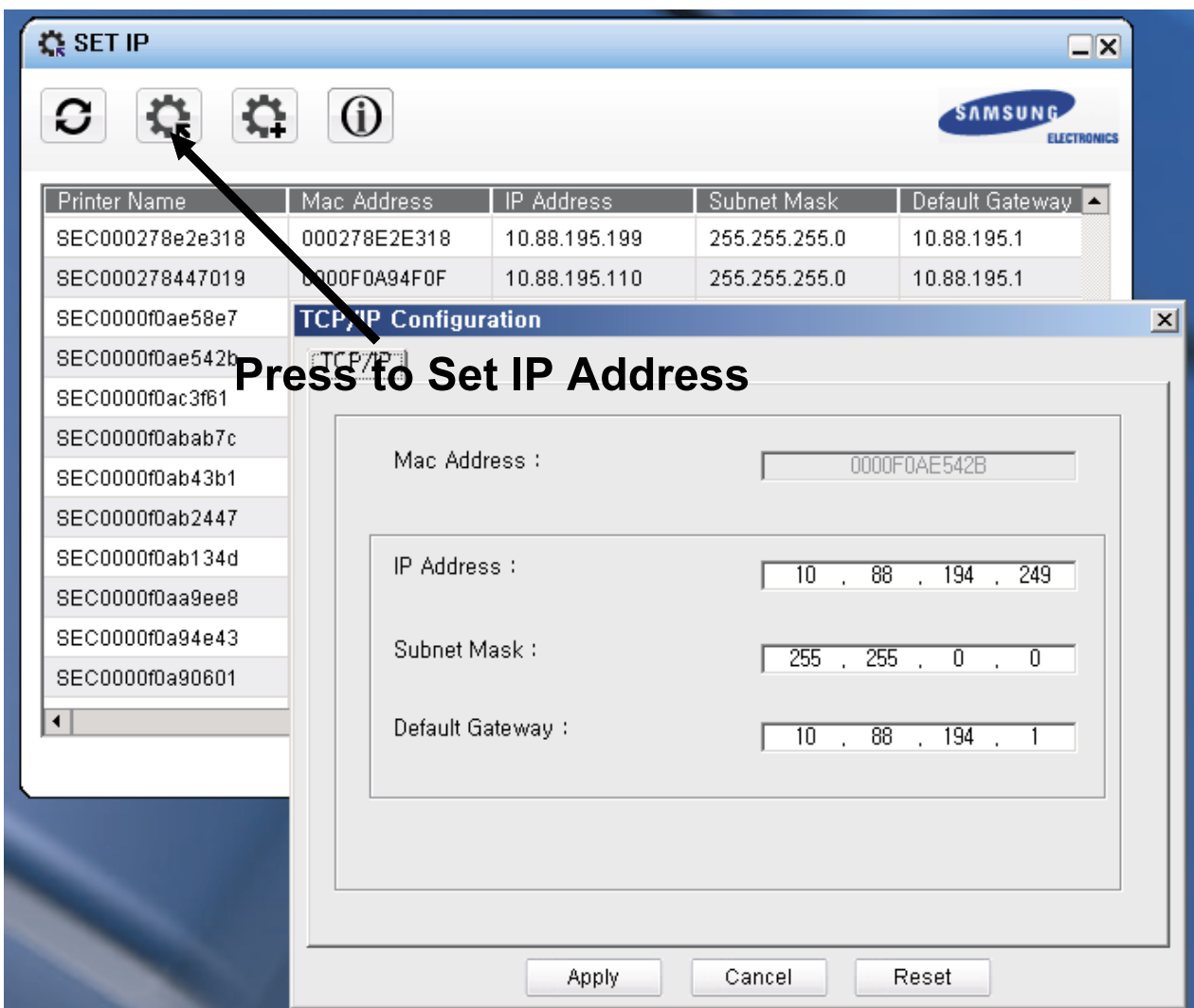
11.17 TCP/IP Printing Protocol

Samsung Network Printer Port Printing

- TCP Port : 2000
- Port Monitor installation
- OS : Windows95/98/NT/ME

LPD (Line Printer Daemon) Printing

- TCP Port : 515
- OS : Unix, Linux, Windows OS (Win NT, 2K ~)

Microsoft Standard TCP/IP Printing

- TCP Port : 9100
- OS : Windows OS (Win 2K~)

IPP Printing Protocol

- TCP Port : 631
- OS : Windows OS (Win 2K~), Mac OS (MAC 10.3~)

11.18 Management Protocol

SNMP means Simple Network Management Protocol
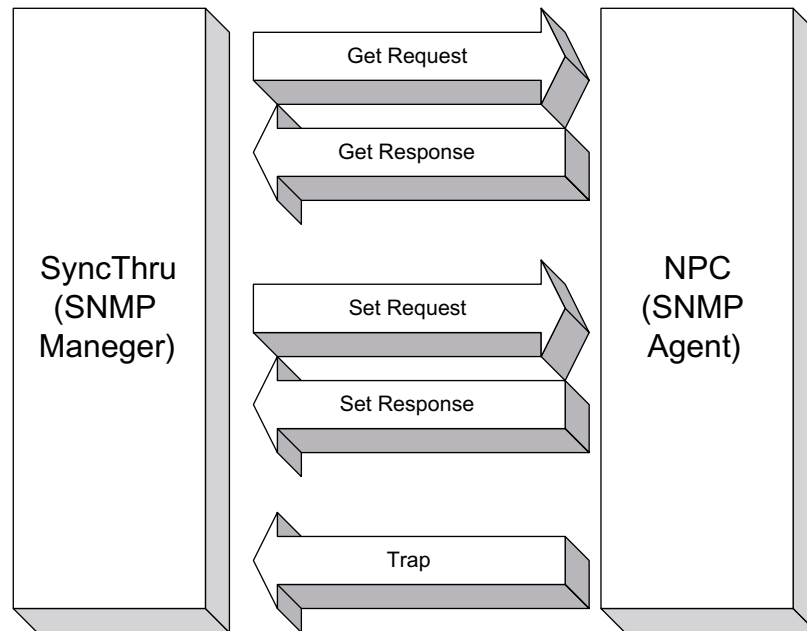
11.19 HTTP

Web Server Protocol

- Used in Samsung SyncThru Web Admin Service

- Used in SyncThru Web Service (Embedded Web Server)

- Used in IPP 1.1 Protocol

11.20 Network models

Model Name	ML-3050 Series	ML-2570 Series	ML-4550 Series	CLP-300 Series	SCX-5x30 Series	SCX-6x22 Series	CLX-3160 Series	SCX-4725 Series	SCX-6x45 Series
Project Name	Dove	Oriole	Stork	Gogh	Elbert	Elburz	Iris	Whitney2	Jungfrau
Network Type	On-Board	On-Board	Phy-Board	On-Board	On-Board	Phy-Board	On-Board	On-Board	NPC3-H
Software Platform	Platform	Platform	Platform	Platform	Platform	Platform	Platform	Platform	Platform
NetWare	O	X	O	X	O	O	X	X	O
EtherTalk	O	O	O	X	O	O	X	O	O
Wireless	Opt	X	Opt	X	X	X	X	X	X
SWAS	3.0	4.0	4.0	3.0	3.0	4.0	3.0	4.0	4.05
Network Scan	X	X	X	X	O	O	O	X	O
Scan To Email	X	X	X	X	O	O	O	X	O
Scan To SMB	X	X	X	X	O	O	X	X	O
Scan To FTP	X	X	X	X	O	O	X	X	O
Network Authentication	X	X	X	X	X	X	X	X	O

