



Ricoh Aficio MP9000

BUYERS LABORATORY INC. Lab Test Report

A Comprehensive BLI Laboratory Evaluation

Ricoh Aficio MP9000*

90 PPM Copier ■ Printer ■ Scanner



Test duration: Two months, including a one million-impression durability test.



Reliability	Very Good
Multitasking	Good
Administrative Utilities	Very Good
Feedback to Workstations	Excellent
Ease of Network Setup	Very Good
Print Drivers	Very Good
Applications Compatibility	Excellent
Scan Functions	Very Good
Print/Copy Quality	Very Good
Print/Copy Productivity	Excellent/Good
Ease of Use	Very Good
Feature Set	Very Good
Toner Yield	Excellent
Cost per Page	Set by dealer
Value	Very Good

* Reliability, image quality and toner yield are based on the performance of the Ricoh Aficio MP1350, which uses the same engine.

Manufacturer's maximum monthly duty cycle¹: 1.2 million impressions

Manufacturer's maximum recommended monthly volume: 1 million impressions

Average optimum monthly volume for models in this speed range²: 175,000 impressions

BLI RECOMMENDATION

ALSO INSIDE

- ▶ Test Procedures
- ▶ Specifications
- ▶ Certificate of Reliability

Ratings scale:
Excellent, Very
Good, Good, Fair
and Poor.

Based on a highly reliable engine, the Ricoh Aficio MP9000 earned excellent or very good ratings for most aspects of performance. Offering a competitive price when comparably configured, the 90-ppm unit demonstrated outstanding overall print productivity and produced very good output quality. The device was also found to offer very good overall ease of use, distinguished by its excellent control panel user interface and intuitive programming. The unit also earned high marks for a number of the network connectivity aspects of its performance, including its feedback to workstations and ease of network setup.

BLI recommends the Ricoh Aficio MP9000 for an average optimum monthly volume of 175,000 impressions, as well as for occasional peak usage at the manufacturer's maximum monthly duty cycle.



¹ The manufacturer's maximum monthly duty cycle is the maximum volume, as specified by the vendor, that the unit is capable of producing in a month; however, it is not recommended that the unit be run at this volume on a regular basis.

² Based on a survey conducted by BLI. When comparing models, note that this lower optimum volume was instituted in May 2007.

PERFORMANCE OVERVIEW

+, – and ○ represent positive, negative and neutral attributes, respectively.



RELIABILITY

VERY GOOD

- + The Aficio MP9000 is based on an engine that proved to be a highly reliable unit in BLI's two-month, 1,000,000-impression durability test. Although in its initial 1,000,000-impression durability test, the unit misfed 36 times and required seven service calls, a modification performed around 615,000 impressions into the test, which involved replacing the duplex unit and installing a duplex mylar guide, proved to correct the problems. BLI technicians proceeded to run the model for an additional 1,000,000 impressions. During this testing, the only service required was three PM calls and the unit misfed just 10 times, which translates to a misfeed rate of one per 100,000 impressions.
- The unit's rated developer yield, at 500,000 impressions, matches up with its preventive maintenance schedule. Further, the drum replacement (2,000,000 impressions) coincides with the fourth scheduled preventive maintenance call. However, the fact that the fusing unit needs to be replaced at a different interval offsets this benefit.



MULTITASKING

GOOD

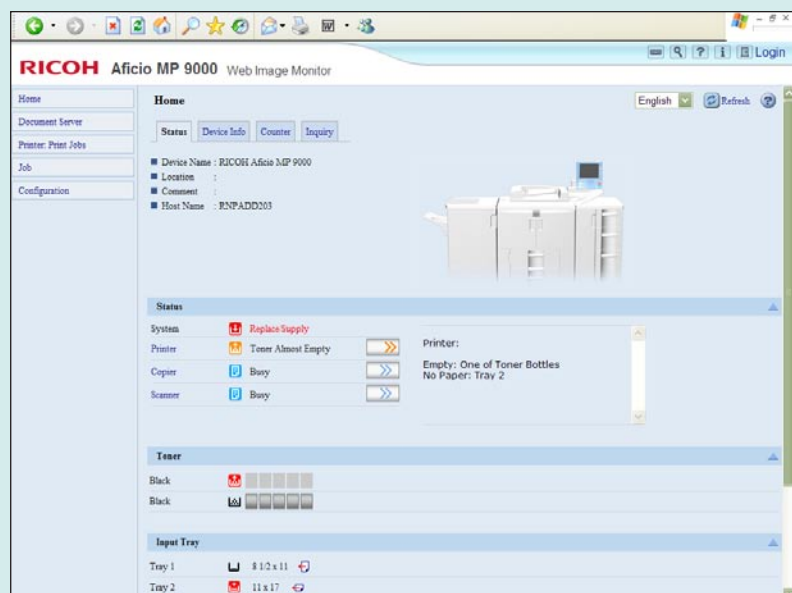
- + The unit allows multiple print jobs—limited only by memory resources—to reside at the device.
- The number of copy jobs that can be programmed ahead while another job is in progress is limited to 10. Most other units allow the operator to program an unlimited number of copy jobs while another job is in progress.
- + When the operator presses the Interrupt key during a copy or print job to program an interrupt job, the job being interrupted continues to run until the operator has completed programming the job and presses the Start key, allowing for maximum productivity.
- The device requires the user to press a key to program another copy job while one is already in progress.

