RICOH **Technical Bulletin** **No. RTB-001**

SUBJECT: Service manual correction

DATE:Nov. 15, ’96
PAGE: 1 of 4

PREPARED BY: T. Itai
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
☐ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
■ Information only
☐ Other

MODEL: AD1

The following parts of the service manual have been corrected.

1. Copying Speed in Multicopy mode, page 1-2

- Wrong -

	A4 sideways/ 11"x8$_{1/2}$"	**A3/11"x17"**	**B4/8$_{1/2}$"x14"**
No optional memory	15	9	10
With 4MB or 8MB optional memory	20	11	12

- Correct -

	A4 sideways/ 11"x8$_{1/2}$"	**A3/11"x17"**	**B4/8$_{1/2}$"x14"**
Non-memory copy mode (1 to 1 copy)	15	9	10
Memory copy mode	20	11	12

2. COPY PROCESS, Overview, page 1-12

The discharge brush bias has been changed from +2 kV to - 2 kV.

3. ORIGINAL SIZE DETECTION IN PLATEN MODE, page 2-4
Second paragraph from the bottom, second sentence

- Wrong -

This can cause excess toner to be transfered to the transfer roller, so users should be instructed to always set the paper lengthwise on the by-pass tray. This problem occurs for the first page only. The registration sensor detects the length of the first page, and will assume that the following sheets of copy paper are the same length.

- Correct -

However, in this machine, for each page, the data signal to the laser diode is stopped to match the copy paper length detected by the registration sensor.

4. LASER EXPOSURE, Overview, page 2-18
The polygon motor speed

	Resolution (dpi)	Modes
Wrong	400 dpi	Copy, Fax, and Printer
Correct	400 dpi	**Copy and Printer**

5. PAPER SEPARATION AND TRANSPORTATION, page 2-57
First paragraph, second sentence

- Wrong -

The high voltage supply board [B] applies a constant dc voltage, +2 kV (When .....), or +2.5 kV (from......) to the discharge brush.

- Correct -

The high voltage supply board [B] applies a constant dc voltage, **-2 kV** (When .....), or **-2.5 kV** (from......) to the discharge brush.

6. ENERGY SAVER MODE, COPIER/PRINTER, page 2-66
In the block diagram

- Wrong -

Auto Shut Off Mode

CPU/GAPD On

- Correct -

Auto Shut Off Mode

CPU/GAPD Off

7. Power Consumption, page 2-70
Note column for Night Mode Level 2

- Wrong -

If an incoming call (ringing signal) is detected, or if the user tries to send a fax, the machine goes into Night Mode Level 1.

- Correct -

If an incoming call (ringing signal) is detected, the machine goes into Night Mode Level 1.

8. SP mode no. 4-417, page 4-16

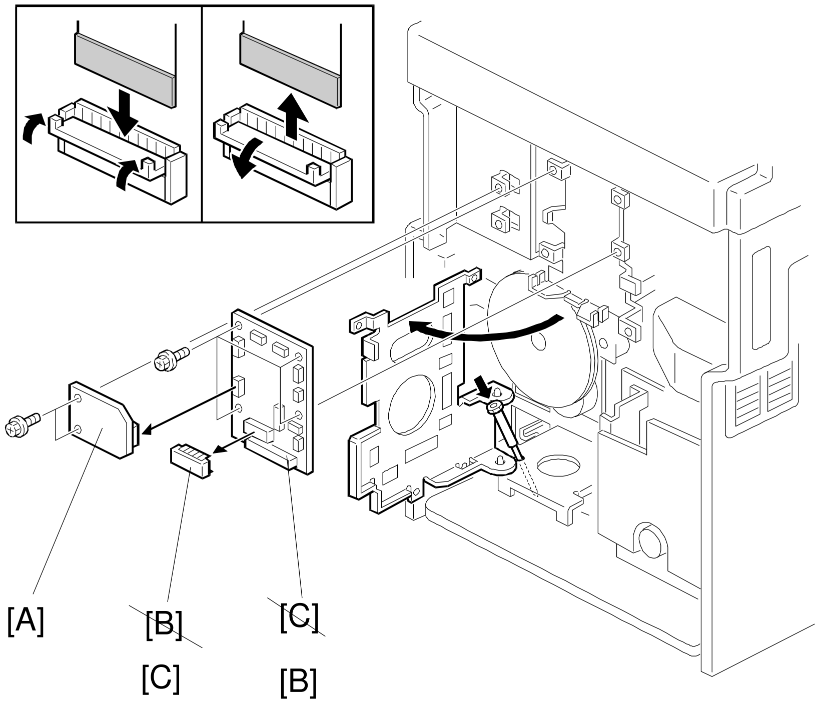
	Wrong	Correct
no. 7	SBU Test 1	No function
no. 8	SBU Test 2	
no. 9	SBU Test 3	

9. PM TABLE

The discharge brush should be treated as a PM part.

AROUND THE DRUM					
	EM	100k	200k	300k	NOTE
Discharge Brush		R	R	R	

11. MSU BOARD/BICU BOARD, page 6-36
The callouts should be corrected as follows.



RICOH Technical Bulletin No. RTB-002

SUBJECT: Caution about not mixing different size originals with DF-43

DATE: Nov. 15, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii for

FROM: 2nd. Field Information Dept. QAC

CLASSIFICATION:
- ■ Action Required
- ☐ Troubleshooting
- ☐ Retrofit Information
- ☐ Revision of service manual
- ☐ Information only
- ☐ Other

MODEL:
AD-1

Instruct customers not to mix different size originals when feeding them with the DF-43.

Note : The same width of originals, such as A4 and A3, can be mixed in facsimile mode only.

Reason:

With the DF-43, the original size will be detected when the originals are placed on the original table. Therefore, when mixing different size originals on the table, the maximum size detected will be used for all pages of the original.

Symptoms when mixing different original sizes:

In copying mode:
- The machine will select the copy paper size to match the maximum original size.
- In auto reduce/enlarge mode with the designated copy paper size, the reproduction ratio will be selected to match the maximum original size.

In facsimile mode:
- When mixing the same width of originals, the facsimile transmission will be made properly.
- If mixing originals with different widths, the originals with a smaller width will be transmitted with a white margin at the left end, as originals will be scanned with the maximum width.

REVISED ON: NOVEMBER 30, '96

RICOH

Technical Bulletin

No. RTB-003 (V2.0)

SUBJECT: Black Dot reproduction can be reduced

DATE: Nov. 30, '96
PAGE: 1 of 3

PREPARED BY: T. Itai for
CHECKED BY: S. Fujii

FROM: 2nd. Field Information Dept. QAC

CLASSIFICATION:
■ Action Required
■ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

If there are black dots on the copy, especially when making generation copies, take the following countermeasures.

Causes :

1. The AD-1 scanner is very sensitive, so it will reproduce tiny specks on the exposure glass or faint dots on a original in the copy.
2. When using the document feeder, the DF exposure glass may be smudged from originals.

Recommended Measures :

1. Change the MTF filter and Threshold level settings as follows.

	SP Mode	Default Setting	Recommended Setting as a Countermeasure
MTF Filter	4-407-2*	7	4
Threshold Level	4-418-1	48	55

* :The current MTF Filters (SP modes 4-407-1 to 4) are for greyscale mode. Fax mode always uses binary mode (refer to page 13 of the copier's operating instructions) so these filters have no influence on fax mode.

* : With the new version of the ROM, new MTF filters have been added for text mode with binary picture processing (Black and White text originals), and they are independent of the above filters. Refer to "Additional Information" in this RTB.

2. After changing the MTF filter and Threshold level, if you still find an unacceptable level of black dots on the copy, or poor reproduction of a low contrast original, such as one written in pencil, do the following.

   Change the MTF filter and Threshold levels by referring to the following table. A table value of "0" is the result of using the settings recommended on the previous page (MTF Filter: 4, Threshold: 55). The default setting is "+5" (MTF Filter: 7, Threshold: 48).

   - Using a lower table value decreases the amount of black dots, but will reduce the reproduction of low contrast originals.
   - Increasing the value will increase the reproduction of low contrast originals, but black dot reproduction will also increase.

		(Weak)	← MTF Filter →		(Strong)
		0	4	7	6
(High)	64	-7	-5	-2	-1
↑	55	-6	0	+1	+3
Threshold	48	-4	+2	+5	+7
↓ (Low)	40	-3	+4	+6	+8

3. If you find black dots when using the document feeder, clean the exposure glass.

ADDITIONAL INFORMATION:
With the new ROM version (ROM version E for North American models or D for European models), the following two MTF filters have been added for text mode with binary picture processing (designated for black/white text mode). The current filters of SP Modes 4-407-1 to 4 are for text mode with grayscale processing. Use these SP Modes with the new ROM version for binary picture processing mode.

1) SP Mode 4-407-8: For reproduction ratios of 25 % - 83% (use the table below)
2) SP Mode 4-407-9: For reproduction ratios of 84% - 400% (use the above table)

		(Weak)	← MTF Filter →		(Strong)
		2	0	4	7
(High)	64	-6	- 4	-1	+1
↑	55	-5	0	+2	+4
Threshold	48	-3	+3	+6	+8
↓ (Low)	40	-2	+5	+7	+9

REVISED ON: NOVEMBER 30, ’96

RICOH

Technical Bulletin

No. RTB-003 (V2.0)

SUBJECT: Black dot reproduction can be reduced

DATE: Nov. 15, ’96
PAGE: 3 of 3

The new ROM and the change of the default settings (described in "Recommended Measures") have been incorporated into the production machines as follows.

Model Code	Model	Production Machine	Serial Number
A193-10	Nashuatec	November	A106110001
A193-15	Savin	October	6A76100001
A193-17	Ricoh-North America	October	A7226100001
A193-55	Lanier	November	L5026110001
A193-27	Ricoh - EU	October	A72226100531

RICOH

Technical Bulletin

No. RTB-004

SUBJECT: Perform TD Sensor Intial Setting (SP mode 2-801) at installation

DATE: Nov. 15, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii
for

FROM: 2nd. Field Information Dept. QAC

CLASSIFICATION:
☒ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

At installation of the AD-1, perform the TD Sensor Initial Setting as shown below before making copies.

Problems :

The following problems may occur when the TD Sensor Initial Setting is not done at the time of installation for the AD-1.

1. Blank areas at 20 mm intervals at the right end of copies (rear end of the machine).
2. Smearing on copies
3. Dirty Background
4. SC 393

Causes :

1. The developer supply level in the development unit does not become uniform until after about 30 seconds of mixing after setting the PCU.
2. The Q/M (charged level) of the developer does not become stable until after running 20 A3 or DLT copies.
3. The detection of the TD sensor is unstable until the developer supply level in the development unit becomes uniform, causing excessive toner supply.

Measures :

1. Before making copies, perform the TD Sensor Initial Setting by using SP Mode 2-801. Refer to page 4-9 of the Service Manual.
2. After completing the TD Sensor Initial Setting, make 20 copies of A3 or DLT size.

RICOH	Technical Bulletin	No. RTB-005

SUBJECT: Operation Procedures for the transmission of fax messages while making memory copies.	DATE: Nov. 15, '96 PAGE: 1 of 1
PREPARED BY: T. Itai CHECKED BY: S. Fujii for	FROM: 2nd. Field Information Dept. QAC

CLASSIFICATION:
■ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

Instruct the customers to take the following steps to transmit facsimile mail while making memory copies.

Problem :

Multiple copying with the memory copy operation will be suspended under the following sequence when transmitting fax messages while copying.

1. Place the facsimile original in the document feeder.
2. Switch the mode to facsimile transmission.

Reason :

The AD-1 recognizes the original insertion into the feeder as a copying operation, so it then suspends the current memory copying.

Measure :

Instruct the customers to switch the mode to facsimile first, then place the original in the document feeder.

RICOH

Technical Bulletin

No. RTB-006

SUBJECT: Use the face-up tray for copying on thick paper, post cards, labels , or OHP sheets.

DATE: Nov. 15, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii
for

FROM: 2nd. Field Information Dept. QAC

CLASSIFICATION:
☒ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

Instruct customers to use the face up tray when copying on thick paper (81 to 157 g/m2 , or 21 to 42 lbs), post cards, labels, or OHP sheets.

Note : This instruction is not written in the Operating Instructions. Instruct your customers at installation or at the next visit.

Problem :

When copying those kinds of paper using the face down tray, paper jams occur.

RICOH Technical Bulletin No. RTB-007

SUBJECT: SC900 (Total Counter Error) caused by blown fuse (fuse #5 on the PSU)

DATE: Nov. 30, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:

- ☐ Action Required
- ■ Troubleshooting
- ☐ Retrofit Information
- ☐ Revision of service manual
- ☐ Information only
- ☐ Other

MODEL: AD -1

When SC900 (Total Counter Error) occurs, check whether or not fuse #5 of the PSU has blown out. Add "Fuse #5 of the PSU has blown out" into your service manual as one of the possible causes of SC900.

Fuse #5 is located at the upper left of the PSU board. The second of the 3 fuses is fuse #5.

Caution :

The fuse may be blown out if the connector of the paper tray unit is disconnected while the power switch is on. Be sure to turn off the power switch before disconnecting the connector.

RICOH **Technical Bulletin** **No. RTB-008**

SUBJECT: Cautions when setting up the copier at your office

DATE: Nov. 30, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:

☒ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

Before installing the AD-1 at the customer's office, please take the following precautions.

1. Perform TD Sensor Initial Setting after removing the development unit sealing tape. Do not transport the copier without performing TD sensor initial setting when the seal is removed.
2. Do not set the toner bottle into the holder. Install it at your customer's office.
3. When you run test copies, make sure to run less than 10 copies. These test copies should not be high density copies, such as solid black copies.

Reason :

If the precautions listed above are not complied with, toner will be supplied before the Q/M (charge level) of the developer has stabilized, causing excessive toner supply and toner scattering may occur due to vibration during transportation.

If the precautions have not been followed,
-Clean up the scattered toner.
-You may find dirty background copies for several pages.

RICOH **Technical Bulletin** **PAGE:1/1**

MB Correction

Reissue date: **15-May-97**

The items in bold italic have been corrected or added.

Model: AD-1 (DF43)	Date: 15-May-97	No: 9
Subject: Replacement of the Original Holder Sheet	Prepared by: M.Horiike	
From: QAC 2nd Field Information Dept.		

Classification:

☐ Troubleshooting	☐ Part information	☒ Action required
☐ Mechanical	☐ Electrical	☐ Service manual revision
☐ Paper path	☐ Transmit/receive	☐ Retrofit information
☐ Other ( )		

When the original holder sheet (P/N A6281615) needs to be changed, paste a new sheet over the current one.

Note :

The maximum number of sheets that can be pasted on top of each other is limited to two. When it necessary to paste more sheets (1 original sheet and 2 pasted sheets), please replace the following 3 parts at the same time.

-Original Holder Bracket ***(A6281613)***

-Original Holder Pad ***(A6281614)***

-Original Holder Sheet ***(A6281615)***

RICOH **Technical Bulletin** **No. RTB-010**

SUBJECT: Caution when feeding a folded or curled original

DATE: Nov. 30, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii
for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
■ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1 (DF43)

Instruct customers to proceed in the following manner when feeding a folded or curled original.

Problem :

When feeding a folded or curled original,
1. Original jam may occur.
2. Set xxx paper in tray" or "Cannot detect org. size." message appears.

Causes :

1. A folded or curled original is being fed.
2. The tail end of originals is held up while pressing Start button.
3. The original length sensor is defective.

Reason :

When feeding a folded or curled original, the tail end of the original may not lay flat, leading to a gap between the original and the paper length sensor. In this condition, the length sensor cannot detect the original size correctly.

Measures :

1. When copying a folded or curled original,
   -Use the platen cover instead of the document feeder, or
   -Straighten the originals before setting them on the original table.

2. When a defective sensor may be a cause,
   -Check to see whether the LCD displays the same original size as is set on the original table by using SP Mode 6-901.

RICOH	**Technical Bulletin**	**No. RTB-011**

SUBJECT: SC120 after transporting the copier	DATE: Nov. 30, '96 PAGE: 1 of 2
PREPARED BY: T. Itai CHECKED BY: S. Fujii for	FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:

■ Action Required
■ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD1

SC120 may occur after:

- the copier was transported, or
- the scanner rear cover was removed and placed back on.

If either of these conditions occur, please take the following measures.

Causes :

1. If transporting AD-1 with the scanner in the home position, the scanner will hit the HP sensor and the sensor will become unfastened.

2. If you happen to push the HP sensor after the scanner rear cover has been removed, the sensor will become unfastened.

Measures :

1. When the problem occurs, make sure that the sensor is properly fastened.

2. Insert the additional mylar sheet between the sensor latch and the bracket if necessary. (The part number is xxxxxxxxx.) This mylar sheet has been incorporated into the production machines as follows.

Model Code	Model	Production Month	Serial Number
A193-10	Nashuatec		
A193-15	Savin		
A193-17	Ricoh - North America		
A193-55	Lanier		
A193-27	Ricoh - EU		

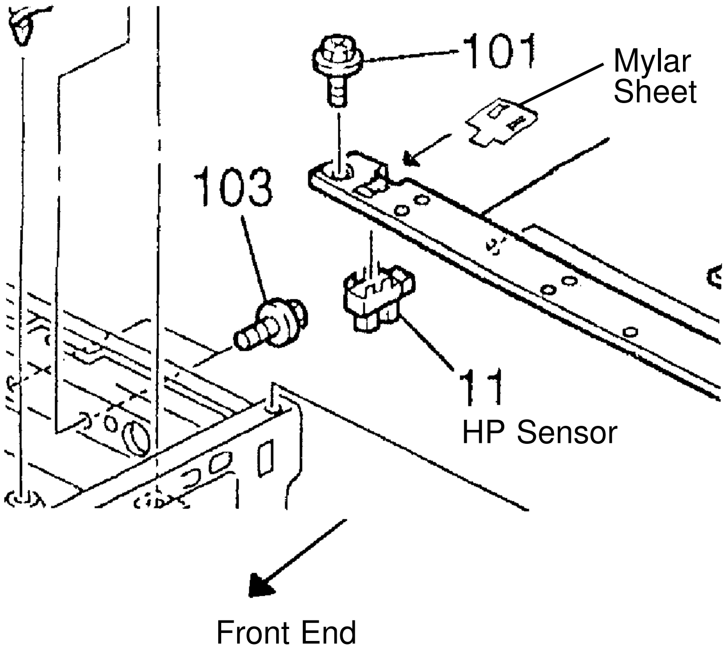
How to set the mylar sheet :

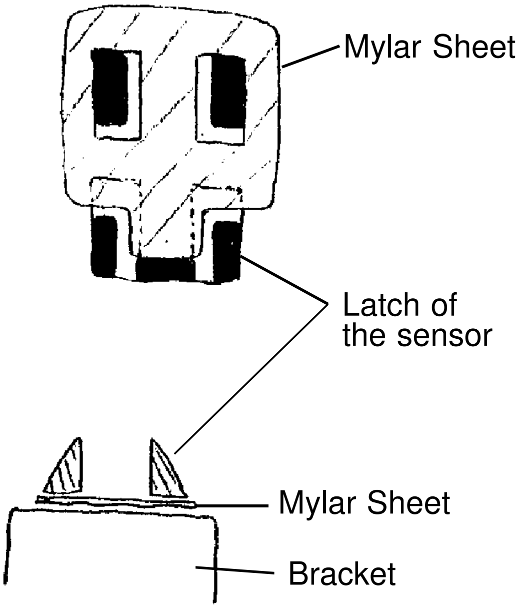
Attach the mylar sheet as shown in the following illustration.

Caution :

1. Attach the mylar sheet after the sensor is mounted on the bracket.

2. Make sure that the latch for the sensor is properly inserted through the hole in the mylar sheet.


101
Mylar Sheet
103
11
HP Sensor
Front End


Mylar Sheet
Latch of the sensor
Mylar Sheet
Bracket

RICOH **Technical Bulletin** **No. RTB-012**

SUBJECT: Installation Procedure for the paper end feeler

DATE: Nov. 30, ’96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
☐ Action Required
☐ Troubleshooting
■ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

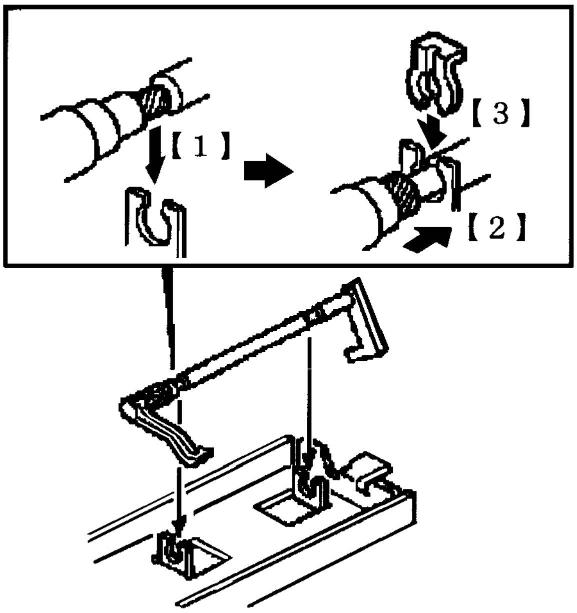
<Installation Procedure>

1. Set the thin part of the shaft (1 in the Illustration) into the holder.
2. Slide the paper end feeler to the rear and slide the wider part of the shaft into the holder (2 in the Illustration).
3. Put the snap ring on the thin part of the shaft.

<Confirmation>

Pull the paper end feeler up slightly to confirm that it is securely in place.

<Illustration>



Technical Bulletin

No. RTB-013

SUBJECT: ROM Board

DATE: Nov. 30, '96
PAGE: 1 of 1

PREPARED BY: T. Itai
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
■ Action Required
☐ Troubleshooting
■ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD-1

<Symptom>

The jumper pins for the outside of the connectors (pin nos. 36 to 70) on the BiCU come off.

