

Product Support Guide D088 / D089

Introduction

Model Type

Color MFP

Launch Date

11/19/2010

S/N Configuration

V95YMMxxxxx
V96YMMxxxxx

Product Code

D088
D089

Brand/Model Name

Product Code	Lanier	Ricoh	Savin
D088	LD645C	Aficio MP C4501	C9145
D089	LD655C	Aficio MP C5501	C9155

Product Concept

New D088 / D089 will be launched to enhance our competitiveness with higher productivity, wide solutions, improved eco spec and advanced security features. RICOH decided to equip D088 / D089 with not only new hardware module to improve productivity and ECO specification, but also various functions such as “Print from USB/SD”, “Quota Setting” and “App2Me” to accelerate solution approach. Therefore, D088 / D089 can be proposed as the most reliable and functional office device to customers.



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Order Number Main Frame

Item	Model Name	EDP Code	Notes
Lanier Ricoh Savin	LD645C Aficio MP C4501 C9145	415402	Standard Mainframe Configuration Printer Scanner
Lanier Ricoh Savin	LD655C Aficio MP C5501 C9155	415417	Standard Mainframe Configuration Printer Scanner
Lanier Ricoh Savin	LD645CG Aficio MP C4501G C9145G	415557	Printer Scanner Government Version
Lanier Ricoh Savin	LD655CG Aficio MP C5501G C9155G	415667	Printer Scanner Government Version
Lanier Ricoh Savin	LD645CA Aficio MP C4501A C9145A	415408	Printer Scanner Single Pass DF Version
Lanier Ricoh Savin	LD655CGA Aficio MP C5501GA C9155GA	415423	Printer Scanner Single Pass DF Version

Options

Item	Description	Product Code	EDP Code	Common / Unique
PostScript3 Unit Type C5501	PostScript3 Unit Type C5501	D546-09	415483	U
Fax Option Type C5501	Fax Option Type C5501	D545-01	415489	U
1-Bin Tray BN3080	Inner 1-Bin Tray BN3080	D536-17	415456	U
Side Tray Type C5501	Side Tray Type C5501	D542-17	415448	U
Camera Direct Print Card Type I	Camera Direct Print Card Type I (eye, not one)	D546-21	415575	U
Paper Feed Unit PB3100	2x550-Sheet Paper Feed Unit PB3100	D5371-7	415455	U
LCIT PB3110	Tandem Large Capacity Tray (2x1000) LCIT PB3110	D538-17	415453	U
LCIT RT3010	Side LCT (1,200 sheets) LCIT RT3010	D539-17	415451	U

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Item	Description	Product Code	EDP Code	Common / Unique
Envelope Feeder EF3000	Envelope Feeder EF3000	D547-01	415494	U
Card Reader Bracket Type C5501	Card Reader Bracket Type C5501	D547-03	415495	U
USB 2.0/SD Slot Type F	USB 2.0/SD Slot Type F	D546-23	415673	U
IPDS	IPDS Unit Type C5501	D546-05	415480	U
File Format Converter Type E	File Format Converter Type E	D377-04	414007	C
Internal Shift Tray SH3040	Internal Shift/Sort Tray SH3040	D388-17	414719	C
G3 Interface Unit Type C5000	G3 Interface Unit Type C5000	D393-07	414706	C
Platen Cover Type 3800C	Platen Cover Type 3800C	G329-57	412551	C
Bridge Unit	Bridge Unit BU3030	D386-17	414175	C
Punch Kit for US 2/3 hole	Punch Unit Type 3260 NA	B702-17	412209	C
1000-Sheet Finisher SR790	1000-Sheet Finisher SR790	B408-50	412730	C
2000-Sheet Booklet Finisher SR3020	2000-Sheet Booklet Finisher SR3020	B804-57	413323	C
3,000-Sheet Finisher SR3030	3,000-Sheet Finisher SR3030	B805-57	413325	C
IEEE802.11a/g Interface Unit Type J	IEEE802.11a/g Unit (Wireless Interface) Type J	D377-01	414008	C
DataOverwrite Security System Type H	DataOverwriteSecurity (DOSS) Unit Type H	D377-06	414002	C

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Item	Description	Product Code	EDP Code	Common / Unique
Gigabit Ethernet Board Type B	Gigabit Ethernet Board Type B	D377-21	414204	C
IEEE1284 Interface Board Type A	IEEE1284 Interface Board (Parallel)Type A	B679-17	411699	C
Optional Counter Interface Unit Type A	Optional Counter Interface Unit Type A	B870-11	413012	C
Key Counter Bracket Type H	Key Counter Bracket Type H	A674-05	412552	C
Hand Set Type 1018	Hand Set Type 1018	B433-01	410781	C
Fax 32MB SAF Memory Unit Type B	Fax 32MB SAF Memory Unit Type B	N/A	N/A	C
Scanner Accessibility Option Type C5000	Scanner Accessibility Option Type C5000	D423-17	414676	C
FAC33 Cabinet Stand	FAC33 Cabinet Stand	N/A	413762	C
Copy Data Security Unit Type F	Copy Data Security Unit Type F		413985	Not Compatible RPCS driver no longer available

The peripherals produced from the following serial numbers can be used with the D088 / D089.

Shift Tray Unit

Destination	Name	Product Code	Serial #
Generic	SH 3040	D388	V3389200001

1000-Sheet Finisher

Destination	Name	Product Code	Serial #
Generic	SR790	B408	J1007803285

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2000-Sheet Booklet Finisher

Destination	Name	Product Code	Serial #
Generic	Booklet Finisher SR3020	B804	L9507800920

3000-Sheet Finisher

Destination	Name	Product Code	Serial #
Generic	Finisher SR3030	B805	L9607801248

Bridge Unit

Destination	Name	Product Code	Serial #
Generic	Bridge Unit BU3030	D386	M8108800001

Envelope Feeder

Destination	Name	Product Code	Serial #
Generic	Envelope Feeder EF3000	D547	W2506900001

Supplies/Yields

Item	Name	Order Code	Target Yield
Ricoh / Savin / Lanier			
Toner Black	Print Cartridge Black Type MP C5501/C9155/LD655C	841452	25,500prints/bottle *1
Toner Yellow	Print Cartridge Yellow Type MP C5501/C9155/LD655C/ MP C5000/C5050/LD550C	841453	18,000prints/bottle
Toner Magenta	Print Cartridge Magenta Type MP C5501/C9155/LD655C/ MP C5000/C5050/LD550C	841454	18,000prints/bottle
Toner Cyan	Print Cartridge Cyan Type MP C5501/C9155/LD655C/ MP C5000/C5050/LD550C	841455	18,000prints/bottle
Developer	BK	D0899640	300k
	C	D0899660	240k
	M	D0899670	240k

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Item	Name	Order Code	Target Yield
	Y	D0899680	240K
Staple Set Cartridge for SR3020/3030/790	Staple Type K	410801	5,000shots/staple
Staple Refill Cartridge for SR3020/3030/790	Refill Staple Type K	410802	5,000shots/staple
Staple Set Cartridge for SR3020 (Saddle Stitch)	Staple Type L	411240	2,000shots/staple
Staple Refill Cartridge for SR3020 (Saddle Stitch)	Refill Staple Type L	411241	2,000shots/staple

NOTE: *A4, 6% chart is used to measure the above yield. Storage period for toner is max. 1 year.

NOTE: ** Part Number

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Option Compatibility

Category	Item	Product Name	You Must Install	You Cannot Install
Original Feeding	Platen Cover	Platen Cover Type 3800C	-	ARDF
	ARDF	ARDF DF3040	-	Platen Cover, Single Pass DF model
	ADF Handle	ADF Handle Type A (Will not be launched in RE)	ARDF(only DF3040)	Card Reader Bracket, Single Pass DF model
Paper Feeding	2 tray Paper Bank	Paper Feed Unit PB3100	-	LCT
	LCT	Paper Feed Unit PB3110	-	2 tray Paper Bank
	Side LCT	LCIT RT3010	2 tray Paper Bank or LCT	-
	Envelope Feeder	Envelope Feeder EF3000	-	-
Finishing	1 Bin Tray	1 Bin Tray BN 3080	-	-
	Internal Shift Tray	Internal Shift Tray SH3040	-	2000 Sheets Booklet Finisher, 3000 Sheets Finisher, 1000 Sheets Finisher, Bridge Unit, Side Tray
	Side Tray	Side Tray Type C5501	-	2000 Sheets Booklet Finisher, 3000 Sheets Finisher, 1000 Sheets Finisher, Bridge Unit, Shift Tray, EFI Controller
	1000 Sheets Finisher	1000 Sheets Finisher SR790	Bridge Unit and Paper Bank or LCT	2000 Sheets Booklet Finisher, 3000 Sheets Finisher, Shift Tray, Side Tray
	3000 Sheets Finisher	3000 Sheets Finisher SR3030	Bridge Unit and Paper Bank or LCT	2000 Sheets Booklet Finisher, 1000 Sheets Finisher, Shift Tray, Side Tray
	2000 Sheets Booklet Finisher	2000 Sheets Booklet Finisher SR3020	Bridge Unit and Paper Bank or LCT	1000 Sheets Finisher, 3000 Sheets Finisher, Shift Tray, Side Tray
	Punch Unit	Punch Unit Type 3260 NA/EU/SC	2000 Sheets Booklet Finisher or 3000 Sheets Finisher	-

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	Bridge Unit	Bridge Unit BU3030	2000 Sheets Booklet Finisher or 1000 Sheets Finisher or 3000 Sheets Finisher	Shift Tray, Side Tray
Fax	Fax Option	Fax Option Type C5501	-	-
	G3 Unit	G3 Interface Unit Type C5000	Fax Option	-
	SAF Memory	Memory Unit Type B	Fax Option	-
	Handset	Handset Type 1018	Fax Option	-
	FAX Stamp	Marker Type 30	Fax Option	-
Printer Option	PostScript3	PostScript3 Unit Type C5501	-	EFI Controller
	PictBridge	Camera Direct Print Card Type I	-	EFI Controller
	IPDS	IPDS Unit Type C5501	-	EFI Controller
Network Option	Wireless LAN Interface	IEEE 802.11a/g Interface Unit Type J	-	IEEE 1284, EFI Controller
	IEEE 1284 Interface	IEEE 1284 Interface Board Type A	-	Wireless LAN, EFI Controller
	Gigabit Ethernet	Gigabit Ethernet Type B	-	EFI Controller
Security	HDD Data Overwrite Security	Data Overwrite Security Unit Type H	-	-
Others	Browser Unit	Browser Unit Type E	-	-
	Optional Counter Interface	Optional Counter Interface Unit Type A	-	EFI Controller
	Key Counter Bracket	Key Counter Bracket Type H	-	EFI Controller
	File Format Converter	File Format Converter Type E	-	-
	USB2.0/SD Slot	USB2.0/SD Slot Type F	-	-
	Card Reader Bracket	Card Reader Bracket Type C5501	-	ADF Handle
	Scanner Accessibility Option	Scanner Accessibility Option Type C5000	-	Single Pass DF model