- The device requires users to wait until all the pages of the copy job have completed scanning before programming the next job.
- When a print job followed a copy job and when a copy job followed a print or copy job, the Aficio MP9000 paused for approximately 3.5 seconds between jobs.
- The unit did not scan pages at a consistent speed. Two pages would be scanned quickly and then there would be a pause before the next page was scanned.
- + The Aficio MP9000 provides users with a lot of flexibility in relation to assigning a priority level to the units' functions, as users can select either print, copy/Document Server, display (the function currently displayed on the control panel takes priority), interleave (output alternates between pages of print jobs and pages of copy jobs) or first-in, first-out for job handling.
- The User Tools menu cannot be accessed while a job is running.

ADMINISTRATIVE UTILITIES

VERY GOOD

- + Ricoh's Web Image Monitor utility allows operators to check toner and paper levels, as well as change the order of jobs in the queue, merge jobs and receive e-mail error notifications. Up to four e-mail notifications can be configured.



Web Image Monitor

- + Web SmartDeviceMonitor enables an administrator to monitor and manage all the models on a network regardless of brand.
- + The device's intelligent remote management system automatically reports usage meter data.
- The unit's meter counter is printed in the form of a fax cover letter, and provides users with the total count of the device and serial number.
- + A plug-in is available for HP's Web Jetadmin so that administrators who use it to manage their HP printers can use it to manage their Ricoh output devices as well.



FEEDBACK TO WORKSTATIONS

EXCELLENT

- The device provides feedback both in its bidirectional print drivers and in its software-based SmartDeviceMonitor and Web Image Monitor utilities. However, the print drivers do not offer paper or toner gauges.
- + The device's Web page features color changes and status/error messages.
- + Icon changes on the taskbar alert users to device or print job errors or warning conditions.
- + Web Image Monitor utility allows operators to check toner and paper levels.
- + An e-mail can be sent to the key operator when consumables are depleted.
- + Users can see the status of the device's paper supply and paper size prior to sending a job to the device in SmartDeviceMonitor for clients.



EASE OF NETWORK SETUP

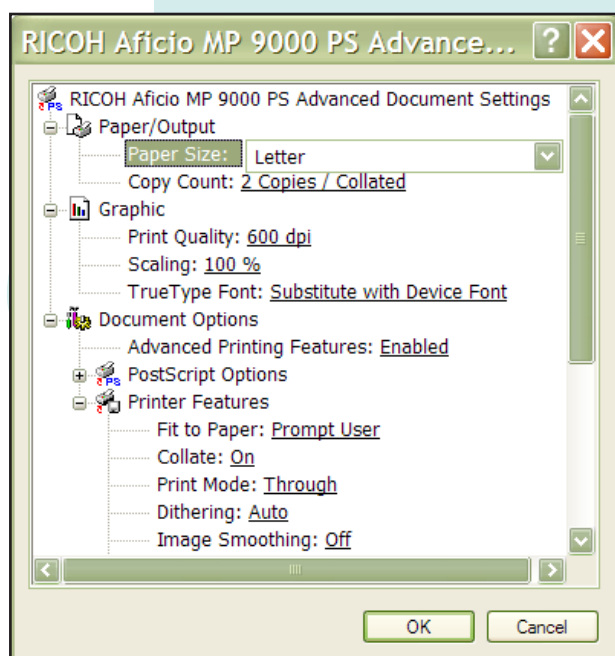
VERY GOOD

- + Installation procedures for the PCL and RPCS drivers were highly automated. The PCL and RPCS drivers, as well as the SmartDeviceMonitor for Clients, can all be accomplished in one session.
- The optional Adobe PostScript 3 print driver must be installed separately and, unlike with PCL and RPCS, requires an administrator to manually specify configured accessories.

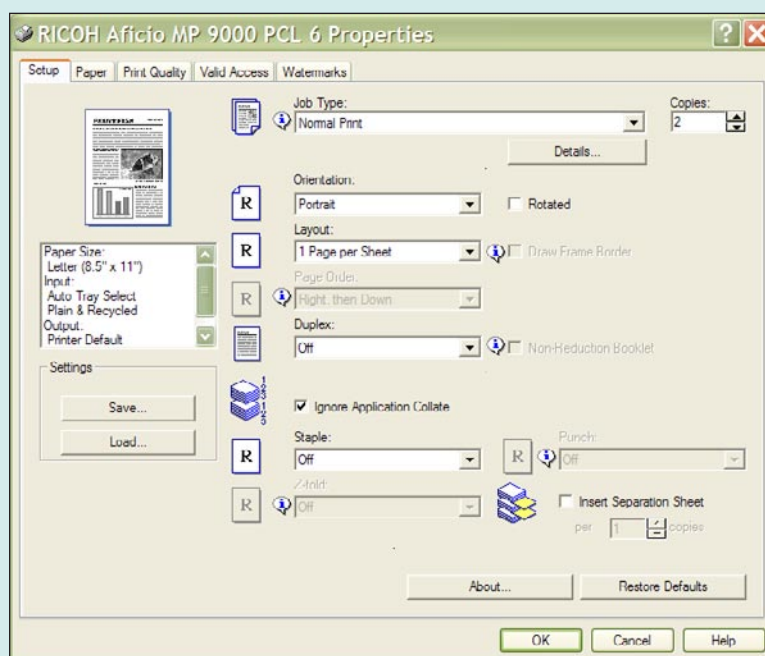
PRINT DRIVERS

VERY GOOD

- + The Aficio MP9000's optional print controller, which is based on a 866-MHz processor, offers users true Adobe PostScript, PCL and Ricoh's own graphical and customizable RPCS drivers.
- + An EFI print controller and MicroPress print controller are also available.
- Layout of the print drivers is dissimilar, which makes use less convenient for those who frequently switch among them.
- As is typical of a true Adobe print driver, the PostScript 3 driver is text-based, and most of the features required for a typical print job are not available on the main tab. However, the Advanced key displays a review/check of all the current job settings from one window when selected, and users can also change current settings from this window.
- Although many of the commonly used features for a print job are on the Setup tab of the PCL 6 print driver, users must go to the Paper tab in order to program selections for paper source and output destination.