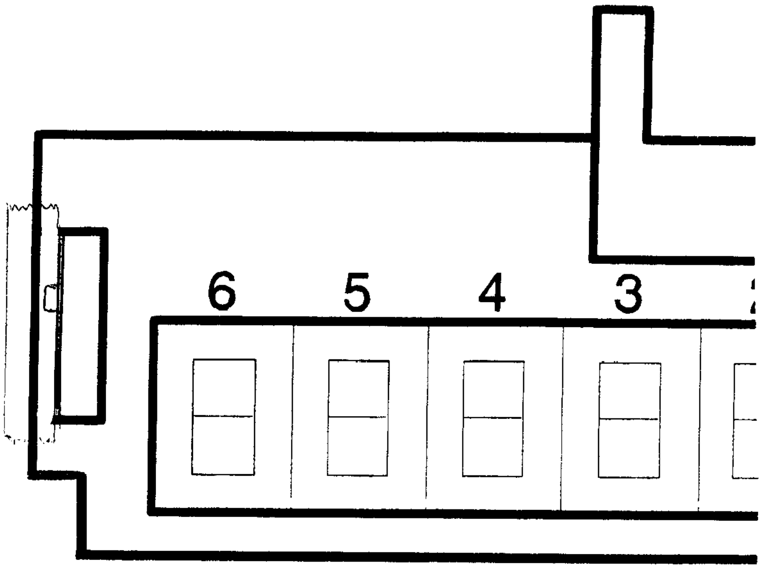
<Cause>

The jumper pins were not fixed securely by the resin adhesive on the ROM boards in the first shipment (28pcs+10pcs for RDG).

<Action required>

If you find the one of the ROM boards mentioned above, please apply tape as shown in the illustration below.

(Illustration)



RICOH **Technical Bulletin** **No. RTB-014**

SUBJECT: ROM History (AD1-FAX option)

DATE: Dec. 15, '96
PAGE: 1 of 2

PREPARED BY: K. Ugaeri
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
☐ Action Required
☐ Troubleshooting
☒ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD1

We inform you of the firmware history for the AD1-Fax option.
(For the USA Model)

A1945581	File No. (A194uxx)	Version	Total C.SUM	SUM(0H)	SUM(0L)	SUM(1H)	SUM(1L)	Production
C	03	1.23	DD95	CB2A	27F0	BD19	72A5	1st Mass Prod.
D	04	1.29	E6D7	83C2	E9BD	47BC	7F1A	November Prod. 96
E	05	1.38	EAAE	A99A	5C74	919A	5A3A	December Prod. 96

(For the European/Asian Model)

A1945582	File No. (A194exx)	Version	Total C.SUM	SUM(0H)	SUM(0L)	SUM(1H)	SUM(1L)	Production
B	02	1.23	3A44	0A20	FC8A	691F	FEBA	1st Mass Prod.
C	03	1.29	3270	D0F9	39CD	F1E6	19A3	November Prod. 96
D	04	1.38	3745	FA2F	B98C	C966	E8B9	December Prod. 96

(For European 2nd Language)

A1945585	File No.	Version	Total C.SUM	SUM(0H)	SUM(0L)	SUM(1H)	SUM(1L)	Production
A		1.38		E09E	340F	6301	B2A2	December Prod. 96

Symptom corrected	US	EU/ ASIA	EU2
When the handset is picked up at ringing signal detection, the reception is disconnected and the reception job rarely remains internally. In this case, the display is not going to "Handset Mode" even if the handset is picked up, or "line is busy" is displayed for direct tx from the ADF.	E	D	A
In manual tx mode with the handset, the operator presses the Start key and hangs up the handset at the same time. Then the transmission job remains internally. In this case, both transmission and reception are not available, or "Handset mode" is always displayed. This problem can be solved by picking up and hanging up the handset again.	E	D	A
The chain dial function is not used by the on-hook or handset mode.	E	D	A
When the machine stores a letter-size original using image rotation, the compression does not succeed. Then the job is reset if the original is complicated, and it is scanned in photo mode.	E	-	-

Technical Bulletin No. RTB-014

SUBJECT: ROM History (AD1-FAX option)

DATE: Dec. 15, '96
PAGE: 2 of 2

<table>
<tr><td>After entering the personal code and going to the fax mode in the personal code transmission mode, if a programmed key (Quick dial) is used, the personal code is not printed on the JOURNAL report.</td><td>E</td><td>D</td><td>A</td></tr>
<tr><td>New Bit Switches are added for some reports.
System SW 1F-Bit 1: When a memory overflow or storing jam occurs, the Memory Storage Report and Memory Transmission Report are not printed out.
0: OFF(Default)-Print 1: ON-No print
User SW 03-Bit 2 : Memory Storage Report is printed automatically.
0: OFF(Default) 1: ON-Print
System SW 1E-Bit 1 : The method of erasing files when the memory is full
0: Only a page is eraced 1: The file is eraced.

*The combination of the above bit switches;
<table>
<tr><td>User SW 03:
System SW 1F:</td><td>OFF
OFF</td><td>ON
OFF</td><td>OFF
ON</td><td>ON
ON</td></tr>
<tr><td>Memory Storage OK</td><td>X</td><td>O</td><td>X</td><td>O</td></tr>
<tr><td>Memory Storage NG</td><td>O</td><td>O</td><td>X</td><td>X</td></tr>
<tr><td>Continuing after the memory is full (by System SW 1E-Bit1)</td><td>O</td><td>O</td><td>X</td><td>X</td></tr>
</table>
O=Memory Storage Report is printed out.</td><td>E</td><td>D</td><td>A</td></tr>
<tr><td>Only for Belgium approval: When the communication is finished while the handset is still picked up, the buzzer must sound till the handset is hung up.
G3 SW 0F-Bit 1 : 0:Buzzer is ON 1:Buzzer is OFF
*The default of this bit is 0 for Belgium.</td><td>-</td><td>D</td><td>A</td></tr>
<tr><td>If there is a conflict between G3 Reception (analog port) and iG3 Transmission (digital port), the Communication LED turns on and is locked.</td><td>D</td><td>C</td><td>-</td></tr>
<tr><td>When the operator picks up the handset and dials using a quick or a speed dial then hangs up the handset during dialing, the display always shows "Handset Mode". ①
or
When the handset is hung up then picked up again within 1 second after pressing the Start key in non-memory Tx mode, the display always shows "Handset Mode". ①

If the operator makes the transmit operation or presses the Stop key, the display locks.
*If the handset is hung up then picked up again under condition ①, the display is not locked.</td><td>D</td><td>C</td><td>-</td></tr>
<tr><td>When a ringing signal comes in when going into the night mode, the machine goes into the night mode and goes back to Ready. Then the power failure report is printed out. (The file no. and communication mode on the JOURNAL are wrong.)</td><td>D</td><td>C</td><td>-</td></tr>
<tr><td>New User Switch for Forwarding: User Switch 0E (SW14)
bit5 : 0 - Off (Default)
1 - On *All received files are forwarded to the transfer address.
*On the user parameter list, the following description is not printed. "Forwarding all received files ON/OFF"</td><td>D</td><td>C</td><td>-</td></tr>
<tr><td>In the date input mode, the display shows "24hr format" instead of "12hr format".</td><td>D</td><td>-</td><td>-</td></tr>
<tr><td>The download and upload function from FCU board to FCU board with the feature card do not work.</td><td>D</td><td>C</td><td>-</td></tr>
<tr><td>French version only: The TEL number of quick and speed dials cannot be corrected.</td><td>-</td><td>C</td><td>-</td></tr>
<tr><td>German versiononly: Wording correction (5 wordings)</td><td>-</td><td>C</td><td>-</td></tr>
<tr><td>Spanish version only: A default setting was changed. *G3 Switch 0F bit 0 0 → 1</td><td>-</td><td>C</td><td>-</td></tr>
</table>

REVISED ON: JANUARY 15, '97

RICOH **Technical Bulletin** **No. RTB-015A**

SUBJECT: ROM History(AD1 Copy Version)

DATE: Jan. 15, '97
PAGE: 1 of 1

PREPARED BY: K. Ugaeri
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
☐ Action Required
☐ Troubleshooting
☒ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD1

We inform you of the firmware history for AD1.
(For the USA Model)

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(0H)	SUM(0L)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod. '96
F	06	1.31	F96B	F66D	02FE	December Prod. '96
G	07	1.33	5D03	2ECA	2E39	January Prod. '97

(For the European/Asian Model)

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(0H)	SUM(0L)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod. '96
E	105	1.31	0ADC	41C5	C917	December Prod. '96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97

Symptom corrected	USA	EU/Asia
Black Spots in the scanned image - A scanned low contrast image can be adjusted using 7 settings. Each setting has different gamma correction characteristics, MTF filter, and threshold level (new SP mode: SP4-998,999).	G	F
The dirty background on white images after negative\positive reversal.	G	F
SC321 appears when the door is opened during memory copying if the start key is pressed after closing the door.	G	F
The development bias setting (SP2-201) is initialized when the main switch is turned off.	G	F
SC921-Memory Access Error After a paper jam while opening the door during memory output.	F	E
SC101appears when turning the main switch off/on after the IPU test pattern in SP mode.	F	E
SP5-803: New PCU Detect is added to the Input checks.	F	E
Memory copy priority of SP5-945 is added to Salesman Program Mode.	F	E
SP mode cannot be cleared when the main switch is turned off/on after going to the interrupt copy mode from SP mode.	F	E
The finisher is supported.	F	E
While feeding out an original from the ADF, the Start key can be detected. As a result, the incorrect document size is detected.	E	D
The ARDF is supported.	E	D

RICOH

Technical Bulletin

No. RTB-016

SUBJECT: Dirty background caused by ammonia gas

DATE: Dec. 15, ’96
PAGE: 1 of 1

PREPARED BY: K. Ugaeri
CHECKED BY: S. Fujii fo

FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:
- ☒ Action Required
- ☐ Troubleshooting
- ☐ Retrofit Information
- ☐ Revision of service manual
- ☐ Information only
- ☐ Other

MODEL:
AD1

<Sympton>
If the AD1 is installed by a machine which is using the ammonia, such as a diazo copier machine, its developer is changed and dirty background or scattered toner problems may occur.

<Cause>
The developer is changed by the ammonia gas.

<Action required>
Ricoh is now investgating the reason why the developer changes and the countermeasure for ammonia. At the moment, would you ask your customer to use the AD1 in a room with no influence from anmonia gas.

RICOH	Technical Bulletin	No. RTB-017

SUBJECT: False Indication of SC101	DATE: Dec. 15, '96 PAGE: 1 of 2
PREPARED BY: T. Itai CHECKED BY: S. Fujii for	FROM: 2nd Field Information Dept. QAC

CLASSIFICATION:

■ Action Required
☐ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD1

The false SC101 indication may occur under the following conditions. It can be reset to normal by the following the instructions below.

Symptom :
After turning the main switch on, the SC101 condition occurs when the AD-1 becomes "Ready". Though SC101 can be reset by toggling the ac switch, neither the SC resetting procedures nor toggling the main switch can reset to normal operating conditions.

Occurrence Conditions :
The problem occurs when the following operations were made on machines with the following BICU software versions: "E" for US software models (destination codes 10, 15, 17, 55) and "D" for European software models (destination codes 19, 22, 26, 27, 29, 65)

1. In SP mode 4-417 IPU "Test Pattern Print", one of the test patterns was selected.
2. The test pattern was printed with the Copy Mode Display.
3. The main switch was turned off.

With the operations listed above, SC101 occurs after the main switch is turned back on.

Note : From the BICU software version of "F" for US software and "E" for European software, this problem has been fixed.

To reset to the normal operating condition :
Take either of the following actions to reset to normal operating conditions.

1. By using SP mode 4-417, select the default setting of "0 : No Print"
   or.
2. Toggle the ac switch from off to on.

SUBJECT: False Indication of -SC101

DATE: Dec. 15, ’96

Additional Information :
SC101 is a new SC Code and has been added to the original SC Codes from the BICU software version "E" for US software and "D" for European software to diagnose the following problem.
-Level of Service Call Condition: A
-Definition: The referenced white pattern wasn’t detected properly.
-Possible Causes:
    -Defective Exposure Lamp
    -Defective Exposure Lamp Harness
    -Defective SBU
    -Defective SBU Harness

RICOH Technical Bulletin No. RTB-018

SUBJECT: Paper Feed Jam, Paper Skew

DATE: Jan. 15, ’97
PAGE: 1 of 2

PREPARED BY: K. Ugaeri
CHECKED BY: S. Fujii for

FROM: 2nd Field Information Dept. QAC

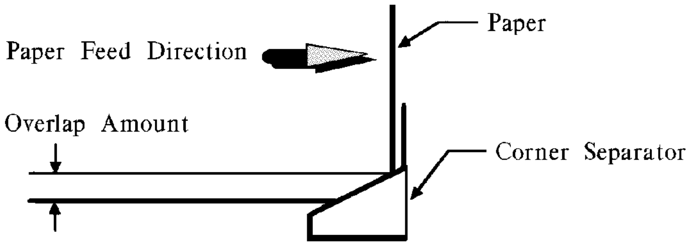
CLASSIFICATION:
☐ Action Required
☒ Troubleshooting
☐ Retrofit Information
☐ Revision of service manual
☐ Information only
☐ Other

MODEL:
AD1

Symptom : Paper jams, dog-ears, or paper skews occur when paper is fed from a paper tray.

Action :

1. Check to see if the edge of the corner separator that touches the paper has burrs or scratches.
   Measure :
   Remove burrs or scratches by filing the edge with sandpaper, or replace the corner separator.
2. Check the amount of overlap between the corner separator and the paper as shown below.



Specifications :
1) The overlap amount must be:
   - 5.7 ± 1.2 mm with the AD-1 Paper Tray
   - 6.0 ± 1.2 mm with the Optional Paper Tray
2) The difference in the amount of overlap between the front and rear of the corner separator must be within 1.5 mm.

Countermeasure :
If the overlap amount isn’t within the above specifications, the corner separator may have been deformed. Reform the separator or replace if necessary.

Reference :
Depending on the conditions, the following problems may arise.
- when the difference of the amount of overlap between the front and rear of the separator is greater than 1.5 mm -- Paper Skew
- when the amount of overlap is greater than the specifications ------ Misfeed
- when the overlapped amount is less than the specifications ---------- Double Feed

3. Check to see if the paper is damp.
   Countermeasure :
   If the paper is damp, install the optional heater. When installing it in the optional paper tray, remove the auto-shut-off control. (Auto-shut-off will deactivate the heater.)

R I C O H **T**echnical **B**ulletin

RTB Correction

Reissue date: **15-Apr-97**

The items in bold italic have been corrected or added.

Model: AD1 (DF43)	Date: 28-Feb-97	No: 019	1/2
Subject: Black stripes		Prepared by: K. Ugaeri	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii T. Inoue	
Classification:	☒ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☐ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☐ Retrofit information

SYMPTOM

Black stripes when using the sheet scanner

CAUSE

Dust on the exposure glass.

SOLUTION

1. The ***three*** mylars have been added on the original scale (A6283192) to prevent the scanning position on the exposure glass from becoming dirty.

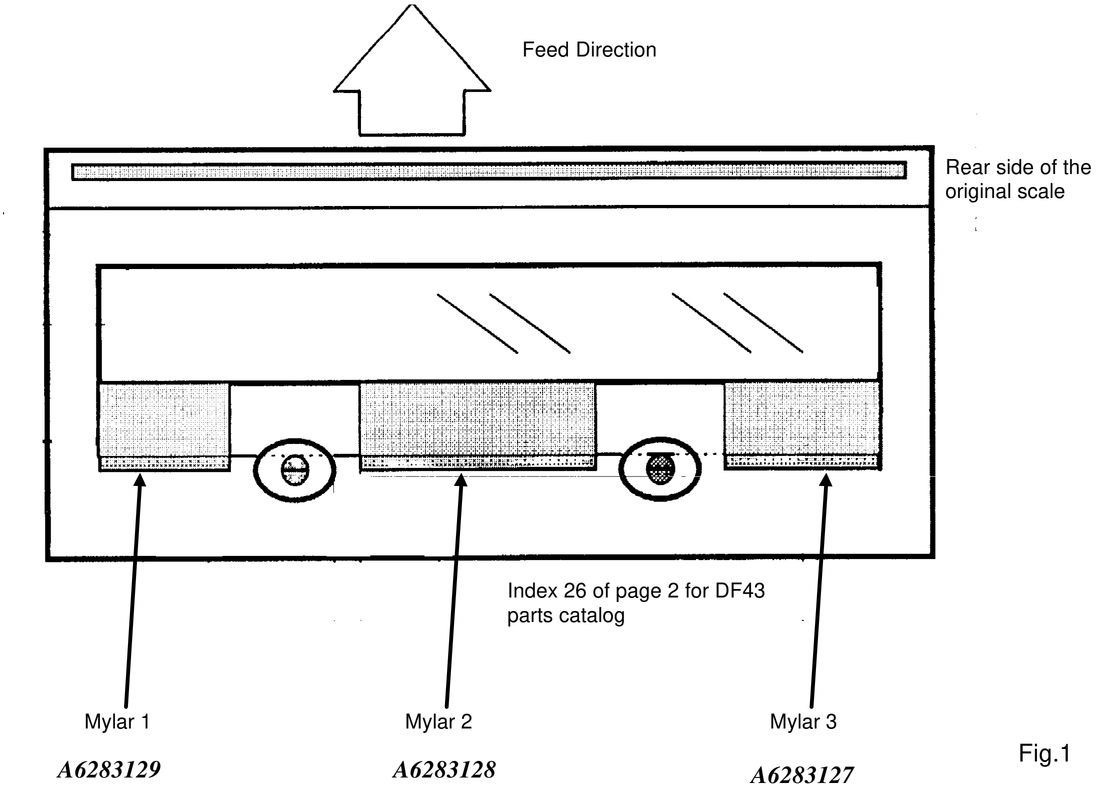


Fig.1

Because the contact position of the original becomes dirty with paper dust, it has been moved from the scanning position by using mylars.

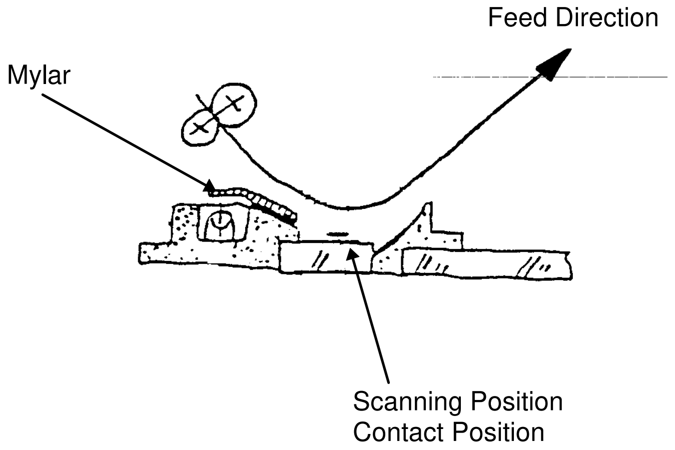


Fig. 2

2. The surface of the exposure glass has been treated by the mater replant process.

Note: This exposure glass has a white mark. This mark must be at the bottom rear side at installation.

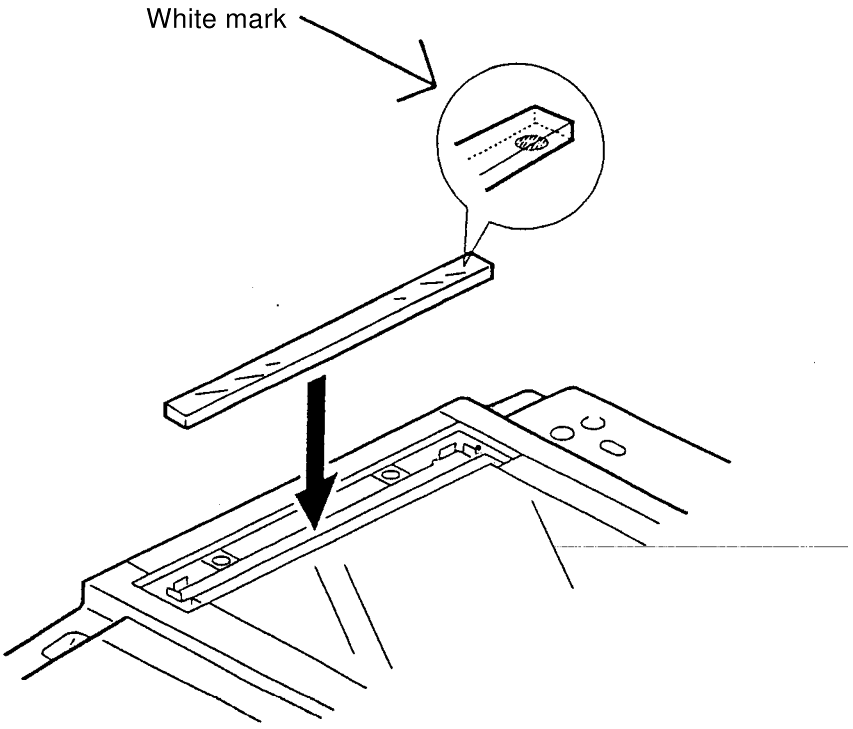


Fig. 3

RICOH **T**echnical **B**ulletin

Model: AD1	Date: 28-Feb-97	No: 020	1/2
Subject: No drive in the Transport section		Prepared by: K. Ugaeri	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii	

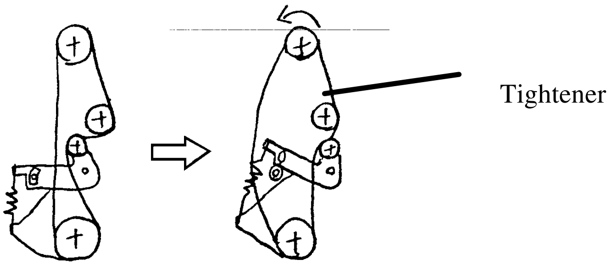
Classification:
☒ Troubleshooting ☒ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☐ Other ( )

SYMPTOM

The Timing Belt of the transport section is not driven.