12. Option Install Guide

12.1 Option List

IMAGE	NAME	SEC Code	Description
	ELA HOU-FINISHER	JC96-03908B	Stacking up and stapling the paper
	ELA HOU-SCF	JC96-03530B	Optional paper feeding cassette unit
	ELA HOU-FAX	JC96-04081B	Equipment used to send and receive information along a tel-line after copying original document
	MEA UNIT-STAND HIGH	JC97-02819A	Convenient cabinet to move SCX-6345N easily and store various office supplies
	MEA UNIT-STAND LOW	JC97-02818A	Stand to move SCX-6345N easily
	PBA SUB-MEMORY DIMM MODULE	JC92-01539A	User extendable SDRAM up to 384MB system memory(Only DIMM module up to 256MB)
	PBA-OPTION_ENABLE	JC92-01861A	Network Scan Enable Key

12.2 Option Installation Guide

SCX-6x45 Series

JC66-01815AV100

Optional Stand Install Guide

SCX-DSK10S
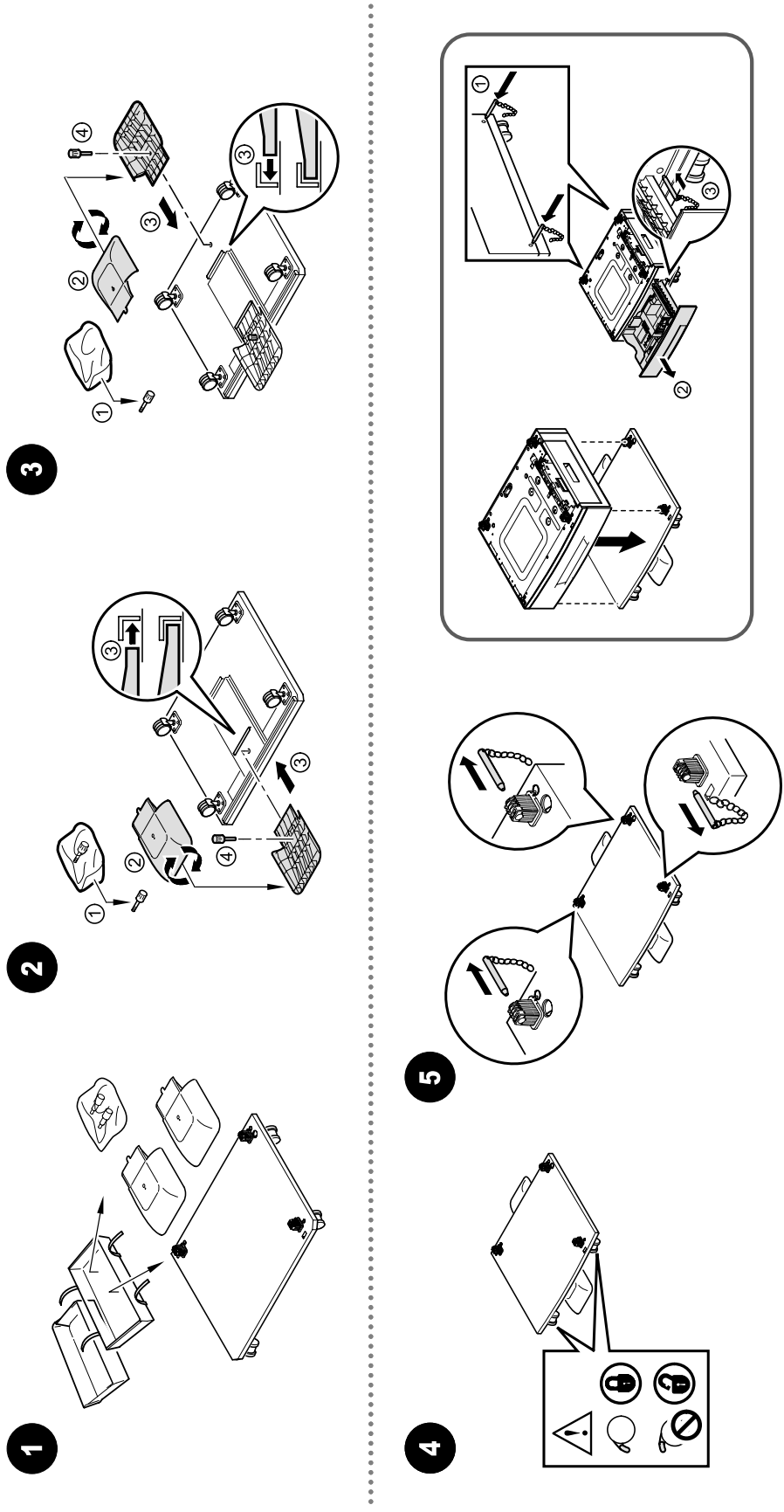
SCX-DSK10T
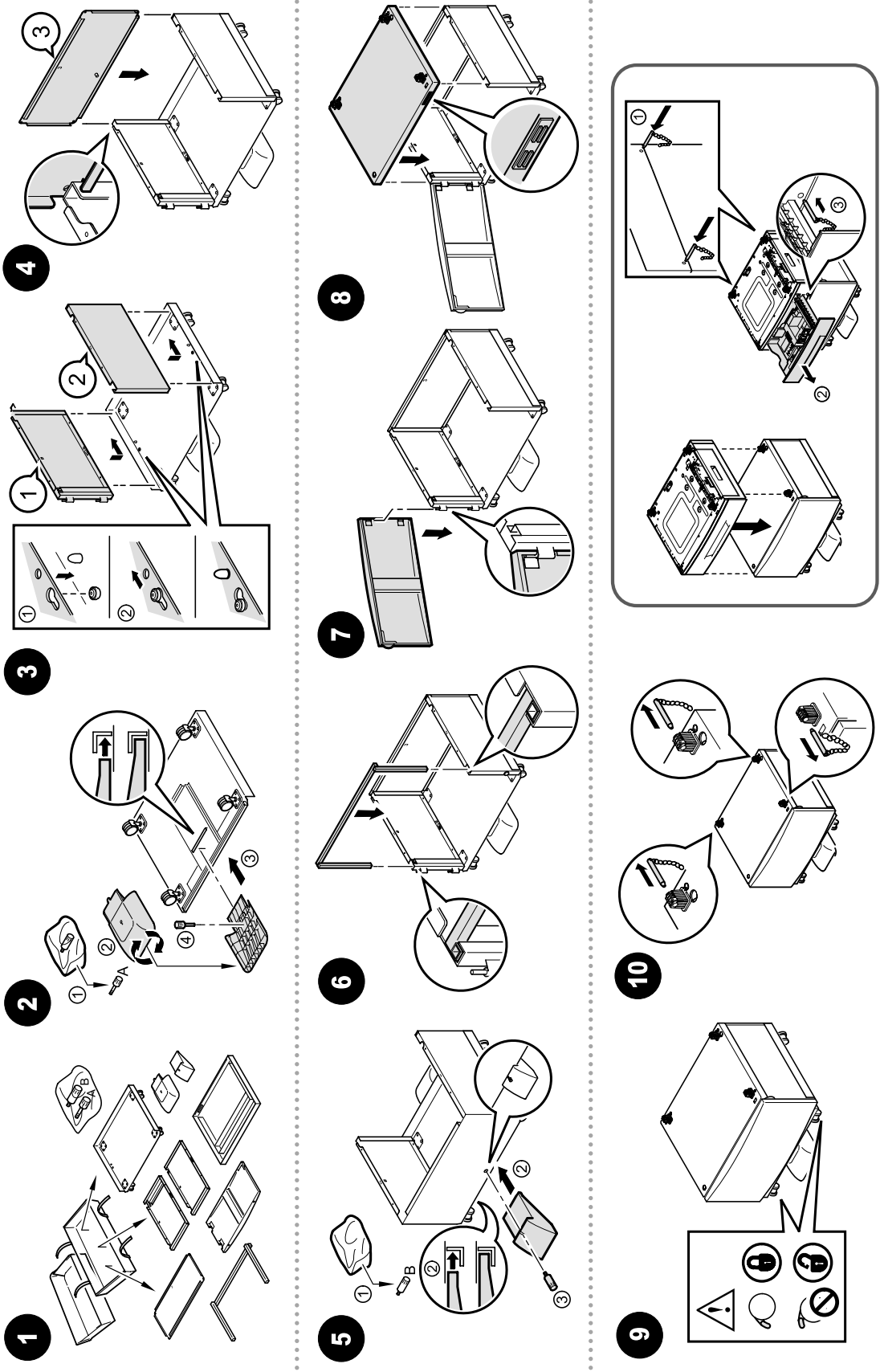
Optional Tray Install Guide