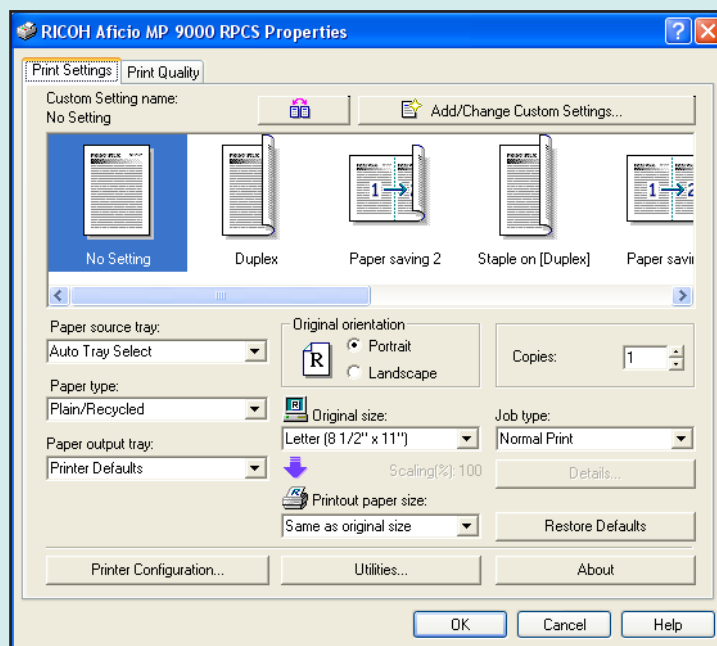


Advanced Tab of Ricoh's Adobe PostScript 3 Print Driver



Setup Tab of the PCL 6 Print Driver

- + Ricoh's RPCS is an icon-based print driver that allows users to create, save and share output icons based on their specific job requirements. Thus, selections for multiple features such as duplex and staple can be enabled with just one click.
- + The PCL and RPCS print drivers of the device feature a point-and-click interface for selecting paper source, but its Adobe PostScript 3 print driver does not.
- + The PCL 6 print driver eliminates the confusion for users determining whether to use the collate function of the print driver or the application in use, as it can be set to default to one or the other.
- Although programming is simple, booklet printing only worked properly from the RPCS print driver. Eight clicks are required to program booklet print jobs.
- Although the Aficio MP9000's print controller supports watermarks and custom watermarks from its PCL and RPCS print drivers, it does not support custom watermarks from its Adobe PostScript 3 print driver.
- When printing multiple sets with "Collate" selected in the Adobe PostScript 3 print driver, the file size increases.



RPCS Print Driver



APPLICATIONS COMPATIBILITY

EXCELLENT

- + No problems were experienced with any of the test files used in the applications compatibility tests. Units are tested for compatibility on Windows XP platforms with Microsoft Word 2000, Microsoft PowerPoint 2000, Microsoft Excel 2000, Adobe PageMaker 7.0, Adobe Photoshop 6.0 and Adobe Acrobat 6.0 using 25 application test files, which contain text, graphics, halftone images, tables, etc., enabling BLI technicians to evaluate memory usage, file processing, font rendering and grayscale capability.



SCAN FUNCTIONS

VERY GOOD

- + The unit supports both color and black-and-white scanning as standard, each at 80 ipm.
- + The unit supports scan to e-mail, and users can preview images of scanned data before sending them.
- + LDAP is supported, allowing users to search for e-mail addresses on a network mail server.
- + The device also supports scan to folder, with protocol support for SMB, FTP and NCP. File types supported include single-page TIFF/JPEG, single-page PDF, multi-page TIFF, multi-page PDF and high-compression PDF.
- + Scan to URL is also featured.
- + TWAIN scanning with resolutions from 100 to 1,200 dpi (color and black and white) is also featured.
- Internet faxing is not supported.



IMAGE QUALITY

VERY GOOD

- + In both print and copy modes, the text output produced by the Aficio MP9000 exhibited above average darkness and smooth curves and serifs. Upon visual examination, characters also appeared to be fully formed, although when viewed under magnification, break-up was visible along the left side of characters. The sharpness of characters was also above average, with no toner overspray visible even under magnification in both copy and print modes.



- + Lack of toner overspray also contributed to line art that was judged to be above average for sharpness. In addition, closely spaced fine lines remained distinct; horizontal lines didn't exhibit any stair-stepping; and consistency of line thickness was above average, with circles fully formed.
- Although the Ricoh unit's solids were Very Good overall, test technicians noted less consistent coverage on the left side of the page.
- + Halftone range in print mode was Excellent, as output was visible from the 2% to 100% dot-fill levels, with distinct transitions between all levels.
- + Halftone range and halftone pattern was rated Very Good in copy mode. Halftone output was visible from the 15% dot-fill level (which is the minimum coverage level on the original) to the 100% level, with distinct transitions between most levels and distinct separation between levels.