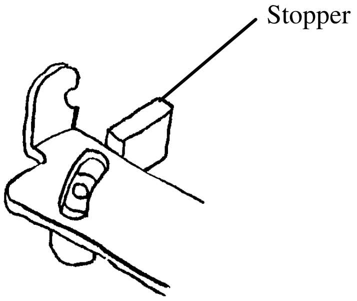
CAUSE

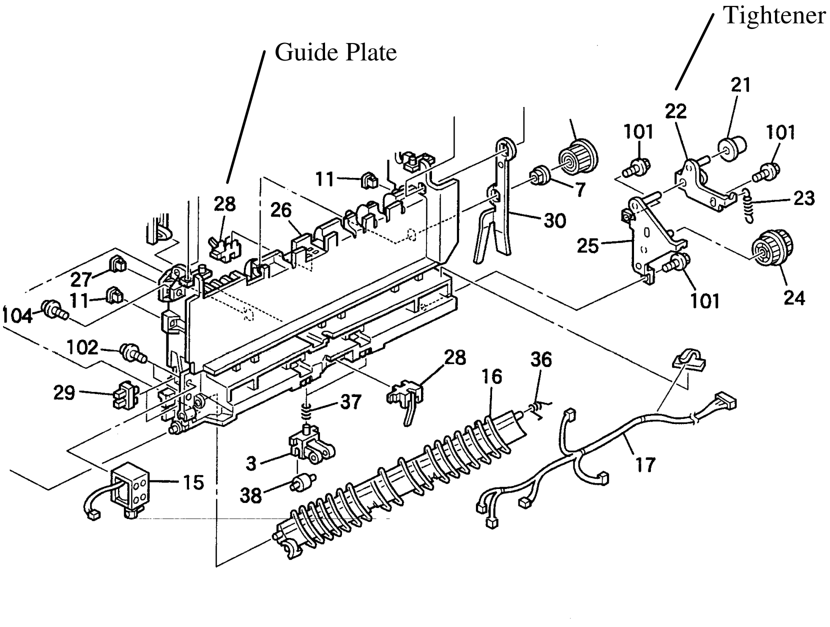
When the operator removes jammed paper from the exit of the transport section, the tightener (G0204333) will go over the boss on the guide plate (G0204409).



SOLUTION

A stopper has been added on the guide plate.





MODEL NAME	V/ Hz	Option for	JAPAN PRODUCTION	
			CODE	SERIAL NUMBER
nashuatec D420	115/60	U. S. A	A193 - 10	A107010001~
SAVIN 9920DP	115/60	U. S. A., CANADA	A193 - 15	6A76120001~
Aficio 200	115/60	U. S. A., CANADA	A193 - 17	A7226110001~
Aficio 200	115/60	TAIWAN	A193 - 19	(A722702~)
Gestetner 3220	220/50	EUROPE	A193 - 22	AH26120001~
Infotec 4201	220/50	EUROPE	A193 - 26	3L01260001~
Aficio 200	220/50	EUROPE	A193 - 27	A7226110598~
Aficio 200	220/50	EUROPE	A193 - 29	A7226122087~
Lanier 5020MFD	115/60	U. S. A.	A193 - 55	L5026120516~
Lanier 5020MFD	220/50	EUROPE	A193 - 65	L5026120780~

RICOH **T**echnical **B**ulletin

Model: AD1	Date: 28-Feb-97	No: 021	1/1
Subject: Toner Scattering in Duplex mode		Prepared by: K. Ugaeri	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii	

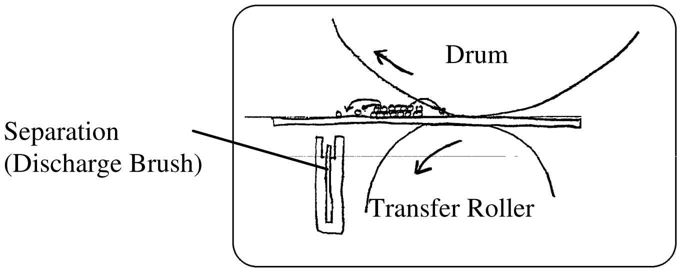
Classification:
☒ Troubleshooting ☒ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☐ Other ( )

SYMPTOM

Toner scattering around the halftone image on the rear page in duplex mode.

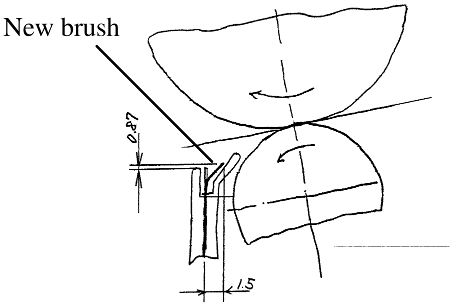
CAUSE

After transferring the image from the drum, there is an electric potential gap between the white and the black areas. The toner scattering occurs before the discharging by the discharge brush.



SOLUTION

The shape of the discharge brush has been changed. The top of the new brush is closer to the transfer roller.



Old part number	New part number	Description	Page	Index
G020 3870	A193 3870	Discharge Brush	35	28

* The new part is available from December 1996 production.

RICOH **T**echnical **B**ulletin

Model: AD1 (DF43)	Date: 28-Feb-97	No: 022	1/1
Subject: Front Guide Plate and Rear Guide Plate		Prepared by: Horiike	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii	

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☒ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

SYMPTOM

The left cover cannot be closed.

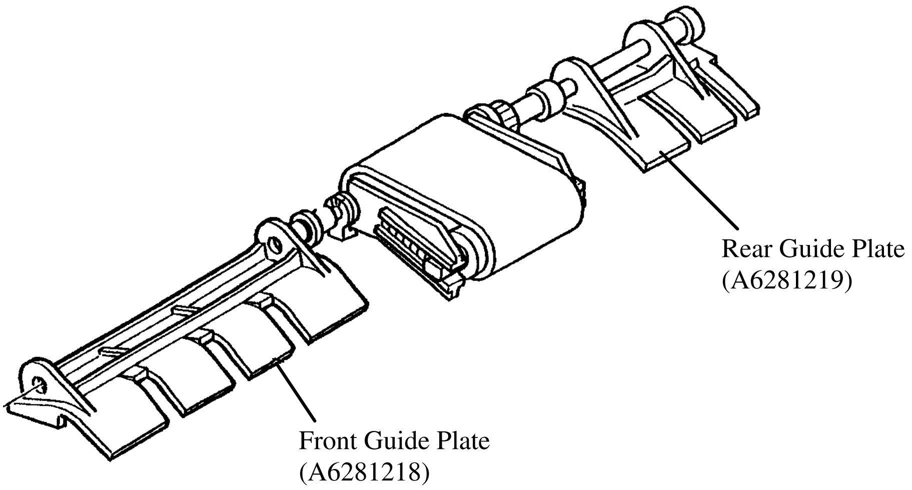
CAUSE

The Front or Rear Guide Plate was accidentally turned to the left when the operator removed a jammed original, because these plates are difficult to see.

SOLUTION

The color of the Front and Rear Guide Plates has been changed from black to a clear color.

	Current	New
Front Guide Plate	A628 1218B	A628 1218C
Rear Guide Plate	A628 1219B	A628 1219C



R I C O H **Technical Bulletin**

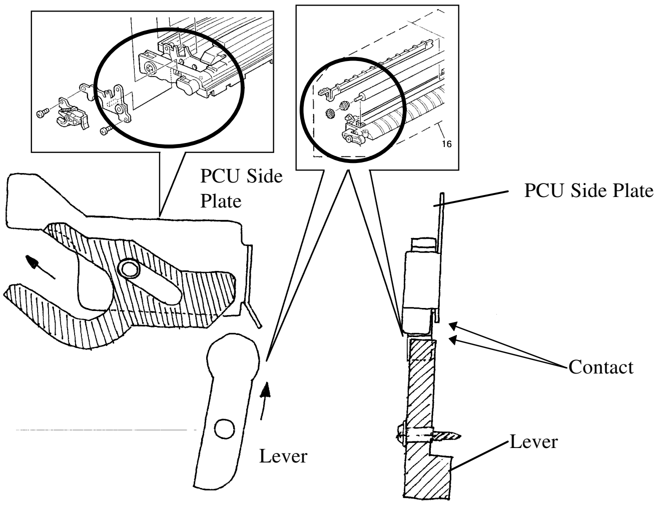
Model: AD1	Date: 28-Feb-97	No: 023	1/2
Subject: Lever in the transfer unit		Prepared by: K. Ugaeri	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii	
Classification:	☒ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☒ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☐ Retrofit information

SYMPTOM

The transfer unit cannot be installed.

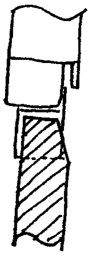
CAUSE

When the PCU is not installed completely, the side plate is shifted to the front and the lever of the transfer unit may come in contact with the side plate.



SOLUTION

The corner of the lever has been cut to prevent the lever from coming in contact with the side plate of the PCU.



MODEL NAME	V/ Hz	Option for	JAPAN PRODUCTION	
			CODE	SERIAL NUMBER
nashuatec D420	115/60	U. S. A	A193 - 10	A107010001~
SAVIN 9920DP	115/60	U. S. A., CANADA	A193 - 15	6A76120001~
Aficio 200	115/60	U. S. A., CANADA	A193 - 17	A7226110047~
Aficio 200	115/60	TAIWAN	A193 - 19	(A722702 ~)
Gestetner 3220	220/50	EUROPE	A193 - 22	AH26120001~
Infotec 4201	220/50	EUROPE	A193 - 26	3L01260001~
Aficio 200	220/50	EUROPE	A193 - 27	A7226120787~
Aficio 200	220/50	EUROPE	A193 - 29	A7226122087~
Lanier 5020MFD	115/60	U. S. A.	A193 - 55	L5026120516~
Lanier 5020MFD	220/50	EUROPE	A193 - 65	L5026120780~

RICOH **Technical Bulletin**

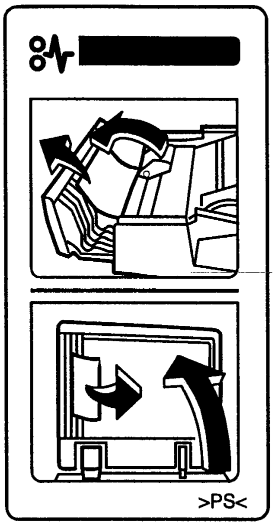
Model: AD1 (DF43)	Date: 28-Feb-97	No: 024	1/1
Subject: Original Jam Decal		Prepared by: Horiike	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii	

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

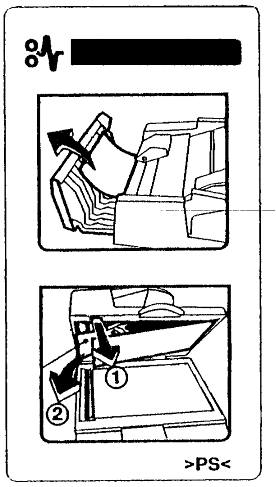
To make the removal procedure for a jammed original easier to understand, the drawing on the decal has been changed

[Jam Removal Decal] A628 6031B ⟶ A6286031C

OLD



NEW



Model: AD1		Date: 19-Mar-97	No: 25
Subject: Paper Jam (LG size with the finisher)		Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		Checked by: S. Fujii	
Classification:	☐ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☒ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☐ Retrofit information

SYMPTOM

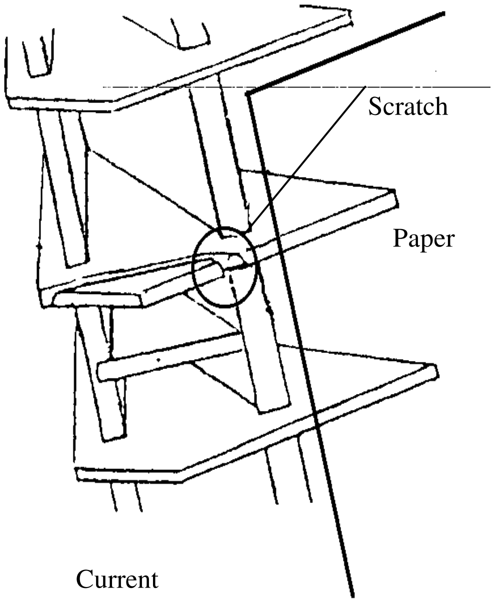
Legal size paper jam with the finisher.

CAUSE

When Legal size paper is fed out to the finisher, the edge of the paper scratches against a rib on the Junction and the paper jams.

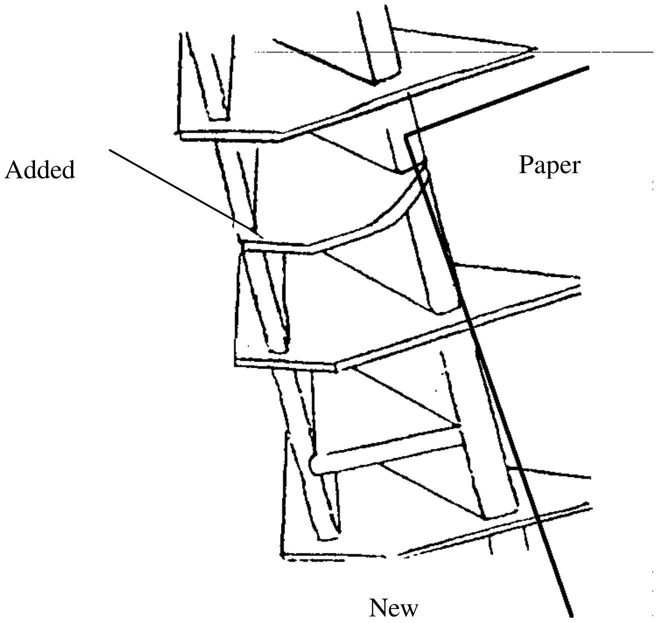
SOLUTION

A rib has been added to the Junction Gate inside the Legal paper width.



Current

G0204424B



New

G0204424C

Model: AD1	Date: 19-Mar-97	No: 25

MODEL NAME	V/ Hz	Option for	JAPAN PRODUCTION	
			CODE	SERIAL NUMBER
nashuatec D420	115/60	U. S. A	A193 - 10	A106110001
SAVIN 9920DP	115/60	U. S. A., CANADA	A193 - 15	6A76120001~
Aficio 200	115/60	U. S. A., CANADA	A193 - 17	A7226110285~
Aficio 200	115/60	TAIWAN	A193 - 19	(A722701~)
Gestetner 3220	220/50	EUROPE	A193 - 22	AH26120001~
Infotec 4201	220/50	EUROPE	A193 - 26	3L01260001~
Aficio 200	220/50	EUROPE	A193 - 27	A7226120787
Aficio 200	220/50	EUROPE	A193 - 29	A7226122087~
Lanier 5020MFD	115/60	U. S. A.	A193 - 55	L5026120516~
Lanier 5020MFD	220/50	EUROPE	A193 - 65	L5026120780~

R I C O H **T**echnical **B**ulletin **PAGE: 1/1**

RTB Correction

Reissue date: **15- Jun -97**

The items in bold italic have been corrected and the illustrations have changed as shown below.

Model: AD-1		Date: 19-Mar-97	No: 26A
Subject: Paper jam		Prepared by: M.Horiike	
From: QAC 2nd Field Information Dept.			
Classification:	☐ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☒ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☐ Retrofit information

SYMPTOM

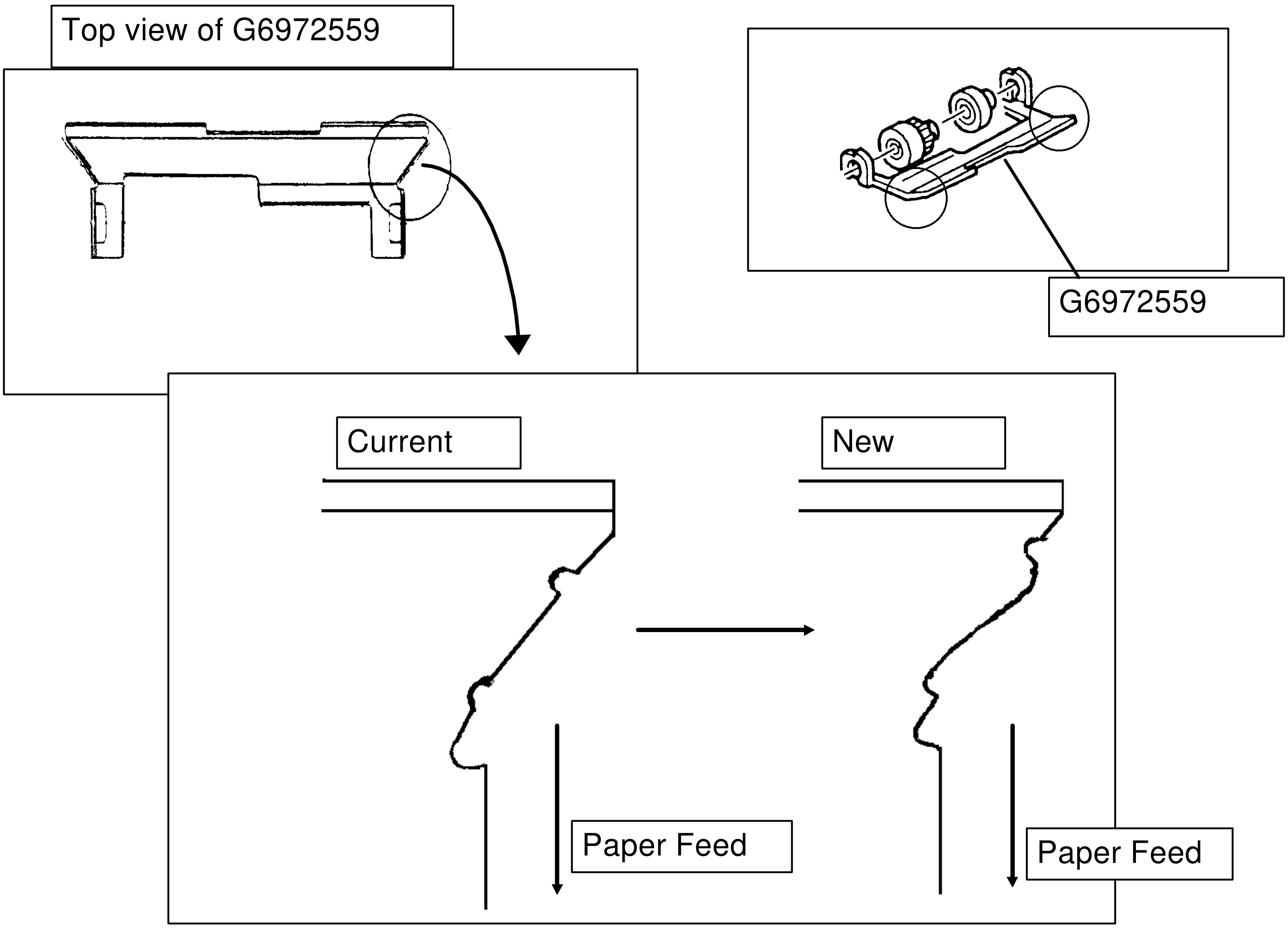
Paper jam from the ***paper tray unit (PS 330).***

CAUSE

The paper contacted the uneven edge of the upper guide paper feed.

SOLUTION

The shape of the upper guide - paper feed has been changed from January Production '97.



RICOH

Technical Bulletin

PAGE:1/1

Model: AD-1	Date: 19-Mar-97	No: 27
Subject: Wrong detection by the paper size detector	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.	Checked by: S. Fujii	

Classification:			
	☐ Troubleshooting	☒ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

SYMPTOM

Wrong detection by the paper size detector.

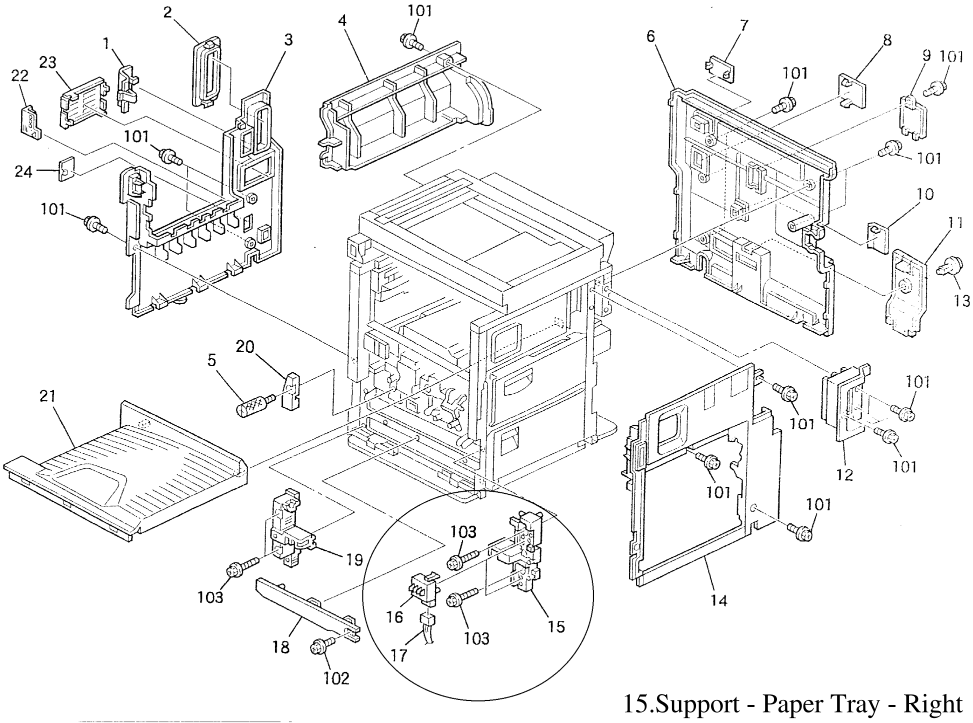
CAUSE

When the paper tray cover was bent, the pins on the paper size detector could not reach the paper size detector switch.

SOLUTION

The position of the switch has been shifted to the front by changing the shape of the Support - Paper Tray (G0202676) from January ’97 production.

2.Exterior2(A193)



15.Support - Paper Tray - Right
16.Paper Size Detector

R I C O H **T**echnical **B**ulletin **PAGE: 1/2**

RTB Correction

Reissue date: **15-May-97**

The items in bold italic have been corrected or added.

Model: AD1	Date: 19-Mar-97	No: 28
Subject: Dog - ear or Contact noise	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:
☒ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

SYMPTOM

①Dog - ear.

②Contact noise.

CAUSE

①The burrs of the corner separator

②Noise caused when the corner separator and paper tray come in contact.

SOLUTION

①The burrs of the corner separator have been removed with the addition of the press process.

②A sponge sheet has been added on the corner separator.