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Branding Information

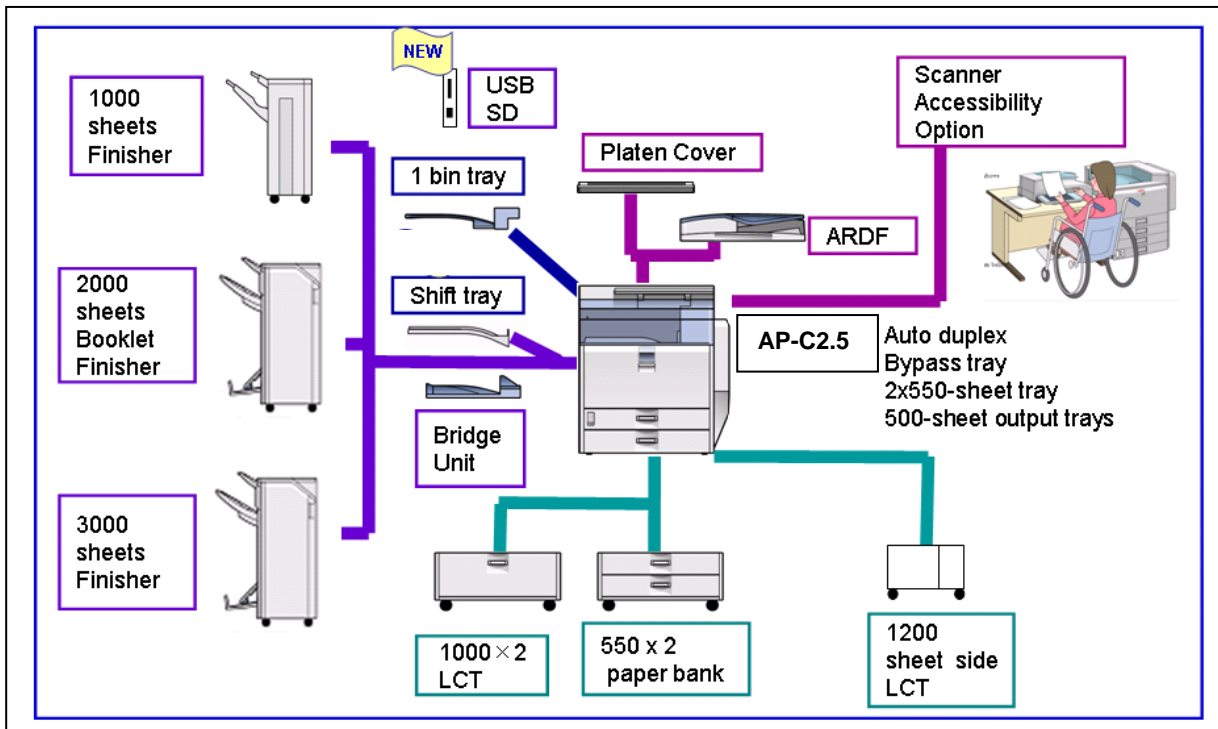
Branding is required as the machines are shipped as a generic version.

Ricoh version machines: You must attach the model label (provided) to the front cover.

Savin/Lanier: You must attach the model label (provided) to the front cover and set the Plug and Play name with SP 5-907.

Configuration

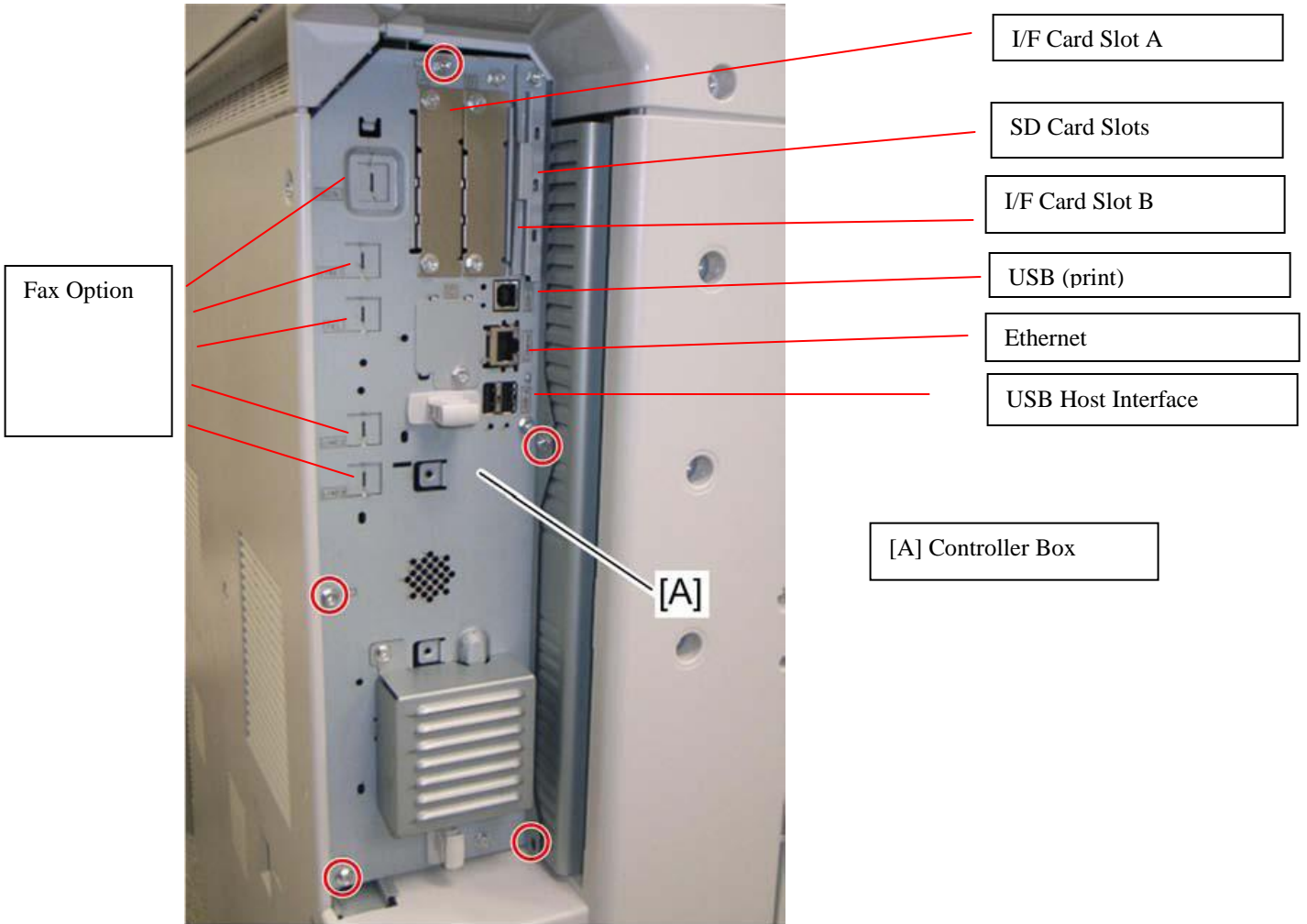
Main Frame Configuration



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MFP Option Board Slot / SD Card Assignments



d027i075

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Feature Comparison To Previous version

	Mode			D027 / D029	D088 / D089
Printer Features	Sample Print			Yes	Yes
	Locked Print			Yes	Yes
	Hold Print			Yes	Yes
	Stored Print			Yes	Yes
	Store and Print			Yes	Yes
	Black Over Print			Yes	Yes
	CLP Simulation			Yes	Yes
	PDF Direct Print			Yes	Yes
	PictBridge			Yes	Yes
	Mail to Print			Yes	Yes
	Classification Code			Yes	Yes
	Bonjour (Rendezvous) Support			Yes	Yes
	Windows Active Directory Support			Yes	Yes
	DDNS Support			Yes	Yes
	PCL resident font adoption			Yes	Yes
	Tray-Parameter Change from WebImageMonitor			Yes	Yes
	1200dpi Support			Yes	Yes
	Mobile Driver			Yes	Yes
	XPS Support			Yes	Yes
	WS Printer			Yes	Yes
Wireless LAN interface option *1			Yes	Yes	
Media Direct Print (Print from USB/SD)			No	Yes	
*1 Not only IEEE802.11b, but also IEEE802.11a/g are supported.					
Scanner Features	Scan to USB/SD			Yes	Yes
	WS-Scanner			Yes	Yes
	Scan to E-mail			Yes	Yes
		E-mail message attached		Yes	Yes
		Subject attached		Yes	Yes

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		SMTP Auth		Yes	Yes
		POP before SMTP		Yes	Yes
	Scan to SMB			Yes	Yes
	Scan to FTP			Yes	Yes
	Scan to URL			Yes	Yes
	Scan to NCP			Yes	Yes
	Scanned file naming			Yes	Yes
		Reference # Setting (ex. SCAN0001)		Yes	Yes
	Scan file type selection			Yes	Yes
		Single TIFF		Yes	Yes
		Single JPEG (Gray Scale)		Yes	Yes
		Single PDF		Yes	Yes
		Single High Compression PDF		Yes	Yes
		Multi page TIFF/PDF		Yes	Yes
		Multi page High Compression PDF		Yes	Yes
	LDAP Support			Yes	Yes
		E-mail Address search		Yes	Yes
		FAX address search		Yes	Yes
	Preview before transmission (TX Preview)			Yes	Yes
	PDF Encryption			Yes	Yes
	Drop out Color Send			Yes	Yes
	Twain Scan			Yes	Yes
	Universal Send (Temporary)			No	No
	Document Clipper *1			No	No
	(*1) Data Processing / OCR Package				
FAX Features	Detection of misplaced document			Yes	Yes
	Double-check of destination address			Yes	Yes
	Direct SMTP			Yes	Yes
	IP Fax (T.38)			Yes	Yes
	Internet Fax (T.37)			Yes	Yes
	Forward to E-mail				
		Inbound fax		Yes	Yes

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		(G3/Internet)			
		G3 Fax Transmission result		Yes	Yes
		G3 LAN Fax Transmission result		Yes	Yes
		Internet fax sending result (to SMTP)		Yes	Yes
		Fax to e-mail result (to SMTP)		Yes	Yes
		IP Fax sending result		Yes	Yes
		Journal		Yes	Yes
		Fax from special sender		Yes	Yes
		Fax and forward designated receiver (SUB)		Yes	Yes
	Fax forward to folder			Yes	Yes
		with E-mail Notification		Yes	Yes
	Paperless fax (HDD received)			Yes	Yes
		with E-mail Notification		Yes	Yes
	Lan-fax with cover sheet editor			Yes	Yes
	LDAP Support				
		Fax address search		Yes	Yes
	Max G3 lines			3	3
	Universal Send (Temporary)			No	No
	DS stored data sending			No	No
Security Features	HDD Data Overwrite Security*1			YES	YES
		Option Type A	411853		
		Option Type B	411854		
		Option Type C	411989		
		Option Type D	412152		
		Option Type F	413107		
		Option Type H	414002	v	v
		Option Type I	413955		

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		ISO/IEC15408 Certification		T.B.A	T.B.A
	Authentication *2				
		Windows Authentication		YES	YES
		LDAP Authentication		YES	YES
			Kerberos *3	YES	YES
		Basic Authentication		YES	YES
		User Code Authentication		YES	YES
		802.1.x Wired Authentication		YES	YES
	Encryption				
		Address Book Encryption		YES	YES
		Authentication Pwd Encryption		YES	YES
		SSL communication		YES	YES
		S/MIME		YES	YES
		IPsec communication		YES	YES
		HDD Encryption (*1)		YES	YES
		Type A	414021	v	v
		Locked Print password Encryption		YES	YES
	Others				
		Network Protocol On/Off		YES	YES
		IP filtering (Access Control)		YES	YES
		Mask Type for Copying/Data Security for Copying *1		YES	NO
		Copy Data Security Unit Option (*1)		YES	NO