**PRODUCTIVITY****EXCELLENT/GOOD**

- + The Aficio MP9000's efficiency rate when printing BLI's job stream is the highest for the group.
- + The unit's overall print efficiency in both simplex mode and duplex mode is the highest for the group.
- The unit's overall copy efficiency is competitive for the group.
- The unit's first-copy times from the platen and document feeder are competitive for the group.

**EASE OF USE****VERY GOOD**

- Although the unit does not offer a contrast dial, the control panel display for the unit is bright and clear overall. Further, the monitor can be tilted up or down and moved left to right.
- The unit does not offer a Help key.
- + The unit's control panel is a user-friendly color touch-screen display, with large and clearly labeled keys. Features are identified with both icons and text.
- + The unit's control panel offers users a choice of displays to suit the preferences of the environment or operator, as when users select the Simplified



Control Panel Monitor

Display hard key, fewer features are displayed on the control panel and the keys are larger for users who prefer this setup.

- + Most of the features required for a typical copy job can be programmed from the main screen of the Ricoh control panel, including paper drawers, exposure, reduction/enlargement and finishing. Selections for duplex are under a sub-menu.
- + The indicator lights on the control panel of the unit are large and blink red to notify users that the device needs attention.
- + The control panel allows users to store up to 24 job programs on the control panel to enable quick and easy selection of typical jobs run on the machine.
- + The unit's control panel features a toner gauge and paper gauge on its main screen.
- Although it took only seven clicks to complete programming booklet copy jobs from the unit's control panel, BLI technicians noted that the procedure for creating booklets from single-sided originals was not intuitive.
- The job queue of the unit does not allow users to hold jobs, which BLI technicians view as an important feature in the CRD environment. According to Ricoh, the ability to hold jobs is available with the optional Fiery controller.



- + The unit's job queue allows users to delete and move jobs, as well as delete more than one job at a time.
- + Every time a copy job is stored in the unit's job queue, an index tab is created with the settings for that particular job. This allows users to easily keep track of the jobs and pull up the settings for each indexed job.
- The unit's job queue has two separate queues for copy and print jobs. Queues in which both copy and print jobs are listed together enable users to easily move print jobs ahead of copy jobs, or delete copy and print jobs, for example.
- + The unit features a quick trigger release to open its drawers. Further, more than one of the standard drawers can be opened at a time and the drawers can be loaded while the device is running.
- + The unit does not provide a visual gauge on its drawers, although the control panel features a paper gauge on its main screen.
- Loading paper into the optional drawers of the Aficio MP9000 was difficult, as to avoid damaging a sensor in the drawer, users have to be careful that the height of the stack of paper loaded does not exceed an inconspicuous label in the drawer; if it does, misfeeding will occur and service will be required. (A modification has been made to address this shortcoming, according to Ricoh.)
- To adjust the paper size in the MP9000's optional drawers, users must loosen and adjust two thumbscrews and completely remove and reinsert two others.
- While the unit features sliding length and width guides, users must unlock the guides before sliding them and then lock them again once they are set in position, which is an extra step that is not required on some competitive models.
- + The unit's multi-feed detection system identifies when multiple sheets have entered the feed system and purges misfed sheets into the proof tray, helping to prevent misfeeds, according to the company.
- Although the unit provides users with text and graphical instructions to help users remove misfeeds, the instructions are not as dynamic and accurate as those of some competitors. At times, technicians had to open and close covers/panels where misfeeds were not located.
- + Replacing toner was simple. Toner can also be loaded while the device is running, as the device holds two cartridges.
- + The unit automatically begins running after loading paper, clearing a misfeed and emptying the exit tray.



FEATURE SET

VERY GOOD

- + The Aficio MP9000 offers standard copying and optional network printing and color scanning. The unit supports both color and black-and-white scanning as standard, each at 80 ipm.
- + The unit's standard memory of 256 MB and maximum memory of 512 MB are both competitive for the group. Further, its hard drive capacity is the highest for the group, as the device features two 160-GB hard drives.
- + The unit offers a print resolution of up to true 1200 x 1200 dpi.
- + The unit's standard paper capacity of 3,000 sheets is competitive for the group, and its maximum paper capacity of 8,050 sheets is among the highest for the group.
- Although the Aficio MP9000's bypass tray is optional, its capacity of 500 sheets is the highest for the group.
- The device's document feeder capacity of 100 sheets is competitive for the group.
- The device can handle paper weights up to 80-lb. cover from its drawers and up to 110-lb. index from its bypass tray. The unit handles paper weights up to 34 lbs. from its document feeder.
- + Ricoh's SDK/J Embedded Software Architecture enables the unit to run embedded applications that add functionality or customize the control panel display.
- + Finishing options include a saddle-stitch finisher with a Z-fold option; a cover interposer unit; a punch unit; a production booklet maker and trimmer; and a new in-line punching solution for ready-to-bind documents. Users have a choice of a low-end booklet maker that can create 60-page booklets or a higher-end booklet maker that can create 120-page booklets and has a trimmer.
- A perfect bind system is not available. Instead, the professional booklet maker enables users to put a square-edge fold on the spine, allowing it to look more like a magazine and lay flat, according to Ricoh.