(Current)		(New)	
G0202561	→	***G0202573A***	***(Front Paper Separator)***
G0202568	→	***G0202558A***	***(Rear Paper Separator)***

MODEL NAME	V/ Hz	Option for	JAPAN PRODUCTION	
			CODE	SERIAL NUMBER
nashuatec D420	115/60	U. S. A	A193 - 10	_
SAVIN 9920DP	115/60	U. S. A., CANADA	A193 - 15	6A76120001
Aficio 200	115/60	U. S. A., CANADA	A193 - 17	A7226120149
Aficio 200	115/60	TAIWAN	A193 - 19	(A722704~)
Gestetner 3220	220/50	EUROPE	A193 - 22	AH27020901
Infotec 4201	220/50	EUROPE	A193 - 26	3L00370001
Aficio 200	220/50	EUROPE	A193 - 27	A7227020749
Aficio 200	220/50	EUROPE	A193 - 29	A7227021345
Lanier 5020MFD	115/60	U. S. A.	A193 - 55	L5026120572
Lanier 5020MFD	220/50	EUROPE	A193 - 65	L502021685

RICOH

Technical Bulletin

Model: AD1 (SR210)	Date: 16-Apr-97	No: 29
Subject: MAIN CONTROL BOARD DAMAGE	Prepared by: M.Horiike	
From: QAC 2nd Field Information Dept.	Checked by: M.Iwasa	

Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other (　　)		

SYMPTOM

Arcing occurs and a surge current flows into the main control board (P/N A666-5550) of the AD-1 Finisher when the power cord is plugged into the power source of the main frame (copier) while power is applied. This may result in possible damage to IC116 and /or IC110 on the main control board.

CAUSE

The main control board has a zener diode in its 5-volt circuit which works to maintain the voltage (5V) of the circuit by passing the surge current to the ground. However, some diodes do not work effectively when a large current rushes in, and they allow voltage to rise over the tolerant voltage level for IC116 and IC110.

SOLUTION

Another type of zener diode has been added to the main control board of the Finisher in parallel with the existing one to keep the voltage of the 5-volt line by quickly by-passing the surge current to ground. A modification bulletin will be issued later.

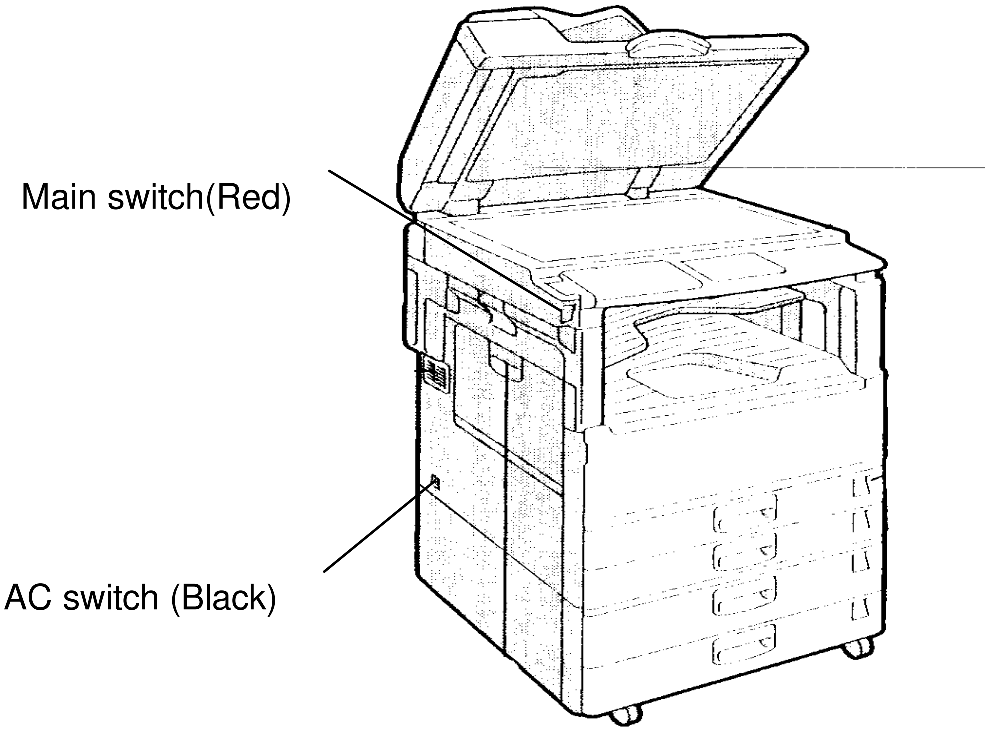
ACTION REQUIRED

The appropriate installation procedure for the Finisher is clearly described in the service manual and is as follows.

> CAUTION
>
> Unplug the copier power cord and turn off the main switch before starting the following procedure

If the Finisher is installed in accordance with the proper procedure, no problems will occur.
Please make sure that both the main switch (Red) and the AC switch (Black) are turned OFF or the copier power cord is unplugged before installing the Finisher.

Model: AD1 (SR210)	Date: 16-Apr-97	No: 29



Note

If only the main switch (Red) is turned off, power is still applied to the Finisher. The AC switch (Black) should also be turned off to shut down the power to the Finisher.

RICOH

Technical Bulletin

Model: AD1	Date: 30-Apr-97	No: 30
Subject: Bracket for the handset option	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.	Checked by: S. Fujii	

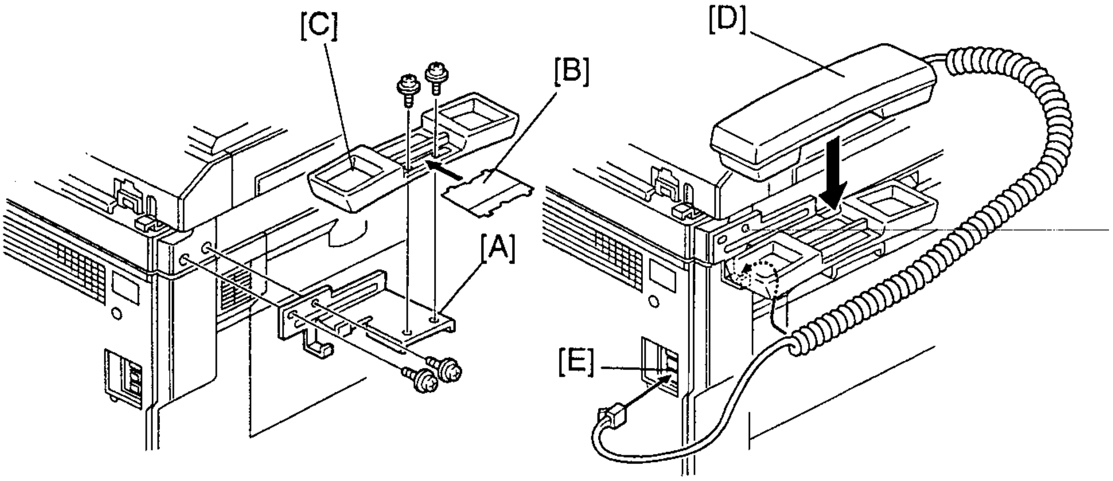
Classification:	☐ Troubleshooting	☒ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

In some countries, the optional handset is available for the Aficio 200.
To install the optional handset, use the bracket which is included in the Fax Unit Option, Type 250. Also, correct the installation procedure in the Service Manual on page 3-12 as follows.

4.HANDSET

4.INSTALLATION PROCEDURE

NOTE: The optional handset may not be available in some countries.



1.Install the bracket [A] (2 screws), as shown.

∗ The bracket [A] in the carton box of the Fax Unit Option Type 250 must be used.

2. Remove the label [B] from the handset cradle [C]. Install the cradle on the bracket [A] (2 screws), then replace the label [B].
3. Install the handset [D] as shown. Connect the handset cord to the “ TEL “ jack [E] on the machine.

RTB Correction

Reissue date: **15-Jun- 97**

Illustrations have been added as shown below.

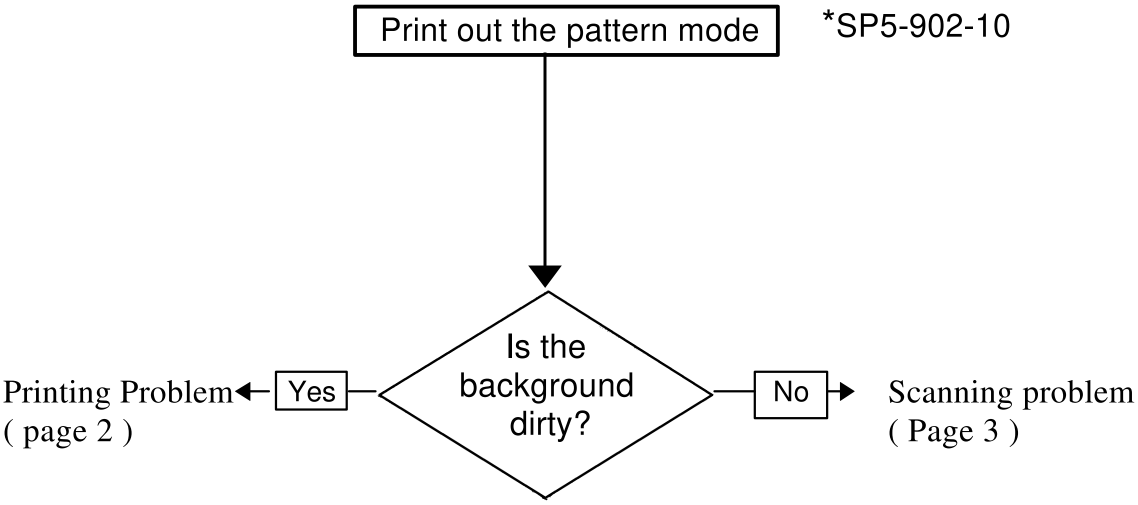
Model: AD1		Date: 30-Apr-97	No: ***031B***
Subject: Copy Quality(Dirty Background)		Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.			
Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

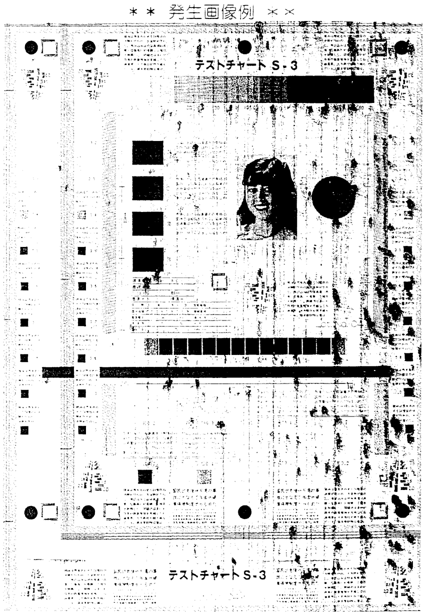
SYMPTOM

Dirty background or the black spots appear on the background of the copy.

Action required

First check whether the problem is related to printing or scanning. Then follow the steps listed below.





Printing Problem

Dirty Background by the Printer

Level?

Very bad

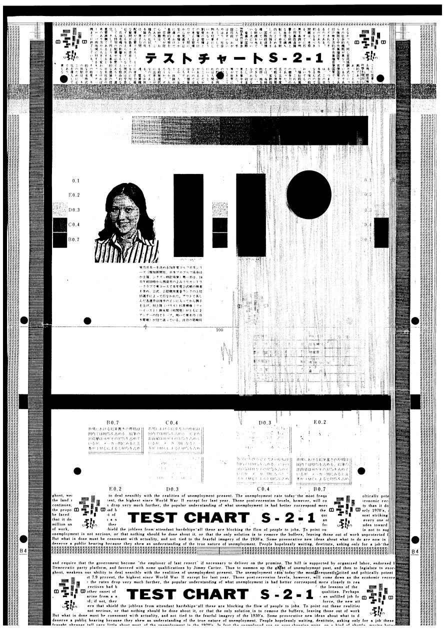
Is there any equipment that produces ammonia gas?

YES

Change the machine location. See RTB16.

NO

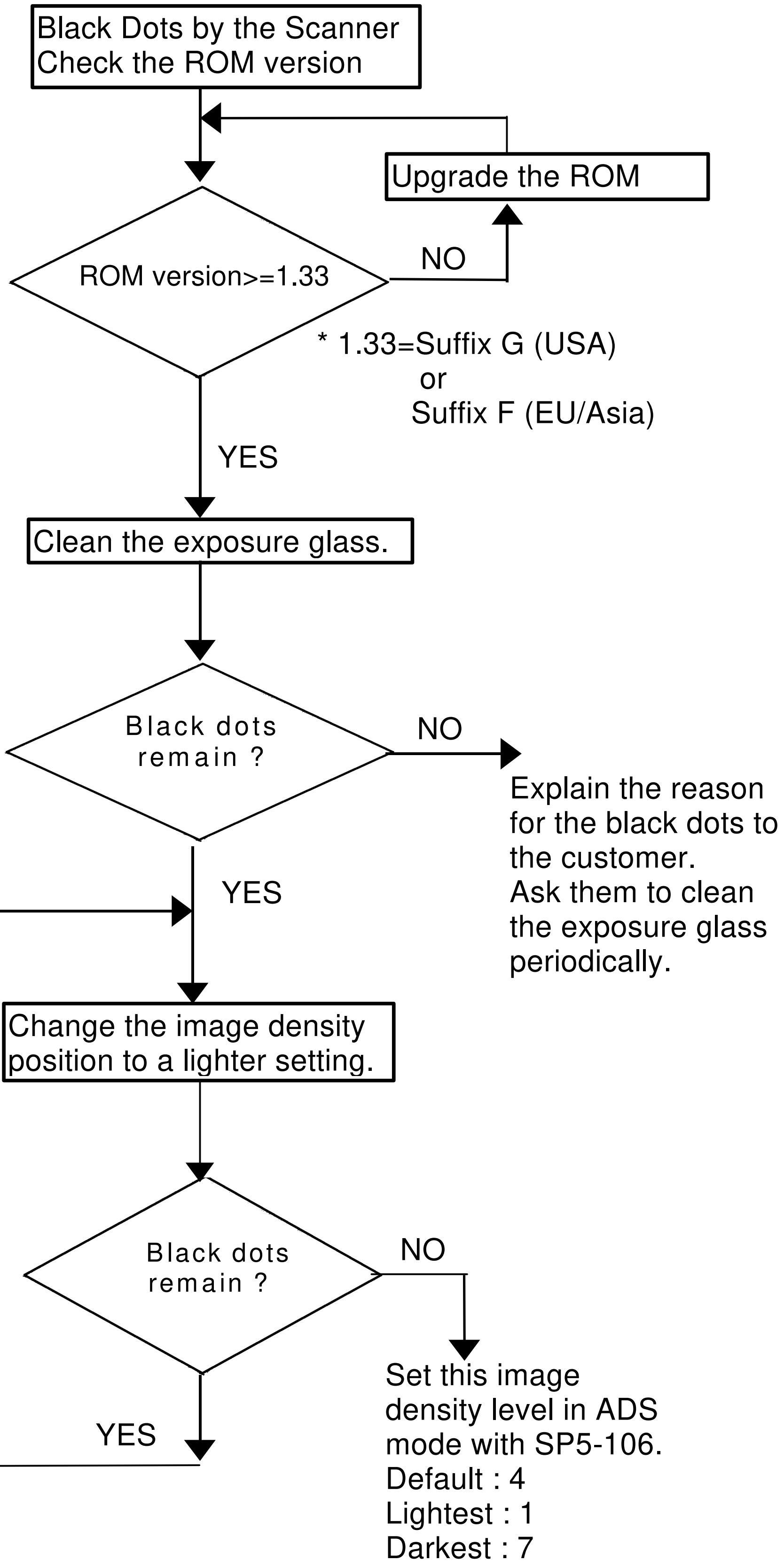
Bad (Overtoning)



Upgrade the ROM version to 1.35 or later.
* 1.35= Suffix H (USA)
Suffix G (EU/ASIA)

(1) Change SP2-999 from 0 to 1 (Manual).
(2) Change SP2-996 from 140 to 255.
(3) Make 10 A4-size sky shot copies.
- if the background is still dirty, make more sky shots.
(4) Make a free run for3 min.
(5) Initialize the developer again using SP2-801.
(6) Read Vcont at installation with SP2-997-1.
(7) Put the above data from step (6) into SP2-996-1.
~~(8) Set SP2-999 from 1 to 2~~.

Scanning problem


Black Dots by the Scanner
Check the ROM version
Upgrade the ROM
ROM version>=1.33
NO
* 1.33=Suffix G (USA) or Suffix F (EU/Asia)
YES
Clean the exposure glass.
Black dots remain ?
NO
Explain the reason for the black dots to the customer. Ask them to clean the exposure glass periodically.
YES
Change the image density position to a lighter setting.
Black dots remain ?
NO
Set this image density level in ADS mode with SP5-106.
Default : 4
Lightest : 1
Darkest : 7
YES

R I C O H **Technical Bulletin** **PAGE:1/1**

Model: AD1	Date: 30-Apr-97	No: 32
Subject: Service Manual Correction (Key Counter)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.	Checked by: S. Fujii	

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☒ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☐ Other ( )

1. To improve the installation procedure for the key counter holder, the following step should be added after step 11.

   12. Change the value of SP5-113 to “1” .

2. The following SP mode should be corrected.

Incorrect

Class 1 and 2	Class 3		Function	Settings
5-113		Option Counter Type	***Japanese version only*** **Do not change the value**	

Correct

Class 1 and 2	Class 3		Function	Settings
5-113		Option Counter Type	Selects the optional counter type.	**0: No** 1: Key Counter 2: Key Card 3: Coin Lock 1 4: Coin Lock 2
			After installing the optional key counter, this value should be set to “1”. ***Settings from 2 to 4 are used in the Japanese version only.***	

RICOH Technical Bulletin

RTB Correction

Reissue date: **15-May -97**

The items in bold italics have been corrected or added.

Model: AD1	Date: 15-Jan-97	No: ***15B***
Subject: ROM History (AD1 Copy Version)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:
- ☐ Troubleshooting
- ☐ Mechanical
- ☐ Paper path
- ☐ Other ( )
- ☐ Part information
- ☐ Electrical
- ☐ Transmit/receive
- ☐ Action required
- ☐ Service manual revision
- ☒ Retrofit information

We hereby inform you of the firmware history for the AD1.
For USA Models

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January ***Prod.'97***
J	———	1.36	———	———	———	January ***Prod.'97***
K	10	1.38	A7FE	FB14	ACEA	February ***Prod.'97***
L	11	1.43	BA4B	536A	66EI	March Prod.'97

For European/Asian Models

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January ***Prod.'97***
H	———	1.36	———	———	———	January ***Prod.'97***
J	110	1.38	ACCC	2927	8353	February ***Prod.'97***
K	111	1.43	F537	6510	9027	March Prod.'97

∗Versions 1.35 and 1.36 are not released via Files.

For European 2nd Language Models

A6485510(OH)
A6485511(OL)
	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production

E	***205***	***1.43EU2***	***4BC4***	***DE26H***	***6D9E***	***March Prod.'97***

Symptom Corrected	USA	EU/ Asia
When the RAM was cleared with SP5-801, the white level and the standard white plate density at the factory were erased.	L	K
Toner scattering around black areas of the image on the rear side of duplex copies. The default of the separation output voltage was changed. (SP2-901-1→ -1800 SP2-901-2→ -1800 SP2-901-3→- 2500 SP2-901-4→- 2500)	K	J
A blank sheet is printed out when the start key is pressed if the memory is full. The scanning restarts after printing the scanned image and then the first original jams.	J	H
Dirty Background. 1) Toner Density (SP2-911) was changed from 2 to 3 (Lighter) 2) Free run time at PCU Installation was changed from 1 min. to 3 min.	H	G
Black Spots in the scanned image - A scanned low contrast image can be adjusted using 7 settings. Each setting has different gamma correction characteristics, MTF filter and threshold level (new SP mode: SP4-998,999)	G	F
Dirty background on white images aftemegative\positive reversal.	G	F
SC321 appears when the door is opened during memory copying if the start key is pressed after closing the door.	G	F
The development bias setting (SP2-201) is initialized when the main switch is turned off.	G	F
SC921-Memory Access Error After a paper jam while opening the door during memory output.	F	E
SC101 appears when turning the main switch off/on after the IPU test pattern in SP mode.	F	E
SP5-803: New PCU Detect is added to the input checks.	F	E
Memory copy priority of SP5-945 is added to Salesman Program Mode.	F	E
SP-mode cannot be cleared when the main switch is turned off/on after going to the interrupt copy mode from SP mode.	F	E
The finisher is supported.	F	E
While feeding out an original from the ADF, the Start key can be pressed. Then the incorrect document size is detected.	E	D
The ARDF is supported.	E	D

RTB Correction

Reissue date: **15-May-97**

The items in bold italic have been corrected or added.

Model: AD1	Date: 15-Dec-96	No: ***14A***
Subject: ROM History (AD1-FAX option)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:

☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☒ Retrofit information

We inform you of the firmware history for the AD1-Fax option.

