

Launch Date: S/N Configuration: Product Code:

5/2006
L55/L56/L57
B234/B235/B236

<b>Product Code</b>	Gestetner	Lanier	Ricoh	Savin
B234/B235/B236	DSm790/7110/7135	LD190/1110/1135	Aficio MP9000/1100/1350	8090/8110/8135

#### **Training Information:**

#### Self-Pace CD-ROM or Ricoh University eLearning for certified B070/B071 technicians.

Program is designed to provide detailed information about the differences between the B070/B071 Series and the new B234/B235/B236 Series. The program is available in two versions - Self-Pace CD-ROM and via Ricoh University Custom eLearning.

#### 5-day Instructor led-training course B236 (135 cpm) for non-certified B070/B071 technicians.

Course provides hands on access to the new product series and its accessories, enabling experienced technicians to become familiar with required maintenance, troubleshooting, and repair procedures.

#### **Training Prerequisites:**

Technicians must have prior B070/B071 high volume product training and certification to be eligible to attempt the B234/B235/B236 Self-Pace Update Training Program and its eTest certification exam. Service Professionals should also have CompTIA A+ certification or practical experience with PC operation, especially in the areas of installing drivers and application software.

Technicians who are not currently certified on the B070/B071 can be certified on the B234/B235/B236, B070/B071, and A294/A295 Series by attending the five-day Segment 5-6 Service Training Course.

#### **Documentation:**

Description	EDP Code
B234/B235/B236 Self-Pace CBT Program	002670MIU
B234/B235/B236 Service Manual	002671MIU
B234/B235/B236 Parts Catalog	002672MIU

If you have any questions regarding this or any other training, please contact the Service Education and Development Division at (973) 882-5797.

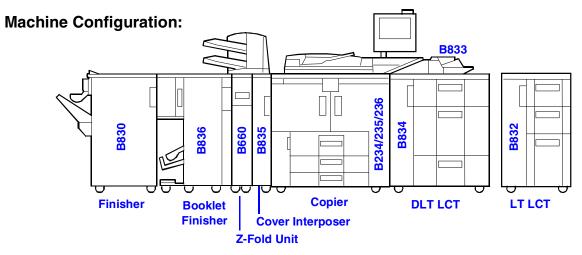
#### **Product Concept:**

The B234/B235/B236 series is a new standard in the light production environment, with greater durability, higher productivity and full color scanning. The models B234, B235 and B236 provide 90, 110 and 135 ppm. The new series is based on the existing B070 and B071 series engine, but almost 70% of the parts are of a new design. The new design will produce greater durability and reliability and will have many new features. In addition more versatile peripherals are available, such as the 11 x 17" LCT, the Saddle Stitch Finisher, 3000 Sheet Finisher, Z-Fold Unit, and Dual Cover Interposer.



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Item	Product Code	Comments
90 MFP Copier	B234	90 cpm copier
110 MFP Copier	B235	110 cpm copier
135 MFP Copier	B236	135 cpm copier
11" x 17" Tray Kit TK5000	B331	Replaces 1st Tray (tandem tray)
Z-Folding Unit ZF4000	B660	Z-Folds large sheets
LT Large Capacity Tray RT5000	B832	LT LCT
DLT Large Capacity Tray RT5010	B834	11 x 17 LCT
Multi Bypass Tray BY5000	B833	Alternate paper feed source
Finisher SR5000	B830	Corner stapling, edge stapling
Punch Unit PU5000	B831	For SR5000 Finisher, installed on the B234 & B235 models only. This punch option is not compatible with the B236.
Booklet Finisher BK5000	B836	Saddle Stitch Booklet maker Must have SR5000
Cover Inserter CI5000	B835	Inserts cover sheets (2 trays)
Printer/Scanner Unit Type 1350	B840	Only one these USB Options can be
USB Host Interface Type A	B825	installed
Bluetooth Interface Unit Type 3245	B826	
IEEE 1284 Interface Board Type A	B679	Only one of these Interface options can be installed
IEEE 1394 Interface Board Type B	B581	San Be metalled
IEEE 802.llb Interface Unit Type H	G813	
Copy Connector Kit Type 3260	B328	
PostScript3 Unit Type 1350	B613	
Gigabit Ethernet Type 7300	G381	
Copy Guard Security Unit Type E	B829	
File Format Converter Type C	B609	
Data Overwrite Security Unit Type F	B735	
VM Card Type C	B861	

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#### Specifications B234/B235/B236:

Configuration Console

Original scanning One-dimensional solid scanning system through CCD

Copy process Dry electrostatic transfer system

**Development** Dry two-component magnetic brush development system

**Fusing** Heating roll pressure system

Resolution Scanning: 600 dpi

Printing: 1200 dpi

Grayscale (per dot) Scanning: 256 levels, 8-bit

> 32 bits/dot, 1-bit Printing:

**Exposure glass** Stationary original exposure type

Original reference

Position Rear left corner (for platen mode, ADF mode)

Warm-up time Less than 360 s from Off mode at 23 C (73.4 F)

**Originals** Sheet/Book/Objects

Max: A3, 11" x 17" Original size

> A5, 5½" x 8½" (with ADF) Min:

Copy paper size Tray 1 (Tandem): 81/2" x 11" LEF, A4 LEF

> Tray 2, Tray 3: 5½" x 8½" to 11" x 17", 13" x 18" A5 to A3 Duplex Tray: A5 to A3, 5½" x 8½" to 11" x 17", 12" x 18"

Copy paper weight Tray 1 ~ 3: 52 to 216 g/m2

> Tray 4 ~ 5 (B832): Bond: 16 to 40 lb Tray 4, 6 (B834): Cover: 50 to 80 lb. Tray 7 (Bypass): Index: 90 to 110 lb. Tray 6 (B832): 52 to 163 g/m2 Bond: 16 to 40 lb.

Cover: 50 to 60 lb. Index: 90 lb.