SECURITY FEATURES

NOT RATED

- + Security features include Windows and LDAP authentication, as well as SSL support, Network Protocol On/Off and SNMPv3 support.



- + The device also features PDF encryption and a driver encryption key for the PCL and RPCS print drivers.
- + The optional DataOverwriteSecurity System automatically overwrites latent information on the hard drive after every copy, print and scan job.
- + Port disablement is supported via the unit's Web Image Monitor.
- + Network security settings that can be enabled via Web Image Monitor include TCP/IP, HTTP, IPP, SSL/TLS and FTP.

**TONER YIELD****EXCELLENT**

- + The tested toner yield of the Aficio MP9000, which holds two cartridges, is much higher than the average of competitive models tested.

**VALUE****VERY GOOD**

- + The Aficio MP9000 offers a price that is competitive for the group when comparably configured. BLI included the base price, along with the saddle-stitch unit, printer/scanner unit type and Adobe PostScript 3.
- Cost per page for supplies could not be calculated as pricing is set by dealers and was not provided by Ricoh.

LAB TEST



SUPPORTING TEST DATA

Test Environment

This product was tested in BLI's 10,000-square-foot test lab, in an environment monitored by a Honeywell Temp/RH chart recorder, which replicates typical office conditions.

Test Equipment

BLI's dedicated test network, consisting of Windows NT 4.0, 2000 and Microsoft Exchange servers, Windows 2000 and XP workstations, 10BaseT/100BaseTX network switches and CAT5 cabling.

Test Duration

During BLI's reliability evaluation, the product was tested for 1,000,000 impressions, during which time it was operated at a daily volume that was based on the respective manufacturers' maximum monthly duty cycles, with 50 percent of the volume comprised of copy jobs and 50 percent comprised of print jobs. BLI's usage is designed to replicate real world usage over an eight-hour workday and, as such, testing included a mix of various-size documents, simplex and duplex modes, short, moderate and long run lengths, and on/off cycles throughout each day. Imaging was done with a variety of media, including legal-, letter- and ledger-size 20-lb. bond paper, as well as recycled paper containing 30% recycled content.

Tested Configuration

The unit was configured with the 4,550-sheet LCT, 4,000-sheet DLT/LCT, 500-sheet bypass, printer/scanner unit type 1350, optional Adobe PostScript 3, production booklet maker and cover interposer.

Test Procedures

The test methods and procedures employed by BLI in its lab testing include BLI's proprietary procedures and industry-standard test procedures, including a BLI-developed variation of ASTM's 1318-90 Test Method for Determination of Productivity using Electrostatic Copy Machines. In addition to a number of proprietary test documents, BLI uses an industry-standard Katun test original for evaluating black image quality and test suites from Quality Logic to evaluate applications compatibility. In addition to a visual observation, color print quality is tested using the ANSI standard IT8 Color Test Target, which is read using the Minolta CM503I Spectrophotometer, and samples are analyzed using the CIE XY Chromaticity Diagram. In addition, density of black and color output is measured using an X-Rite 428 Densitometer. Georgia-Pacific Spectrum DP 20-lb. bond is used in the tests, 10 percent of which is recycled paper containing 30 percent post-consumer content. Image quality is tested using Georgia-Pacific Printing Paper (95 brightness, 22-lb. bond).

Buyers Laboratory Inc. ■ 20 Railroad Avenue ■ Hackensack, NJ 07601 ■ USA ■ (201) 488-0404

Michael Danziger
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Testing



RELIABILITY

PMs/Malfunctions	Service Required	Meter Count (Impressions)	Impressions Between Service
Meter count (beginning of test)	615,000		
PM	Performed PM	744,037*	
PM	Performed PM	1,110,843	366,806
PM	Performed PM	1,452,664	341,821
End of test period	1,615,000		
Total Misfeeds/Misfeed Rate	10/1 per 100,000 impressions		
Service Calls	0		
PMs	3		
Total Service Calls (including PMs)	3		

Note: The results above are for a retest of the unit after the installation of a new duplex unit and duplex mylar guide. The device's firmware was also upgraded.

*The fusing unit is scheduled to be replaced every 750,000 impressions.

MULTITASKING

MULTITASKING EVALUATION

Primary Function	Secondary Function	PRINT	SCAN	COPY
PRINT		YES	YES	YES
SCAN		YES	YES	YES
COPY		YES	YES	YES

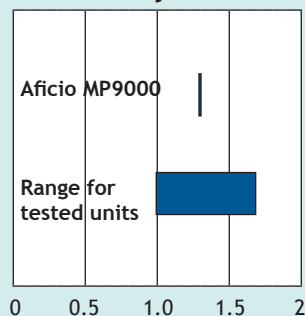
NOTE: (X) indicates number of occurrences. A "Yes" indicates that the user can initiate the secondary function while the primary function is taking place and that no further user intervention will be required for the secondary function to take place.

In addition to a single-user multitasking test, which evaluates a unit's ability to initiate or perform one function while another function is already in progress (see chart above), BLI also tests a multifunctional product's ability to handle multiple jobs that would be likely to stack up in a multi-user networked environment.

IMAGE QUALITY

Print Quality	
Text	Very Good
Line Art	Very Good
Halftone Pattern	Very Good
Halftone Range	Excellent
Solids	Very Good

Print density



Print density:

1.28 to 1.31

Density for units in this class tested to date:

0.98 to 1.69

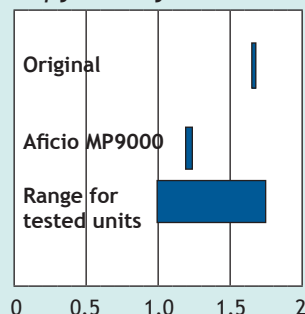
Halftone range:

Halftone output was visible from the 2% to 100% dot-fill levels, with distinct transitions between all levels.