For USA Models

A1945581	File No. (A194uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
C	03	1.23	DD95	CB2A	27F0	BD19	72A5	1st Mass Prod.
D	04	1.29	E6D7	83C2	E9BD	47BC	7F1A	November Prod.'96
E	05	1.38	EAAE	A99A	5C74	919A	5A3A	December Prod.'96
F	***06***	***1.48***	***5029***	***5D2A***	***E457***	***1FF3***	***4ED2***	***March Prod.'97***
G	***07***	***1.58***	***2AEF***	***27EO***	***FD88***	***286A***	***E367***	***May Prod.'97***

For European/Asian Models

A1945582	File No. (A194exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	02	1.23	3A44	0A20	FC8A	691F	FEBA	1st Mass Prod.
C	03	1.29	3270	D0F9	39CD	F1E6	19A3	November Prod.'96
D	04	1.38	3745	FA2F	B98C	C966	E8B9	December Prod.'96
E	***05***	***1.48***	***3745***	***FA2F***	***B98C***	***C966***	***E8B9***	***March Prod.'97***
F	***06***	***1.58***	***8D00***	***FFBE***	***C502***	***1BB4***	***55FE***	***May Prod.'97***

For European 2nd Language Models

A1945585	File No.	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	***01***	***1.38***	***F398***	***E170***	***B392***	***56E5***	***EB06***	***December Prod.'97***
B	***02***	***1.48***	***E08A***	***B674***	***46C1***	***DDFC***	***29C9***	***March Prod.'97***
C	***03***	***1.58***	***5494***	***87A5***	***28B5***	***B595***	***F1DF***	***May Prod.'97***

Symptom corrected	US	EU/ ASIA	EU 2
The Two-in-one Function from HLT to LT size paper is not working.	***G***	***F***	***C***
New System Switch ***When closed network is enabled and the ID is not programmed, all reception is disabled (this is a specification). A System Switch has been added to modify this.*** ***Switch 1E Bit 4. When closed network is turned on and the ID is not set:*** ***(0: Closed network is not available.*** ***1: Only transmission is available.***	***G***	***F***	***C***
New System Switch ***The display of the remote terminal ID at Alredial:*** ***Switch 1E Bit 5*** ***(0: RTI/CSI is displayed.*** ***1: The input Fax Number is displayed.***	***G***	***F***	***C***
LCT and duplex tray are supported.	***G***	***F***	***C***
New HDD is supported.	***G***	***F***	***C***
NEST card option is supported.	***G***	***F***	***C***
In the G3or G4 receiving mode, when the memory is full at the first block of any page, a part of the previous page is missing.	***F***	***E***	***B***
Receiving error in G4 mode ***(When it is waiting for RSSP (or RSSN) after sending CONN,*** ***the machine displays "communication error" if DISC comes.)***	***F***	***E***	***B***
The periodical auto service call function does not work.	***F***	***E***	***B***
For Canada only ***The number of redials in Canada is changed to meet the CS-03 standard.*** ***System switch OF*** ***The setting for Canada (10h) is added. If the above switch is set to 10h, the number of redials (Communication switch 10) is set to 02h.***		***E***	***B***

Symptom corrected	US	EU/ ASIA	EU2
For the Netherlands only ***Marketing Requirements*** ***1. Dialing method Default setting: PD DTMF (User switch 1A/bit 0.1 0.1)*** ***2. Default setting of Transmision mode: Memory Transmission Immediate Transmision (User switch 00/bit 6 1)*** ***3. International Access code : 00 FF***		***E***	***B***
For Austria only ***Marketing Reguirements*** ***1. Dialing method Default setting: PD DTMF (User switch 1A/bit 0.1 0.1)*** ***2. Default setting of Transmission mode : Memory Transmission Immediate Transmission (User switch 00 bit 6 1)*** ***3. Number of redials : 5 10 (Communication switch 10/bit 0-4)*** ***4. Redial interval in Memory Transmission : 5min. 1min. (Communication switch 12/bit 0-7)***		***E***	***B***
For New Zealand only ***The ringing detection time is changed.*** ***NCU parameters 07 & 0.8 : 010 015***		***E***	***B***
For Australia only ***Tx time of 2100Hz is changed from 2.7s to 3.5s.***		***E***	***B***
When the handset is picked up during ringing signal detection, the reception is disconnected but the reception job occasionally remains in the machine. In this case, the display does not go to "Handset Mode" even if the handset is picked up, or "line is busy" is displayed when directtx is made from the ADF.	E	D	A
In manual tx mode with the handset, the operator presses the Start key and hangs up the handset at the same time. Then the transmission job remains in the machine. In this case, transmission and reception are both not available or "Handset mode" is always displayed. This problem can be solved by picking up the handset again.	E	D	A
The chain dial function cannot be used in on-hook or handset mode.	E	D	A
When the machine stores a letter-size original using image rotation, the compression does not succeed, then the job is reset if the original is a complicated image scanned in photo mode.	E	——	——

Model: AD1-E (Printer Controller)	Date: 30-Jun-97	No: 33
Subject: AD1-E Printer Controller Launching	Prepared by: A.Nakajima	
From: QAC 2nd Field Information Dept.		

Classification:

☐ Troubleshooting
☐ Mechanical
☐ Paper path
☒ Other (Launching Information)
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

The new Printer Controller is going to be issued as an optional device for the AD1-E copier.
This RTB clarifies the differences between the printer controller for AD1 and AD1-E.

The new printer controller has been developed as an optional device for AD1-E by changing the video clock and the firmware of the AD1 controller. In addition to the AD1 printer controller, the AD1-E controller supports paper feeding from the LCT. Supported paper sizes fed from the LCT in printer mode are 8 1/2” x 11” (L) and A4 (L).
The controllers for AD1 and AD1-E are not interchangeable, though both of them can be physically installed on either copier. If the AD1 controller is installed in the AD1-E (or the opposite way round), abnormally enlarged (or reduced) print images may result.
The service procedures; e.g. installation, troubleshooting, are the same as for the AD1 controller.

The other optional devices and software related to the printer controller (Printer Hard Disk, Network Interface Card, Printer Drivers, and Utilities) can be used in both machines.

Summary of Differences

Item	AD1 Controller	AD1-E Controller
Model Code	A643	A805
Maximum Print Speed	20 ppm	25 ppm
Firmware	Unique	Unique
Video Clock	62.616 MHz	79.314 MHz
LCT Feeding	Not supported (Note 1)	Supported

Note 1:
The LCT can be selected with the printer driver, though it cannot be installed on the machine. This is because the AD1 and AD1-E printer controllers use the same driver. If a user selects the LCT with the driver, paper will be fed from the default tray.

Model: AD1-Duplex (AD330)	Date: 1-July-97	No: 34
Subject: Paper jam	Prepared by: K.Hattori	
From: QAC 2nd Field Information Dept.		

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☒ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

SYMPTOM

The misfeed location “Z” is displayed and the machine stops.

CAUSE

If the Lower Guide Plate (G6944730) is bent upwards, component ① lifts up component ② of the Inverter Feeler(G6944735).

This moves component ③ of the Inverter Feeler closer to the Photointerrupter (AW020075). Then, the Inverter Feeler may often vibrate after the paper passes.

This may lead to the Inverter Feeler interfering with the signals from the Photointerrupter.

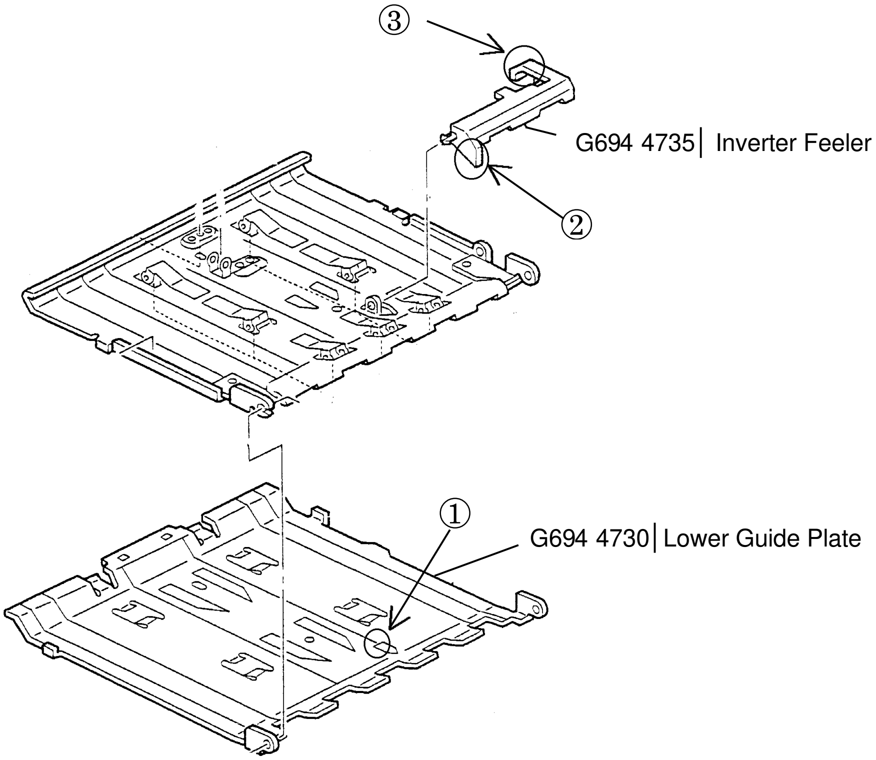


Figure 1

SOLUTION

The Inverter Feeler normally rests on the Upper Guide Plate if it is free. Replace or reshape the Lower Guide Plate if you find a gap between the Inverter Feeler and the Upper Guide Plate, because the uplifted Lower Guide Plate has lifted up the Feeler.

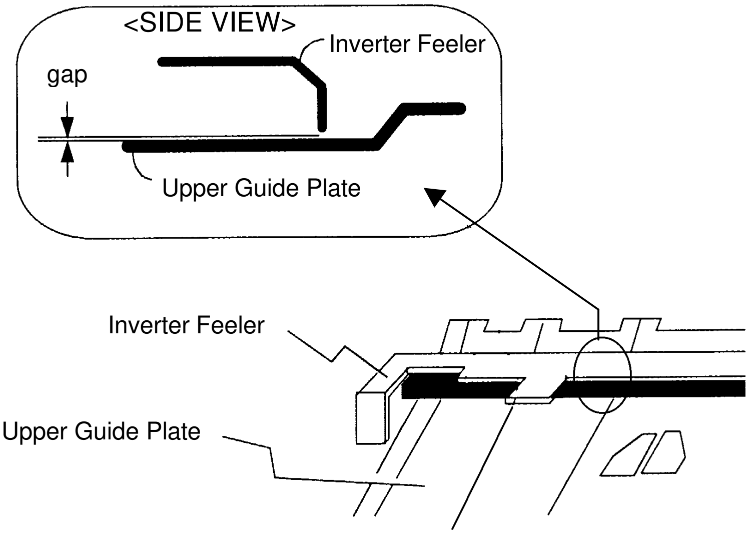


Figure 2

ACTIION REQUIRED

Please replace the Lower Guide Plate as described below.

1.Check the gap between the Inverter Feeler and Upper Guide Plate.

2.Remove the Snap Ring.

3.Remove the Upper Guide Plate.

4.Remove the Lower Guide Plate.

5.Attach the new or <u>reformed Lower Guide Plate</u>. (∗ See the next page.)

6.Attach the Upper Guide Plate.

7.Attach the Snap Ring.

∗ How to modify the Lower Guide Plate.

1. Place the stand on a box-shaped object.
2. Put the center of the Lower Guide Plate face down on the stand.
3. Push both edges gently.
   Caution: If you push there too hard, the Lower Guide Plate will bend the other way.
4. Put a scale on the reshaped Lower Guide Plate.
5. Check the gap between the scale and the plate from a to b. If the gap is almost gone, the plate has been modified correctly.

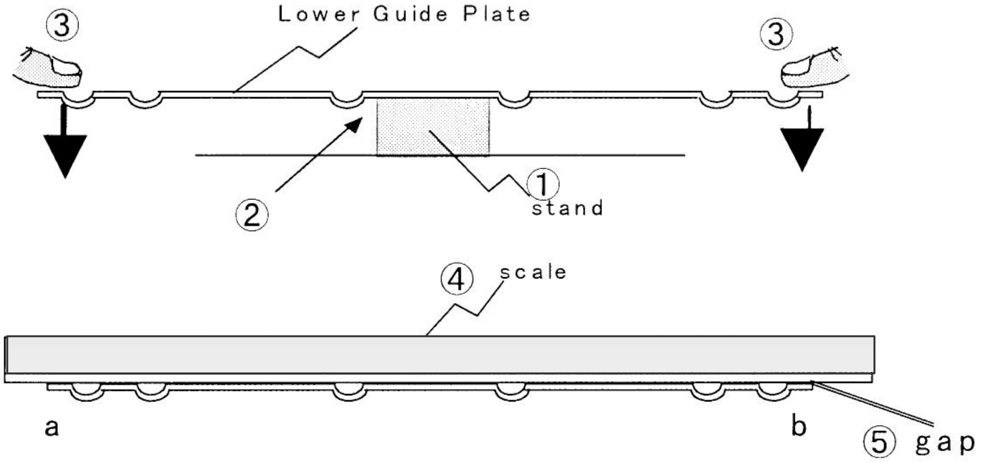


Figure3

RICOH **T**echnical **B**ulletin

MB Correction

Reissue date: **30-Nov-97**

The items in bold italic have been corrected or added.

Model: AD1-Printer Type 250	Date: 23-Jul-97	No: 35B
Subject: Firmware and Software History	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

A. Firmware for Controller Type 250.

1. History and Checksum List.

Ver	Check Sum		Released on
	U23	U24	
1.35	***3301***	***1D08***	***'97.9.30***
1.32	***8FD5***	***3EFD***	***'97.8.26***
1.26	3EC3	64E8	'97.6.10
(1.24)	F38F	AC48	Temporary ('97.5.28)
(1.21)	7A04	AC4F	Temporary ('97.5.20)
1.08	59BA	F0C2	'97.4.2
1.07	901F	6D97	'97.2.2
1.06	5DAD	1E45	'96.12.17
1.03			1st Mass Prod. ('96.12.5)

2.Corrected Symptom

	Ver.
When printing a banner page in a staple job, the banner page is printed incorrectly.	***1.35***
Resource saving on the test page indicate "1219 kbytes allocated of 1219 kbytes available." It should be "0 Kbytes allocated of ..."	
When printing in Raster mode with custom paper size setting, output is incorrect.	
The Line Per Page setting value in the PCL menu was changed after power was switched off/on.	***1.32***
While data is in the print queue, if you press the Job Reset key, some problems may occur.	
While data is in the print queue, either Memory Overflow or Lock Up occured. (Acrobat, Page Maker)	
After printing 300 dpi data, only half of the 600 dpi data is printed out,.	
Image cut off if the previous job was printed using long edge feed (300 dpi) and the current job is printed with short edge feed (300 dpi).	
After printing data for a small paper size, if you print data for a bigger paper size, only data to fill the previous pape size is printed out.	

	Ver.
After printing a job using staple mode, if sending another job which changed the Page Protection Mode from the previous job's setting, sometimes it does not work, and the data stays in the print queue.	***1.32***
When setting User Code, if you send data to print while the LCD shows "Input user code...", it does not work without pressing the offline / online key even if you input the User Code.	
Side-to-side motion of the finisher does not work in the energy save and night timer mode.	1.26
The demo page cannot be printed. (∗This is a problem only for version 1.24)	
Lock Up occurs occasionally while the printing data is being stored on the HDD due to a sector control failure.	
Lock-up when the job reset button is pressed during data storage.	(1.24)
The finisher is supported.	(1.21)
Print overrun because of access time to HDD. The band buffer is increased from 660KB to 4MB. ∗∗ If the controller has a HDD, more than 4MB of SIMM memory must be added.	
General Protection Fault during Landscape Printing in Raster mode.	
Output of a Genoa FTS file is different from that of HP (∗∗Genoa FTS file).	1.08
Page ordering is wrong. (∗∗ For duplex printing, interleave on, and interrupt copying)	
The printer hangs up when printing word data with lines shaded with colors as HP/GL. (∗ Duplex printing, HP/GL mode and colored lines)	1.07
Paper jam in Duplex mode when an A4 size page is printed on A3 paper.	

B. Driver Software for Win 3.1/Win 95

1. History List

Ver	Released on
2.00	***‘97.7.9***
1.30	’97.5.19
1.21	’97.4.2
1.10	’97.2.2
1.00	1st Mass Prod.(’96.12.5)

2. Corrected Symptom

	Ver.
1) Even if setting True Type Mode to “ Down Load as True Type “, it ***is*** output as a bit image. 2) When printing Hound.doc with Win 3.1, a part of the Univers Font was printed incorrectly. 3) When setting B5 Env.in the Bypass Tray, WinPanel shows “Add F4 paper into Bypass Tray.” 4) When installing Win95 driver by Add Printer, the help File was not installed.	2.00
The finisher is supported.	1.30
In Raster mode, a part of the graphic data cannot be printed correctly.	1.21
Power Point for Windows 95 cannot print raster Images.	1.10

C. Host Panel for DOS

1.History List

Ver	Released on
1.02	’97.5.25
1.01	’97.4.2
1.00	1st Mass Prod. (’96.12.5)

2. Corrected Symptom

	Ver.
Profile which has the Host Panel setting information in Duplex mode cannot be opened correctly.	1.02
TBA (To Be Announced)	1.01

R I C O H **Technical Bulletin** **PAGE: 1/1**

MB Correction

Reissue date: **22-Aug-97**

The items in bold italic have been corrected or added.

Model: AD1-Paper Tray Unit (PS330)	Date: 23-Jul-97	No: 36B
Subject: Noise	Prepared by: K.Ugaeri	
From: QAC 1st Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☒ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☐ Other ( )

SYMPTOM

Noise from the bushing of the transport roller (AF02 0377).

CAUSE

The surfaces of some transport rollers were rough.

SOLUTION

Lubricate the bushing if the noise occurs.

*On the production line, they have been selecting the transport roller and lubricating the bushing from ***March production ‘97.***

Caution

Do not use a chemical oil. When this type of oil is used, the same problem will occur again.

Use a machine oil (mineral oil).

RICOH

Technical Bulletin

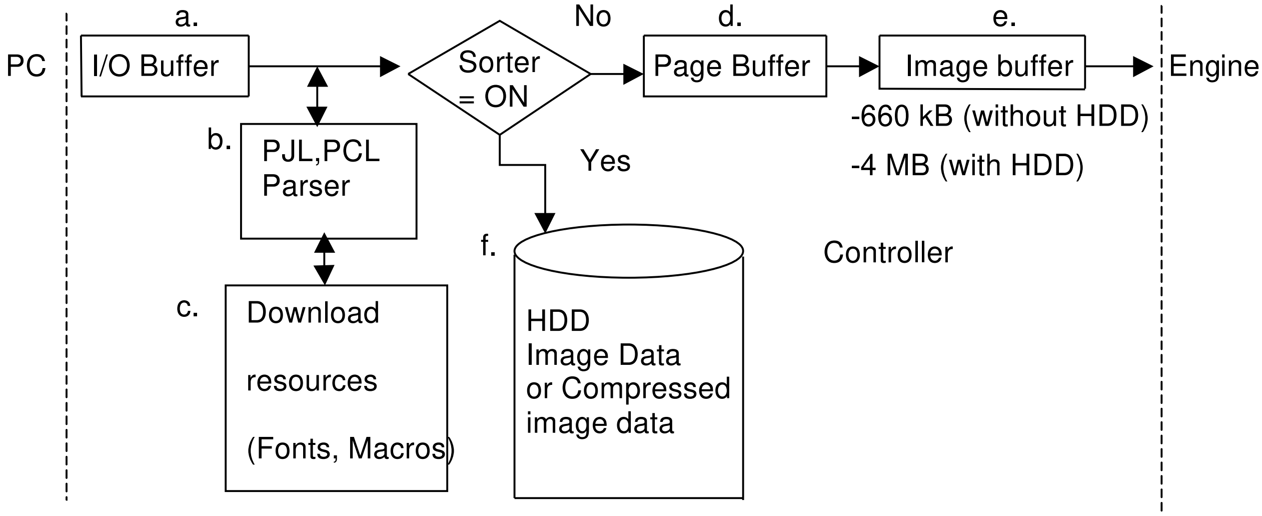
Model: AD1-Printer Controller Type 250	Date: 23-Jul-97	No: 37
Subject: Print Overrun Memory Overflow Problem	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:

☒ Troubleshooting	☐ Part information	☐ Action required
☐ Mechanical	☐ Electrical	☐ Service manual revision
☐ Paper path	☐ Transmit/receive	☐ Retrofit information
☐ Other ( )		

This RTB reports the mechanism & countermeasure for the Print Overrun problem and the Memory Overflow problem in the printer controller type 250.

1. Data flow in the controller unit



a. I/O Buffer for receiving and sending data.

b. Stores the operation language software(such as PCL and PJL).

c. Manages downloaded resources (such as Fonts and Macros).

d. Holds and processes data from incoming print jobs.

e. Image video buffer for sending video data to the engine to print.

f. *When the HDD is installed, it is used only for the sorting function.
If the sorting function is selected, the data is stored in the HDD.
*With HDD, the SIMM memory must be more than 4MB from Ver.1.21 firmware.

2. Memory Overflow Mechanism

This means that there was not enough printer memory for the language requested for the print job.

If the user sends a print job which will use lots of memory, it might cause a memory overflow. Memory overflow might happen at points b, c, and d above. When memory overflow happens and the user presses the continue key, the printer prints only part of the page. This problem can be solved by adding SIMM memory (8 MB or more).

3. Print Overrun Mechanism

This means that the data sent to the printer was too complex. It will happen only while printing the data (preparing image data and sending image data to the engine at the same time). If the print job is so complex that the printer cannot complete the image for the engine, then print overrun will happen.

- Case 1: HDD Access Time -

This happens if the data takes too long to move because of the limit on HDD access time. This problem with the HDD can be solved by updating the firmware to version 1.21 or later and adding SIMM memory (more than 4 MB). The printer will allocate 4 MB for the image buffer (point e in the diagram) if the HDD is installed with firmware version 1.21 or later. After all the pages of one job are stored on the hard disk, the printer will move the image data from the hard disk to the image buffer until the image buffer is used up, and then it will tell the engine to start. Paper sizes smaller than A4 or LT should not have this problem.

- Case 2: HDD Reading Error -

This happens if there is an error when reading from the HDD. Vibrations from the duplex unit may cause this problem. To alleviate the problem, the HDD bracket has been modified with four rubber cushions. When the HDD is installed on the controller, use new brackets to protect the HDD from reading errors caused by vibration. ROJ will provide new brackets for all HDDs which were shipped with old brackets.

- Case 3: HDD sector control failure -

The sector information is controlled by the firmware. But this information is occasionally damaged by a firmware bug and this problem or a hang-up problem happens. This problem has been solved by the firmware version 1.26.

->If the finisher and the HDD are installed on the printer, use the following:

  * Firmware version 1.26
  * Driver version 1.30
  * New HDD bracket

RTB Correction

Reissue date: **22-Aug -97**

The items in bold italics have been corrected or added.

Model: AD1	Date: 15-Jan-97	No: ***15D***
Subject: ROM History (AD1 Copier Version)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other (   )

We hereby inform you of the firmware history for the AD1.

(For the USA Model)

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January Prod.'97
J	———	1.36	———	———	———	January Prod.'97
K	10	1.38	A7FE	FB14	ACEA	February Prod.'97
L	11	1.43	BA4B	536A	66EI	March Prod.'97
M	***11A***	***1.48***	***F9D6***	***3029***	***C9AD***	***May Prod.'97***
N	***12***	***1.54***	***7413***	***3D1A***	***36F9***	***June Prod.'97***

(For the European/Asian Model)

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January Prod.'97
H	———	1.36	———	———	———	January Prod.'97
J	110	1.38	ACCC	2927	8353	February Prod.'97
K	111	1.43	F537	6510	9027	March Prod.'97
L	***111A***	***1.48***	***7218***	***5558***	***1CC0***	***May Prod.'97***
M	***112***	***1.54***	***AAA8***	***7837***	***3271***	***June Prod.'97***

∗Versions 1.35 and 1.36 are not released via files.