Tray 5 (B834): 52 to 300 g/m2

> Bond: 16 to 40 lb. Cover: 50 to 60 lb. Index: 90 lb.

**Duplex Tray** 52 to 216 g/m2 (Possible Weight): Bond: 14 to 58 lb.

> Cover: 19 to 80 lb Index: 29 to 110 lb.

Non-reproduction area

Leading edge: More than  $4 \pm 2$  mm Trailing edge: More than  $2 \pm 2/-1.7$  mm Left edge: More than  $2 \pm 1.5$  mm Right edge: More than 2 ± 1.5 mm

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First copy time Copy Tray 1, A4, 8½" x 11" LEF

	B234 (90 cpm)	B235 (110 cpm)	B236 (135 cpm)
Face-up	< 3.5 sec	< 3.2 sec	< 3.0 sec
Face-down	< 5.0 sec	< 4.5 sec	< 4.0 sec

#### Copy Speed per paper size

Paper Size	СРМ				
rapei Size	B234 (90 cpm)	B236 (110 cpm)	B236 (135 cpm)		
5½ x 8½ LEF	90	110	135		
5½ x 8½ SEF	90	110	135		
8½ x 11 LEF	90	110	135		
8½ x 11 SEF	70	84	103		
8½ x 14 SEF	60	71	87		
11 x 17 SEF	45	55	68		

Reproduction ratio

7 reduction and 5 enlargement

Zoom

25 ~ 400% (allows manual adjustment in 1% steps vertically, horizontally)

**Image Density** 

Automatic, Manual (9 notches)

**Multiple Copies** 

1 - 9999 copies

Copy Paper Capacity (Sheets)

Unit	Total Sheets	Trays
Copier	3,000	Tray 1: (Tandem) <b>1000</b> x 2 Tray 2: <b>500</b> Tray 3: <b>500</b>
LT LCT (B832)	4,550	Tray 4: <b>1,000</b> Tray 5: <b>1,000</b> Tray 6: <b>2,550</b>
DLT LCT (B834)	4,000	Tray 4: <b>1,000</b> Tray 5: <b>2,000</b> Tray 6: <b>1,000</b>
Bypass	500	Tray 7: <b>500</b> (Optional Bypass Tray B833)

Paper tray capacities based on 20lb. Bond paper

Memory Capacity RAM: 256 MB (128 x 2) Standard

256 MB (Optional, Required for Scanner/Printer Option)

HDD: 320 GB (160 GB x2), approximately 1,735 copies

**Toner** 

**Replenishment** Bottle exchange (1,650 g/cartridge)

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**Toner Yield** 60 K copies, (A4 LEF, 6% chart)

B234 (90 cpm) 1 to 25 Repeat Copying, B235 (110 cpm), 1 to 50 Repeat Copying B236 (135 cpm), 1 to 100 Repeat Copying)

**Power Source** 208 to 240 V, 60 Hz, 20 A

Weight Less than 299 kg (660 lbs) including ADF, and no options

#### **Noise Emission**

B234 (	B234 (90 cpm)		Sound Pressure Level dB (A)
	Stand-by	< 60	-
Mainframe	Copying	< 74	-
Wallifialle	Operator position	-	< 68
	Passers-by	-	< 68
Full System	Stand-by	< 64	-
ruii Systeiii	Copying	< 78	-
B235 (	B235 (110 cpm)		Sound Pressure Level dB (A)
Mainframe	Stand-by	< 66	-
Manname	Copying	< 76	-
	Operator position	-	< 70
	Passers-by	-	< 70
Full System	Stand-by	< 70	-
i uli Systeili	Copying	< 80	-
B236 (	135 cpm)	Sound Power Level dB (A)	Sound Pressure Level dB (A)
Mainframe	Stand-by	< 74	-
wanname	Copying	< 79	-
	Operator position	-	< 73
	Passers-by	-	< 73
Full System	Stand-by	< 78	-
Full System	Copying	< 83	-

#### **Power Consumption**

Mode	Mainframe Only			Full System*		
IVIOGE	B234	B235	B236	B234	B235	B236
Warm-up	2210 W	2190 W	2240 W	2290 W	2250 W	2310 W
Stand-by	367 W	403 W	431 W	420 W	457 W	479 W
Copying	1680 W	1890 W	2160 W	1830 W	2110 W	2340 W
Maximum	2940 W	2960 W	3730 W	3060 W	3080 W	3850 W

<sup>\*</sup> Full System Mainframe + ADF + LCT B834 or B832 + Multi-Bypass Tray B833 + Cover Interposer Tray B835 + Z-Fold Unit B660 + Booklet Finisher B836 + 3000-Sheet Finisher B830



#### **Energy Star**

	B234 (9	00 cpm)	B235 (11	0 cpm)	B236 (1	35 cpm)
	Basic	MFP	Basic	MFP	Basic	MFP
Low Power Mode						
Power Consumption (W)	113.8	119.7	129.4	132.4	121.2	127.1
Default Interval (Min.)	15	15	15	15	15	15
Recovery Time (Sec.)	32	29	29	30	66	65.8
Off Mode						
Power Consumption (W)	4.2		4.2		4.2	
Default Interval (Min.)	90		120		120	
Sleep Mode						
Power Consumption (W)		35.5		35		35.9
Default Interval (Min.)		90		120		120

#### **Document Server Specifications:**

**HDD (Document Server)** 

45 GB

#### Capacity

• Copy: Approx. 3,000 sheets (ITUT-No.4 chart)

• Batch mode: Approx. 3,000 sheets (ITUT-No.4 chart)

Printer: Approx. 15,000 sheets (600 dpi)

Scanner: Approx. 3,000 sheets (200 dpi/Text) (ITUT-No.4 chart) \*1

#### Maximum number of stored documents

3,000 sheets

#### Maximum pages of stored documents

15,000 sheets

#### Maximum number of pages per document

2,000 pages

#### **Capacity (Memory Sorting)**

6.75 GB (A4/81/2" × 11": Approx. 333 sheets-3000 sheets at maximum) \*2

#### **Capacity (Others)**

10.0 GB

<sup>\*1</sup> Scanning Condition: ITUT-No.4 chart/200 dpi/Text/A4/MMR

<sup>\*2</sup> The capacity will change when multiple functions are used.