Measurements are based on four readings corresponding to four different solid black locations on the output. The higher the density reading, the darker the image.

Copy Quality	
Text	Very Good
Line Art	Very Good
Halftone Pattern	Very Good
Halftone Range	Very Good
Solids	Very Good

Copy density



Density of original:

1.65 to 1.69

Density of copy:

1.27 to 1.32

Range for tested units:

0.99 to 1.75

Halftone range:

Halftone output was visible from the 15% dot-fill level (which is the minimum coverage level on the original) to the 100%



level, with distinct transitions between levels, although gray-scale levels in the mid-range are slightly darker than what is normally seen.

Measurements are based on eight readings corresponding to eight different solid black locations on the output. The higher the density reading, the darker the image.



PRODUCTIVITY

Job Stream:

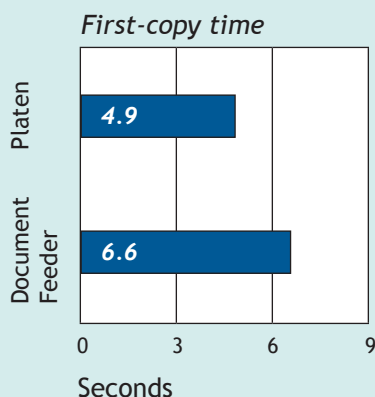
The unit completed the job stream using the PostScript print driver in 18.69 seconds, running at 61.0 ppm, which translates to an efficiency rate of 67.8%.

BLI's job stream includes Word documents, Outlook e-mail messages, Excel spreadsheets, PowerPoint, HTML and Acrobat PDF files. This test simulates the type of traffic a typical device might experience in a real-world, multi-user environment. All of the files are sent to the printer as a group, at which time the stopwatch begins; timing ends when the last page of the last file exits the device. Job stream efficiency is determined by the percentage of the rated speed at which the unit operates when producing real-world jobs. The closer the rate is to 100%, or if it exceeds 100%, the more efficient the unit.

First-copy time:

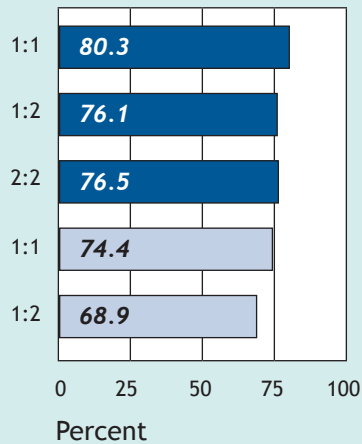
4.9 seconds from the platen.

6.6 seconds from the document feeder.





Overall Copy/Print Efficiency



BLI obtains the overall efficiency for each copy/print mode by averaging the efficiency ratings (derived by dividing the tested speed of the device by the rated speed, and then multiplying by 100) for each run length (1, five, 10 and 20 sets for copy, one and 20 sets for print).

■ Color
■ Monochrome

Copy/Print Efficiency For Multiple Sets

Sets	Min.	Sec.	PPM	Efficiency	Overall Efficiency
COPY 1:1					
1		13.25	45.3	50.3%	50.3%
5		39.82	75.3	83.7%	67.0%
10	1	12.88	82.3	91.4%	75.1%
20	2	19.12	86.3	95.9%	80.3%
COPY 1:2					
1		15.63	38.4	42.7%	42.7%
5		42.25	71.0	78.9%	60.8%
10	1	15.50	79.5	88.3%	70.0%
20	2	21.28	84.9	94.3%	76.1%
COPY 2:2					
1		30.62	39.2	43.6%	43.6%
5	1	23.75	71.6	79.6%	61.6%
10	2	30.34	79.8	88.7%	70.6%
20	4	43.00	84.8	94.2%	76.5%
PRINT 1:1					
1		12.66	47.4	52.7%	52.7%
20	2	18.66	86.5	96.1%	74.4%
PRINT 1:2					
1		15.16	39.6	44.0%	44.0%
20	2	22.12	84.4	93.8%	68.9%

Efficiency is tested using a 10-page document. In print mode, the document is printed using the PostScript driver at 600-dpi resolution.



PRINT DRIVERS

Ricoh Aficio MP9000 Print Driver Features

Windows 2000	PCL 6	PS	RPCS
Auto Feature/Device Detection	Yes	Yes	Yes
Booklet Printing	Yes	Yes	Yes
Collate Sets	Yes	Yes	Yes
Max paper sources per job	7	1	7
N-up Printing	2 to 16	2 to 16	2 to 16
Overlay	No	No	Yes
Paper Gauge	No	No	No
Consumable Gauge	No	No	No
Print and Hold	Yes	Yes	Yes
Proof Print	Yes	Yes	Yes
Quantity Selection	Up to 9,999	Up to 9,999	Up to 9,999
Reduction/Enlargement	25% to 400%	1% to 1,000%	20% to 300%
Resolution Modes	600/1200	600/1200	200/300/600/1200
Save Settings	Yes	No	Yes
Secure Printing	Yes	Yes	Yes
Watermarks/Custom Watermarks	Yes/Yes	Yes/No	Yes/Yes

TONER YIELD

Tested Toner Yield/Cost Per Page

Toner cartridge net weight	Toner Yield (Impressions) ¹	Impressions Per Gram	Toner Cost Per Page ²	Supplies Cost Per Page ³
1,662.1	78,268	47	*	*

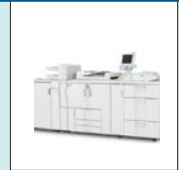
¹ Tested toner yield of one cartridge. The unit holds two cartridges.