(For European 2nd Language)

A6485510(***OL***)
A6485511(***OH***)
	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

E	205	1.43EU2	4BC4	DE26H	6D9E
F	***205A***	***1.48EU2***	***09F5***	***CC25***	***3DD0***
G	***206***	***1.54EU2***	***E768***	***F05C***	***F70C***
H	***208***	***1.57EU2***	***E765***	***F056***	***F70F***

(For European 3rd Language)

A6485514 (OL) ***A6485515(OH)***	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	301	***1.57EU3***	***9DBB***	***C908***	***D4B3***

(For European 4th Language)

A6485516 (OL) ***A6485517(OH)***	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	401	***1.57EU4***	***1DF0***	***CA60***	***5390***

Symptoms Corrected	USA	EU/ Asia	EU2
New SP Mode ***SP-006-4: ARDF Main-Scan Magnification for the rear side.***	***N***	***M***	***G***
Specification ***When the trays do not have the same size of paper in different orientations, the machine continues to print using the sort function even if the Rotate Sort function is selected.(The previous version software stops the copy job when one of the trays is empty.)***	***N***	***M***	***G***
The stapler may not work when the printer feeds out a stapled copy while feeding out paper into the finisher in copy or fax mode.	***N***	***M***	***G***
When 2 sheets of paper remain in the Duplex Unit and the printer prints in duplex mode, the printer image will be printed on the rear side of the remaining paper.	***N***	***M***	***G***
SP5-808: The 3 languages cannot be selected with the previous software version.	—	***M***	***G***
If a duplex copy is made with the ADF, Duplex Unit and 12M Memory and the original is jammed, the jammed original cannot be copied correctly during recovery.	***M***	***L***	***F***
Paper jam when paper is fed from the 3rd tray immediately after feeding the paper from the 4th tray (A jam or Y jam) with the following paper types. ∗ ***3rd Tray has paper less than 288mm length (A4 ▯)*** ***4th Tray has paper 289mm to 401mm length (A4 ▭)***	***M***	***L***	***F***

A1935532	A193-10	A193-15	A193-17	A193-55
E	A10611001~	6A76100001~	A7226100001~	L5026110066~
F	—	6A76120001~	A7226110154~	L5026120516~
G	A107010001~	6A76120026~	A7226120149~	L5027011010~
H	—	6A77020001~	A7227010410~	L5027021541~
J	A107020001~	6A77020241~	—	L5027021563~
K	A107030001~	6A77020438~	A7227020001~	L5027031945~
L	A107040001~	6A77040001~	—	L5027042480~
M	A107050001~	6A77050001~	A7227050001~	L5027053186~
N	A107060036~	6A77060001~	A7227060001~	L5027063876~

A1935533	A193-22	A193-26	A193-27	A193-29	A193-65
D	AH26110001~	3L01160001~	A7226101023~	A7226101492~	L5026110271~
E	AH26120001~	3L01260001~	A7226111703~	A7226122087~	L5026120780~
F	AH27010001~	3L00170001~	A7226121305~	A7227012021~	L5027011216~
G	AH27020001~	3L00270001~	—	—	L5027011424~
H	AH27020951~	—	A7227021026~	A7227021345~	L5027021685~
J	AH27020967~	3L00370001~	A7227030441~	A7227031491~	L5027032180~
K	TBA	3L00470001~	TBA	TBA	TBA
L	AH27040251~	3L00570001~	A7227042629~	A7227052269~	L5027053561~
M	AH27060960~	3L00670001~	A7227060651~	A7227062571~	L5027064111~

RICOH

Technical Bulletin

RTB Correction

Reissue date: **31-Aug -97**

The items in bold italics have been corrected or added.

Model: AD1		Date: 15-Jan-97	No: ***15E***
Subject: ROM History (AD1 Copy Version)		Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.			
Classification:	☐ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☐ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☒ Retrofit information

We hereby inform you of the firmware history for the AD1.

(For the USA Model)

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January Prod.'97
J	———	1.36	———	———	———	January Prod.'97
K	10	1.38	A7FE	FB14	ACEA	February Prod.'97
L	11	1.43	BA4B	536A	66EI	March Prod.'97
M	11A	1.48	F9D6	3029	C9AD	May Prod.'97
N	12	1.54	7413	3D1A	36F9	June Prod.'97
P	***13***	***1.60***	***3042***	***A726***	***891C***	***August Prod.'97***
R	***14***	***1.62***	***5B56***	***CF0D***	***8C49***	***September Prod.'97***

(For the European/Asian Model)

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January Prod.'97
H	———	1.36	———	———	———	January Prod.'97
J	110	1.38	ACCC	2927	8353	February Prod.'97
K	111	1.43	F537	6510	9027	March Prod.'97
L	111A	1.48	7218	5558	1CC0	May Prod.'97
M	112	1.54	AAA8	7837	3271	June Prod.'97
N	***113***	***1.60***	***1FE3***	***AEE1***	***7102***	***August Prod.'97***
P	***114***	***1.62***	***794C***	***90BE***	***E88E***	***September Prod.'97***

∗The versions 1.35 and 1.36 are not released via Files.

(For European 2nd Language)

A6485510(OL)
A6485511(OH)
	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

E	205	1.43EU2	4BC4	DE26H	6D9E
F	205A	1.48EU2	09F5	CC25	3DD0
G	206	1.54EU2	E768	F05C	F70C
H	208	1.57EU2	E765	F056	F70F
J	***209***	***1.60EU2***	***AE02***	***2277***	***8B8B***
K	***210***	***1.62EU2***	***CB8A***	***0ACC***	***C0BE***

(For European 3rd Language)

A6485514 (OL) A6485515(OH)	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	301	1.57EU3	9DBB	C908	D4B3
A	***302***	***1.60EU3***	***390A***	***FD07***	***3C03***
B	***303***	***1.62EU3***	***C69E***	***D5E3***	***F0BB***

(For European 4th Language)

A6485516 (OL) A6485517(OH)	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	401	1.57EU4	1DF0	CA60	5390
A	***402***	***1.60EU4***	***4490***	***FDEF***	***46A1***
B	***403***	***1.62EU4***	***A30C***	***D9E5***	***C927***

(For China)

A6485512 (OL) ***A6485513(OH)***	File No. ***(A193CHxx)***	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	***04***	***1.62CH***	***B020***	***B056***	***FFCA***

(For Taiwan)

A1935534	File No. ***(A193TWxx)***	Version	Total C.SUM	SUM(OH)	SUM(OL)
B	***03***	***1.62TW***	***C05F***	***3BA0***	***94BF***

Symptom Corrected	USA	EU/ Asia	EU2	EU3	EU4	CHN	TWN
For the USA only ***A new SP mode is added.*** ***SP5-950: LG size paper detection in the by pass tray.*** *∗ **When this function is selected and LT▭ size paper is put in the by-pass tray, the machine detects it as LG ▭ size paper.***	***R***	—	—	—	—	—	—
For the USA only ***Compliance with the Energy Star standard.***	***R***	—	—	—	—	—	—
After a fax transmission using the ARDF with the stamper, the registration of the 1st sheet copied using the ARDF is delayed.	***R***	***P***	***K***	***B***	***B***	***E***	***B***
A new SP mode is added. ***SP5-945:1= When one of the trays is empty, the paper end indicator (red LED) lights.***	***P***	***N***	***J***	***A***	***A***	***D***	***A***
The DF Jam display is cleared by lifting the DF up and down	***P***	***N***	***J***	***A***	***A***	***D***	***A***

A1935532	A193-10	A193-15	A193-17	A193-55
E	A10611001~	6A76100001~	A7226100001~	L5026110066~
F	—	6A76120001~	A7226110154~	L5026120516~
G	A107010001~	6A76120026~	A7226120149~	L5027011010~
H	—	6A77020001~	A7227010410~	L5027021541~
J	A107020001~	6A77020241~	—	L5027021563~
K	A107030001~	6A77020438~	A7227020001~	L5027031945~
L	A107040001~	6A77040001~	—	L5027042480~
M	A107050001~	6A77050001~	A7227050001~	L5027053186~
N	A107060036~	6A77060001~	A7227060001~	L5027063876~
P	***TBA***	***TBA***	***TBA***	***TBA***
R	***TBA***	***TBA***	***TBA***	***TBA***

A1935533	***A193-22***	***A193-26***	***A193-27***	***A193-29***	***A193-65***
D	***AH26110001~***	***3L01160001~***	***A7226101023~***	***A7226101492~***	***L5026110271~***
E	***AH26120001~***	***3L01260001~***	***A7226111703~***	***A7226122087~***	***L5026120780~***
F	***AH27010001~***	***3L00170001~***	***A7226121305~***	***A7227012021~***	***L5027011216~***
G	***AH27020001~***	***3L00270001~***	—	—	***L5027011424~***
H	***AH27020951~***	—	***A7227021026~***	***A7227021345~***	***L5027021685~***
J	***AH27020967~***	***3L00370001~***	***A7227030441~***	***A7227031491~***	***L5027032180~***
K	***TBA***	***3L00470001~***	***TBA***	***TBA***	***TBA***
L	***AH27040251~***	***3L00570001~***	***A7227042629~***	***A7227052269~***	***L5027053561~***
M	***AH27060960~***	***3L00670001~***	***A7227060651~***	***A7227062571~***	***L5027064111~***
N	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***
P	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***

RTB Correction

Reissue date: **22-Aug- 97**

Illustrations have been added as shown below.

Model: AD1	Date: 30-Apr-97	No: ***031C***
Subject: Copy Quality (Dirty Background)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

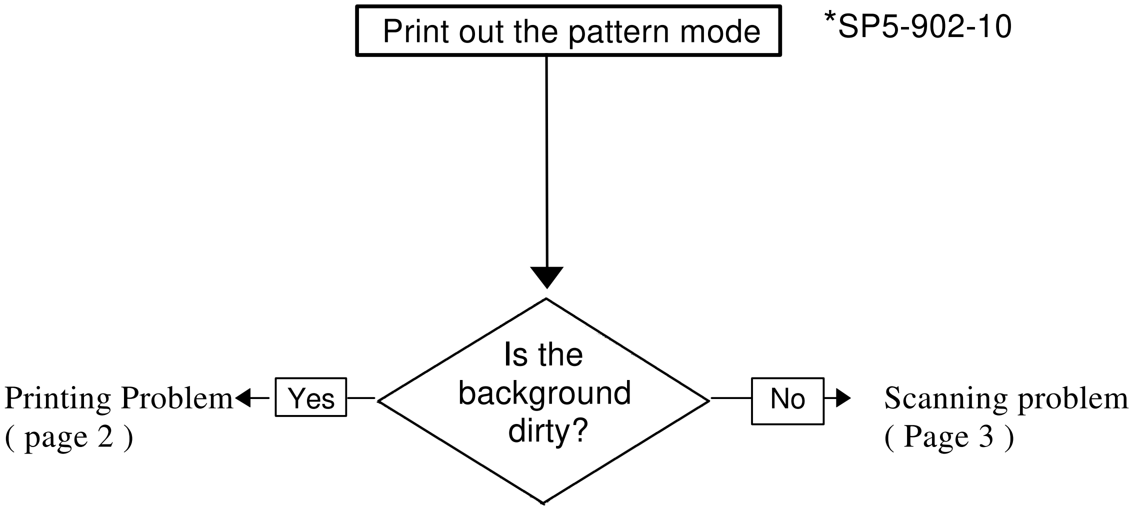
Classification:
☒ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

SYMPTOM

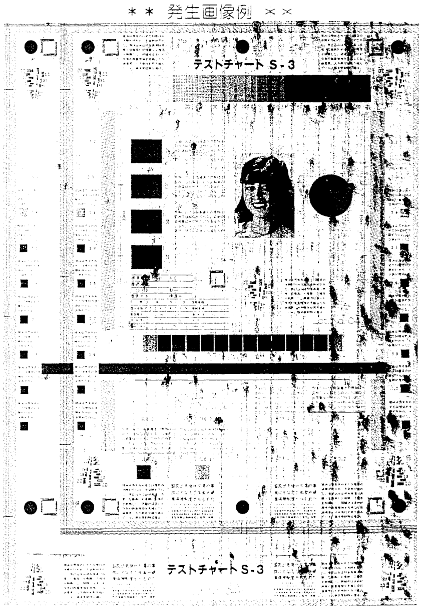
Dirty background or black spots appear on the background of copies.

Action required

First check whether the problem is related to printing or scanning. Then follow the steps listed below.



＊＊ 発生画像例 ＊＊



Printing Problem

Dirty Background by the Printer

Level?

Very bad → Is there any equipment that produces ammonia gas?

YES → Change the machine location. See RTB016.

NO → ROM upgrade

Bad (Overtoning) → ROM upgrade

ROM upgrade>=1.35
* 1.35= Suffix H (USA)
or
Suffix G (EU/ASIA)

∗ Set the toner density to 2 (normal) with SP2-911.
(1)Change SP2-999 from 0 to 1 (Manual).
(2)Change SP2-996 from 140 to 255(using the zoom key).
∗ Toner is not supplied with this setting.
(3)Make 10 sky shot copies (A4 size)to reduce the toner density.
-if the background is still dirty, make more sky shots.
(4)Make a free run for 3 min.
(5)Initialize the developer again with SP2-801.
∗ When SC393 is displayed, the initialization is not completed.
In this case, go to step (10).
(6)Read Vcont at installation with SP2-997-1.
(7)Put the value read in (6) above into SP2-996-1.
(~~8)Set the SP2-999 from 1 to 2~~ ***(9) End.***

(10) Put "200" into SP2-996-1.
∗ The 200 is an approximate Vcont value. The exact Vcont value can be calculated by the procedure shown on the next page.
(11) When the toner density is light, change the toner density to 3 or 4 using SP2-911.
(12) End.

Reference How to find the correct Vcont value

(1) Use SP2-220 to display the TD sensor output voltage on the LCD.
(2) Make a white copy and read the output voltage.
(3) When it is not within 2± 0.2V , find the expected Vcont value by using the table below.

TD sensor output voltage	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
Vcont value	160	165	170	175	180	185	190	195

∗ See below for a detailed calculation method.

(4) Put the above Vcont value into SP2-996-1.

1. The expected Vcont value can be calculated using the formula below.

$$255-(\underline{2V\text{-}TD\ sensor\ Output\ value}) \div \underline{0.2 \times 10}$$

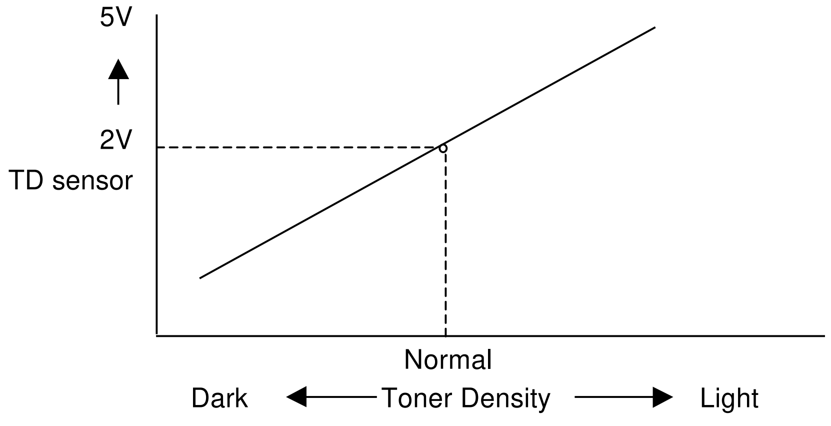
∗ Difference between 2V and the TD sensor output value

∗ TD sensor output value changes by about 0.2V every 10 steps of the Vcont value.

Example:

1. TD sensor output value: 0.5V
2. Difference from 2V: 1.5V
3. Expected Vcont value: 255-1.5÷0.2x10=180

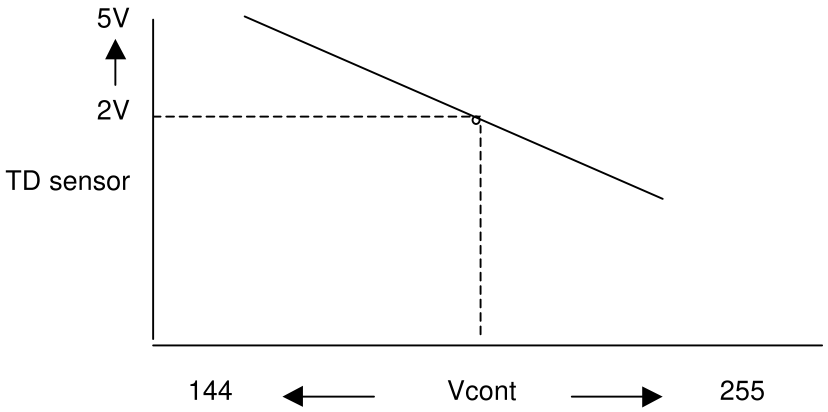
2. Relation between TD sensor output value and Toner Density.



∗ When the toner density becomes darker, the TD sensor output becomes lower than 2V.

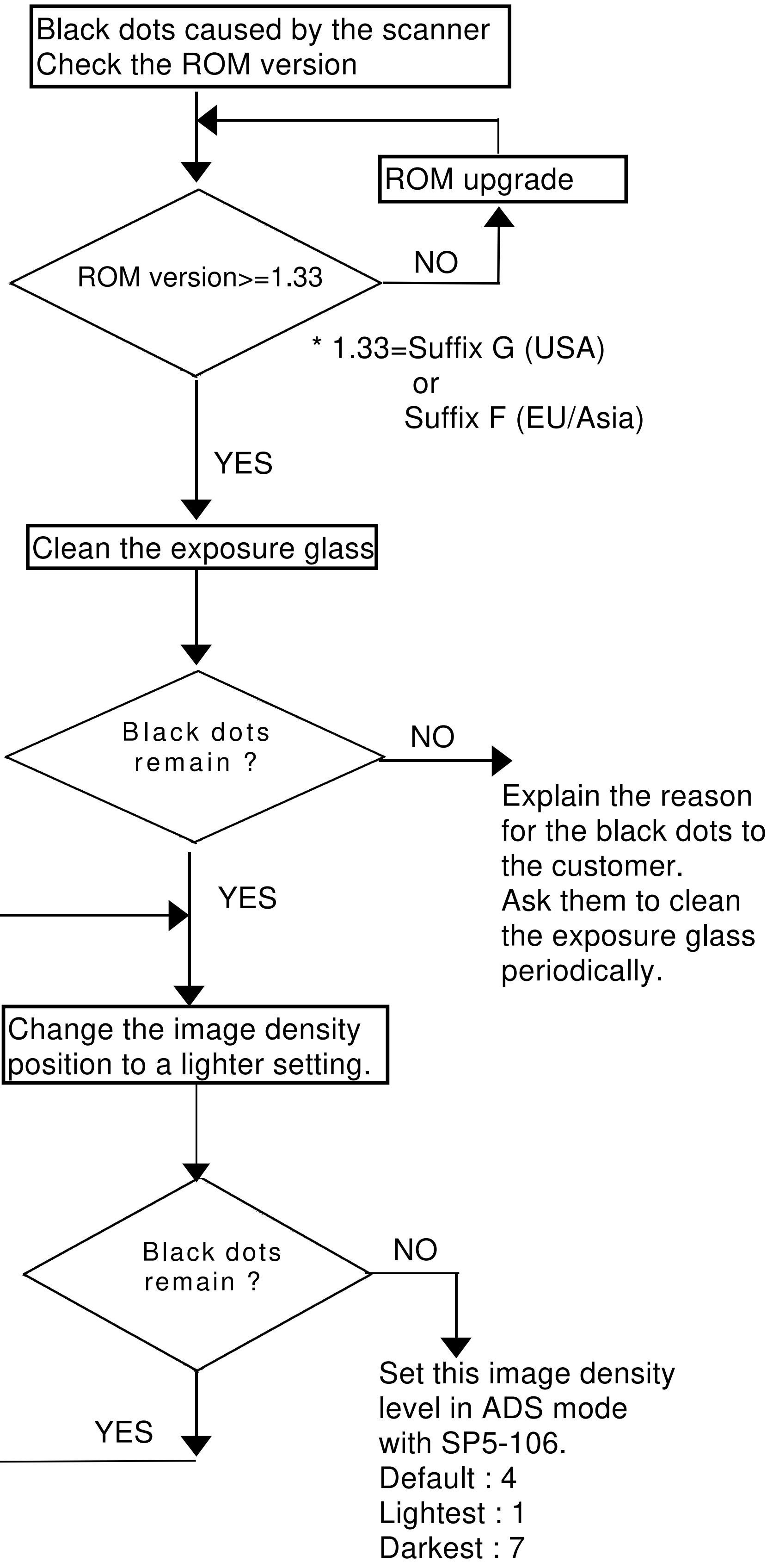
Model: AD1	Date: 30-Apr-97	No: 031C

3. Relation between Vcont value and TD sensor output value.



∗ When the Vcont value becomes higher, the TD sensor output becomes low.

Scanning problem


Black dots caused by the scanner
Check the ROM version
ROM upgrade
ROM version>=1.33
NO
* 1.33=Suffix G (USA)
or
Suffix F (EU/Asia)
YES
Clean the exposure glass
Black dots remain ?
NO
Explain the reason for the black dots to the customer.
Ask them to clean the exposure glass periodically.
YES
Change the image density position to a lighter setting.
Black dots remain ?
NO
Set this image density level in ADS mode with SP5-106.
Default : 4
Lightest : 1
Darkest : 7
YES

RICOH **Technical Bulletin** **PAGE: 1/4**

Model: FX4, FX6, FX6MK2, FX6CD, FX7, LX7, LSO, AD1	Date: 31-Aug-97	No: 005
Subject: Novell Nest Autoroute Function	Prepared by: S.Yoshio	
From: 2nd Technical Support Section		

Classification:

☐ Troubleshooting	☐ Part information	☐ Action required
☐ Mechanical	☐ Electrical	☒ Service manual revision
☐ Paper path	☐ Transmit/receive	☐ Retrofit information
☐ Other ( )		

The NEST card has been released for Nest Autoroute function in fax machines and for fax units in the AD series.

This technical bulletin contains the revisions to the Nest Autoroute service manual. Procedures for reading and writing user-programmed data by RDS have been added. Only the Installation section was changed.

For details on the models that can use the NEST card, please check the product launch information for the models.

RC	RE	ASIA	
✶	✶	✶	

2.2. INSTALLING THE NEST CARD

⚠ **CAUTION**

Before installing the NEST card,do the following:
1.Print out all messages stored in the memory.
2.Print out the lists of user – programmed items and the system parameter list.