#### **ADF**

Normal Original Mode:	A3 to B5, 11" x 17"	to 5½ " x 8½ "		
Thin Original Mode	A3 to B5, 11" x 17"	to 5½ " x 8½ "		
Duplex Original Mode:	A3 to B5, 11" x 17"	to 5½ " x 8½ "		
Normal Original Mode:	Normal Original Mode: 52 ~ 128 g/m2 (Note 1)			
Thin Original Mode	40 ~ 128 g/m2 (Note 1	)		
Duplex Original Mode:	52 ~ 105 g/m2 (Note 2	)		
100 sheets (80 g/m2, 20 lb	o)			
80 cpm (A4/8½ " x 11 " LEF, 1 to 1)				
Rear left corner (Face-up)				
FRR				
One flat belt				
From the top original				
Power Source: DC24V $\pm$ 10%, DC38V $\pm$ 10		ne copier)		
Less than 130 W				
680 x 560 x 150 mm (26.8 " x 22 " x 5.9 ")				
Less than 17.5 kg (38.5 lb.)				
	Thin Original Mode  Duplex Original Mode:  Normal Original Mode:  Thin Original Mode  Duplex Original Mode:  100 sheets (80 g/m2, 20 lb 80 cpm (A4/8½ " x 11 " LE Rear left corner (Face-up)  FRR  One flat belt  From the top original  DC24V ± 10%, DC38V ± 1  Less than 130 W  680 x 560 x 150 mm (26.8)	Thin Original Mode A3 to B5, 11" x 17"  Duplex Original Mode: A3 to B5, 11" x 17"  Normal Original Mode: $52 \sim 128 \text{ g/m2}$ (Note 1  Thin Original Mode $40 \sim 128 \text{ g/m2}$ (Note 1  Duplex Original Mode: $52 \sim 105 \text{ g/m2}$ (Note 2 $100 \text{ sheets}$ (80 g/m2, 20 lb) $80 \text{ cpm}$ (A4/8½" x 11 " LEF, 1 to 1)  Rear left corner (Face-up)  FRR  One flat belt  From the top original  DC24V $\pm$ 10%, DC38V $\pm$ 10%, DC5V $\pm$ 5% (from the Less than 130 W $680 \times 560 \times 150 \text{ mm}$ (26.8 " x 22 " x 5.9 ")		

Note 1: 156 g/m2 possible, but not guaranteed. Note 2: 128 g/m2 possible, but not guaranteed.

### **Accessory Specifications:**

#### 11 x 17 Tray Kit TK5000 (B331)

Paper Size	A3 SEF, B4 SEF, 11"x17" SEF, 8½"x14" SEF, A4 SEF, A4 LEF, 8½"x11" SEF, 11"x 8½" LEF, 305 mm x 439 mm
Paper Weight	52 ~ 163 g/m2
Tray Capacity	1,000 sheets
Remaining Paper Detection	5-Step: 100%, 75%, 50%, 25%, End

#### Z-Folding Unit ZF4000 (B660)

Paper Size	
No Folding (52-300 g/m2)	A3, A4, A5, A6 SEF, B4, B5, B6 SEF 11" x 17", 8½"x14", 8½"x11" SEF, 5½"x 8½", 12" x 18"
Folding (64-80 g/m2)	A3, B4, A4 SEF 11" x 17", 8½"x14", 8½"x11" SEF, 12" x 18"
Dimensions (w x d x h)	177 x 620 x 960 mm 7 x 24.5 x 37.8 in.
Weight	Less than 55 kg (121 lb.)
Power Consumption	100W max.
Power Supply	120 V, 60 Hz, 1A

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### Printer/Scanner Unit Type 1350 (B840)

CPU	Intel Celeron	Intel Celeron LV 866 MHz			
Memory	Standard: 512MB (with additional 256MB option)				
Hard Disk Drive	Standard: 320	OGB (160GI	3 x 2) RAID		
Continuous Print Speed	Maxim	ıum	B234	B235	B236
-			90-ppm	110-ppm	135-ppm
Print Resolution	1200 × 1	•	$0 \times 600 \text{ dpi}, 300$	× 300 dpi, 200 ×	200 dpi
Fonts	PCL 6/5e:  Monotype Imaging 35 Intellifonts,  Standard  10 TrueType fonts,  13 International fonts,  1 Bitmap font				
Post Script 3	Optional	136 fonts	(Туре 2:24, Туре	14:112)	
Connectivity					
Host Interface	Standard: Ethernet interface (100BASE-TX / 10BASE-T) USB 2.0 interface Option: IEEE 1284 parallel interface Use a standard 36-pin printer cable not longer than 3 meters (10 feet). IEEE 1394 interface IEEE 802.11b wireless LAN interface Bluetooth interface USB Host Interface Gigabit Ethernet interface (1000BASE-T)				
Network Protocol	IPv4, IPv6, IP				
Printer Language		CL 6/5e, RP	CS Option: Post	Script 3, PDF	
Network Operating Systems	Supported				
Windows Me / 2000 / XP, Wind					
Network cable	100BASE-TX / 10BASE-T shielded twisted-pair (STP, Category/Type5) cable.				
USB Interface (Standard)	<ul> <li>Transmission spec.         USB 2.0 Standard</li> <li>Connectable Device:         Devices corresponding to USB 2.0 Standard</li> </ul>				

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### LCIT RT5000 (B832)