SCX-6x45 Series

JC68-0817AV100

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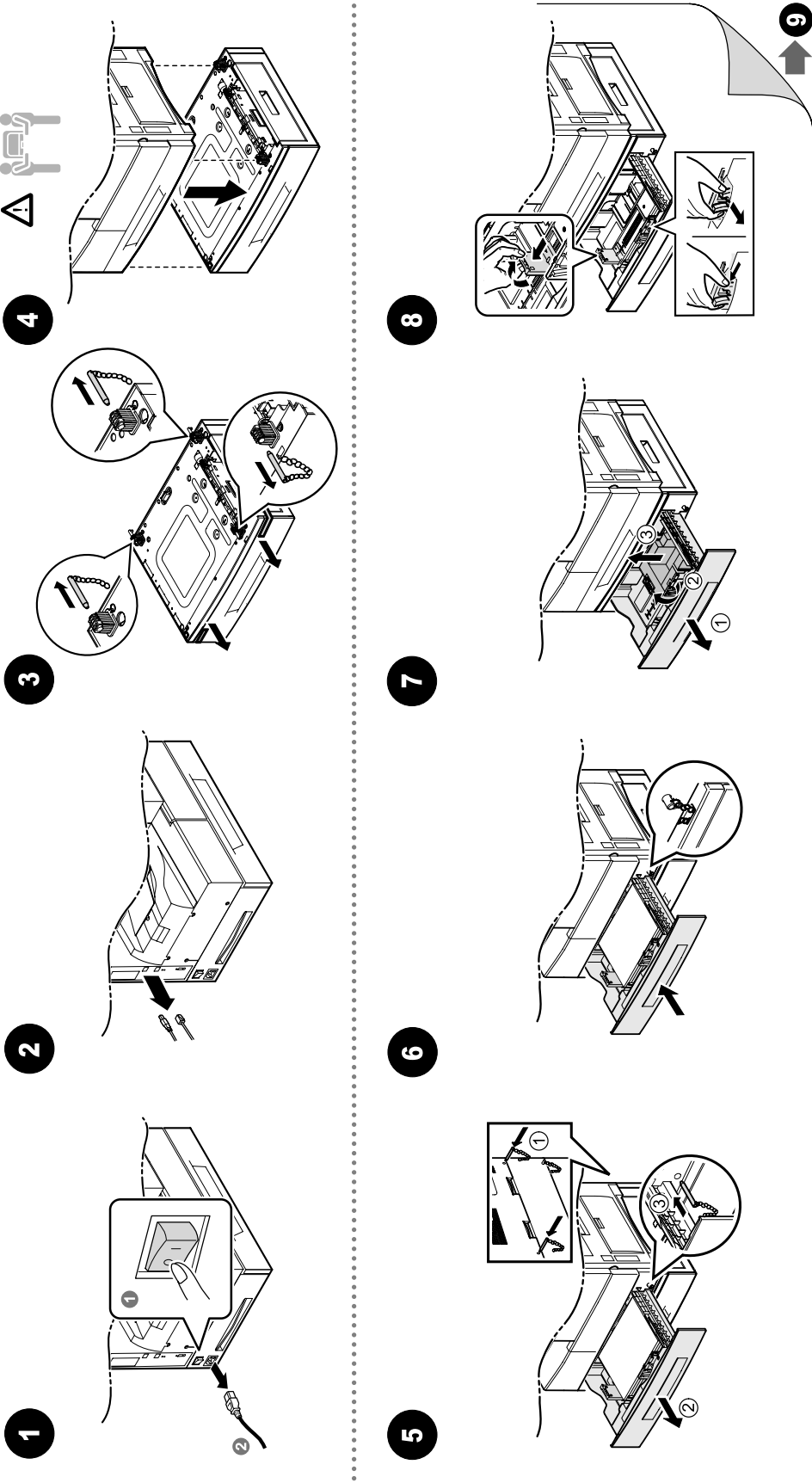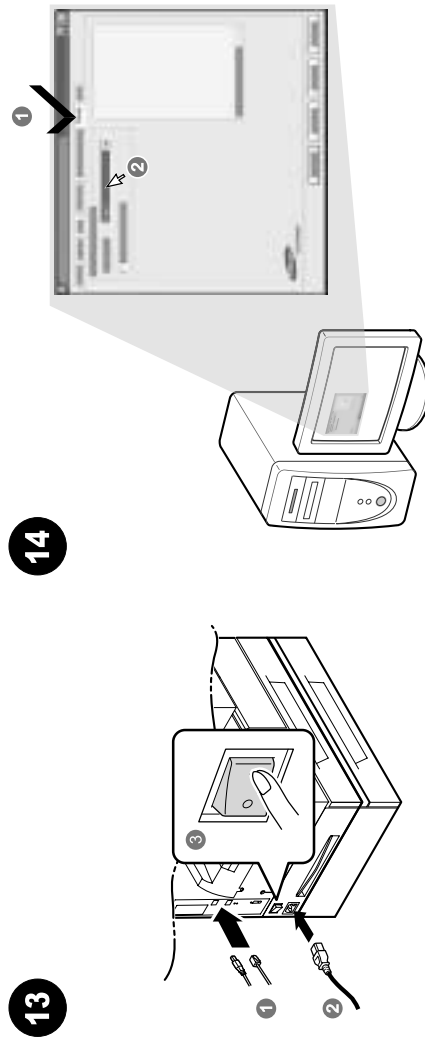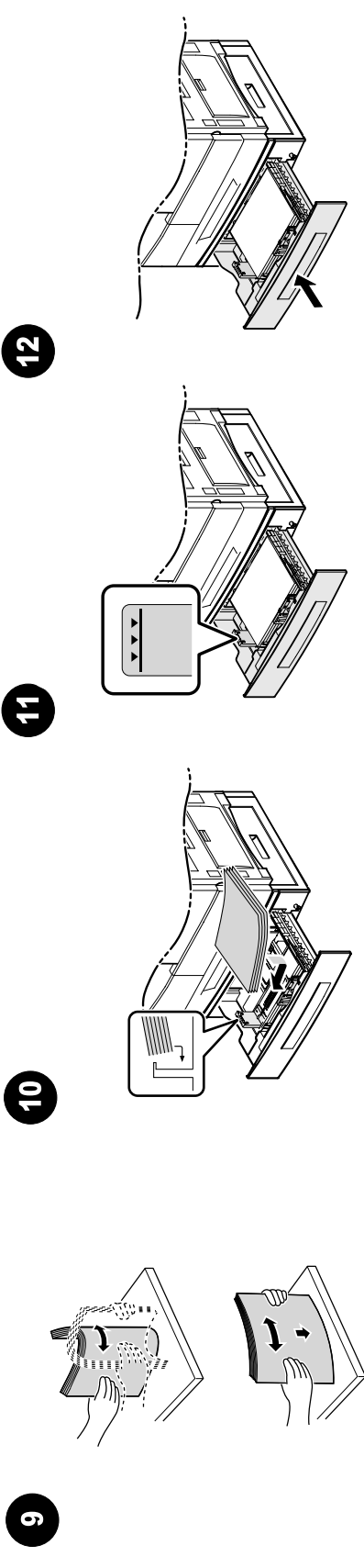
Optional Stacker & Stapler Install Guide