2.2.1. Function Upgrade Card Type 140 Plus Novell® NEST™

Note

- The following installation procedure initializes (erases) all the user-programmed data stored in the card, if the Function Upgrade Card already installed in the machine is replaced with a NEST card.

Installation Procedure (Without a Function Upgrade Card)

- Turn off the main switch.
- Install the battery on the NEST card.
- Turn on the battery switch.
- Install the NEST card in the slot.
- Turn on the main switch.
- Print the system parameter list and make sure that “NEST” is listed as an option on the list.

Installation Procedure (Replacing a Function Upgrade Card with the NEST card)

- Read and back-up the user-programmed data stored in the Function Upgrade Card with RDS.
- Turn off the main switch.
- Remove the Function Upgrade Card from the slot.
- Install the battery on the NEST card and turn on the battery switch.
- Install the NEST card in the slot.
- Turn on the main switch.
- Print the system parameter list and make sure that “NEST” is listed as an option on the list.
- Write the backed-up data to the NEST card.

May 20th,1997

INSTALLATION
INSTALLING THE NEST CARD

When the NEST card is replaced with another NEST card, do the following so the machine can recognize the new card.

1. **Turn off the main switch**
2. **Remove the old card.**
3. **Turn on the machine without the card and turn off.**
4. **Install the new card.**
5. **Turn on the main switch.**

⚠ CAUTION

The IC card contains a lithium battery.
The danger of explosion exists if a battery of this type is incorrectly replaced. Replace only with the same or an equivalent type recommended by the manufacturer. Discard used batteries in accordance with the manufacturer's instructions.

INSTALLATION **May 20th,1997**

INSTALLING THE NEST CARD

2.2.2. Feature Expander Type 100 2M Plus Novell NEST

Note

- The following installation procedure initializes (erases) all the data stored in the card, if the Feature Expander already installed in the machine is replaced with a NEST card.

Installation Procedure

- Turn off the main switch.
- Install the NEST card in the slot in the machine.
- Turn on the main switch.
- Print the system parameter list and make sure that “NEST” is listed as an option on the list.

When the NEST card is replaced with another NEST card, do the following so the machine can recognize the new card.

1. Turn off the main switch.
2. Remove the old card.
3. Turn on the machine without the card and then turn off.
4. Install the new card.
5. Turn on the main switch.

RICOH **Technical Bulletin** **PAGE: 1/1**

Model: AD-1Printer Controller Type 250	Date: 5-Sep-97	No: 38
Subject: New models	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other ( )

The AD1 Printer Type 250 Controllers corresponding to the finisher have been newly launched. These models includes the firmwave version 1.26 and the driver version 2.00.

The new product codes are:

For USA

1. A643-07 for Ricoh (Previous model : A643-00)
2. A643-17 for Gestetner (Previous model : A643-10)
3. A643-18 for Savin (Previous model : A643-20)
4. A643-19 for Lanier (Previous model : A643-30)

For Europe

5. A643-08 ALL Previous models: A643-01

When installing a controller on an AD-1 with a finisher, use these models.

Note: The previous models also can be used by changing the firmware to ver 1.26 or higher, and the driver to ver 2.00 or higher.

RICOH

Technical Bulletin

PAGE: 1/1

Model: AD1-Printer Controller Type250

Date: 5-Sep-97

No: 39

Subject: All Black Printout

Prepared by: K.Ugaeri

From: QAC 1st Field Information Dept.

Classification:

☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

SYMPTOM

All black printout in copy, fax, and printer mode.

CAUSE

Defective controller board; the image data signal from the controller is a constant " Low " (black).

The data signals from copy, fax, and the printer go through same OR processing, so all printed images become black.

SOLUTION

Change the controller board.

RICOH

Technical Bulletin

RTB Correction

Reissue date: **5-Sep-97**

The items in bold italic have been corrected or added.

Model: AD1	Date: 15-Dec-96	No: ***14B***	
Subject: ROM History (AD1-FAX option)	Prepared by: K.Ugaeri		
From: QAC 2nd Field Information Dept.			
Classification:	☐ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☐ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☒ Retrofit information

We inform you of the firmware history for AD1-Fax option.

(For USA Models)

A1945581	File No. (A194uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
C	03	1.23	DD95	CB2A	27F0	BD19	72A5	1st Mass Prod.
D	04	1.29	E6D7	83C2	E9BD	47BC	7F1A	November Prod.'96
E	05	1.38	EAAE	A99A	5C74	919A	5A3A	December Prod.'96
F	06	1.48	5029	5D2A	E457	1FF3	4ED2	March Prod.'97
G	07	1.58	2AEF	27EO	FD88	286A	E367	May Prod.'97
H	***08***	***1.77***	***43BO***	***3357***	***84BC***	***EAA2***	***C5F4***	***August Prod.'97***

(For European/Asian Models)

A1945582	File No. (A194exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	02	1.23	3A44	0A20	FC8A	691F	FEBA	1st Mass Prod.
C	03	1.29	3270	D0F9	39CD	F1E6	19A3	November Prod.'96
D	04	1.38	3745	FA2F	B98C	C966	E8B9	December Prod.'96
E	05	1.48	3745	FA2F	B98C	C966	E8B9	March Prod.'97
F	06	1.58	8D00	FFBE	C502	1BB4	55FE	May Prod.'97
(G)	***07t***	***1.78***	***C19B***	***E4F1***	***FF0B***	***9B9F***	***3290***	***Temporary***
G	***07***	***1.79***	***C2A4***	***E4F2***	***FF14***	***9B9F***	***3290***	***August Prod.'97***

(For European 2nd Language)

A1945585	File No.	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.38	F398	E170	B392	56E5	EB06	December Prod.'97
B	02	1.48	E08A	B674	46C1	DDFC	29C9	March Prod.'97
C	03	1.58	5494	87A5	28B5	B595	F1DF	May Prod.'97
(D)	***04t***	***1.78***	***77E2***	***2CD4***	***372E***	***23DD***	***8FB4***	***Temporary***
D	***04***	***1.79***	***3D4C***	***2F88***	***6AFD***	***121C***	***2E4F***	***August Prod.'97***

(For China)

A194	File No. A194cxx	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	***02***	***1.77***	***AB3E***	***C008***	***DDA3***	***7D7E***	***479B***	***August Prod.'97***

(For Taiwan)

A194	File No. A194txx	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
C	***03***	***1.77***	***D672***	***7BEE***	***6E00***	***46A5***	***D572***	***August Prod.'97***

Symptom corrected	US	EU/ ASIA	EU2	China	Taiwan
For PTT Approval ***1. Dial pulse signal from the other terminal was detected as a ringing signal. (France)*** ***2. Busy tone sometimes cannot be detected. This is solved by using two frequencies , 400 Hz and 900 Hz. (New Zealand)*** ***3. Interval between the dial pulses is out of specification.*** ***∗Specification : 1000 ms. (New Zealand)***	—	***G***	***D***	***B***	***C***
Received files cannot be printed out from the HDD. When a small amount of data (less than 2K Bytes) is received and the communication is finished before writing to the HDD is finished, the data is not completely transferred to the HDD.	***H***	***G***	***D***	***B***	***C***
In ISDN G3 mode, when a call comes from a PSTN G3 machine, the fax number stored in the machine's own Quick Dial 01 is displayed for a few seconds instead of the called terminal identification.	***H***	***G***	***D***	***B***	***C***
Only for the Netherlands ***Dial Tone cannot be detected when the dial tone frequency lower limit (PSTN: Address 480406 ~ 7, PABX: Address 480419 ~ A) is less than 255 Hz.*** ***This problem happens with ver 1.29 or higher.***	***H***	***(G)***	***(D)***	***B***	***C***

Technical Bulletin

Model: AD1-E
Date: 15-Oct-97
No: 40
Subject: ROM History (AD1-E Copy Version)
Prepared by: K.Ugaeri
From: QAC Field Information Dept.

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☒ Retrofit information

We hereby inform you of firmware history for the AD1-E. (Copy)

For USA Models

A2245532	File No. (A224uxx)	Version	Total C.SUM	SUM(OH)	SUM(OH)	Production
D	01	1.18	7766	6521	1245	1st Mass Prod.
E	02	1.20	01F7	98CE	6929	June Prod. ‘97
F	03	1.24	D441	9943	3AFE	August Prod. ‘97
H	04	1.26	C879	5895	6FE4	September Prod. ‘97

For European/Asian Models

A2245533	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
B	101	1.20EU1	46A8	65C6	E0E2	1st Mass Prod.
C	102	1.24EU1	F12D	8333	6DFE	August Prod. ‘97
D	103	1.26EU1	6693	55DF	10B4	September Prod. ‘97

For European 2nd Language

A8105510(OL)
A8105511(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	202	1.24EU2	9FB1	FAE8	A4C9
B	203	1.26EU2	F29A	D4BF	1DDB

For European 3rd Language

A8105514(OL)
A8105515(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	302	1.24EU3	2C91	F73A	3557
B	303	1.26EU3	649F	D770	8D2F

For European 4th Language

A8105516(OL)
A8105517(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	402	1.24EU4	7A6A	F8BC	81AE
B	403	1.26EU4	E7F9	DA9F	0D5A

For the China Version

A8105512(OL)
A8105513(OH)
	File No. (A224CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

–	–	–	–	–	–

For the Taiwan Version

A2245534	File No. (A224TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
–	–	–	–	–	–

Symptom Corrected	USA	EU/ Asia	EU2	EU3	EU4	CHN	TWN
For the USA only A new SP mode is added. SP5-950: LG size paper detection on the by pass tray. ∗ When this function is selected and LT ▭ size is inserted in the by-pass tray, the machine detects it as LG▭ size paper.	H	–	–	–	–	–	–
For the USA only To meet the Energy Star standard.	H	–	–	–	–	–	–
After fax transmission using the ARDF with a stamper, the registration of the 1st copied paper by the ARDF is delayed.	H	D	B	B	B	–	–
A new SP has been added. SP5-949:1= When one of the trays is empty, the paper end indicator (red LED) lights.	F	C	A	A	A	–	–
The DF Jam display is cleared by lifting the DF up and down	F	C	A	A	A	–	–
New SP Mode SP6-006-4: ARDF Main-Scan Registration for the rear side.	E						
Specification When the trays do not have paper of the same size in different orientations, the machine continues to print using the sort function even if Rotate Sort is selected. (The previous software version stops the copy job when one of the trays is empty)	E						
The stapler may not work when the printer feeds out a stapled copy while feeding out the paper into the finisher in copy or fax mode.	E						
When two sheets of paper remain in the Duplex Unit and the printer prints in duplex mode, the printout will be made on the rear side of the paper remaining in the duplex unit.	E						

A2245532	A224-10	A224-15	A224-17	A22455
E	AK87070001~	9A37060001~	A7427060001~	L027080001~
F	AK87080023~	9A37080001~	A7427080001~	_
H	AK87090001~	9A37090001~	A7427090001~	L027090031~

A2245533	A224-22	A224-26	A224-27	A224-29	A224-65
C	AK97070543~	3P30870001~	A7427080601~	A7427081501~	_
D	AK97090001~	3P30970001~	A7427090305~	A7427091035~	L0247090216~

RICOH

Technical Bulletin

PAGE: 1/3

Model: AD1-E
Date: 15-Oct-97
No: 41
Subject: ROM History (AD1-E-FAX Option)
Prepared by: K.Ugaeri
From: QAC Field Information Dept.

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☒ Retrofit information

We inform you of the firmware history for AD1-E Fax option.

For the USA Model

A2255581	File No. (A225uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	8BFA	1E6A	0E7F	8BEA	297B	1st Mass Prod.
B	02	1.42	5263	428B	6E43	AC89	D020	August Prod.'97

For the European/Asian Mode

A2255582	File No. (A225uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	101	1.23	69B7	4A50	03D5	A175	A0E2	1st Mass Prod.
B	102	1.44	B8D4	1860	628D	C933	C347	August Prod.'97

For European 2nd Language

A2255585	File No. (A225exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	201	1.23	9B94	ABF0	CD23	2F39	A571	1st Mass Prod.
B	202	1.44	33BE	2E1B	00C5	7330	E7F9	August Prod.'97

For European 3rd Language

A2255587	File No. (A225exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	301	1.44	D106	F2A8	4FC6	CD50	8940	1st Mass Prod.

For the China Version

A2255586	File No. (A225cxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	FD76	933E	5C23	67C0	A353	1st Mass Prod.
B	02	1.42	A51B	C542	D6A2	0C23	6979	September Prod. '97

For the Taiwan Version

A2255584	File No. (A225txx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	0603	CF1A	54ED	74EA	AD16	1st Mass Prod.
B	02	1.42	F868	27F5	6104	69F5	AD64	September Prod. '97

Symptom corrected	US	EU/ ASIA	EU2	EU3	China	Taiwan
For PTT Approval 1. Dial pulses from the other terminal were detected as a ringing signal. (France) 2. Busy tone sometimes cannot be detected. It is solved by using two frequencies , 400 Hz and 900 Hz. (New Zealand) 3. The interval between the dial pulses is out of specification. ∗Specification : 1000 ms. (New Zealand)	_	B	B	A	B	B
Received files cannot be printed out from the HDD. When a small amount of data (less than 2 kbytes) is received and the communication is finished before writing to the HDD is finished, the data is not completely written to the HDD.	B	B	B	A	B	B
In ISDN G3 mode, when a call comes from a PSTN G3 machine, the fax number stored in Quick Dial 01 is displayed for a few seconds instead of the called terminal identification.	B	B	B	A	B	B
Only for the Netherlands Dial tone cannot be detected. When the dial tone frequency lower limit (PSTN: Address 480406~7, PABX: Address 480419~A) is less than 255HZ, this problem may occur. This problem happens with software version 1.29 or higher.	_	B	B	A	B	B

A2255581	A225–01	A225–06	A225–07	A225–08
B	A7567090071~	AN67090001~	9A47090001~	L025709146~

A2255582	A225–02	A225–03	A225–04	A225–09	A225–10
B	A7567081811~	A7567092653~	A7567083005~	A7567093083~	AN97100001~

RTB Correction

Reissue date: **20-Oct- 97**

The illustrations have added as shown below.

Model: AD1/AD1-E	Date: 30-Apr-97	No: ***031D***
Subject: Copy Quality (Dirty Background)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

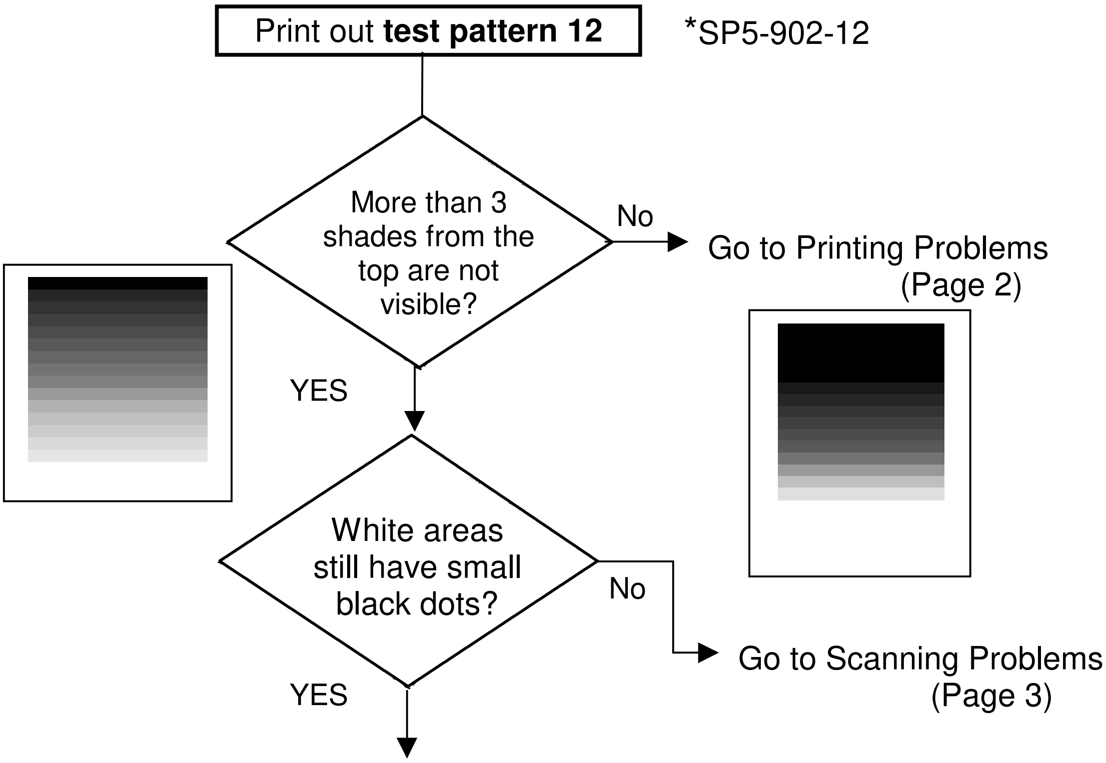
Classification:
☒ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

SYMPTOM

Dirty background or black spots appear on the background of copies.

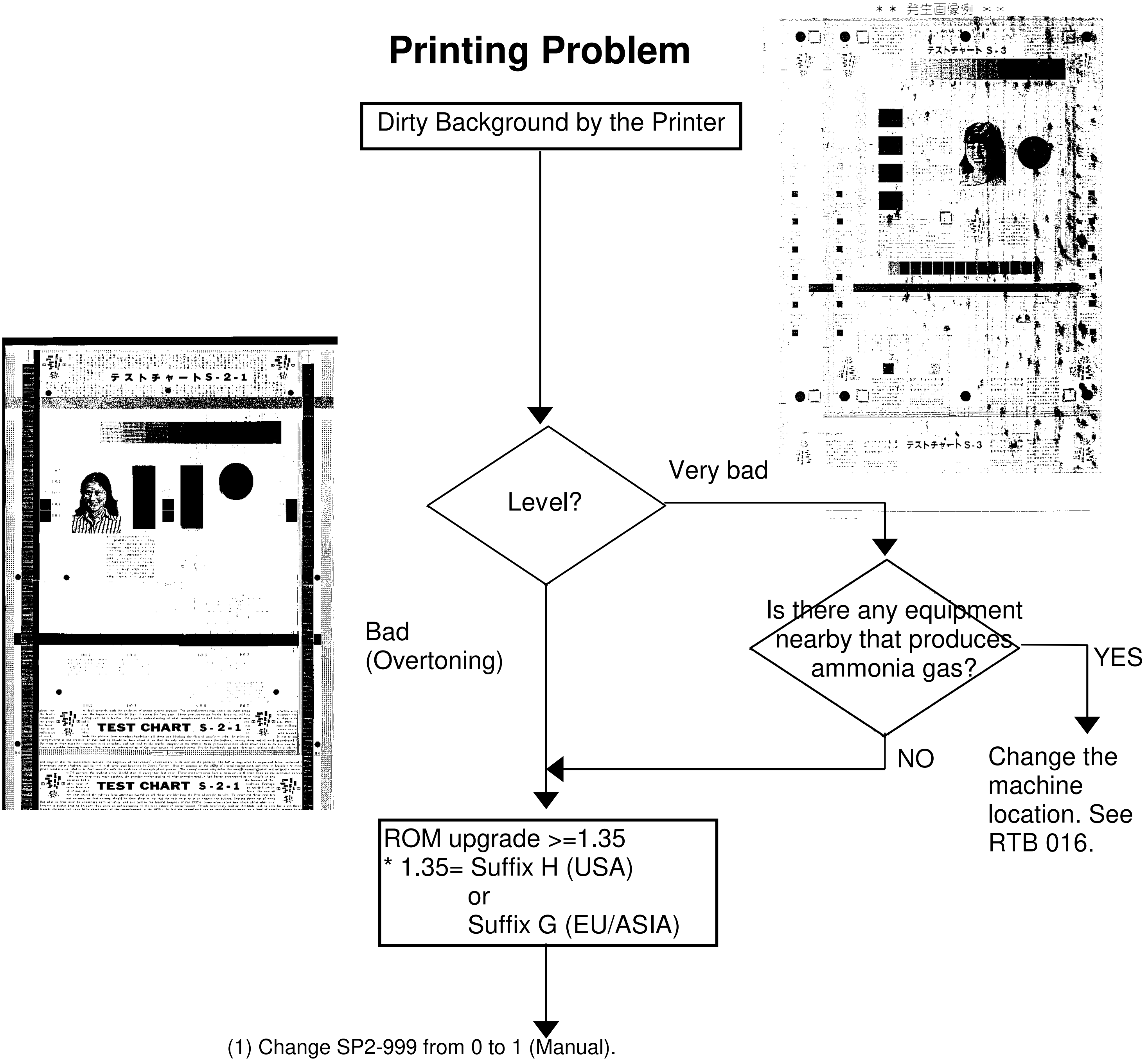
Action required

First check whether the problem is related to printing or scanning. Then follow the steps listed below.