Compatible Machines	B234/B235/B236			
	B234 (90 cpr	n)	420 ~ 555 mm/s	
Speed	B235 (110 cp	om)	500 ~ 720 mm/s	
	B236 (135 cp	om)	630 ~ 985 mm/s	
Paper Feed System:	FRR-CF (no	air-knif	e separation)	
Tray Capacity:	Tray 1, 2	1,000	sheets (Paper thickness: 0.11 mm)	
ттау Сараску.	Tray 3	2,550	sheets (Paper thickness: 0.11 mm)	
Paper Weight	Tray 1, 2	52 to	216 g/m2	
rapei Weigili	Tray 3	52 to	163 g/m2	
Paper Size	Tray 1,2,3 A5 LEF, A5 SEF, 5½"x8½" LEF, B5 LEF, 5½ "x 8 SEF, A4 LEF, 8½" x 11" LEF			
Paper Size Switching	Tray 1, 2	Fixed position side, end fences, adjusted for other paper sizes by the operator.		
raper Size Switching			xed position side, end fences, adjusted by service chnician.	
Anti-Condensation Heater	Available as option			
Dimensions (W x D x H)	540 x 730 x 980 mm (21.3 x 28.7 x 38.6 in.)			
Weight	Less than 88	kg (19	93.6 lb.)	
Power Source	DC 24 V ±10	% (fror	n copier)	
Power Consumption:	Less than 13	2 W		
I/F	Serial			
Tab Sheet:	Feed possible from Tray 4 or Tray 5. Requires installation of tab sheet fence.  Note: Only A4 LEF, 8½" x 11" LEF tab sheets can be fed.			
Remaining Paper Detection:	5-Step including Near-End for Trays 4, 5, 6			

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### LCIT RT5010 (B834)

Compatible Machines	B234/B235/B236		
	B234 (90 cpm)	420~555 mm/s	
Speed	B235 (110 cpm)	500~720 mm/s	
	B236 (135 cpm)	630~985 mm/s	
Paper Feed System:	Tray 1, 2, 3	FRR-CF	
Tray Capacity:	Tray 1, 3	1,000 sheets (Paper thickness: 0.11 mm)	
Tray Capacity.	Tray 2	2,000 sheets (Paper thickness: 0.11 mm)	
Remaining Paper Detection (Accuracy: ±30 sheets)	5-Step including Ne	ear-End for Trays 4, 5, 6	
Paper Weight	Tray 1, 3	52 to 216 g/m2	
raper weight	Tray 2	52 to 300 g/m2	
Popor Sizo	Tray 1,2,3	A5 to A3	
Paper Size		5½"x 8½" to 13" x 18"	
Paper Size Switching	Side fence, end fence adjustment.		
Paper Size Detection	Automatic		
Anti-Condensation Heater	Available as option		
Dimensions (W x D x H)	880 x 730 x 980 mr	m (33.5 x 28.7 x 38.6 in.)	
Weight	Less than 165 kg (363 lb.)		
Power Source	DC 24 V ±10% (from copier)		
Power Consumption:	Less than 150 W		
I/F	Serial		
Tab Sheet:	Feed possible from all trays. Requires installation of tab sheet fence.  Note: Only A4 LEF, 8½" x 11" LEF tab sheets can be fed.		

### **Punch Unit PU5000 (B831)**

, ,	
Punch Hole Positions	2/3-hole
Punch Paper Size	
2-Hole (NA)	A6 ~ A3 SEF, 11" x 17" ~ 5 ½" x 8½" SEF A5 ~ A4 LEF, 8 ½" x 11" LEF, 5½" x 81½" LEF
3-Hole (NA)	A3 SEF, B4 SEF, 11" x 17" SEF A4 LEF, B5 LEF, 8½" x11" LEF
Paper Weight	
2-Hole (NA)	52 g/m2 ~ 163 g/m2
3-Hole (NA)	52 g/m2 ~ 163 g/m2
Punch Waste Hopper Capacity	
2-Hole (NA)	10K
3-Hole (NA)	10K
Operation Modes	All (Shift, Proof, Staple)

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### Multi Bypass Tray BY5000 (B833)

Compatible Machines	B234/B235/B236		
	B234 (90 cpm)	420 ~ 555 mm/s	
Speed	B235 (110 cpm)	500 ~ 720 mm/s	
	B236 (135 cpm)	630 ~ 985 mm/s	
Paper Feed System	FRR-CF		
Tray Capacity	500 sheets (Paper t	thickness: 0.11 mm)	
Paper Weight	52 ~ 216 g/m2		
Paper Size	A5 LEF, A5 SEF to A3 SEF, HLT LEF		
	HLT SEF to 13"x18" SEF		
Paper Size Switching	Operator adjustable side fences allow variety of paper sizes		
Paper Size Detection	Automatic (standard sizes only)		
Anti-Condensation Heater	No		
Remaining Paper Detection	4-Step: Including Near-End (Accuracy ± 50)		
Weight	Less than 18 kg (39.6 lb).		
Power Source	24 Vdc (from Copier), 5 Vdc (from LCT)		
Power Consumption	Less than 50 W		
Dimensions (W x D x H)	710 x 560 x 210 mm (30 x 22 x 8.3 in.)		
Tab Sheets	A4 LEF, 8½" x 11" LEF (requires attachment of tab fence)		

### Cover Inserter CI5000 (B835)

Compatible Machines	B234/235/236			
	B234 (90 cpm)	432 mm/s		
Speed	B235 (110 cpm)	515 mm/s		
	B236 (135 cpm)	649 mm/s		
Paper Separation	FRR System with Fee	ed Belt		
Paper Sizes	Width: A5 SEF/51/2" x	8½" SEF ~ 13"		
Faper Sizes	Length: A5 LEF/5½":	x 8½" LEF ~ 19"		
Paper Weight	64 ~ 216 g/m2			
Capacity	400 sheets (80 g/m2) (2 trays 200 sheets each)			
Paper Size Detection	Yes			
Paper Size Switching	Operator adjustable side fences			
Side Registration	Yes			
Power Supply	24 V ± 5% (from mainframe)			
Power Consumption	Less than 50 W			
Dimensions (W x D x H)	Less than 540 x 730 x 1200 mm			
Difficusions (w x D x H)	21.2" x 28.7" x 47.2"			
Weight	Less than 45 kg (99 lb.)			