SCX-6x45 Series

JC68-01814AV100
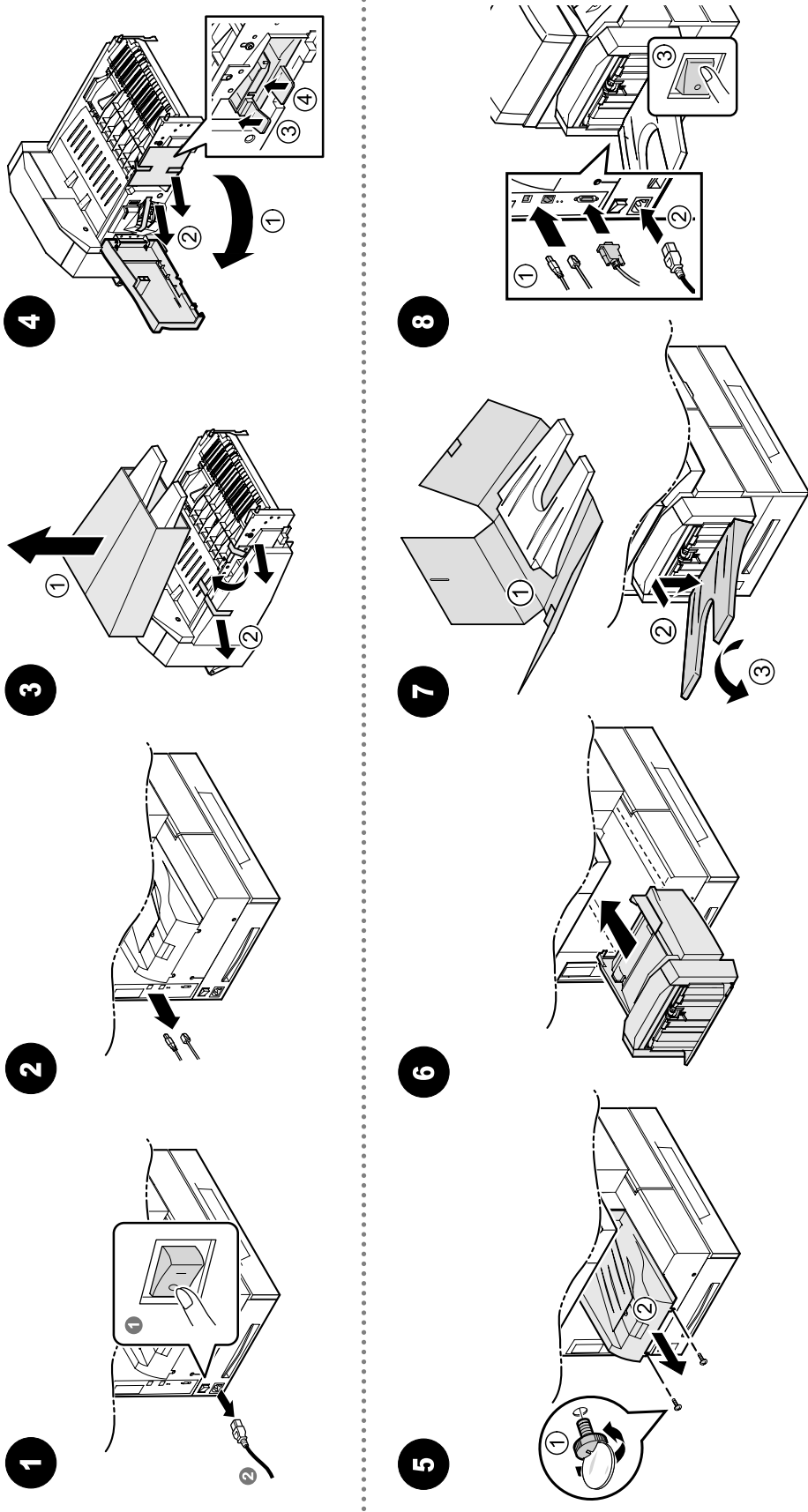
Optional FAX Install Guide