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		Type A	412320		
		Type C	412808		
		Type E	412986		
		Type F	413985	v	v
	Printout User Trace *5			NO	NO
	Alteration Detection *5			NO	NO
	Revival Copy *5			NO	NO
	Upgraded Data Security for Copying			NO	NO
	Quota Setting/Account Limit			NO	YES
	Single Sign On			NO	NO
	(*1) Option required.				
	(*2) Please refer to "printer driver specification" for details of compatible PDL.				
	(*3) Applicable for Windows Authentication and LDAP Authentication.				
	(*4) To be provided as optional function package.				
	(*5) To be provided as Marking Package.				
UI Features	UI Customization			NO	NO
	My Operation Panel			NO	NO
	Remote Operation Panel			NO	NO
	MFP Browser			NO	NO
	Operation Manual on Operation Panel			NO	NO
	Workflow improvement with one-button			NO	NO
	(*1) Ad-C4.5 and AI-C1 have this feature with special customization.				
Environmental Features	QSU				
	Hybrid QSU				
	IH QSU				
	Duplex				
	Combine				
	PxP Toner				
	New PxP Toner				
	Toner Recycle				
	Corn Plastic				
	Label	Energy Star			
		BAM			
		RoHS			
	Reporting				
	10 seconds Recovery				

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Accessibility Features	Easy Touch Screen		YES	YES
	Normal/Reverse Grip & Light drawing		YES	YES
	Scanner Separation		YES	YES
	Tilt Operation Panel		NO	NO
	Distinguishable LED		YES	YES
	Single Hand Operation		YES	YES
	Certified Visual Barrier Free		YES	YES
	Screen Reader		YES(Optional)	YES(Optional)
	Electronic Manual		NO	NO

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Installation

Installation Requirements

Temperature Range:	10° C to 32° C (50° F to 89.6° F)
Humidity Range:	15% to 80% RH
Ambient Illumination:	Less than 1,500 lux (do not expose to direct sunlight)
Ventilation:	3 times/hr/person
Ambient Dust:	Less than 0.075 mg/m ³ (2.0 x 10 ⁻⁶ oz/yd ³)

Avoid areas exposed to sudden temperature changes:

- Areas directly exposed to cool air from an air conditioner.
- Areas directly exposed to heat from a heater.

Do not place machine where it will be exposed to corrosive gas or vapor.

Do not install the machine at any location over 2,500m(8,200 ft.) above sea level.

Place the machine on a strong and level base. Inclination on any side should be no more than 5mm (0.2")

Do not place the machine where it may be subject to strong vibrations.

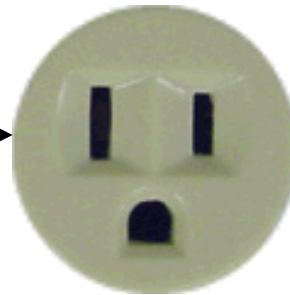
- Machine level
- Front to back: within 5mm (0.2") of level
 - Right to left: within 5mm (0.2") of level

Power Requirements

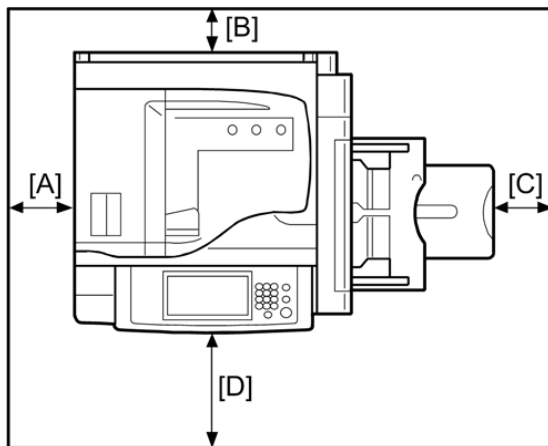
Input voltage level: 110 - 120 V, 60Hz:12A

Do not place anything on power cord.

The required wall outlet is a NEMA 5-15R (receptacle) →



Space



b222i109a

- | | |
|-----------|---------------------|
| A (Left) | Over 100 mm (3.9") |
| B (Rear) | Over 100 mm (3.9") |
| C (Right) | Over 550 mm (21.7") |
| D (Front) | Over 750 mm (29.5") |

The recommended 750 mm (30") front space is sufficient to allow the paper tray to be pulled out. Additional the front space is required to allow operators to stand at the front of the machine.

Foot Print

Dimensions (W x D x H): 26.4 x 30.2 x 40.2 (with 2-Tray Paper Bank and fall-prevention material) **Measurement Conditions: With bypass feed table closed, optional PTU and without ARDF, from the ground to the contact glass.**

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Power Consumption / Noise Emission

Power Consumption

Max Power		-
Full Option Max Power	US	1,584W or less
Operating Power	US (Guaranteed value)	1100W
Ready Mode	US (Guaranteed value)	240W or less
Panel Off	Power US (Guaranteed value)	200W or less
	Shift time(Default) US	-
	Recovery US	-
Low Power	Power US (Guaranteed value)	150W or less
	Shift time(Default) US	-
	Recovery US	-
Sleep Mode	Power US (Guaranteed value)	2.0W or less
	Shift time(Default) US	1 min
	Recovery US(Guaranteed value)	Normal DF(D088:22.1sec/D089:36.1sec) SPDF(D088:22.1sec/D089:36.1sec)
TEC (Typical Electricity Consumption)	D088:normal DF	US:2630Wh
	D088: SPDF	TBD
	D089: normal DF	US:3510Wh
	D089: SPDF	TBD

Noise Emission

Sound Power Level (Mainframe Only)	Stand-by	D088	40 or less
		D089	40 or less
	Copying	D088	71.8(BW), 71.5(FC) or less
		D089	72.0(BW,FC) or less
Sound Power Level (Full System)	Stand-by	D088	40 or less
		D089	40 or less
	Copying	D088	75.5 or less
		D089	76 or less
Sound Pressure Level (Mainframe Only)	Stand-by	D088	34 or less
		D089	34 or less
	Copying	D088	65.8(BW), 65.5(FC) or less
		D089	66.0(BW,FC) or less
Sound Pressure Level (Full System)	Stand-by	D088	34 or less
		D089	34 or less
	Copying	D088	69.5 or less
		D089	70 or less

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Installation Times

Unit	Installation Time (Minutes)	Unit	Installation Time (Minutes)
ARDF	15	USB/SD Slot	15
2-Tray Paper Feed unit	10	Card Reader Bracket	10
LCT(2000 sheet)	10	PostScript3	5
LCT(1200 sheet)	10	Browser Unit	5
1 bin Tray	10	Bluetooth	5
Internal Shift Tray	10	Gigabit Ethernet	5
Bridge Unit	10	IEEE 1284	5
Side Tray	10	IEEE802.11a/ g	5
1000-Sheet Finisher	15	File Format Converter	10
2000-Sheet Booklet Finisher	15	Data Overwrite Security Unit	10
3000-Sheet Finisher	15	Copy Data Security Unit	10
Punch Unit	15	HDD Encryption Unit	5
FAX Option	15	IPDS	5
Envelope Feeder	10	PictBridge	5

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Storage/Transportation

	Storage	Transportation
Mainframe	Temperature -30 ~ 40C Humidity Less than 80% RH Storage Period Max: 12 months	Temperature -30 ~ 50C Humidity 15% ~ 95% RH

	Conditions for Storage & Transportation			
	Temperature	Humidity	Storage Period	Stack Max
Toner (Bk)	under 45°C	15 ~ 80%	240 days	8 cartons
Toner (Y/M/C)	under 45°C	15 ~ 80%	240 days	10 cartons
Developer (Bk)	under 45°C	15 ~ 80%	240 days	20 cartons
Developer (Y/M/C)	under 50°C	15 ~ 80%	240 days	20 cartons

Remarks:

- * Store in a dry, dark place where temperature does not exceed 45°C on continuance storage/transportation conditions.
- * Do not store more than 12 hours under the temperature between 41 and 45°C. (for Developer Y/M/C, between 41 and 45°C)
- * Do not store more than a month under the temperature between 36 and 40°C.
- * Do not store more than 14 days under the temperature 40°C and the humidity 70%.. (except Developer Y/M/C)
- * Ideal temperature of toner use is between 10°C and 32°C

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Parts / Special Tools / Maintenance

PM Parts / Yields

Mainframe

Unique/Common
U: Unique for this model
C: Common with listeD089

*1 part of the PM Kit #:
 * 2 part of the PM KIT #:

Part Number	Description	Q'ty/ Unit	PM Interval (Prints)	Unique or Common
PCDU				
D0892250	Drum Unit – K	1	200k	U (Note 1)
D0892251	Drum Unit -CMY	1	120k	U (Note 1)
D0899640	Developer- K	1	300k	U (Note 1)
Transfer				
D0896021	ITB Cleaning Unit	1	200k	U (Note 1)
D0896203	PTR Unit	1	300k	U (Note 1)
Fusing				
AE010079	Fusing Roller	1	300k	U
AE030080	Ball Bearing: Dia 12 X 21 X5	2	300k	U (Note 1)
AE020183	Pressure Roller	1	300k	U
AE030074	Ball Bearing: Dia 17 X 26 X5	2	300k	U (Note 1)
D0294169	Fusing Cleaning Felt	1	300k	U
Other				
D0896509	Waste Toner Bottle (Note 2)	1	150k	U (Note 1)
B2231276	Dust Filter	2	200k	C (AP-C2)

NOTE 1: These items are common with D086 / D087.

NOTE 2: This item is also user-replaceable.

NOTE 3: The yield figures in the above table are based on the following conditions:

- A4 (LT) long-edge feed
- 5% image coverage ratio
- Color ratio: 30%
- 4 print/job

Part Number	Description	Q'ty/ Unit	Interval (Prints)	Unique or Common
PCDU				
D0893010	Development Unit - K	1	600k	U (Note 1 and 2)
D0893020	Development Unit - M	1	480k	U (Note 1 and 2)
D0893030	Development Unit - C	1	480k	U (Note 1 and 2)
D0893040	Development Unit - Y	1	480k	U (Note 1 and 2)
D0899670	Developer - M	1	240k	U (Note 1 and 2)
D0899660	Developer - C	1	240k	U (Note 1 and 2)

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Part Number	Description	Q'ty/ Unit	Interval (Prints)	Unique or Common
D0899680	Developer - Y	1	240k	U (Note 1 and 2)
Transfer				
D0296010	ITB Unit	1	600k	U (Note 3)

NOTE 1:These items are common with AT-C2.5.

NOTE 2:The color development units and color developer are treated as EM parts, as the actual yield of these units depends on the actual color ratio.

NOTE 3:The ITB Unit is also an EM part, as its expexted yield is relatively long

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Options

Special Tools & Lubricants

The following special tools should be prepared for maintenance of the new model in the field:

Unique or Common:

U: **Unique for this model**

Item	Part Number	Description	Q'ty	Unique or Common
1	B6455010	SD Card	1	C (General)
2	B6456705	PCMCIA Card Adapter	1	C (General)
3	B6456830	USB Reader/Writer	1	C (General)
4	VSSM9000	Digital Multimeter – FLUKE87	1	C (General)
5	G021 9350	Loop-back Connector – Parallel	1	C (General)
6	C401 9503	20X Magnification Scope	1	C (General)
7	A2579300	Grease Barrierta – S552R	1	C (General)
8	52039502	Silicon Grease G-501	1	C (General)
9	A0929503	C4 Color Test Chart (3 pcs/set)	1	C (General)
10	A1849501	Scanner Positioning Pin (2pcs/set)	2	C (General)
11	B6795100	Plug - IEEE1284 Type C	1	C (General)
12	B1329700	Lubricant Powder	1	C (V-C1)

C: Common with list D089

Loop-back Connector – Parallel (item 5) requires Plug - IEEE1284 Type C (item 11).