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#### **Finisher SR5000 (B830)**

1 111101101 0110000 (						
UPPER TRAY						
Paper Capacity (80 g/m2)			500 sheets (A4, 81/2" x 11" and smaller)			
raper Capacity (60 g	/1112)	250 sheets	250 sheets (B4, 81/2" x 14" and larger)			
Paper Size			EF, B6 SE, 1	1" x 17" to	5½" x 8½", 12" x 18",	
rapei Size			13" x 19"			
Paper Weight		52 to 216 g	/m2			
Upper Tray Full Dete	ction	Provided				
SHIFT TRAY						
					½" x 11" LEF)	
Papar Capacity (90 a	/m2)		s (A3, A4 SE x 14", 8½" x		B5 SEF, 11" x 17"	
Paper Capacity (80 g	/1112)	1000 sheet				
			(A5 LEF, 51/2		-	
			(A5 SEF, 51/			
Paper Size		A3 to A5, 1 paper)	1" x 17" to 51	½" x 8½",	12" x 18" (including tab	
Paper Weight		52 to 300 g	/m2			
Shift Tray Full Detect	ion	Provided				
STAPLER		'				
Stapling Stack Size			" x 11" (Max. ' x 17", 8½" x		,	
Olassii Danas Oi			A3 to B5, 11" x 17" to 8½" x 11"			
Stapling Paper Size		Z fold pape		A3, B4, 11" x 17"		
Stapling Paper Weigh	nt				64 to 90 g/m2	
		Z fold pape	r	64 to 80 g/m2		
		4 Modes	4 Modes			
Staple Position		1 Staple:	1 Staple: Front, Rear, Rear-Oblique			
		2 Staples	2 Staples: 2 Locations			
Staple Capacity		5000 staple	es/cartridge			
Staple Supply		Cartridge o	Cartridge or Staple Replacement			
		Sheets	Sets		Sizes	
	No Folding	10 ~ 100	200 ~ 30		B5 SEF, 8½" x 11"	
		2 ~ 9	150	SEF A4 LEF,	B5 LEF, 8½" x 11" LEF	
Stapled Stack Size		10 ~ 50	150 ~ 30	A3 R4 -	11" x 17", 8½" x 14"	
		2~9	150	710, 54,		
	Folding	Sheets	Sets		Sizes	
		1 ~ 10	30 ~ 3		I + A4, B4 Z fold + B5 " Z-Fold + 8½" x 11"	
Staple Trim Waste C	apacity	15,000 or n	15,000 or more			
Waste Staple Hopper Full Detection		Provided				
Power Consumption		Less than 120 W				
Power Source		DC 24 V (From Mainframe)				
Size (W x D x H)		800 x 730 x 980 mm 31.5 x 28.7 x 38.6 in.				
Weight		Less than 75 kg (165 lb).				
Compatible Machines	3	_	B234 (90 cpm), B235 (110 cpm), B236 (135 cpm)			
· · · · · · · · · · · · · · · · · · ·	Compandio Machinico		220 (100 opin), 2200 (110 opin), 2200 (100 opin)			

Note: Stapling & hole punching cannot be combined when using the GBC StreamPunch to a punch job. Stapling & punching is supported only with the PU5000 on the B234/B235 models.



### **Booklet Finisher BK5000 (B836)**

#### General

Booklet Staple					
Paper Size	A4 SEF, A	A4 SEF, A3 SEF, B5 SEF, B4 SEF			
	DLT SEF, I	DLT SEF, LG, 12" x 18'	,		
Paper Weight	64 g/m <sup>2</sup> -90	g/m <sup>2</sup> , 17 lb Bond-24 lb	Bond		
Staple Position	Center (x2)				
Booklet staples	2,000 stapl	es per cartridge			
		Sheets	Sets		
Booklet Staple Capacity	All size	2 to 5	30		
Bookiet Staple Capacity	All Size	6 to 10	15		
		11 to 15	10		
Single Sheet Fold	Yes				
Dimension W x D x H	600 x 730 x	x 980 mm (23.6 x 30 x 3	38.6")		
Weight	Less than 7	Less than 70 kg			
Power Consumption	Less than 1	Less than 100 W			
Configuration	Console type	Console type attached base-unit			
Power Supply	24 V (from	mainframe)			

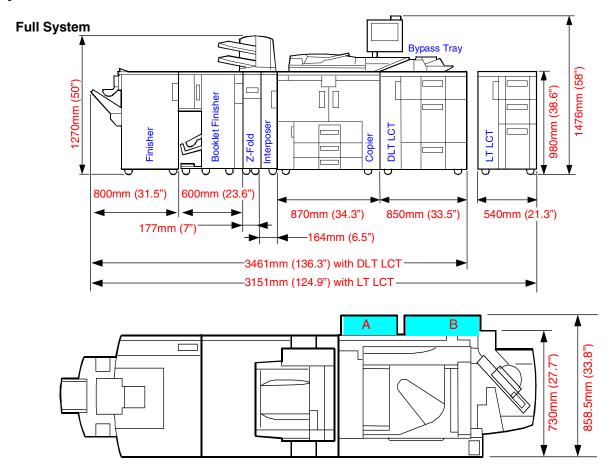
## **Booklet Staple Paper Specifications**