² Testing was conducted using BLI's toner yield test original with 6% page coverage.

³ Toner and supplies cost per page could not be calculated, as pricing is set by dealers and was not provided by Ricoh.

Ricoh Aficio MP9000

Manufacturing Status: New
Console, digital Monochrome copier, MF
Dry, dual component toner



FAD #14289

BACKGROUND INFO	Dataquest Segment 5
SRP (USA; Canada):	\$39,000; \$50,000
Domestic Intro Date:	May 2006
OEM:	Ricoh (Japan)
Also Sold As:	Gestetner DSm790; Lanier LD190; Savin 8090; Toshiba e-STUDIO901
Distribution:	Dealers, branches and subsidiaries
Max Mo Duty Cycle:	1,000,000 impressions

■ MULTIFUNCTION MODES

Copier:	Std	Fax:	No
Internet Fax:	No	Network Fax:	No
Network Printer:	Opt	PC Fax:	No
Printer:	Opt	Scanner:	Opt

■ GENERAL SPECS/PAPER HANDLING

First Copy Time:	3.5 sec
Multicopy (Ltr/Lgl/Ldgr):	90/60/45 cpm
Warm-up Time:	6 min
Std Paper Source(s):	Triple drawer
Std Paper Capacity:	1,000/1,000/500/500 sheets
Paper Weights:	16-lb bond to 80-lb cover
Bypass/Paper Weights:	Opt 500-sheet/16-lb bond to 110-lb index
Max Paper Sources/Cap:	7/8,050 sheets
Max Original Size:	11 x 17
Min/Max Output Size:	5-1/2 x 8-1/2/13 x 18
Scan/Copy Resolution:	1200 x 1200 dpi
Std/Max Copier Memory:	256 MB, 2 x 160-GB HD/512 MB, 2 x 160-GB HD
Duplex:	Auto (1:2.2:2,2:1)
Capacity/Paper Sizes:	Unlimited/5-1/2 x 8-1/2 to 13 x 18
Document Feeder:	Std RADF
Speed/Capacity:	80 opm/100 orig
Paper Weights:	11 to 34 lbs
Stapler Sorter:	None
Bins/Stapling Cap:	Not applicable
Stapling Positions:	Not applicable
Finisher:	Opt finishers
Tray/Stapling/Pos(s):	3,500/100/4

Other: Std tandem paper-feed; opt 100-sheet stapling finisher (3,000/500) has opt 2-/3-hole punch; opt 4,550-sheet LCT; opt saddle stitcher v folds up to 15 sheets (60 pgs); opt cover interposer has two trays; opt 4,000-sheet DLT LCT

■ COPIER FEATURES

Automatic Features: AES, AMS, APS, AS, ASO, ATS			
Book Copy:	Yes	Job Programs:	25
Booklet Mode:	Std	Job Time:	Yes
Color:	No	Language:	Std
Copy Control:	500	Margin Shift:	Yes
Covers:	Std	Neg/Pos:	Yes
Editing:	Std	OHP Interleaving:	Yes
Energy-Save:	Yes	Photo Mode:	Yes
Erase:	Std	Preset R/E:	7R,5E
Image Insert:	Yes*	Program Ahead:	Std
Image Overlay:	Std	Sheet Insertion:	Std
Image Repeat:	Yes	Stamping:	Std
Image Rotate:	Std	Timer:	Yes
Interrupt:	Yes	2-in-1:	Std
Job Build:	Yes	XY Zoom:	Yes
Zoom Range: 25 to 400 (1%)			

■ **OTHER FEATURES:** *Image insert w/document server; chapterization (100); centering; double copy; center & edge erase; pale mode; mixed-size originals; generation copy; sample copy; two resident languages; document server; auto stamping (8 stamps); opt Connect Copy (tandem copying); copy onto tab extensions; document server; opt 2-tray interposer

MULTIFUNCTIONALITY

CONNECTIVITY SPECS

Client OS Support:	Win 95, 98SE, NT 4.0, 2000, Me, XP Server 2003, Mac OS 8.6-9.2x, OS X 10.1+, UNIX, Linux		
Parallel Interface:	Opt		
PC Fax/Print/Scan:	No/No/Yes		
Serial Interface:	None		
PC Fax/Print/Scan:	Not applicable		
USB Interface:	Std 2.0		
PC Fax/Print/Scan:	No/Yes/Yes		
Network Interface:	Std Ethernet, opt wireless		
Interface Type:	10/100BaseT, opt 802.11b, Firewire, Bluetooth, 1000BaseT		
LAN Fax/Print/Scan:	No/Yes/Yes		
Networks Supported:			
NetWare:	Yes	Windows NT:	Yes
AppleTalk:	Yes	UNIX:	Yes
AS/400:	Opt	Other:	