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Target Reliability

Model	D088	D089
Average Monthly Volume	10K	12K
Max. Monthly Volume	50K	
PM Interval	150/200K	

Specifications / Documentation

Mainframe		
Configuration	Desk Top	
Scanning Element	One-dimensional solid scanning through CCD	
Printing Process	Dry Electrostatic Transfer System with Dual Component Development; 4-Drum Method	
Development	Dry two-component magnetic brush development system	
Fusing	IH Roller Fusing System	
Max Image Area	11"x17" (297x432mm)	
First Copy Time (LT/A4 LEF, 1st tray)	Guaranteed value	D088: FC 6.3/BW 3.9, D089: FC 5.3/BW 3.3
Warm-up Time (From main switch)	US : Guaranteed value	Normal DF model D088: 26.1 / D089: 40.1 SPDF model D088: 26.1 / D089: 40.1
Power Source	120V-127V 60Hz	
Max Power Consumption (Full Configuration)	1,584W or less	
Dimension(WxDxH)	26.4 x 26.7 x 30 (Standard), 26.4 x 30.2 x 40.2 (with 2-Tray Paper Bank and fall-prevention material)	
Weight	Less than 287lbs (with normal ARDF) Less than 293lbs (with SPDF) Less than 243lbs (without ARDF)	

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Enhanced Features		
Image Density		Auto Density Selection, Manual : 9 levels
Color Mode		Default = Black & White Mode Auto Color Selection (ACS) Full Color Black & White Single Color (Default: not indicated) Preset: 12 colors x4 Density (Default = Red), User color: 15 colors x4 Density Two Color (Default: not indicated) - Black and Other Color - Red and Black
Copy Mode		Default = Auto Text & Photo Separation (Printed/Glossy/Copied) Auto Text & Photo Separation (Printed/Glossy/Copied) Photo (Printed/Glossy/Copied) Text Map Pale Generation
Copy Mode -Photo Type Selection		
Peper Selection		Default = Auto Paper Selection (APS) Auto Paper Selection (APS) 1st Tray 2nd Tray 3rd Tray (with Paper Bank) 4th Tray (with Paper Bank) Bypass Tray
Paper Type Capability	Std Tray	Plain Paper (No Display Paper Type), Recycle Paper, Special Paper 1-3, Color Paper, Letterhead, Cardstock, Preprinted Paper, Bond Paper Tray1: High-gloss coated paper Tray2: Envelope, Coated, High-gloss coated paper [Thickness] Thin Paper, Normal Paper, Thick Paper 1, Thick Paper 2, Thick Paper 3
	Bank, LCT	Plain Paper (No Display Paper Type), Recycle Paper, Special Paper 1-3, Color Paper, Letterhead, Cardstock, Label Paper, Preprinted Paper, Bond Paper, Plain Paper Backside [Thickness] Thin Paper, Normal Paper, Thick Paper 1, Thick Paper 2, Thick Paper 3

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	Bypass Tray	[Paper Type] Normal Paper (No Display Paper Type), Recycle Paper, Special Paper 1-3, Color Paper, Letterhead, Cardstock, Label Paper, OHP, Preprinted Paper, Bond Paper, Envelope, Coated, High-gloss coated paper [Thickness] Thin Paper, Normal Paper, Thick Paper 1, Thick Paper 2, Thick Paper 3, Thick Paper 4
Auto Tray Switch		Yes
Duplex		1 sided to 2 sided, 2sided to 2 sided(w/ARDF), Book o 2 sided, Front and Back to 2 sided
Book	Booklet	Yes
	Magazine	Yes
Series	Book to simplex	Yes
	2 sided original to simplex	Yes
Combine	2 into 1 simplex	Yes
	4 into 1 simplex	Yes
	8 into 1 simplex	Yes
	1 duplex into 1 simplex	Yes
	2 duplex into 1 simplex	Yes
	4 duplex into 1 simplex	Yes
	4 into 1 duplex	Yes
	8 into 1 duplex	Yes
	16 into 1 duplex	Yes
	2 duplex into 1 duplex	Yes
	4 duplex into 1 duplex	Yes
	8 duplex into 1 duplex	Yes
Shift/Erase/Margin Adjustment	Centering	Yes
	Cornering	No
	Margin Adjustment	1mm step (0-30mm) Default=Front Page:5mm left, Back Page:5mm right
	Erase Center	1mm step (2-99mm), Default=10mm
	Erase Border	1mm step (2-99mm) Default = 10mm
	Erase Center/Border	1mm step (2-99mm) Default = Center: 10mm, Border: 10mm

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Cover Sheet/Chapter/Slip Sheets	Front Cover	Copy or Blank (Default=Copy)
	Front & Back Cover	Copy or Blank (Default=Copy)
	Chapter	Yes
	Slip Sheets	Yes
	OHP Slip Sheets	Yes
Image Rotation		Yes (A4/LT and B5 size)
Electronic Sort	Without Shift Sort	Yes
	Rotate Sort	Yes
	Shift Sort	Yes (only with Finisher)
Electronic Stack		Yes
Stapling		Yes (with Finisher)
Color Creation	Color Conversion	Yes
	Color Erase	Yes
	Color Background	Yes
Image Creation	Repeat	Yes
	Double Copy	Yes
	Mirror	Yes
	Posiive/Negative	Yes
Stamp/Numbering	Preset Stamp	Yes (8 Stamps / 2 sizes / RGBCMYK 7colors)
	User Stamp	Yes (5 Stamps can be registered / RGBCMYK)
	Date Stamp	Yes (6 styles/ RGBCMYK)
	Page Number	Yes (7 styles / RGBCMYK)
Color Balance Adjustment		Yes
Color Balance Program		Yes
Auto Color Calibration(ACC)		Yes
Sharp/Soft		7 levels
Conrast		9 levels
Background Density Adjustment		9 levels
Under Color Removal(UCR) Adjustment		9 levels
Text & Photo Separation Sensitivity Adjustment		9 levels
Color Erase Sensitivity Adjustment		5 levels
Job Programs		10
User Code		8 digits / 500 user codes
Interrupt Copy		Yes
Auto Start		Yes
Job Preset		Yes(8 jobs)
Sample Copy		Yes
Simplified Display		Yes
Login/Logout Button		Yes

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SMC Report Print out (Logging Data)	Yes
NRS Option	Yes
Document Server	Yes
Auto Off Timer	Yes (US model: 1min, 1-60min)
Energy Saver Timer	Yes (US model: 1min, 1-30min)
Panel Off Timer	Yes (US model: 1min, 1-30min)
System Reset Timer	Yes (Default: 60sec. / 10-999sec.)

Paper Handling

Recommended Paper Size	1st Paper Tray	A4 LEF, 11"x8 ½" (LT) LEF (A5 LEF and B5 LEF are able to set by using SP mode.)
	2nd Paper Tray	A3 SEF, B4 SEF, A4 LEF/SEF, B5 SEF/LEF, A5 LEF, 11"x17"(DLT) SEF, 8 ½"x14" (LG) SEF, 8 ½"x13" (Foolscap) SEF, 8 ½"x11" (LT) LEF/SEF, 8¼"x14" (Government LG), 8 ¼"x13" (Folio) SEF, 8"x13"(F/GL), 8"x10" (Eng Quatro) 7 ¼"x10 ½" (Executive) SEF/LEF, 11"x15" SEF, 10"x14" SEF, Envelopes (COM10 LEF, C5 LEF) <Custom Size Paper> Width: 182 – 297mm, Length: 148 – 432mm *1
	LCT	A4 LEF, 8 ½"x11" (LT) LEF
	Side LCT	A4 LEF, B5 LEF, 8 ½"x11" (LT) LEF
	Bypass Tray	12"x18"/305x458mm, A3/DLT-A6SEF <Custom Size Paper> Width: 90 – 305mm, Length: 148 – 1260mm *2
Envelope Printing		Yes (from bypass or optional Envelope Feeder)
Paper Feeding Capacity(LT/A4)	Std	550sheet x 2trays (less than 55.5mm) Bypass Tray: 100sheets (less than 10mm)
	Max	4,400 sheets (with LCT, side LCT)

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	Option	Paper Bank Unit: 550sheet x 2 trays Or LCT: 1,000sheet x 2 Side LCT: 1.200 sheets
Paper Output Capacity(LT/A4)	Std	Face Down: 500sheets(A4 or smaller/80gms), 250sheets(B4 or larger/80gms) *When Bridge Unit or Side Tray is attached: 250sheets(A4 or smaller/80gms), 125sheets(B4 or larger/80gms)
	Max	3,625 sheets (with standard 250 sheets + 3,000 sheets Finisher + 1 Bin tray)
	Option	1 Bin Tray: 125 sheets Or Shift Sort Tray: 250 sheets (Larger than A4/LT) 1000 sheets Finisher: 1000 + 250 sheets Or Booklet Finisher: 2,000 + 250 sheets Or Booklet Finisher: 3,000 + 250 sheets
Paper Weight *3	Std Tray	60-256
		16 - 68lb.Bond 140 lb.Index
	Bypass	60-300
		16 - 68 lb.Bond 110 lb.Cover
	Duplex Unit	60-169
		16-45

Copy Speed		
CPM Black		D088 : 45, D089 : 55
CPM Color		D088 : 45, D089 : 55
Copy Resolution		600dpi / 4bit
Multiple Copying		Up to 999 copies
Reproduction Ratio	US	400%, 200%, 155%, 129%, 121%, 100%, 93%, 85%, 78%, 73%, 65%, 50%, 25%
Zoom		From 25% to 400% in 1% step
Number of Copy Reservations		8

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Printer Specifications		
CPU		Intel Celeron-M 1.0GHz
RAM		2
HDD		160GB *4 (250GB x 1)
PDL	Std	PCL5c, PCL6(XL)
	Option	Adobe PostScript3, IPDS
Print Resolution	Max	1200 x 1200 dpi / 1bit
	PCL5c	-300 x 300 dpi (available only with B/W mode) -600 x 600 dpi <Gradation *5> Fast (1bit) / Standard (2bit) / Fine (4bit)
	PCL6	-600 x 600 dpi <Gradation *5> Fast (1bit) / Standard (2bit) / Fine (4bit) -1200 x 1200 dpi
	PS3	-600 x 600 dpi <Gradation *5> Fast (1bit) / Standard (2bit) / Fine (4bit) -1200 x 1200 dpi (1bit)
	XPS *6	-600 x 600 dpi <Printing Mode *5> Standard (1bit) / Quality Preference (2bit) / High Quality (4bit) -1200 x 1200 dpi
	IPDS	-300 x 300 dpi -600 x 600 dpi
Fonts	Std	PCL: Scalable 45 fonts + Bitmapped: 6 fonts + International 13 fonts *7
	Option	PS3 : 136 Roman fonts IPDS : 108 Roman fonts
Host Interfaces	Std	Ethernet (RJ-45 network port : 10Base-T /100Base-TX), USB2.0[TypeB], USB2.0 Host I/F[TypeA](2 port)

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	Option	Ethernet (1000Base-T) IEEE1284/ECP, USB2.0/SD Slot Wireless LAN (IEEE802.11a,b,g, WPA support),
Network Protocol		TCP/IP (IP v4, IP v6), IPX/SPX
Standard MIB		MIB-II(RFC1213), HostResource(RFC1514), PrinterMib(RFC1759), Printer Port Monitor MIB
Private MIB		Ricoh Original
Network/Operating System *5		Windows 2000/XP/Vista/7/Server 2003/Server 2008/Server 2008R2 6.5 Unix; Sun Solaris, HP-UX, SCO OpenServer, RedHat Linux, IBM AIX Mac OS X v.10.2 or later SAP R/3, NDPS Gateway IBM iSeries/ AS/400-using OS/400 Host Print Transform