	Plain Paper			Рар	er Type
Paper Size	Copier PPC	Used Paper	Recycled Paper	Colored Paper	Translucent Blueprint
A3 SEF	•	*	•	•	
B4 SEF	•		•	•	
A4 SEF	•		•	•	
A4 LEF	•		•	•	
B5 SEF	•		•	•	
B5 LEF	•		•	•	
A5 SEF		×	×	×	×
A5 LEF		×	×	×	×
B6 SEF		×	×	×	×
B6 LEF		×	×	×	×
12" x 18" SEF	•	*	•	•	×
11" x 17" SEF	•	×	•	•	
8½" x 14"	•	×	•	•	
8½" x 11" SEF	•	*	•	•	
8½" x 11" LEF	•	×	•	•	
5½" x 8½"		×	×		×
5½" x 8½"		×	*		×

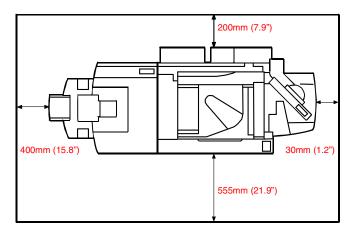
- Booklet stapling/folding, Shift, YES
- X Not available



### **System Dimensions:**



#### **Minimum Space Requirements:**



- The controller box door [A] and PSU door [B] on the back of the machine swing open for servicing, 20 inches is required at the rear of the machine to completely swing open both doors.
- Both doors can be removed to allow the machine to pass through a narrow doorway.

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#### **Installation Requirements:**

• Temperature Range: Recommended: 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 or strong light.)

• <u>Ventilation:</u> Room air should turn over at least 3 times per hour per person

• Ambient Dust: Less than 0.075 mg/m3

• If the place of installation is air-conditioned or heated, do not place the machine where it will be:

1. Subjected to sudden temperature changes

2. Directly exposed to cool air from an air-conditioner

3. Directly exposed to heat from a heater

- Do not place the machine where it will be exposed to corrosive gases.
- Do not install the machine at any location over 2,000 m (6,500 feet) above sea level
- Place the machine on a strong and level floor surface.
- Do not place the machine where it may be subjected to strong vibrations.
- Do not connect the machine to a power source shared with another electrical appliance.
- The machine can generate an electromagnetic field that could interfere with radio or television reception.
- Machine Level:

Front to back: Within ±5 mm (0.2") of level

Right to left: Within ±5 mm (0.2") of level

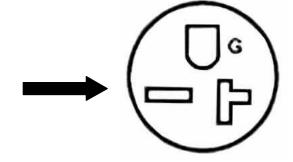
**NOTE:** The machine legs may be raised or lowered in order to level the machine. Use a carpenter's level on the exposure glass.

#### **Power Requirements:**

Input voltage level: 208 ~ 240V 60 Hz

Permissible voltage fluctuation +/-10%

The required wall outlet is NEMA 6-20R.





#### **Installation Times:**

Unit	Time (Minutes)	Unit	Time (Minutes)
90/110/135 cpm Copier	50	Printer/Scanner Unit Type 1350	5
11" x 17" Tray Kit TK5000	15	PostScript3 Unit Type 1350	5
Z-Folding Unit ZF4000	15	Gigabit Ethernet Type 7300	5
LT Large Capacity Tray RT5000	15	Bluetooth Interface Unit Type 3245	5
DLT Large Capacity Tray RT5010	15	USB Host Interface Type A	5
Multi Bypass Tray BY5000	15	Copy Guard Security Unit Type E	5
Finisher SR5000	15	IEEE 802.llb Interface Unit Type H	5
Punch Unit PU5000	10	IEEE 1284 Interface Board Type A	5
Booklet Finisher BK5000	15	IEEE 1394 Interface Board Type B	5
Cover Inserter CI5000	15	File Format Converter Type C	5
Copy Connector Kit Type 3260	5	Data Overwrite Security Unit Type E	5
VM Card Type B	5		

### **Branding:**

Machines are shipped as generic models and branding is required.

#### **Ricoh version machines:**

The branding label (provided) must be adhered to the front cover.

#### Savin/Gestetner/Lanier:

The branding label (provided) must be adhered to the front cover and the Plug and Play name set to the appropriate company with SP 5-907.

#### **Target Reliability:**

	B234 (90 cpm)	B235 (110 cpm)	B236 (135 cpm)		
<b>Average Monthly Volume</b>	100K/month	190K/month	300K/month		
Max. Monthly Volume	1,000,000/month				
PM Interval	500K				
Drum Yield	2,000,000				

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#### Non-Recommended Throughput Material:

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

- Paper for inkjet printers
- Thermal fax paper
- Art paper
- Aluminum foil
- Carbon paper
- Conductive paper
- Paper with perforated lines
- Hemmed paper
- Envelopes

Do not copy on the side of paper that has been already copied onto, or misfeeds and or a fault might occur.

To prevent misfeeds, do not use the following kinds of paper:

- Bent, folded, or creased paper
- Perforated paper
- Slippery paper
- Torn paper
- Rough paper
- Thin paper with low stiffness
- · Paper with a dusty surface

If you copy onto rough grain paper, the image might be blurred.

#### **Total Counter:**

**Electronic Total Counter Access:** 

- The counter can be displayed on the Operation Panel Screen by pressing the Counter Key on the Operation Panel. (Total Counter limit is 8 digits) The info on the screen can also be printed out by pressing the Total Counter List button displayed on the screen.
- The Technician can view the Total Counter by entering SP8999-1 in SP mode.
- The counter info on SP 8999-1 can be printed out along long with other Logging Data with SP 5990-4.