PRINTER SPECS

Engine Mfr/Model:	Ricoh/Aficio MP9000		
Compatibility:	IBM PC, Mac		
Speed:	90 ppm		
Max Print Area:	13 x 18		
Enhanced Resolution:	2400 x 600 dpi		
Unenhanced Resolution:	1200 x 1200 dpi		
Std/Max Printer Memory:	Shared		
Controller Mfr/Model:	RicohPrinter Scanner Unit type 1350		
Processor/Bits/MHz:	Celeron LV/Info not avail/866		
PDL/PCL:	RPCS, PCL 5e/6, opt Adobe PostScript 3		
Controller Mfr/Model:	EFI/EB-135*		
Processor/Bits/MHz:	Celeron/INA/2.8 Ghz		
PDL/PCL:	PCL 5e/6, opt Adobe PostScript 3		
Controller Mfr/Model:	EFI/MicroPress		
Processor/Bits/MHz:	Info not avail		
PDL/PCL:	PCL 5e/6, Adobe PostScript 3		
Other:	Network Management Utility--SmartDeviceMonitor; Web Image Monitor, PDF Direct Printing, USB printing support and Windows authentication, *512MB std/max memory, 80GB HD		

SCANNER & IMAGE MANAGEMENT SPECS

Connection Type:	Network		
Technology/Speed:	CCD/80 ipm		
Max Resolution:	600 x 600 dpi		
TWAIN Compatible:	Yes		
Scan Destinations:			
E-Mail:	Yes	I-fax:	Yes
FTP:	Yes	SMB:	Yes
HDD:	Opt	URL:	
LDAP:	Opt		
Scan/Image Software:	Std ScanRouter Lite		
OCR Software:	Std DeskTopBinder Lite		
File Mgmt Software:	Std DeskTopBinder Lite		
Other:	Scan-to-NCP, preview before transmission, PDF encryption, drop out color send; 80 ipm color scanning; LDAP support		

FACSIMILE SPECS

Scanner Technology:	Not applicable
Compression Method:	Not applicable
Modem Speed:	Not applicable
Std/Max Fax Memory:	Not applicable
Min/Max Orig Size:	Not applicable
Max Paper/Print Width:	Not applicable
Effective Scan Width:	Not applicable

Battery Backup:	Not applicable
Relay Request:	Not applicable
Confid TX/RX:	Not applicable
Dual Lines:	Not applicable
Timers:	Not applicable
Multi Access:	Not applicable
Dialing Capabilities:	
Broadcasting (Grps/Dest):	Not applicable
Redial Attempts/Intervals:	Not applicable
One Touch/Speed Dial:	Not applicable

COMMENTS Holds two toner cartridges; Super VGA Color Touch Panel Display, Security: Windows, LDAP and multiple network/user authentication; Secure Socket Layer Support, Network Protocol On/Off, SNMP v3 Support, PDF Encryption, Driver Encryption Key (PCL/RPCS Driver), Copy Data Security System Type E, Data Overwrite Security Unit (DOSS) Type F; Stepup mode feed system; supports Ricoh's SDK/J Embedded Software Architecture; customizable control panel display

ADDITIONAL INFORMATION

Control Panel:	Color touch-screen control panel monitor w/hard keys
Quantity Selector:	1 to 9,999 (0 to 9 keypad)
Message Display:	Yes
Help Key:	No
Dimensions (H x W x D):	58.2" x 34.3" x 33.9"
Weight (Base Unit):	672.4 lbs
Power Reqs (V / Amps):	208-240 V, 20 A
Dedicated Outlet:	Not required
Energy Star-Compliant:	Yes
Operating Noise Level:	74 dB

SUPPLIES / MAINTENANCE

Photoconductor:	Organic drum
Yield:	2,000,000
Price:	Priced by dealer
Toner:	Ctrdg weight not avail
Yield:	60,000
Price:	Priced by dealer
% Coverage:	6%
Developer:	Info not avail
Yield:	500,000
Price:	Priced by dealer
PM Schedule:	500,000

OPTIONS

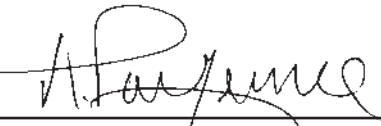
100-sheet stapling finisher:	\$5,550
4,550-sheet LCT:	\$4,300
4,000-sheet DLT/LCT:	\$8,100
500-sheet bypass:	\$1,400
Cover interposer:	\$3,500
Connect copy kit:	\$1,420
11 x 17 tray kit:	\$1,450
Saddle-stitch finisher:	\$7,300
Z-Fold unit/Trimmer unit:	\$7,000/\$7,600
Production booklet maker:	\$10,500
Printer/Scanner unit type 1350:	\$3,200
Adobe PostScript 3:	\$2,200
802.11b interface:	\$475
IEEE 1284/1394 interface:	\$99/\$475
Bluetooth wireless:	\$360
Fiery EB-135 print controller:	\$8,500
EFI MicroPress Pro series:	\$ not avail
Punch Unit:	\$875
GBC StreamPunch III:	\$8,995
Copy Data Security Unit:	\$755
Data Overwrite Security System (DOSS):	\$400

CERTIFICATE OF RELIABILITY

AWARDED TO
RICOH CORPORATION

For the performance of the
Ricoh Afico MP9000
throughout BLI's in-house durability test.

This is to certify that when subjected to a 1,000,000-impression
Buyers Lab durability test in a networked environment,
the Ricoh Aficio MP9000 proved to be a highly reliable product.


ANTHONY F. POLIFRONE
MANAGING DIRECTOR



June 2007
DATE

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