Scanner Specifications

Color Scan		Std
Scanning Speed (normal DF)	B&W	67pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan
	Color	67pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan
Scanning Speed (single pass duplex DF)	B&W	85(simplex)/116(duplex)pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan
	Color	85(simplex)/116(duplex)pages/minute (A4/LET LEF / 200dpi/300dpi) Push Scan
Scanning Resolution	Std	100 / 200 / 300 / 400 / 600/ 1200 dpi *only twain driver
	Default	200dpi
Auto Size Detection	Contact Glass	11"x17"(DLT) SEF, 8 ½"x14"(LG) SEF, 8 ½"x11"(LT) LEF/SEF *SP mode adjustment is required : 8 1/2"x5 1/2"(HLT)LEF/SEF

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(US Model)	ARDF *9	11"x17" (DLT)SEF, 8 ½"x14" (LG)SEF, 8 ½"x11"(LT) LEF/SEF, 5 ½"x8 ½"(HLT) LEF/SEF, 8 1/2"x13"(Foolscap) SEF 10"x14"SEF, 11"x15"SEF (detected the same as DLT SEF, Default = DLT SEF), 8"x10"SEF (detected the same as LT SEF, Default = LT SEF) 7 1/4"x10½"(EXE) LEF/SEF
Auto Size Detection	Contact Glass	A3 SEF, B4 SEF, A4 LEF/SEF, B5 LEF/SEF, A5 LEF/SEF, 8"x13"(F) SEF, 8 ½"x13"(Foolscap) SEF, 8 1/4"x13"(Folio) SEF
Scan Area	Main Scan	297mm
	Sub Scan	432mm
sRGB Support		Std
Network Interface		Ethernet 10BASE-T / 100BaseTX / 1000BASE-T, Wireless LAN (IEEE802.11a,b,g, WPA support), USB2.0 TypeA(with USB2.0/SD Slot Option), SD Card Slot(with USB2.0/SD Slot Option)
Protocol		Network: TCP/IP Sending E-mail: SMTP, POP3 Scan to Folder: SMB, FTP, NCP Web Services on Devices for Scanning
Compression Method	B&W	TIFF (MH, MR, MMR), Grayscale
	Color	JPEG
Scan Mode		Standard: BW Text/Line Art, BW Text, BW Text/Photo, BW Photo, BW Grayscale, FC Photo, FC Text Standard: ACS
Image Density		Auto Density Selection (Effective in BW/Grayscale and FC scan mode) Manual: 7 levels (Effective in BW/Grayscale and FC scan mode)
Image Rotation		Yes
SADF/Batch Mode		Yes

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Mixed Size Mode		Yes
File Format	Compression On / Off	Data / Compression Method
Single Page TIFF	On	BW 1bit / (MH, MR, MMR)
	Off	BW 1bit, BW Grayscale, FullColor
Multi Page TIFF	On	BW 1bit / (MH, MR, MMR)
	Off	BW 1bit, BW Grayscale, FullColor
Single Page JPEG	On	BW Grayscale, FullColor/ JPEG
	Off	-
Single Page PDF	On	BW 1bit(MH, MR, MMR), BW Grayscale(JPEG), FullColor(JPEG)
	Off	BW 1bit, BW Grayscale, FullColor
Multi PagePDF	On	BW 1bit(MH, MR, MMR), BW Grayscale(JPEG), FullColor(JPEG)
	Off	BW 1bit, BW Grayscale, FullColor
High Compression PDF	On	BW Grayscale(JPEG, JPEG2000), FullColor(JPEG, JPEG2000)
	Off	-
Requirement (Mail Protocol, Transmission Protocol, Protocol)		SMTP (Mail Server) Gateway and TCP/IP
Authorization Function		SMTP authentication POP before SMTP authentication
Resolution	Std	100, 200, 300, 400, 600
	Default	200
Max Email Address in HDD		2000
Register Group Address in HDD		Max. 100 Group (Max. 500 addresses in one group address)
Maintain Email Address in HDD		Direct input on operation panel, Web Image Monitor, Smart Device Monitor for Admin
Input of Destination E-mail Address via Soft Key		Possible, Max. 100 destinations per job
Search meathod of Email Address in HDD		By name and E-mail address
LDAP Search		Yes
Max Address Numbers Per Send		Max. 500 addresses per send *10
Address Numbers Per Send	from HDD	Max 500 *10
	direct input	Max 100*11 *12

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	via LDAP	Max 100*11 *12
Attention		To, cc, bcc
Email Size	with Restriction	128 - 102,400KB
	w/o Restriction	725MB
Input Subject	Manual	Max. 128 Characters via soft key
	User Pre-register	22 subjects. Max. 20 Characters per a subject
Input Main Body Text	Manual	Max. 80 Characters via soft key
	User Pre-register	5 BODY MESSAGES. 80 CHARACTERS X 5 LINES PER A BODY MESSAGE Title name of the body message: Max. 20 characters per a name
	Preset	Message: "This e-mail included attached file sent from xxxx(machine model name)."
Input File Name		Yes
File Type		Single Page TIFF/JPEG, Single Page PDF, Multi Page TIFF, Multi Page PDF, High Compression PDF (Multi / Single)
Program User Settings		Up to 10 programs
Divide and send Email (If the file size exceed the max size.)		Yes (By page or size) / No, Default = Yes(By size) *13
Resend		Yes / No, Default = Yes
Max Address Numbers Per Send (Combination with Folder)	Input via Address Book	Condition 1(Max address can select or input) :500
		Condition 2(Max address allow in single operation) :500
		Condition 3(Combination of addresses: Max) :550
	Manual input	Condition 1(Max address can select or input) :100
		Condition 2(Max address allow in single operation) :500
		Condition 3(Combination of addresses: Max) :550
Protocol Support		SMB, FTP, NCP

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Security		Client folder log-in (log-in name and password), Encryption of log-in name and password during transmission
Resolution	Std	100dpi, 200dpi, 300dpi, 400dpi, 600dpi
	Default	200
Register client folder address in HDD		Max. 2,000 folders
Maintain client folder address in HDD		Direct input on operation panel, WebImageMonitor, SmartDeviceMonitor
Destination client folder address input via soft key		Yes SMB: Network path -> Client folder -> Password FTP: Server -> Network path -> User account -> Password NCP: Network path -> User account -> Password -> Bindery or NDS
Search client folder		SMB: Browsing directly to the designated folders FTP: By client folder name
Max. client folder numbers per send		Max. 50 client folders / PCs per send
Simultaneous Transmission		Max.550
Group address		Max. 100 destinations (To Folder: 50, To E-mail: 100) (*1) e.g. 100 destinations 50 folders included >>>OK 100 destinations 51 folders included >>>Failure
Input File Name		No
Scan to File size		2,000
File Size when combined Scan to Folder & Scan to E-mail		128 - 102,400kB, Default = 2,048KB (With restriction) 725MB (Without restriction) (Scan to E-mail file size applied).
File Type		Single Page TIFF/JPEG, Single Page PDF, Multi Page TIFF, Multi Page PDF, High Compression PDF
Program User Settings		Up to 10 programs

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Divide the File in Scan to Email (If the file size exceed the max size.)		Yes (By page or size) / No, Default = Yes(By size) (When Scan to PC combine with Scan to E-mail)
Resend		Yes / No, Default = Yes
Max Address Numbers Per Send (Combination with E-mail)	Input via Address Book	Condition 1(Max address can select or input) :50
		Condition 2(Max address allow in single operation) :50
		Condition 3(Combination of addresses: Max) :550
	Manual input	Condition 1(Max address can select or input) :50
		Condition 2(Max address allow in single operation) :50
		Condition 3(Combination of addresses: Max) :550
OS		Windows 2000, Server 2003, Server 2008, XP, Vista, 7
Scanning Speed	B&W	Simplex(200dpi) : with MLB 70(compressed), without MLB 71 (compressed)/71 (uncompressed) Duplex(200dpi) : with MLB 48(compressed), without MLB 48 (compressed)/48 (uncompressed)
	Color	Simplex(200dpi) : with MLB 70(compressed), without MLB 70 (compressed)/70 (uncompressed) Duplex(200dpi) : with MLB 48(compressed), without MLB 48 (compressed)/48 (uncompressed)
Resolution	B&W	100 – 1200dpi (Black and White / Grayscale)
	Color	100 – 1200dpi (Full Color)
Scan Mode		Standard / Photo / OCR / Filing
Image Adjustment		Brightness / Contrast / Threshold /Gamma Adjustment / Halftone Pattern
Stamp		Date / Page Number / Text

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Endorse	Supported
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Fax Specifications		
Circuit		PSTN, PBX
Compatibility		ITU-T (CCITT) G3, Additional G3 (option),
Resolution		8 x 3.85 line/mm, 200 x 100dpi (std.), 8 x 7.7 line/mm, 200 x 200dpi (std.), 8 x 15.4 line/mm, 16 x 15.4 line/mm, 400 x 400dpi (with optional SAF memory)
Compression Method		MH, MR, MMR, JBIG
Scanning Speed (Platen used)		0.80sec.(A4/LT SEF, Standard/Detail/Super Fine mode), *ITU-T No1 chart, 200 x 100 dpi(Standard mode), 200dpi(Detail mode), 400dpi(Super Fine mode)
Scan Page per Minute(normal DF used)	A4/LT SEF	Standard mode: 58 spm Detail mode: 58 spm Super Fine mode: 48 spm
	A4/LT LEF Image Rotation	Standard mode: 68 spm Detail mode: 63 spm Super Fine mode: 34 spm
Scan Page per Minute(SPDF used)	A4/LT SEF	Standard mode: 67 spm Detail mode: 67 spm Super Fine mode: 54 spm
	A4/LT LEF Image Rotation	Standard mode: 74 spm Detail mode: 64 spm Super Fine mode: 36 spm
Modem Speed		33.6K – 2,400bps (G3, Standard with Automatic Shift Down) (33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400 bps)

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Transmission Speed		G3: Approx.2 seconds (200x100 dpi, JBIG, ITUT #1 chart TTI off, memory transmission) G3: Approx.3 seconds (200x100dpi, MMR, ITUT #1 chart, TTI off, memory transmission)
Page Memory Size	Std	4
	with Additional Memory	8
SAF Memory Size	Std	4MB (Approx.320 pages)
	with Additional Memory	28MB (Approx. 2,240 pages)
	Option	32MB SD-RAM (24MB SAF Memory + 4MB Page Memory)
Memory Backup		One hour
Smoothing		Standard
TTI/RTI		Standard
CSI		Standard
Quick dial/ Speed dial		Standard: 2,000 numbers
Group Dial		Standard: 100 groups (500 numbers per 1 group)
Program		Standard: 100 numbers
Redial		Standard
Direct Fax Number Entry		Standard
Dual access		Standard
User Code		Standard 500 Codes
Page Counter		Standard
Auto Reduction		Standard
Wild Cards		Standard
Summer Time		Standard
Memory Lock ID Code		Standard
SID Code (Sender ID)		Standard
Programming by OMR		No
User Function Key		Standard (3 keys)
Night Timer		No
Energy Saver		Standard
LCD Prompt		Standard
Remaining Memory Indication		Standard
Clock Adjustment		Standard
User Parameter Settings		Standard
User Data Transfer		Standard
Immediate Transmission		Standard
Parallel Memory Transmission		Standard
Memory Transmission		Standard
Serial Broadcasting		Standard (Max. 500 numbers)
Send Later		Standard