#### Mechanical Counter Access:

A mechanical counter is located under the left front inner cover above the fusing unit.
 (Total Counter limit is 7 digits)

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## **Copier Order Codes:**

Product Code	EDP Code	Lanier ID	Item	Model Name
B234	412958	479-1707	90 cpm Digital Copier	Ricoh Aficio MP9000 Savin 8090 Gestetner DSm790 Lanier LD190
B235	412961	479-1708	110 cpm Digital Copier	Ricoh Aficio MP1100 Savin 8110 Gestetner DSm7110 Lanier LD1110
B236	412964	479-1709	135 cpm Digital Copier	Ricoh Aficio MP1350 Savin 8135 Gestetner DSm7135 Lanier LD1135

## **Accessories / Options Order Codes:**

Product Code	EDP Code	Lanier ID	Description	Accessory/ Option Name
B331	412967	481-7049	A3/DLT kit	11" x 17" Tray Kit TK5000
B660	412805	479-1714	Z-Folder	Z-Folding Unit ZF4000
B832	412968	479-1710	LT LCT	LT Large Capacity Tray RT5000
B834	412971	479-1711	DLT LCT	DLT Large Capacity Tray RT5010
B833	412974	481-7050	Bypass Tray	Multi Bypass Tray BY5000
B830	412981	479-1712	Finisher	Finisher SR5000
B831	412983	481-7052	Punch 2/3 Hole	Punch Unit PU5000
B836	412978	479-1713	Saddle Stitch Booklet maker	Booklet Finisher BK5000
B835	412976	481-7051	Interposer	Cover Inserter CI5000
B328	412415	216-7127	Copy Connector	Copy Connector Kit Type 3260
B840	412987	481-7054	Printer/Scanner	Printer/Scanner Unit Type 1350
B613	412993	481-7055	PostScript Option	PostScript3 Unit Type 1350
G381	402378	481-0893	Gigabit Ethernet	Gigabit Ethernet Type 7300
B826	412866	481-7142	Bluetooth	Bluetooth Interface Unit Type 3245
B825	412867	481-7057	USB HOST	USB Host Interface Type A
B829	412986	481-7069	Copy Guard	Copy Guard Security Unit Type E
G813	402378	481-0907	Wireless LAN I/F	IEEE 802.llb Interface Unit Type H
B679	411699	481-0786	IEEE 1284	IEEE 1284 Interface Board Type A
B581	412995	481-0683	EE1394	IEEE 1394 Interface Board Type B
B609	412823	481-7053	MLB	File Format Converter Type C
B735	413107	481-7092	Copy Guard	Data Overwrite Security Unit Type F
B861	413019	-	VM Card	VM Card Type C

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## **Supply Order Numbers/Yields:**

Name/Description	Ricoh	Savin	Gestetner	Lanier ID	Target Yield
Toner MP 1350A (Black)	840004				60,000/btl *
Toner Type 8135 (Black)		9907			60,000/btl *
Toner MP 1350 (Black)			89907		60,000/btl *
Toner for LD190/LD1110/ LD1135 (Black)				480-0382	60,000/btl *
Staple Type L for BK5000 (Saddle Stitch)	411240	9885			2,000/cartridge
Staple Refill Type L for BK5000 (Saddle Stitch)	411241	9886			8,000/carton
Staple CSC860A for BK5000 (Saddle Stitch)			89885		2,000/carton
Staple Refill CSC860B for BK5000 (Saddle Stitch)			89886		8,000/carton
Staple Set Cartridge Type L for BK5000 (Saddle Stitch)				480-0091	2,000/cartridge
Staple Refill Type L for BK5000 (Saddle Stitch)				480-0092	8,000/carton
Staple Type M for SR5000 (Usual Staple)	413013	9908	89908	480-0383	5,000/cartridge
Staple Refill Type M for SR5000 (Usual Staple)	413026	9909	89909	480-0390	25,000/carton

Note: \* A4, 6% chart is used to measure the yield.

## **Drum & Developer P/N:**

Name/Description	Ricoh	Savin	Gestetner	Lanier	Target Yield
Developer Type 27	B2349640	B2349640	B2349640	GB2349640	500K/bag
Drum	B2349510	B2349510	B2349510	GB2349510	2,000,000

### **Special Tools:**

#### **Unique or Common**

U: Unique for this model C: Common with listed model

Item	Part Number	Description	Q'ty	Unique or Common
1	A0069104	Scanner Positioning Pin (4pcs/set)	1	B070/B071
2	A2929500	Test Chart – S5S (10 pcs/set)	1	B070/B071
3	A0299387	Digital Multimeter – FLUKE 87	1	B070/B071
4	A2579300	Grease Barrierta – S552R	1	B070/B071
5	52039502	Silicon Grease G-501	1	B070/B071
6	B2349590	NVRAM	1	U
7	G0219350	Loop Back Connector	1	B070/B071
8	B6455010	SD Card	1	B070/B071
9	B6456705	PCMCIA Card Adapter	1	B070/B071
10	B6456810	USB Reader/Writer	1	B070/B071
11	A2949590	Paper Dust Cleaner-5pcs/set	1	B070/B071

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#### PM Table:

Unique/Common

U: Unique for this model C: Common with other model

#### B234/B235/B236

Part Number	Description	Q'ty/ Unit	PM Interval	Unique or	Common	
Fusing						
AE011108	Hot Roller: DIA80	1	700k	U for B234/B235		
AE011110	Hot Roller: DIA80: Type C	1	700k	U for	U for B236	
AE020159	Pressure Roller: DIA80	1	750k	U		
AE045054	Roller: Cleaning felt: 24M:Ass'y	1	750k	U	Included in	
AE040067	Roller: Cleaning Felt: Plate	1	750k	U	700K PM	
AE044044	Stripper Pawls: Ring: Ass'y	5	700k	U	Kit	
B0704418	Pad: Brake: Oil Supply Roller	1	750k	B070/B071		
Scanner						
B0701790	Exposure Glass: Ass'y	1	1,000K	B070	/B071	
Developm	ent Unit					
B2343701	Collection Bottle: Vacuum: Ass'y	1	3,000k	ι	J	
B2343094	Air Pump: Development: Ass'y	1	2,500k	l	J	
B0703180	Development roller gear: 21Z	2	4,000K	B070	/B071	
B2343165	Paddle roller gear: 42Z	1	4,000K	Į	J	
B2343163	Idle gear: 23Z	1	1,500K	l	J	
Paper Fee	d					
AF031080	Paper Feed Roller: Feed	3	1,000k	B070	/B071	
AF030080	Paper Feed Roller: Pickup	3	1,000k	B070/B071		
AF032080	Paper Feed Roller: Separation	3	1,000k	B070/B071		
Around D	rum					
B2343590	Brush Roller: Cleaning	1	550k	U		
B2343637	Filter Cleaning	2	500k	U		
B2343564	Blade: Cleaning: Ass'y	1	550k	U		
B2342128	Wire: Charge Corona	1	500k	U		
B2342113	Grid: Charge Corona	1	500k	U	Included in 500K	
B2342123	Cushion: Wire	2	500k	U	PM Kit	
A0962063	Corona Wire Cleaner	1	500k	B070/B071		
B2342158	Filter: Around The Photoconductor	1	550k	U		
B2342155	Grid: Charge Corona: Pre	1	500k	U		
B2342156	Wire: Charge Corona: Pre	1	500k	U		
AD025022	Pickoff Pawl: Swivel	2	1,100k	B070/B071	Included in	
B2343971	Transfer Belt	1	1,100k	U	1,100K PM	
B2343916	Blade: Transfer Belt: No.1 2:Ass'y	1	1,100k	U	Kit	
B0702076	Ozone Filter: 50x150x40	1	15,000k	B070	/B071	



#### PM Table Continued...

Part Number	Description	Q'ty/ Unit	PM Interval	Unique or Commo	
ADF	ADF				
B3011442	Transport Belt	1	140k	B070/B071	
A8592241	Reverse Roller: Paper Feed	1	120k	B070/B071	Included in ADF
B4772225	Pickup Roller	1	120k	B070/B071	PM Kit
A8061295	Paper Feed Belt	1	120k	B070/B071	
LCT: B834					
AF031081	Paper Feed Roller: Feed: Manual Feed 3		1,000k	B070/B	071
AF030080	Paper Feed Roller: Pickup 3 1,000k B070/B071		071		
AF032080	Paper Feed Roller: Separation	3	1,000k	B070/B	071
By-pass Tray: B833					
AF031081	Paper Feed Roller: Feed: Manual Feed	1	1,000k	B070/B071	
AF030080	Paper Feed Roller: Pickup	1	1,000k	B070/B071	
AF032080	Paper Feed Roller: Separation	1	1,000k	B070/B	071

#### PM Kits:

PM Kit	Part Number
500K PM Kit	PMB234500K
700K PM Kit	PMB234700K
1,100K PM Kit	PMB2341100K
ADF PM Kit	PMB234ADFK

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#### **Initial Recommend Service Parts:**

Part Number	Description	Quantity	Remarks
B2349510	OPC Drum	1	2M copies
AX510011	Xenon Lamp	2	Replace as needed
B2341721	Lens Unit	1	Replace as needed
B2341721	PCB - CNB	1	Replace as needed
B2345112	PCB - IC	1	Replace as needed
B2345122	PCB - SIB	1	Replace as needed
AZ500071	Stabilizer	1	Replace as needed
B2341910	Laser Diode Unit	1	Replace as needed
B2344090	Fusing Thermostat: 198/199C	1	Replace as needed
A2294131	Thermistor Ass'y	1	Replace as needed
AX440240	Fusing Lamp – 208V/900V	1	Replace as needed
AX440242	Fusing Lamp - 208V/900W	1	Replace as needed
AX440243	Fusing Lamp - 208V/600W	1	Replace as needed B236 only
AX440241	Fusing Lamp - 208V/600W	1	Replace as needed B234/B235 only
AZ230001	Power Supply Unit 1	1	Replace as needed
AZ230003	Power Supply Unit B	1	Replace as needed
B2345410	PCB - AC Drive	1	Replace as needed
B2345440	PCB - Relay Safety Switch	1	Replace as needed
B2345241	PCB - IOB	1	Replace as needed
B2345220	PCB - BCU	1	Replace as needed
B2345312	PCB - OPU	1	Replace as needed
B7365660	PCB - NIC + USB	1	Replace as needed
B2345505	PCB - Interface	1	Replace as needed
B2345450	PCB - IPU	1	Replace as needed
AZ230195	Power Supply Unit (208V)	1	Replace as needed

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#### **Contact Information:**

Name	Contact
Technical Services Call Center (Hotline)	Ricoh: 1-800-537-4264 Savin/Gestetner: 1-800-291-6044 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
Ricoh Web Site	http://www.ricoh-usa.com/
Savin iLINC Web Site	http://w3.savin.com
Gestetner ILINE Web Site	http://W3.gestetnerusa.com
Lanier Web Site	http://www.lanier.com
Headquarter Web Sites	Ricoh Corporation: <a href="http://www.ricoh-usa.com">http://www.ricoh-usa.com</a> Savin Corporation: <a href="http://www.gestetnerusa.com/">http://www.gestetnerusa.com/</a> Gestetner Corporation: <a href="http://www.gestetnerusa.com/">http://www.gestetnerusa.com/</a>
Material Safety Data Sheets	1-800-336-MSDS (6737)
Ricoh University – East	(973) 808-7646
Ricoh University – West	(714) 566-3692
Ricoh University – South	(770) 840-4835

#### **Document Revisions:**

V 1.0 - Original

V 1.1 - Lanier Model name incorrectly listed for B236. Page18.

V 1.2 - Corrected Duplex Paper Weight. Page 3

Added Copy Speed per paper size Page 4

Added GBC Punch Note. Page 12

Added Single Sheet Fold spec. Page 13

Added PSU & Controller Door swing open spec. Page 14

Corrected Ricoh Toner Description Page 19

Added PM Kit P/N info. Pages 20 & 21

Added VM Card info pages 2,16 & 18

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