SCX-6x45 Series

JC68-01816AV100

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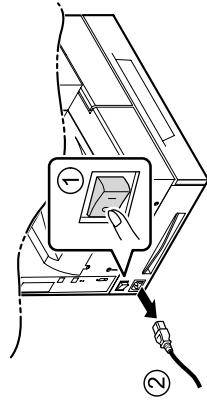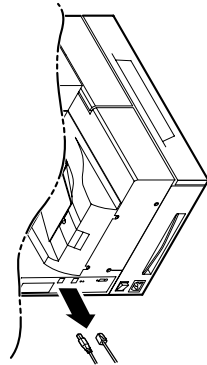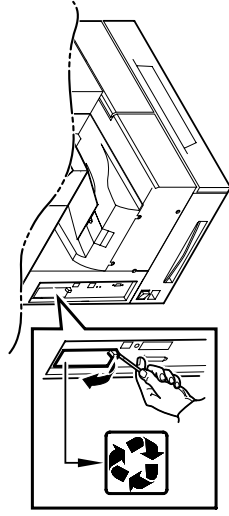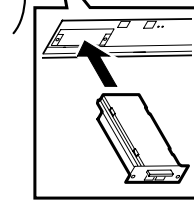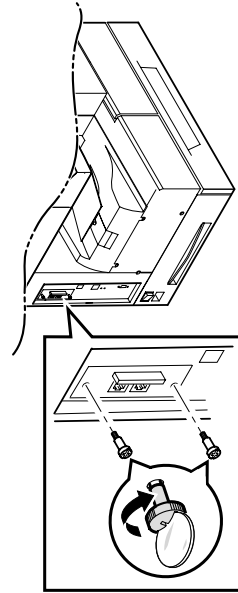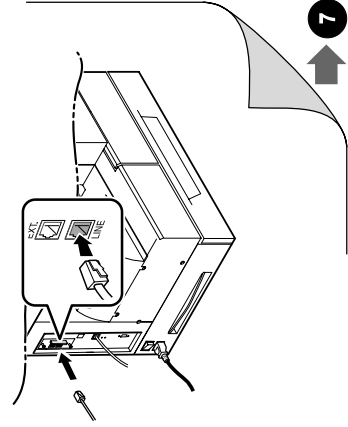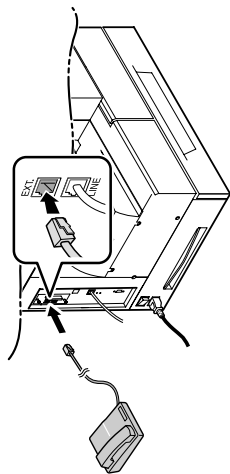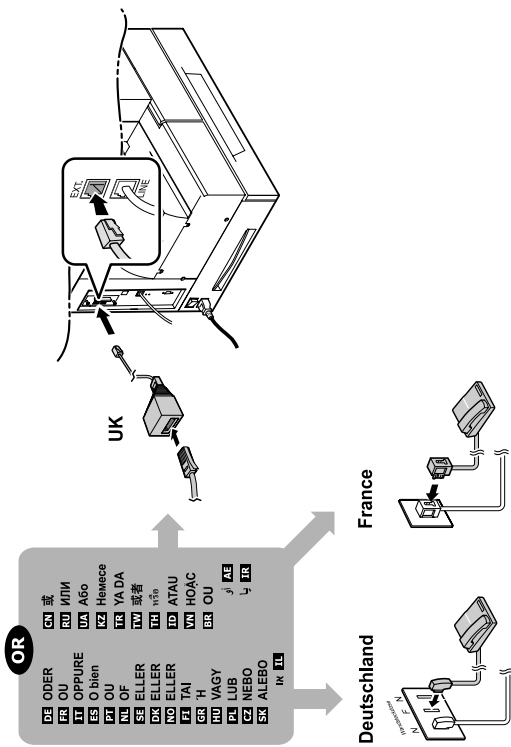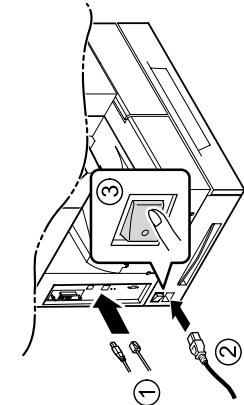
Optional Memory Install Guide

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SCX-6x45 Series

JC68-01813AV100
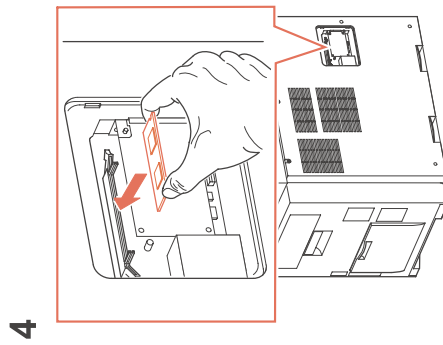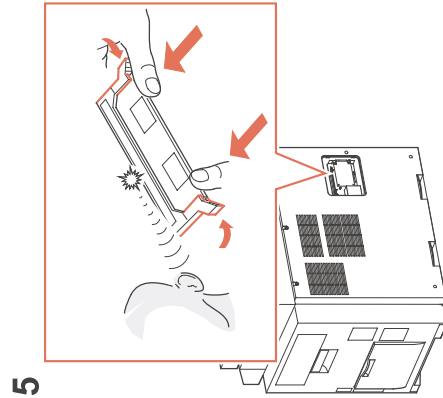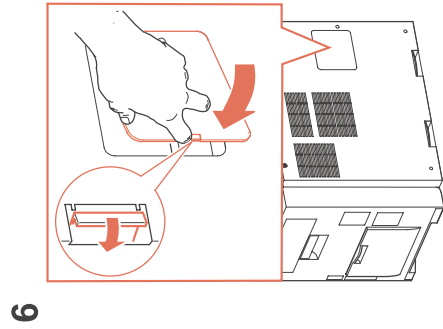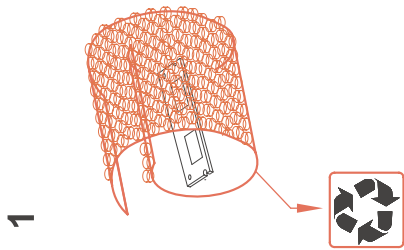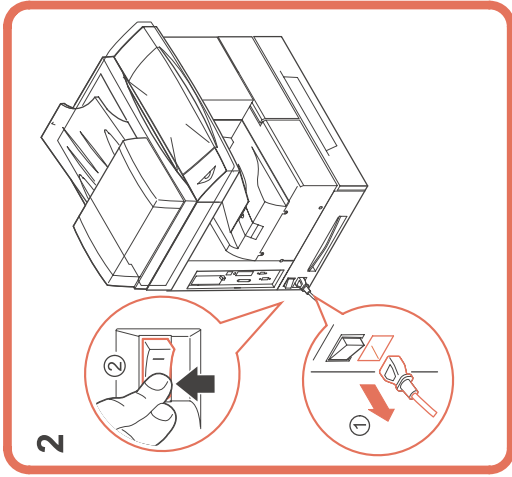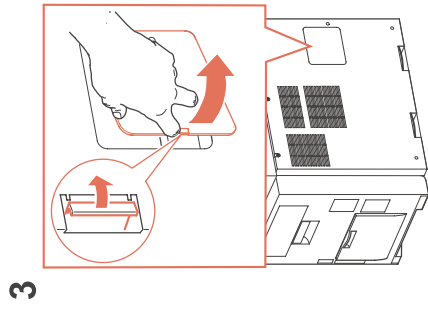
Optional Network Scan Install Guide