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Error Correction Mode		Standard
Page Retransmission		Standard
Forwarding		Standard
Image Rotation		Standard
Book Fax		No
Closed Network Transmission		Standard
Double Sided Transmission		Yes
Automatic Reception		Standard
Manual Reception		Standard
Substitute Reception		Standard
Authorized Reception		Standard
Multi Copy		Standard
Closed Network		Standard
Reception Time Printing		Standard
Center Mark		Standard
Checkered Mark		Standard
Economy Printing Mode		No
Duplex Reception		Standard
Handset/Telephone		Option
Telephone Connection		Standard
Monitor Speaker		Standard
Automatic Voice Message		No
On Hook Dial		Standard
Tone Transmission		Standard
Pause		Standard
Pulse/Tone Selection		Standard
Chain Dialing		No
Reception Mode Selection		Standard
Automatic Fax/Phone change		No
Reception Mode Switch over (remote)		No
Answering Machine interface		No
Reception Mode Switching Timer		No
Auto Answer Delay Time		Standard (SP mode)
Busy Tone Detection		Standard
Silent Ringing Detection		No
Requirement of Mainframe		G3 fax option is required. Printer Scanner option is required
Number of Address		2,000 HDD storage
Email Address Input		From LCD operation panel, Web Image Monitor, Smart Device Monitor for Admin
Attention		"to" or "bcc" (select only one), max 500 attentions
Destination Combination		Internet Fax + G3 Fax, Internet Fax to PC + G3 Fax

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Network		Ethernet 10BASE-T / 100BaseTX / 1000BASE-T, Wireless LAN (IEEE802.11a,b,g, WPA support)
Transmit Function		E-mail
Scan Line Density		200 x 100 dpi(Standard character), 200 x 200 dpi(Detail character), 200 x 400 dpi(Fine character: optional) *14 , 400 x 400 dpi(Super Fine character: optional) *14
Original Size: Scanning width		A3 *14, B4 *14, A4
Communication Protocol		Transmission SMTP, TCP/IP Reception POP3, SMTP, IMAP4, TCP/IP
Email Format		Single/Multi-part, MIME Conversion Attached file forms: TIFF-F(MH, MR *14, MMR*14 compression)
Authentication Method		SMTP-AUTH, POP before SMTP, A-POP
Internet Communication		Send and receive e-mail with a computer that has an e-mail address
Email Send Functions		Automatic conversion of sent documents to e-mail format and e-mail transmission. Memory transmission only.
Email Receive Functions		Automatic detection and printing of appended TIFF-F(MH) files and ASCII text. Memory reception only.
Paper Size		A3, DLT, B4, A4 (default for EU/Asia model), Letter (default for NA model), Legal, B5, A5
Resolution		Super Fine (400 x 400 dpi) Detail (200 x 200 dpi) *default Standard (200 x 100 dpi)
Gray Scale		Off On normal *default On lighter
Number of Address		500
OS		Windows 2000, Windows XP, Windows Vista

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LAN-Fax Editor Support Language	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Norwegian, 9.Danish, 10.Finnish, 11.Hungarian, 12.Czech, 13.Polish, 14.Portuguese, 15.Russian, 16.Korean, 17.Traditional Chinese, 18.Simplified Chinese Condition: OS need to have the same language.
Memory	Minimum required for each OS
CPU	Minimum required for each OS
HDD	Minimum required for each OS
Network	Ethernet 10BASE-T / 100BaseTX / 1000BASE-T, Wireless LAN (IEEE802.11a,b,g, WPA support)
Scan Line Density	8 x 3.85 lines/mm, 200 x 100 dpi(Standard character), 8 x 7.7 lines/mm, 200 x 200 dpi(Details character), 8 x 15.4 lines/mm(Fine character: optional expansion memory required), 16 x 15.4 lines/mm, 400 x 400 dpi(Super Fine character: optional expansion memory required)
Original Size	Maximum A3 or 11" x 17" (DLT)
Max Scanning Size	Standard: A3, 297mm x 432mm, Irregular: 297mm x 1200mm
Transmission Protocol	Recommended: T.38, TCP, UDP/IP communication, SIP(RFC 3261 compliant), H.323 v2
Compatible Machines	IP-Fax compatible machines
IP-Fax Transmission Function	Specify an IP address and send faxes to an IP-Fax compatible fax through a network. Also capable of sending faxes from a G3 fax connected to a telephone line via a VoIP gateway.
IP-Fax Reception Function	Receive faxes sent from an IP-Fax compatible fax through a network. Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway

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Document Server

HDD Capacity		160
Max Stored Documents		3,000
Max Pages Per Documents		2,000
Max Pages of All Stored Documents		9,000

Security Specifications

Network User Authentication		Yes
IP Address Filtering		Yes
MAC Address Filtering		No
HDD Overwrite		Yes
HDD Encryption		Yes
Secure Print		Yes
Encrypted Secure Print		Yes
Encrypted PDF Mode		Yes
IP Sec		Yes
Secure Sockets Layer(SSL)		Yes
SNMPv3		Yes
IPv6		Yes
Transport Layer Security		TBD
Removable HDD		No

Thick Paper Productivity

Model	Mode	Paper Thickness		BK CPM	FC CPM
		gsm	lb. Bond		
D088	Thin Paper	-52-59	-14~15	45	45
	Plain Paper	-81	-21	45	45
	Middle Thick	-105	-28	45	45
	Thick Paper 1	-169	-45	25	25
	Thick Paper 2	-220	-58	17.5	17.5
	Thick Paper 3	-256	-68	17.5	17.5
	Thick Paper 4	-300	-80	15	15
	OHP, 1200dpi printing High gloss paper	-	-	17.5	17.5
D089	Thin Paper	-52-59	-14~15	55	55

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Plain Paper	-81	-21	55	55
Middle Thick	-105	-28	55	55
Thick Paper 1	-169	-45	25	25
Thick Paper 2	-220	-58	17.5	17.5
Thick Paper 3	-256	-68	17.5	17.5
Thick Paper 4	-300	-80	15	15
OHP, 1200dpi printing High gloss paper	-	-	17.5	17.5

D088 (normal DF)

B&W Copy

ADF1to1 Simplex to Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	45.3	—	50.6	—
2nd Tray	22.4	27.4	45.1	34.3	50.7	38.7
3rd Tray	22.5	27.4	45.2	34.3	50.5	38.6
4th Tray	22.4	27.4	45.2	34.3	50.6	38.7
LCT	—	—	45.2	—	—	—

ADF1to1 Simplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	45.2	—	50.8	—
2nd Tray	22.5	27.5	45.5	32.8	50.8	35.5
3rd Tray	22.4	27.4	45.4	32.6	50.8	35.3
4th Tray	22.4	27.4	45.2	32.8	50.8	35.4
LCT	—	—	45.2	—	—	—

ADF1to1 Duplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	35.5	—	37.8	—
2nd Tray	20.0	21.7	35.5	24.4	37.9	26.4
3rd Tray	20.0	22.0	35.8	24.8	37.8	26.3
4th Tray	20.0	22.2	35.5	24.9	37.9	26.4
LCT	—	—	35.8	—	—	—

Full Color Copy

ADF1to1 Simplex to Simplex (cpm)

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	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	45.4	—	50.9	—
2nd Tray	22.4	27.5	45.4	34.5	50.6	38.4
3rd Tray	22.4	27.4	45.1	34.5	50.8	38.5
4th Tray	22.4	27.4	45.5	34.3	50.5	38.7
LCT	—	—	45.1	—	—	—

ADF1to1 Simplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	45.2	-	50.8	—
2nd Tray	22.4	21.0	45.3	33.0	50.9	35.0
3rd Tray	22.5	20.9	45.2	32.9	51.2	35.1
4th Tray	22.4	21.0	45.1	32.9	51.0	35.2
LCT	—	—	45.2	—	—	—

ADF1to1 Duplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	35.5	—	38.0	—
2nd Tray	20.0	21.8	35.6	24.4	37.8	26.3
3rd Tray	20.0	21.1	35.6	24.0	37.6	26.3
4th Tray	19.9	20.5	35.6	24.4	38.2	26.8
LCT	—	—	35.3	—	—	—

D089 (normal DF)

B&W Copy

ADF1to1 Simplex to Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.7	—	—	—
2nd Tray	28.8	35.6	55.6	41.8	59.7	47.0
3rd Tray	28.7	35.2	55.6	41.8	59.4	47.0
4th Tray	28.7	35.3	55.6	42.0	58.9	47.1
LCT	—	—	55.6	—	—	—

ADF1to1 Simplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.3	—	—	—
2nd Tray	28.9	35.3	55.6	40.8	59.3	43.4
3rd Tray	28.8	35.0	55.1	40.8	59.5	43.5
4th Tray	28.8	35.2	55.5	40.3	59.5	43.5
LCT	—	—	55.2	—	—	—

ADF1to1 Duplex to Duplex (cpm)

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	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	35.5	—	37.8	—
2nd Tray	20.0	22.0	35.5	24.4	38.1	26.2
3rd Tray	20.0	21.9	35.6	24.5	38.0	26.3
4th Tray	20.0	21.9	35.6	24.5	37.7	26.1
LCT	—	—	35.5	—	—	—

FullColor Copy

ADF1to1 Simplex to Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.4	—	—	—
2nd Tray	28.9	35.3	55.2	41.9	59.4	47.0
3rd Tray	28.9	35.4	55.2	42.1	59.5	46.8
4th Tray	28.9	35.2	55.4	42.0	59.4	46.9
LCT	—	—	55.4	—	—	—

ADF1to1 Simplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.1	—	—	—
2nd Tray	28.9	35.4	55.4	40.5	59.0	43.2
3rd Tray	28.8	35.3	55.1	40.6	59.7	43.2
4th Tray	28.9	35.3	55.0	40.5	59.5	42.8
LCT	—	—	55.0	—	—	—

ADF1to1 Duplex to Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	35.7	—	37.7	—
2nd Tray	20.0	21.9	35.6	24.3	37.8	26.3
3rd Tray	20.0	21.9	35.5	24.5	37.8	26.3
4th Tray	20.0	21.9	35.6	24.3	37.8	26.2
LCT	—	—	35.4	—	—	—

D088

B&W Copy

Platen Cover : Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	-	-	45.1	-	50.6	-
2nd Tray	22.5	27.4	45.1	34.4	50.5	38.6
3rd Tray	22.5	27.4	45.1	34.3	50.5	38.6
4th Tray	22.5	27.4	45.1	34.4	50.5	38.6

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LCT	-	-	45.1	-	-	-
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Platen Cover : Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	-	-	45.6	-	50.8	-
2nd Tray	22.6	27.4	45.6	32.7	50.8	34.6
3rd Tray	22.6	27.4	45.4	32.7	50.8	34.6
4th Tray	22.6	27.4	45.6	32.7	50.8	34.6
LCT	-	-	45.7	-	-	-

Full Color Copy

Platen Cover : Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	45.1	—	50.6	—
2nd Tray	22.4	27.4	45.1	34.3	50.5	38.5
3rd Tray	22.4	27.4	45.1	34.3	50.5	38.5
4th Tray	22.4	27.4	45.1	34.3	50.5	38.5
LCT	—	—	45.1	—	—	—

Platen Cover : Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	45.4	—	50.5	—
2nd Tray	22.5	27.4	45.4	32.7	50.6	35.0
3rd Tray	22.5	27.4	45.4	32.6	50.6	35.0
4th Tray	22.5	27.4	45.4	33.2	50.5	35.0
LCT	—	—	45.4	—	—	—

D089

B&W Copy

Platen Cover : Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.6	—	59.3	—
2nd Tray	28.8	35.3	55.6	41.9	59.3	46.9
3rd Tray	28.8	35.3	55.6	41.9	59.2	46.9
4th Tray	28.7	35.3	55.7	41.9	59.3	46.9
LCT	—	—	55.6	—	—	—