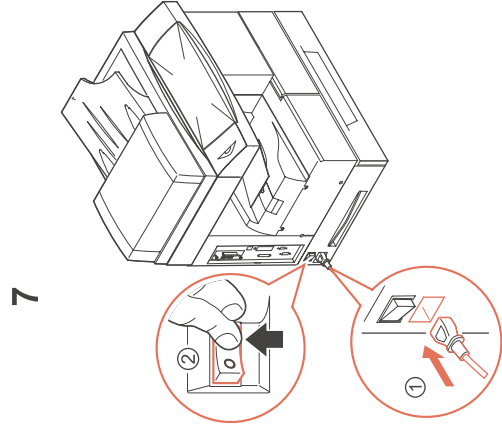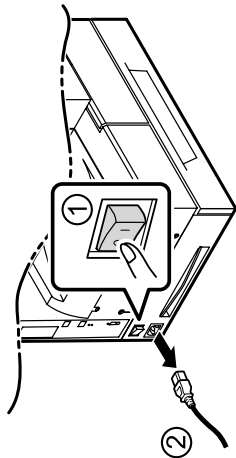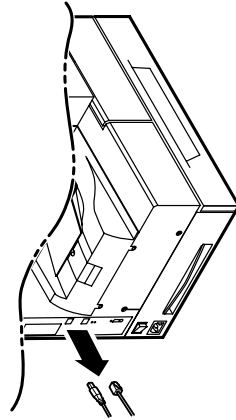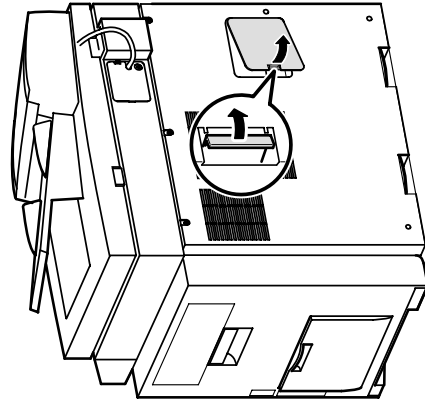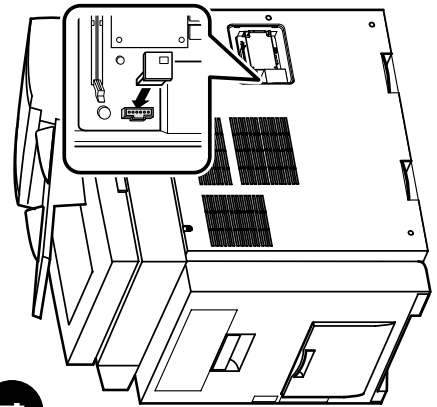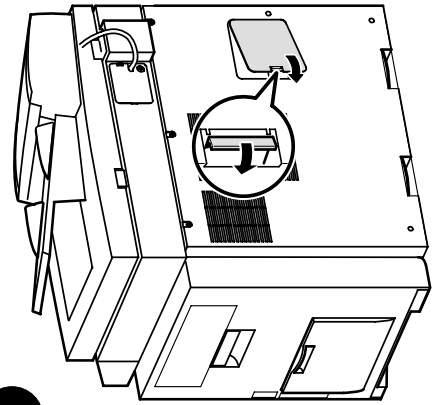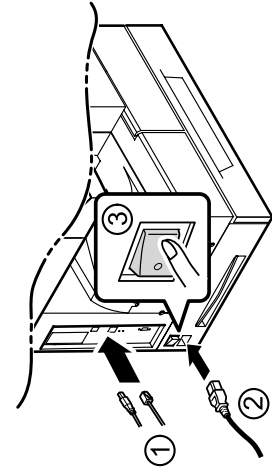# 13. Reference Information

This chapter contains the tools list, list of abbreviations used in this manual, and a guide to the location space required when installing the printer. A definition of test pages and Wireless Network information definition is also included.

13.1 Tool for Troubleshooting

The following tools are recommended safe and easy troubleshooting as described in this service manual.

• **DVM (Digital Volt Meter)**
  Standard : Indicates more than 3 digits.
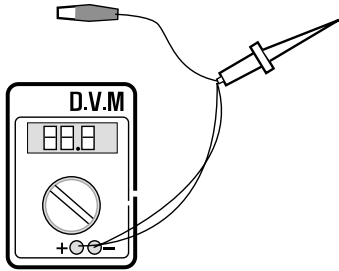
• **Driver**
  Standard : "-" type, "+" type (M3 long, M3 short, M2 long, M2 short).
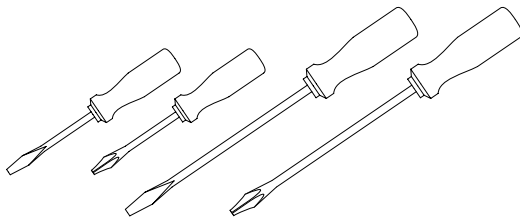
• **Tweezers**
  Standard : For general home use, small type.

• **Cotton Swab**
  Standard : For general home use, for medical service.

• **Cleaning Equipments**
  Standard : An IPA (Isopropyl Alcohol) dry wipe tissue or a gentle neutral detergent and lint-free cloth.

• **Vacuum Cleaner**

• **Spring Hook**
  Standard : For general use

• **Software (Driver) installation CD ROM**

13.2 Acronyms and Abbreviations

The table below explains abbreviations used in this service manual.
The contents of this service manual are declared with abbreviations in many parts. Please refer to the table.

13.2.1 Acronyms

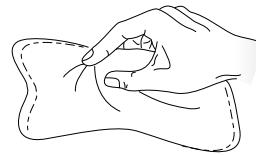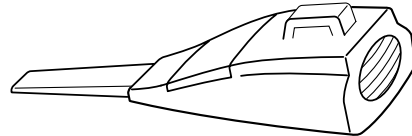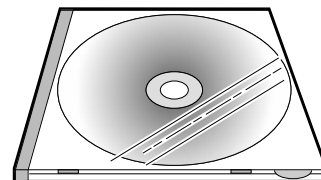|				
ABS	Automatic Background Suppression(a kind of copy feature)		FDI	Foreign Device Interface
APF	Automatic Paper Feeder(Tray)		FIA	Foreign Interface Attachment
BOOTP	BOOTSTRAP PROTOCOL		FRU	Field Replaceable Unit
CCD	Charged Coupled Device		FPOT	First Print Out Time
CIS	Contact Image Sensor		GW	GateWay
CPM	Copies Per Minute		HH	High Temperature, High Humidity (Testing Chamber conditions)
CP	Control Panel(= OPE)			
CQ	Copy Quality		HPVC	Halftone Printing Video Controller in the SPGPm (Graphic Processor for Copy)
CRU	Customer Replaceable Unit			
CRUM	CRU Memory			
CW	Center Ware		IDC	International Data Corp.
CWDP	Center Ware Device Discovery Software(Samsung equivalent of Samsung's SyncThru)		IMAP	Internet Message Access Protocol
			IPP	Internet Printing Protocols
			IPM	Images Per Minutes
CWIS	Center Ware Internet Services		IPX	Internetwork Packet Exchange
DADF	Duplex Auto Document Feeder (= DADH)		IQ	Image Quality
			ITU	International Telecommunication Union
DC	Direct Connect			
DDNS	Dynamic Domain Name System		JBIG	Joint Binary Image Group (a kind of image data coding method)
DHCP	Dynamic Host Configuration Protocol			
DLC	Data Link Control		JPEG	Joint Photographic Expert Group (a kind of image data coding method)
DNS	Domain Name System			
ECM	Error Correction Mode		LCD	Liquid Crystal Display
ECP	Enhanced Capability Port		LEF	Long Edge Feeding
e-Coil	Extended Coil technology for Rapid(Fast) Fusing.		LL	Low Temperature, Low Humidity (Testing Chamber conditions)
EH&S	Samsung Environment, Health, & Safty		LPR/LPD	Line Printer Daemon Protocols (LPR is a TCP-based protocol)
ESMTP	Extended Simple Mail Transfer Protocol		LSU	Laser Scanning Unit
			LUI	Local User Interface
EP	Electro Photography		MCBF	Mean Copy Between Failure
EPC	Electric Pre-Collation		MDSP	Multiple Document Single Printout
FCOT	First Copy Out Time		MFP	Multi-Functional Product
			MH	Modified Huffman (a kind of image data coding method)