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Platen Cover : Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.6	—	59.9	—
2nd Tray	28.9	35.4	55.6	40.4	59.9	42.7
3rd Tray	28.8	35.3	55.6	40.5	59.9	42.7
4th Tray	28.8	35.3	55.7	40.5	59.9	42.6
LCT	—	—	55.5	—	—	—

Full Color Copy

Platen Cover : Simplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.1	—	59.4	—
2nd Tray	28.9	35.4	55.1	41.9	59.4	46.9
3rd Tray	29.0	35.4	55.0	41.9	59.4	46.8
4th Tray	29.0	35.5	55.1	42.0	59.4	46.9
LCT	—	—	55.1	—	—	—

Platen Cover : Duplex (cpm)

	A3/DLT	B4	A4/LT	A4R	B5	B5R
1st Tray	—	—	55.6	—	59.6	—
2nd Tray	28.9	35.1	55.1	40.2	59.6	42.5
3rd Tray	28.9	35.2	55.6	40.0	59.6	42.4
4th Tray	28.9	35.0	55.6	40.2	59.6	42.5
LCT	—	—	55.0	—	—	—

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Options

LCIT PB3110		
Paper Size		8 ½"x11" LEF (LT)/ A4 LEF
Paper Weight		60-256g/m2 *169-256 g/m2 :paper type is limited
		16-68lbs *169-256 g/m2 :paper type is limited
Paper Output Capacity		2,000 sheets (1,000 sheets x 2 with 80g/m2 paper)
Power Consumption		Less than 55W (Power is supplied from mainframe)
Dimension(WxDxH)		668x766x260mm (incl. Fall-prevention material)
		26.3"x30.1"x10.2" (incl. Fall-prevention material)
Weight		Less than 26kg
		Less than 57lbs

LCIT RT 3010		
Paper Size		8 ½"x11" LEF (LT)/ A4 LEF/B5LEF
Paper Weight		60-216g/m2 *169-216 g/m2 :paper type is limited
		16-57.5lbs *169-216 g/m2 :paper type is limited
Paper Output Capacity		1,200 sheets (80g/m2 paper)
Power Consumption		Less than 55W (Power is supplied from mainframe)
Dimension(WxDxH)		348 x 540 x 290mm
		13.7"x21.3"x11.4"
Weight		Less than 14kg

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Paper Feed Unit PB 3100		
Paper Size		A5 LEF – 11"x17"(DLT) / A3 SEF
Paper Weight		60-256g/m2 *169-256 g/m2 :paper type is limited
		16-68lbs *169-256 g/m2 :paper type is limited
Paper Output Capacity		1,100sheets(550 sheets x 2 trays with 80g/m2 paper)
Power Consumption		Less than 60W (Power is supplied from mainframe)
Dimension(WxDxH)		668x766x260mm (incl. Fall-prevention material)
		26.3"x30.1"x10.2" (incl. Fall-prevention material)
Weight		Less than 26kg
		Less than 57lbs

MFP Supported Environments

Windows OS		Drive		
Server	Client (push to)	PCL5e/6	RPCS*3	PostScript3
Windows VISTA	VISTA	Yes	Yes	Yes*1
	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	No	No	No
	98/Me	No	No	No
Windows server2003	VISTA	Yes	Yes	Yes*1
	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes
Windows XP Professional	VISTA	Yes	Yes	Yes*1
	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes
Windows 2000 Professional Server & Advance Server	VISTA	Yes	Yes	Yes*1
	XP	Yes	Yes	Yes
	W2K Pro	Yes	Yes	Yes
	NT4.0 WS	Yes	Yes	Yes

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Windows OS		Drive		
NT4.0 Workstation & Server (Intel)	98 / Me	Yes	Yes	Yes
	VISTA	No	No	No
	XP	No	No	No
	W2K Pro	Yes	No	No
	NT4.0 WS	Yes	Yes	Yes
	98 / Me	Yes	Yes	Yes

*1: PS3 driver for Windows Vista is not contained in a CD-ROM. Please download it from web site.

Terminal Service & Citrix MetaFrame			
Server	Driver		
	PCL5e/6	RPCS	PS
Windows Server 2003	Y		Y
Windows 2000 Server	Y		Y
Windows NT4.0 TSE	Y		Y
Win 2003 Servers: MetaFrame	Y		Y
Win 2000 Servers: MetaFrame	Y		Y
Win NT4.0 TSE: MetaFrame	Y		Y
Win 2003 Servers: Citrix PresentationServer4.0	Y		Y
Win 2000 Servers: Citrix PresentationServer4.0	Y		Y
Win NT4.0 TSE: Citrix PresentationServer4.0	Y		Y
Win 2003 Servers: Citrix PresentationServer4.5	Y		Y
Win 2000 Servers: Citrix PresentationServer4.5	Y		Y
Win NT4.0 TSE: Citrix PresentationServer4.5	Y		Y

[Operating Environments]

Settings from Printer Driver

Resolution	600dpi	600dpi	600dpi	1200dpi
Gradation	Fast	Standard	Fine	Fast
Printing Mode	Standard	Quality Preference	High Quality	Standard
Result	600x600dpi(1bit)	600x600dpi(2bit)	600x600dpi(4bit)	1200x1200dpi(1bit)

Supported Environments

OS	Type	PCL5c	PCL6	RPCS	PostScript3	XPS
Windows 2000	Professional	Y	Y		Y	N
	Server	Y	Y		Y	N
	Advanced Server	Y	Y		Y	N
	Detacener Server	N	N		N	N
Windows XP	Professional	Y	Y		Y	N
	Home Edition	Y	Y		Y	N
Windows Vista	Starter	N	N		N	N

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	Home Basic	Y	Y		Y	Y
	Home Premium	Y	Y		Y	Y
	Business	Y	Y		Y	Y
	Ultimate	Y	Y		Y	Y
	Enterprise	Y	Y		Y	Y
Windows 7	Starter	N	N		N	N
	Home Basic	N	N		N	N
	Home Premium	Y	Y		Y	Y
	Professional	Y	Y		Y	Y
	Ultimate	Y	Y		Y	Y
	Enterprise	Y	Y		Y	Y
Windows Server 2003	Standard Edition	Y	Y		Y	N
	Enterprise Edition	Y	Y		Y	N
	Datacenter Edition	N	N		N	N
	Web Edition	N	N		N	N
Windows Server 2008	Standard Edition	Y	Y		Y	Y
	Enterprise Edition	Y	Y		Y	Y
	Datacenter Edition	N	N		N	N
	Web Edition	N	N		N	N
Windows Server 2008R2	Standard Edition	Y	Y		Y	Y
	Enterprise Edition	Y	Y		Y	Y
	Datacenter Edition	N	N		N	N
	Web Edition	N	N		N	N

*RPCS driver has been discontinued.

Point & Print

Windows OS		Drivers			
Server	Client(Push to)	PCL5c/6	RPCS	PS	XPS
Windows Server 2003	7	Y		Y	N
	Vista	Y		Y	N
	XP	Y		Y	N
	W2K Pro	Y		Y	N
Windows Server 2008	7	Y		Y	Y
	Vista	Y		Y	Y
	XP	Y		Y	N
	W2K Pro	Y		Y	N
Windows Server 2008R2	7	Y		Y	Y
	Vista	Y		Y	Y
	XP	Y		Y	N
	W2K Pro	Y		Y	N
Windows 2000 Professional	7	Y		Y	N
Server & Advanced Server	Vista	Y		Y	N
	XP	Y		Y	N

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	W2K Pro	Y		Y	N
Windows XP Professional	7	Y		Y	N
	Vista	Y		Y	N
	XP	Y		Y	N
	W2K Pro	Y		Y	N
Windows Vista	7	Y		Y	Y
	Vista	Y		Y	Y
	XP	Y		Y	N
	W2K Pro	Y		Y	N

*RPCS driver has been discontinued.

Terminal Service and Citrix MetaFrame

Server	Driver		
	PCL5c/6	RPCS	PS
Win Server 2008R2	Y	-	Y
Win Server 2008	Y	-	Y
Win Server 2003	Y		Y
Win 2000 Server	Y		Y
Win Server 2003 + MetaFrame	Y		Y
Win 2000 Server + MetaFrame	Y		Y
Win Server 2003 + Citrix PresentationServer4.0	Y		Y
Win 2000 Server + Citrix PresentationServer4.0	Y		Y
Win Server 2003 + Citrix PresentationServer4.5	Y		Y
Win Server 2008 + XenApp5.0	Y		Y

*RPCS driver has been discontinued.

*XPS driver is not supported in the environment of terminal service and Citrix MetaFrame.

*Even "Yes" is put in the cell, there is a case driver is not supported under the combination of FR and Service Pack of Meta F

*Following combinations of operating system and Citrix MetaFrame are supported.

Windows 2000 Server /Advanced Server

1. Windows Terminal Service (RDP protocol)
2. MetaFrame XP 1.0 SP1/SP2/SP3/SP4 /FR1/FR2/FR3 (ICA protocol)
3. MetaFrame PresentationServer3.0
4. Citrix PresentationServer4.0

Windows 2003 Server

1. Windows Terminal Service (RDP protocol)
2. MetaFrame XP 1.0 SP4 /FR3 (ICA protocol)
3. MetaFrame PresentationServer3.0
4. Citrix PresentationServer4.0
5. Citrix PresentationServer4.5

Windows 2008 Server

1. Windows Terminal Service (RDP protocol)

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2. Citrix XenApp5.0

Mac OS Environment

	PostScript3	Printer Utility for Mac
Mac OS 8.6 or later, Mac OS X classic	N	N
Mac OS X Native: v.10.2 or later ^{*1}	Y	Y ^{*2}

*1: Mac OS X v10.0.x and v.10.1.x are not supported.

*2: Mac OS X v10.2.0 is not supported.

UNIX Environment

Supported platforms for Unix filter

UNIX Platforms	Version
Sun Solaris	2.6/7/8/9/10
HP-UX	10.x/11.x/11i v2/11i v3
Red Hat Linux	6.x/7.x/8.x/9.x/Enterprise
SCO OpenServer	5.0.6/5.0.7/6.0
IBM AIX	V4.3 & 5L Version 5.1/5.2/5.3

Novell Netware

Netware Server	Supported Version	Netware 6.5
	Client OS	Windows 2000/XP professional/Vista/2008/7

SAP R/3 Environment (Device Type / Barcode & OCR Package)

Device Type will be provided from SAP itself in SAP Printer Vendor Program.

For the detailed specification, please refer to another announcement to be issued in the future.