MIB	Management Information Base		RT-OS	Real Time Operating System
MIME	Multipurpose Internet Mail Extensions		RX	Receive
MR	Modified Read (a kind of image data coding method)		S2E	Scan-To-Email
MMR	Modified and Modified Read (a kind of image data coding method)		SAD	Solid Area Density
MN std	Multi-National Standard		SC	Service Call
MSOK	Master SOK(System Operation Key)		SCF	Second Cassette Feeder
MSO	Mixed Size Original		SDSP	Single Document Single Printout
MP	Multi Purpose		SDMP	Single Document Multiple Printout
MPBF	Mean Print Between Failure		SDR	Shut Down Rate
MSI	Multi Sheet Input		SEF	Short Edge Feeding
MTBF	Mean Time Between Failure		SIR	Sacrified(or Standard) Image Reference
MTTR	Mean Time To Repair		SOK	System Operation Key
NCP	Network Control Protocol		sRGB	Standard RGB (Color Coordinate System)
NIC	Network Interface Card		SNMP	Simple Network Management Protocol
NOS	Network Operating System		TCP/IP	Transmission Control Protocol/Internet Protocol
NN	Normal Temperature, Normal Humidity (Testing Chamber conditions)		TBC(or tbc)	To Be Confirmed
NSDR	Non-Shut Down Rate(=USDR)		TBD(or tbd)	To Be Determined
NW	Network		TIFF	(Adobe & Aldus) Tagged Image File Format
OD	Optical Density		TRIM	Technical Retrofit Interim Maintenance
OHD	On Hook Dial		TTM	Time to Market
OSOK	Optional SOK(System Operation Key)		TX	Transmit
OP	Operational Procedure		UI	User Interface
PCL	Printer Control Language		UMC	Unit Manufacturing Cost
PDF	(Adobe) Portable Document Format		UMR	Unscheduled Maintenance Ratio
PPM	Pages Per Minutes		UPnP	Universal Plug and Play
PQ	Print Quality		USB	Universal Serial Bus
PS/3	PostScript Level-3		USDR	Un-Shut Down Rate(=NSDR)
PVC	Printing Video Controller in the SPGPm(Graphic Processor for Printer)		XCMI	Samsung's Management Information Base
QCD	Quality, Cost, and Delivery		WA	Warranty Action
RCP	Remote Control Panel		W x D x H	Width x Depth x Height

13.2.2 Service Parts

ACRONYM	EXPLANATION
ELA HOU-SCANNER ASS'Y	ELA=Electrical Assembly, HOU =Housing
MEA UNIT-COVER PA EXIT ASS'Y	MEA= Mechanical Assembly, PA=Paper
PMO-TRAY EXTENTION MP NE	PMO= Processing Mold MP=Multi-Purpose(Bypass) tray NE=for NEC (common as Samsung Halk printer)
MEC-CASSETTE ASS'Y(LETTER)	MEC = Mechanic Combined unit
COVER-M-FRONT	M=Mold
MPR-NAME/PLATE	MPR= Machinery Press,
UNIT-LSU	LSU =Laser Scanning Unit
SMPS-SMPS(V1)+HVPS	SMPS =Switching Mode Power Supply HVPS =High Voltage Power Supply
ELA-OPC UNIT SET	OPC=Organic Photo-Conductive
ELA HOU-MP ASS'Y	MP =Multi-Purpose (Bypass) tray
PBA MAIN-MAIN	PBA =Printed circuit Board Assembly
PMO-CONNECT PAPER MFP	MFP =Multi-Functional Peripheral
FAN-DC	DC =Direct Current
CBF POWER STITCH GRAY	CBF= Cable Form
MEA UNIT GUIDE CST PA ASS'Y	CST=Cassette(Paper tray), PA=Paper
PBA LIU	PBA =Printed circuit Board Assembly LIU =Line Interface Unit for FAX
SHIELD-P_MAIN LOWER	P=Press
CBF HARNESS-LIU GND	LIU =Line Interface Unit for FAX GND= Ground
PMO-COVER FEED AY	AY=Assembly
PMO-COVER BRKT MOTER	BRKT=Bracket
CBF HARNESS-LSU	LSU =Laser Scanning Unit
IPR-SHIELD SMPS UPPERI	IPR=Iron Press
PMO-BUSHING P/U.MP	P/U=Pickup MP=Multi-Purpose (Bypass) Tray
PMO-HOLDER GEAR TRr	TR= Transfer Roller
SPRING ETC-TR_L	TR_L=Transfer Roller - Left

ACRONYM	EXPLANATION
PMO-CAM JAM REMOVE	PMO-CAM= Processing Mold-CAM
PMO-LOCKER DEVE	DEVE=Developer
SPECIAL SCREW(PANNEL MFP)	MFP =Multi-Functional Peripheral
A/S MATERAL-DUMMY UPPER ASS'Y	A/S=After-Service
MCT-GLASS ADF	MCT= Machinery Cutting ADF=Automatic Document Feeder
PPR-REGISTRATION EDGE(F)	PPR= Processing Press
IPR-HOLDER GLASSI	PR=Iron Press
MCT-GLASS SCANNER(LEGAL)	MCT= Machinery Cutting
CBF HARNESS-OPE	OPE=Operation Panel(Control Panel)
PBA SUB-D_SUB	PBA SUB-D_SUB =>Sub Printed circuit Board Assembly for the D-SUB type electrical connector (D-Sub) a kind of the connector type(shape 'D')
COVER-M-CCD CABLE	M=Mold CCD=Charge Coupled Device
COVER-SCAN LOWER(UMAX)	UMAX=> Supplier's name for CCD module
ICT-INSERT SHAFTI	ICT= Iron Cutting
IPR-BRK SCAN BD	IPR=Iron Press BRK=Bracket BD= Board
CBF SIGNAL-CCD FFC	CCD = Charge Coupled Device FFC =Flexible Flat Cable
COVER-M-OPE	M=Mold OPE=Operation Panel(Control Panel)
KEY-M-COPY	M=Mold
PLATE-M-ALPHA KEY	M=Molde ALPHA=Alphabet
PMO-GUIDE DP SIDE	DP=Duplex
RING-CS	CS= Compress
GEAR-MP/DUP DRV	MP =Multi-Purpose (Bypass) tray DUP DRV = Duplex Driver
IPR-BRKT G DUPI	PR=Iron Press BRKT=BRACKET G= Ground DUP=Duplex
PMO-BUSHING TX(B4)	TX=Transmit
PMO-TRAY CASE, MP	MP=Multi-Purpose tray(Bypass tray)

ACRONYM	EXPLANATION
SPRING CS RE	CS=Compress RE=Rear
SPRING CS FR	CS=Compress FR=Front
PMO-BUSHING FINGER, F	F=Front
ICT-SHAFT-EXIT LOWER ID	ID=Idler
SPRING-EXIT ROLL FD	FD=Face Down
PMO-BUSHING_P/U,MP	P/U=Pickup MP =Multi-Purpose (Bypass) tray
PMO-HOLDER CAM MPF	MPF=Multi-Purpose Feeder(=MP)
PMO-GEAR P/U MPF	P/U=Pickup
MFP =Multi-Functional Peripheral	
RPR-RUBBER PICK UP,MP	RPR=Rubber Press
PBA SUB-MP SEN	PBA SUB-MP-SEN =>Sub Printed circuit Board Assembly for the MP-SEN(= Multi-Purpose (Bypass) tray-Sensor)
A/S MATERAL-PICKUP,MP	
FOOT-ML80	
HOLDER CATCH CST MC2	MC2=>McKInley2 (Samsung Project code name)
IPR-GROUND PLATE A(OPC)	OPC=Organic Photo-Conductive
ELA M/M-AUD SPEAKER	ELA M/M => Electrical Assembly M/M AUD=Audio
CBF HARNESS-OPC GND	OPC GNG=Organic Photo-Conductive-Ground
IPR-GROUND PLATE SCF	SCF=Second Cassette Feeder(Tray2)
PBA SUB-PTL	PBA SUB-PTL=>Sub Printed circuit Board Assembly for the PTL(= Pre Transfer Lamp)
PBA SUB-FEED+P.EMP SEN.	PBA SUB-FEED=>Sub Printed circuit Board Assembly for the feeder EMP SEN=Empty Sensor
MOTOR STEP-MCK2(MAIN)	
GEAR-EXIT/U	EXIT/U=EXIT/Upper
GEAR-RDCN FEED INNER	RDCN=Reduction
CBF-HARNESS-MAIN-THV WIRE	THV =Transfer High Voltage
CBF-HARNESS-MAIN-MHV WIRE	MHV= High Voltage(Charge Voltage)

ACRONYM	EXPLANATION
GEAR-EXIT/U,ID	U=Upper ID=Idler
IPR-TERMINAL FU	FU=Fuser
PMO-BEARING H/R-F	H/R-F=Heat Roller - Front
BEARING-H/R L	H/R-L=Heat Roller -Left
PEX-ROLLER EXIT F_UP	PEX= Processing Extrude F_UP=Face Up
SPRING ETC-P/R	P/R=Pressure Roller
SPRING(R)-CAU-HOT-FU	CAU-HOT-FU = Caution Hot -Fuser
PMO-ARM ACTUATOR	PMO-ARM= Processing Mold Arm
LABEL(R)-HV FUSER	HV=High Voltage (220V)
LABEL(R)-LV FUSER	LV=Low Voltage (110V)
PPR-SPONG SHEET	PPR=Plastic Press
IPR-P_PINCH(SCAN)I	PR-P = Iron Press
ROLLER-REGI	REGI=Registration
PBA SUB-REGI	PBA SUB-REGI => Sub Printed circuit Board Assembly for the Registration
GROUND-P_SCAN ROLLER	GROUND-P =Ground-Press
IPR-GUARD C/O S/W	C/O = Cover Open S/W= Switch
MEA UNIT-TX STACKER	TX =Transmit
IPR-WASHER SPRING CU	CU=Curve

13.3 The Sample Pattern for the Test

The sample pattern shown in below is the standard pattern used in the factory.
The life of the toner cartridge and the printing speed are measured using the pattern shown below.
(The image is 70% of the actual A4 size).

13.3.1 A4 ISO 19752 Standard Pattern

This test page is reproduced at 70% of the normal A4 size

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789ABCDEFGHIJKLMNOPQRSTUVWX

LSA
Funtres Solber Netener

Stephen J. Singel
Labanda Sinpat Abarress
Tendar, BSF
URANGLE

23 January 2004

Jonathan Q. Maderia

Inpert Mampem Abaress
2343 Stantin Dawer Lank
Benhibe, SDF

Mr.Maderia:

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Labanda Sinpat Abarress

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FINAL

ABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789ABCDEFGHIJKLMNOPQRSTUVWX

13.4 Wireless LAN

• This product uses a printing function with a wireless LAN, which is an option.
  - The wireless LAN function uses a frequency instead of connecting LAN cable to connect data to an access point for print.
  - For a wireless LAN connection, an AP is needed, It is possible to use wireless LAN onnection with wired LAN. Also, if AP is installed in an office or at home, the wireless LAN function can be simply used.

• Types of desk top PC (or Lap top) that uses the wireless LAN.

Division	Basic type	Recommend type
CPU	Over PENTIUM 233M	PENTIUM 300MHz
MEMORY	Over 64MB	Over 128MB
VIDEO CARD	Over 800X600	Over 1024X768
OS	Over WINDOWS 98	Over WINDOWS ME
INTERFACE CARD	A product has a certificated mark of Wi-Fi™	

• **About the certificated mark of Wi-Fi™**

- The Wi-Fi™ is a registered trademark of WECA (Wireless Ethernet Compatibility Alliance). Over 50 of a wireless LAN companies are member of it. The most of main wireless networking companies are attending and the main companies are Lucent technologies, Cisco, Intel/Symbol, 3Com, Enterasys (Cabletron), Compaq, IBM, Nokia, Dell, Philips, Samsung electronic, Sony, Intersil, and so on. This mark certifies mutual compatibility among product has Wi-Fi™ (IEEE 802.1) and it is certified as a standard of a wireless LAN market.

13.5 Selecting a location

Select a level, stable place with adequate space for air circulation. Allow extra space for opening covers and trays.
The area should be well-ventilated and away from direct sunlight or sources of heat, cold, and humidity. Do not set the machine close to the edge of your desk or table.

Clearance space

- Front: 482.6 mm (enough space so that the paper tray can be removed)
- Back: 100 mm (enough space for ventilation)
- Right: 300 mm (enough space for ventilation)
- Left: 100 mm (enough space for ventilation)