Supported Barcode & OCR Fonts	Barcode Fonts	Code 128, Code 39, Code 93, Codabar, 2 of 5 interleaved/Industrial/Matrix, MSI, USPS, UPC/EAN
	OCR Fonts	OCR A, OCR B

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Utility Software

Software	Description
For GW Controller Font Manager	This software enables you to use screen fonts.
Smart Device Monitor for Admin	This software enables you to manage and monitor printers and other devices over the network.
DeskTopBinder – SmartDeviceMonitor for Client	This software enables you to access networked printers to print, monitor or to receive notifications. With DeskTopBinder Lite you can connect client computers to I/O devices enabling you to efficiently manage data.
Device Graphic Update Module	Device Graphic Update Module provides bitmap images used to represent the various statuses of devices graphically within Smart Device Monitor or Web Smart Device Monitor. Available on website.
Printer Utility for Mac	This is a utility for Macintosh that provides access to several network printing administrative features.
PS Descriptions	PPD for Mac By interacting with the Adobe PostScript 3 controller in the device, this PPD is able to produce an accurate representation of the screen image.
Mac OS X PPD Installer	This PPD installer is used to install a PPD (Postscript Printer Description) file on Mac OSX. PPD files contain descriptions of printer capabilities such as paper sizes, number of input trays and duplexing. Once the PPD file is installed on the system using the PPD installer, the PS driver that comes bundled with Mac OS X can use the information in the PPD to control the print device and enable full functionality. It supports the Mac OS X 10.1 or later. Please see the Readme file for information about compatibility with versions of Mac OS X.
LAN FAX Driver M10	This software enables you to fax documents directly from your computer. The Address Book Editor and Cover Sheet Editor are installed as well. This software requires the optional fax unit to be installed on the machine. M10 Driver
PCL 6 Driver	Printer driver for B/W printing in Windows. It supports HP PCL XL commands and is optimized for the Windows GDI. High performance printing can be expected.
PCL 5e Driver	Printer driver for printing in Windows. It supports HP PCL 5e commands.
DDST Print Driver PCL5e	Printer driver for Windows: The user-friendly DDST driver rasterizes print-data on the Windows host that is submitting the job. Data is submitted to the printer as PCL. This driver is only intended for use with DDST products that support PCL printing. Note: As this is a mini-driver, less functions are available than the PCL6 driver for DDST. This is downloaded from the web only
DDST Print Driver PCL6	Printer driver for Windows: The user-friendly DDST driver rasterizes print-data on the Windows host that is submitting the job. Data is submitted to the printer as PCL. This driver is only intended for use with DDST products that support PCL printing.
DDST TWAIN Driver	TWAIN scanner driver for network connections or USB.
Post Script Driver	By interacting with the Adobe PostScript 3 controller in the device, this driver is able to produce an accurate representation of the screen image.

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Software	Description
GW Controller Network TWAIN Driver	TWAIN scanner driver for network connections with new features Combine/Series, compatible with SNMP V3 and Network Connection Tool.

Print Driver Information

Printer Driver Features

RPCS Features	PCL5c/6	RPCS	PostScript3			XPS
			Windows	Mac OS 8.6-9.2	Mac OS X v.10.2 or later	
			2000/XP/Vista/7			
Send to job Binding	N		N		N	N
Send to Document Server	Y		Y		Y	Y
Sample Print	Y		Y		Y	Y
Locked Print	Y		Y		Y	Y
Hold Print	Y		Y		Y	Y
Stored Print	Y		Y		Y	Y
Stored Print(Shared)	Y		N		N	N
Store and Print	Y		Y		Y	Y
Store and Print(Shared)	Y		N		N	N
Reduce/Enlarge(Zoom/Scaling)	Y*1		Y		Y	Y
Reduce/Enlarge Centering	N		N		N	N
Fit to Paper Size	Y		Y		Y	N
Unauthorized Copy Control	N		N		N	N
Layout(N-up, Page per sheet)	Y		Y		Y	Y
Poster	N		N		N	N
Duplex	Y		Y		Y	Y
Booklet1	N		N		N	N
Booklet2(Magazine)	Y		Y		N	Y
Non-Reduction Booklet	Y		N		N	N
Watermark	Y		Y		Y	N
Overlay	N		N		N	N
Header/Footer	N		N		N	N
Adjust Image Position	N		N		N	N
Binding Margins	N		N		N	N
Collate	Y		Y		Y	Y
Punch	Y		Y		Y	Y
Staple	Y		Y		Y	Y
Cover Sheet(Front Cover)	Y		N		N	N
Front and Back Cover	Y		N		N	N
Slip Sheet	Y		N		N	Y
Chaptering	Y		N		N	N
Rotate by 180 degrees	Y		Y		Y	Y
Reverse Order Print	N		Y		Y	Y
Do not print Blank Pages	Y*2		N		N	N

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Dithering	Y		Y		Y	N
Toner Saving	N		Y		Y	Y*3
Black Over Print	Y		Y		Y	N
CLP Color Simulation	Y		Y		Y	N
Print Priority Setting :Quality	N		N		N	N
Print Priority Setting :Speed	N		N		N	N
Print Priority Setting :High Speed	N		N		N	N
User ID	Y		Y		Y	Y
User Code	Y		Y		Y	Y
User Authentication	Y		N		N	N
Encryption/Encoding	Y		N		N	N
Mirror image Print	N		Y		N	N
Negative Image Print	N		N		N	N
Edge to Edge Print	Y		Y		Y	N
Limitation Setting	Y		N		N	N
Classification Code	Y		N		N	N

*RPCS driver has been discontinued.

*Usage on Mac OS 8.6-9.2 is not be supported.

*1: "Centering" feature cannot be selected from PCL driver. However PCL has this feature as the original function. When printing with Reduce/Enlarge(Zoom) feature of PCL driver, the output will be automatically centered by the PCL's original centering function.

*2: This feature cannot be set from printer driver but is set "On" at "PCL setting" of MFP.

*3: This function is available only when "Black and White" is selected.

Other MFP Support Information

Not Applicable

Counters

- > User Tools / Counter → Counter → OK → Print → Start
- > User Tools / Counter → Arrow Down → System Settings → OK → Arrow up until Administrator Tools → OK → Arrow up until Display / Print Counter → OK → Print → Start
- > Maximum 8 digits

Auto Color Selection (ACS)

The following is the same as the ACS mechanism on the previous model.

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In B&W mode, B&W pages printed after a color page is counted as black and white. In ACS mode, these pages are counted as color mixed pages.

By default, once the ITB (image transfer belt) unit has moved into contact with all the color drums to print a color page, it remains in this position throughout the end of the job, even if there are B&W pages following the color page. (See Note 2 below). For example, when sending 10 copies of 5 originals as one job and only the second page contains color data, the ITB unit moves into contact with all the color drums just before printing the second page. It then remains in contact with the drums until all 50 pages have been printed out.



In this example, the counters would then increment as shown in the table below.

SP Number	Counter	Counter Value
SP8-581-004	D: Color	6
SP8-581-005	D: B&W	5
SP8-581-006	C: Color	2
SP8-581-007	C: B&W	3

D: Developments (Color = CMY drums, B&W = Bk drum)
C: Copies

The counters count up in the manner explained above, in order to accurately reflect the number of color and B&W outputs made. This means that when printing B&W pages after a color page has been printed, the color counters do not count up (even when the color drums and development units rotate). So the usage of the various drums is not reflected accurately.

On this model, there is an SP mode (Sp2-907-001: ACS Setting) which makes it possible to move the ITB back to the default position, separated from the four drums, in the middle of a job. The default is 0, which produces the same result as with previous products which use ACS, i.e. once the ITB contacts the four drums to print a color page, it does not separate from the drums until job end. All other values of this SP set the number of Bk sheets that need to pass the ITB consecutively for the ITB to return to default position. For example, with a setting of 3, the ITB will separate from the drums after three consecutive Bk sheets are printed (at that time, in the middle of the job). Changing the position of the ITB takes a few seconds and increases the wear on the drums.

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Paper

Recommended Throughput Material

TBA

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Non Recommended Throughput Material

Refer to pages in the Operators Instructions Hardware Guide.

Do not use any of the following kinds of paper or a fault might occur:

- Aluminum Foil, Carbon paper,
- Conductive paper
- Paper meant for an inkjet printer
- Bent, folded, or creased paper
- Torn paper
- Thermal fax paper
- Art paper
- Paper with perforated lines
- Hemmed-edge paper
- Tab stock
- Slippery paper
- Perforated paper
- Rough paper
- Thin paper with little stiffness
- Paper with a dusty surface

Special Paper

Not Applicable

Firmware Information

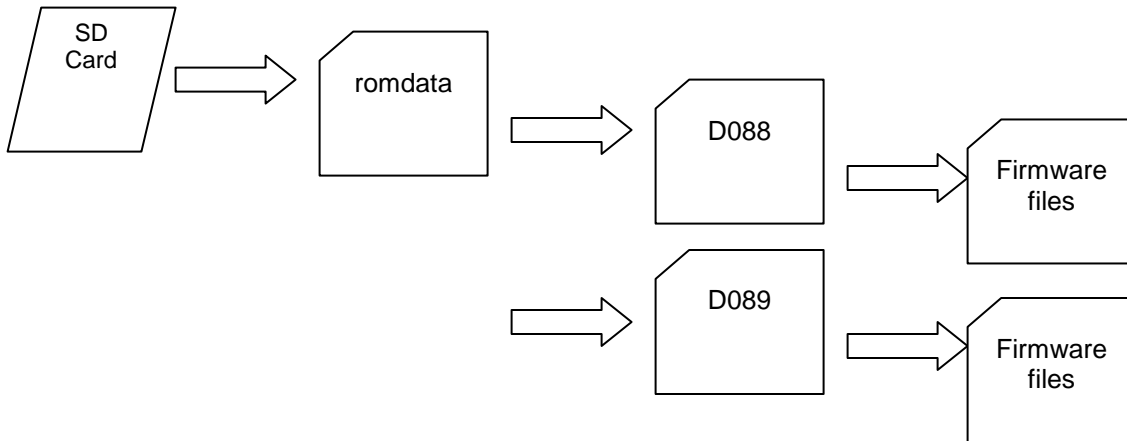
Firmware

Firmware SD Card	Firmware Type
browser	Browser option Type E
Data Erase Std	Data Erase Std
Engine	Engine
Language Install	Language
MediaPrint	MediaPrint
Network DocBox	Network DocBox
Network Support	Network Support
OpePanel.EXP	LCDC
PCL	PCL
Printer	Printer
RPCS	RPCS
PowerSaver	Power Saving Subsystem
Scanner	Scanner
System/Copy	System/Copy
Web Support	Web Support
Web Uapl	Web Uapl

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SD Card Arrangement



Contact Information

Name	Contact
Technical Services Call Center (Hotline)	Ricoh: (800) 537-4264 Savin/Gestetner: (800) 291-6044 Lanier: (800) 333-3147
Application Help Desk (Software Issues)	Ricoh Phone Card: 2 Call - 000781MIU, 5 Call - 000900MIU Savin Phone Card: 2 Call - 12992, 5 Call - 12993 Gestetner Phone Card: 2 Call - 12994, 5 Call - 12995
National Reclamation Center	(800) 557-4264 http://www.nrc-usa.com
Technology Solutions Center Web Site	http://www.tscweb.net
Configurator	http://www.connectivity-cafe.com
Ricoh Web Site	http://www.ricoh-usa.com/
Savin iLINC Web Site	http://www.savin.com
Headquarter Web Sites	Ricoh Corporation: http://www.ricoh-usa.com Savin Corporation: http://www.savin.com Gestetner Corporation: http://www.gestetnerusa.com/ Lanier Corporation: http://www.lanier.com
Material Safety Data Sheets	(800) 336-MSDS (6737)
Ricoh University	973.882.2200. http://www.ricohuniversity.com

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Training Information

Description	EDP Code	RFG E-Source Number
D086/D088 Series Self-Paced Training Package	006188MIU	TBD
D088/D089 Service Manual	006189MIU	TBD
D088/D089 Parts Catalog	006190MIU	TBD
D088/D089 Point-to-Point	006191MIU	TBD

Please refer to the <http://www.ricohuniversity.com/> web site for the most up to date training information. Please be aware that once a model or series is out of production, the Field Service Manual, Technical Service Bulletins and Ricoh University should be referenced for the most current information. Check the TSC website and e-source.

MFP Update Certified Service Personnel

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Revisions

1.0 Original

- 1.1 Corrected Developer Part Number
- 1.2 Removed D029 series from Black Toner Compatibility
- 1.3 Single Pass Document Feeder version added. Updated firmware listing.
- 1.4 Addition of Accessory Serial Number Cut in table. Copy Data Security Option removed.