Print out **test pattern 12**
*SP5-902-12
More than 3 shades from the top are not visible?
No
Go to Printing Problems (Page 2)
YES
White areas still have small black dots?
No
Go to Scanning Problems (Page 3)
YES

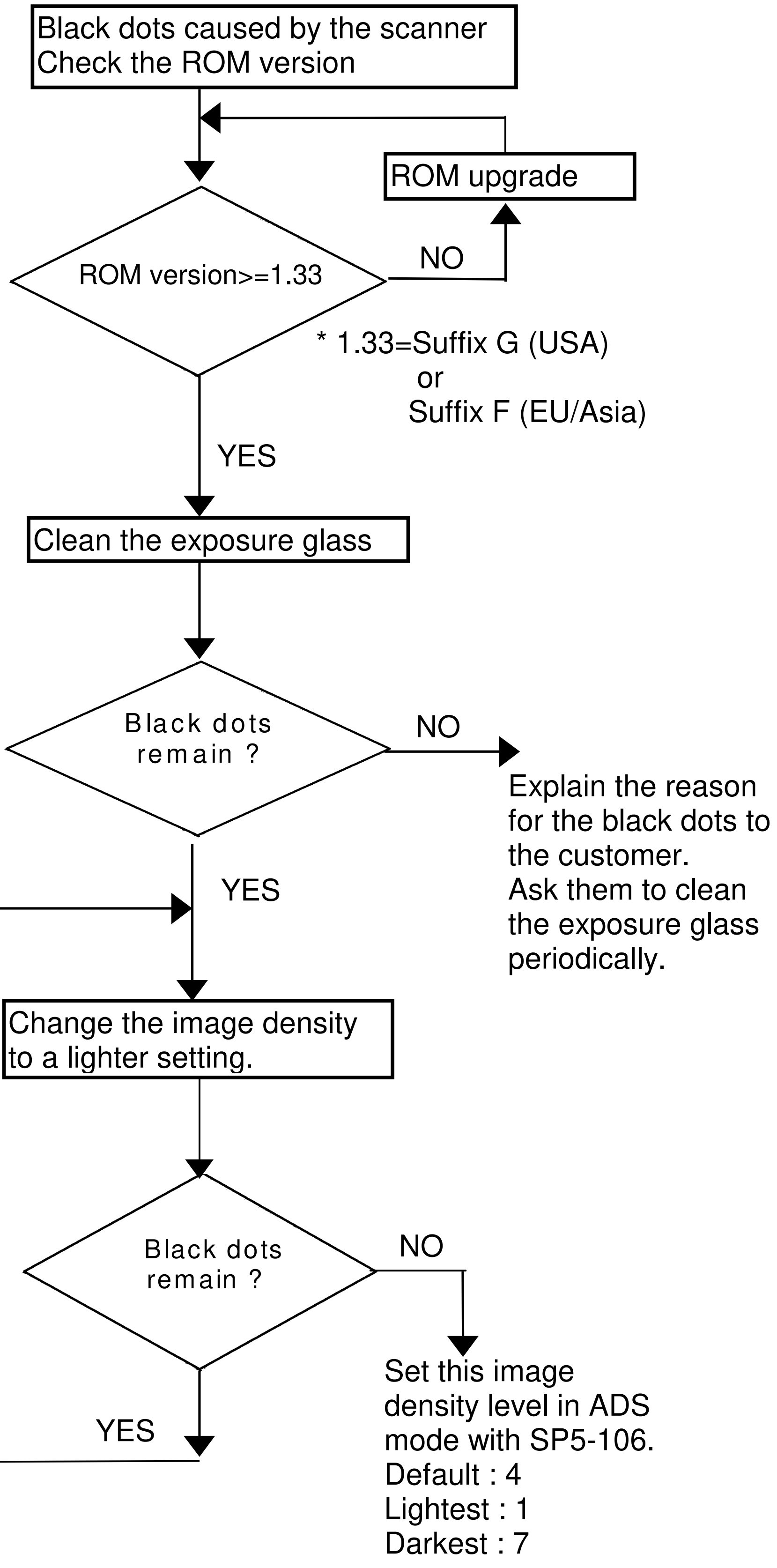
Drum Fatigue
Change the image density level in ADS mode to a lighter setting with SP5-106 to prevent more black dots from being made in generation copy mode.
Default : 4
Lightest: 1

Printing Problem



(1) Change SP2-999 from 0 to 1 (Manual).
(2) Change SP2-996 from 140 to 255 (using the Zoom key).
∗ Toner is not supplied with this setting.
(3) Make 10 sky shot copies (A4 size) to reduce the toner density.
-If the background is still dirty, make more sky shots.
(4) Make the free run for ***9 minutes using SP5-901.***
(5) Put "200" (for AD1) or "180" (for AD1 E) into SP2-996-1.
(6) Make a free run for 3 minutes with SP5-901 again.
(7) Remove and clean the PCU and the transfer unit to prevent toner scattering. Install them in the machine again.
(8) Print out Pattern 12 using SP5-902-12.
(9) End.
∗When the toner density is too light, change the toner density to 1 or 2 using SP2-911.

Scanning problem


Black dots caused by the scanner
Check the ROM version
ROM upgrade
ROM version>=1.33
NO
* 1.33=Suffix G (USA)
or
Suffix F (EU/Asia)
YES
Clean the exposure glass
Black dots remain ?
NO
Explain the reason for the black dots to the customer.
Ask them to clean the exposure glass periodically.
YES
Change the image density to a lighter setting.
Black dots remain ?
NO
Set this image density level in ADS mode with SP5-106.
Default : 4
Lightest : 1
Darkest : 7
YES

Model: AD1/AD1-E	Date: 20-Oct-97	No: 42
Subject: Dirty Background Problem	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☒ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

Symptom: Dirty Background (Overtoning)

Cause: Too much toner was supplied to the PCU because of a low q/m in the toner due to the following conditions.

1. After pre-setting the machine, it was not used for a few days.
2. Low copy volume machines had this problem after a vacation of more than 3 weeks.
3. Chemical reaction with ammonia gas, etc.

Action Required

AT INSTALLATION

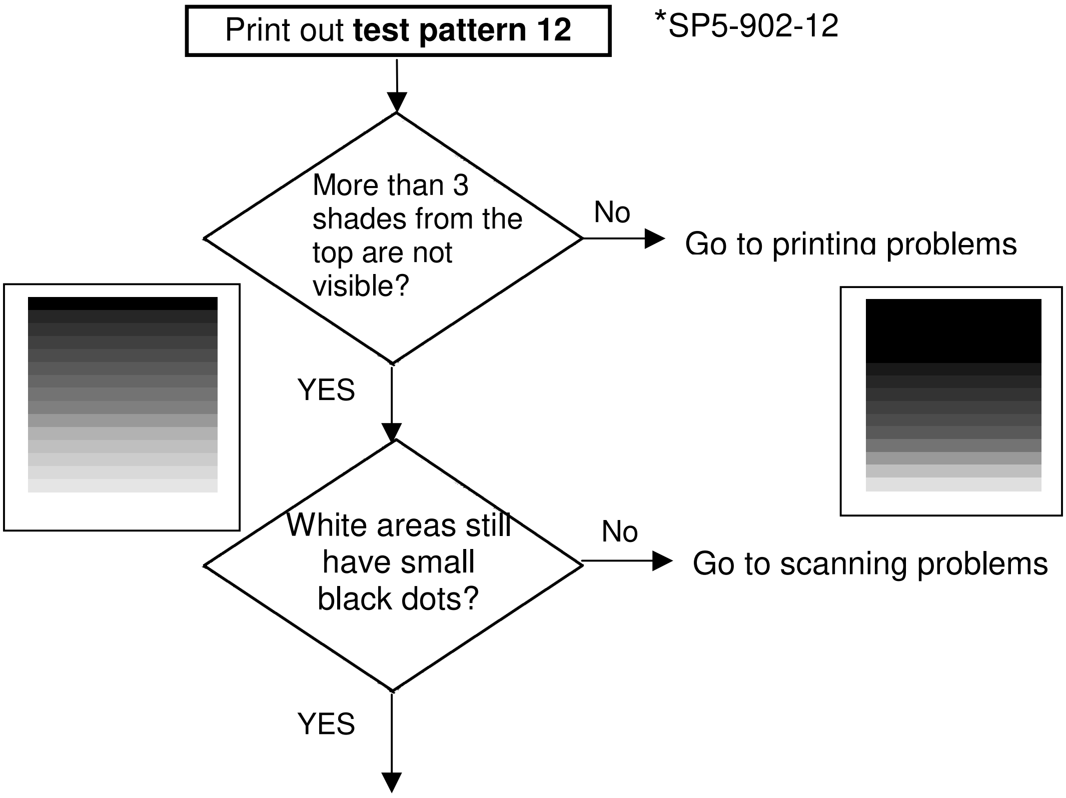
Initialize twice with SP2-801 at installation.

∗ Even if the machine is pre-set in the laboratory, do it again at installation. If the machine does not run after pre-setting the machine, the q/m will go down drastically.

-TEMPORARY COUNTERMEASURE-

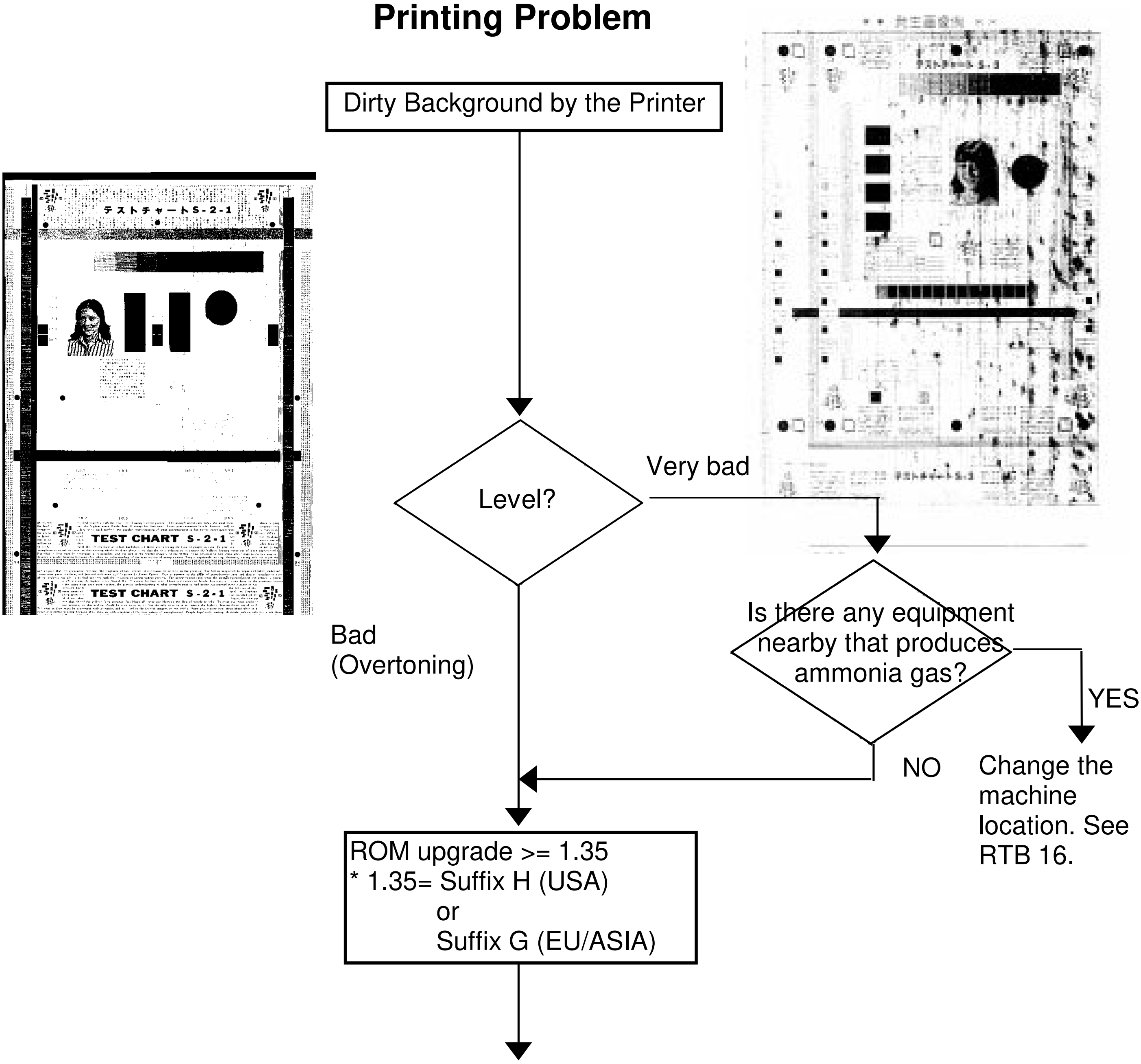
IN THE FIELD

If the dirty background problem occurs, do the following adjustment as noted in. RTB 31D


Print out **test pattern 12**
*SP5-902-12
More than 3 shades from the top are not visible?
No
Go to printing problems
YES
White areas still have small black dots?
No
Go to scanning problems
YES

Drum Fatigue
Change the image density in ADS mode to a lighter setting with by SP5-106 to prevent more black dots from being made in generation copy mode.
Default: 4
Lightest: 1

Printing Problem



(1) Change SP2-999 from 0 to 1 (Manual).
(2) Change SP2-996 from 140 to 255 (using the Zoom key).
∗ Toner is not supplied with this setting.
(3) Make 10 sky shot copies (A4 size) to reduce the toner density.
-If the background is still dirty, make more sky shots.
(4) Make the free run for ***9 minutes using SP5-901.***
(5) Put "200" (for AD1) or "180" (for AD1 E) into SP2-996-1.
(6) Make a free run for 3 minutes with SP5-901 again.
(7) Remove and clean the PCU and the transfer unit to prevent toner scattering. Install them in the machine again.
(8) Print out Pattern 12 using SP5-902-12.
(9) End.
∗When the toner density is too light, change the toner density to 1 or 2 using SP2-911.

-PERMANENT COUNTERMEASURE-

The firmware will be improved for this problem as follows.
This firmware will be available from the middle of October production '97.

1. The default of the Vcont value will be corrected.

AD1 : approx 140 (Current) ---> 10 is added to the default. (150:New for USA)
---> 20 is added to the default. (160:New for EU/ASIA)
AD1E : approx 120 (Current) ---> 10 is added to the default. (130:New for USA)
---> 20 is added to the default. (140: New for EU/ASIA)

2. Initializing time will be longer. When a new PCU is installed, the machine initializes the PCU to attain a sufficient q/m for the toner. Its time has been changed from 3 min to 5 min.

3. Mixing time will be added.

The required mixing time for the developer will be calculated by comparing the difference between the previous VT and the latest one. The latest VT will be checked when the main switch is turned on or the machine is not for used more than 12 hours.

The table below will decide the mixing time.

Previous VT - Latest VT	Mixing Time (s)
-0.1	10
-0.2	30
-0.3	100
-0.4	300
0.4-	500

The developer will be mixed for 30 s. after every printing job. Then, 30 s will be deducted from the required mixing time (determined by the above table) till it is over.

Note

If the machine is not run for a long time (at the week-end or during a vacation), the machine will maintain the mixing of the developer unit to keep a sufficient toner q/m.

4. The Vt value is corrected.

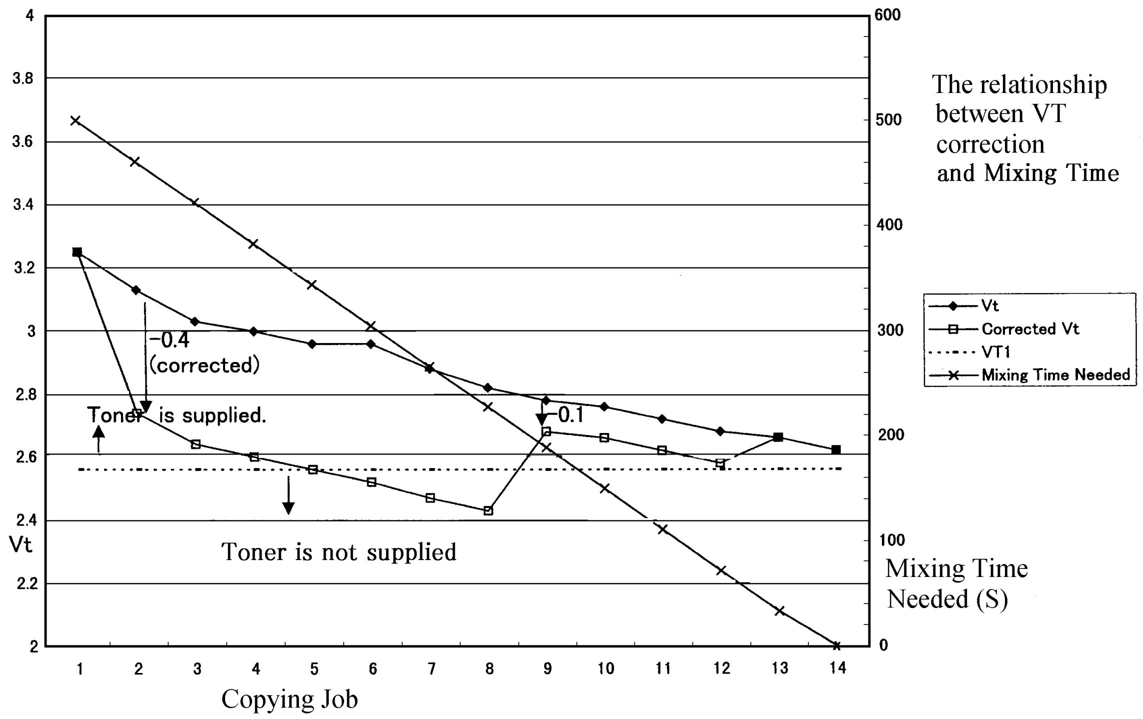
If any mixing time (item 3) remains, the Vt value is corrected as shown in the table below.

Remaining mixing time (s)	Vt correction
-100	0
-200	0.1
-300	0.4
-500	0.4

Note

If mixing time remains, Vt is corrected and toner is not supplied as easily.

∗ Items 3 and 4 are not available in Manual setting mode (SP2-999).



RICOH Technical Bulletin

Model: Printer Controller Type 250 (HDD Option)
Date: 17-Oct-97
No: 43
Subject: HDD Bracket for AD1 printer controller
Prepared by: K.Ugaeri
From: QAC Field Information Dept.

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

The HDD bracket has been modified for the print-overrun problem caused by vibration from the duplex unit (refer to RTB37). These new brackets have been available from June production in 1997 (the cut-in serial number is A7327060001-)

Ricoh has prepared and sent the following Q'ty of the new bracket kits for the old HDD in the field.

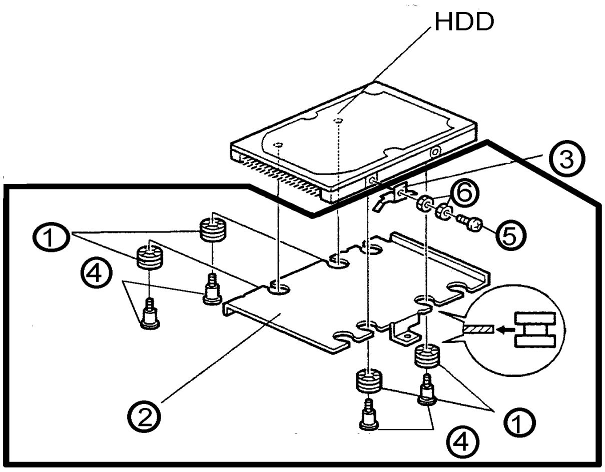
Europe	1176 sets
USA	1194 sets
Asia	119 sets

*Kit number : A6439900 HDD Bracket Kit

This kit consists of the following parts.

①	AA161125 Bushing – HDD	4 pcs
②	A1935840 HDD Bracket	1 pc
③	A1935842 Grounding plate – HDD	1 pc
④	A1935843 Stepped Screw	4 pcs
⑤	03130050B Philips Pan Head Screw - M3x5	1 pc
⑥	07120030W Nut -M3	2 pcs
	A6438612 Instruction Guide	1 sheet

If you have the print overrun problem on an AD1 with a duplex unit or when you visit a customer whose machine has the old HDD bracket, please change the bracket to a new type.



⇒HDD Bracket Kit

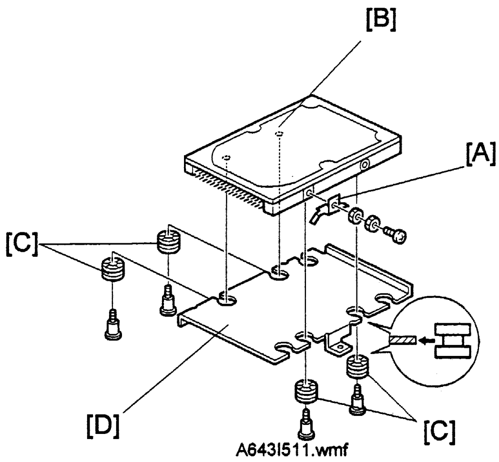
Printer Hard Disk Type 250
(Machine Code: A643)
INSTALLATION PROCEDURE
For Machine Code: A193 and A224 Copiers

THIS OPTION MUST BE INSTALLED BY A CUSTOMER SERVICE REPRESENTATIVE WHO HAS COMPLETED THE TRAINING COURSE ON THE BASE COPIER AND THIS OPTION.

⚠CAUTION

Before installing an optional unit, do the following:
1. **If the FAX unit is installed, print out all messages stored in the memory, the lists of user-programmed items, and the system parameter list.**
2. **Turn off the main and the ac switches, and disconnect the power cord.**

NOTE:
- If the printer controller is already installed, remove the printer controller before attempting to install the printer hard disk.
- At least 6MB of memory are required on the printer controller for hard disk installation.
  If insufficient memory is installed in the printer controller, "Add memory 4MB or more," will be displayed.



1. Attach the grounding plate [A] to the hard disk drive [B]. (1 screw, 2 nuts)
2. Attach the four rubber bushings [C] to the bracket [D], as shown.
3. Install the hard disk onto the bracket assembly (4 stepped screws).
   Note: Ensure the grounding plate feet are in contact with the bracket.

Part No. A6438612B

RICOH **Technical Bulletin**

Model: Printer Controller Type 250/251	Date: 15-Nov-97	No: 44
Subject: ADAM/ADAM-E Printer Limitations	Prepared by: S.Tomoe	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☒ Other ( )

The limitations of the ADAM/ADAM-E printer controller are as shown below.

ADAM/ADAM-E printer controller limitations

No	Description	Recommendations/ Countermeasures	Note
1	There is no close button (X icon) at the upper-right corner of the task bar to close the printer properties window in the Print Setup menu.	* Press "OK" or "Cancel" button to close the printer properties window. * Click anywhere on the task bar , the close button (X icon) will appear at the right corner of the task bar.	
2	When a jam occurs in the Finisher at W1 or W2, the jam position is indicated in both WinPanel and the operation panel display only with W and does not specify whether it is W1 or W2.	Check both W1 and W2 when there is a jam at the W position in the finisher.	ADAM can recognize a jam at only the W position at W1 or W2 in the finisher.
3	WinPanel does not indicate the Toner Near End status.		"Add Toner" is shown on the WinPanel when toner ends.
4	If you perform initialization to format the Hard Disk while Data is coming in (when the Data-in indicator is blinking), the ADAM-E printer hangs up.	Format the Hard Disk while the printer is idle (no data in the buffer).	It is generally regarded as not possible to initialize the HDD while data is coming in.
5	When you print a Photoshop file and if you choose "draft print" in the Photoshop application print setup window, blank page(s) will be printed.	Print the file using the "High", "Mid" or "Low" print quality setting in the Photoshop printer setup window. Do not choose "draft print".	The ADAM-E Printer Driver does not support "draft print" in the Photoshop application.
6	While printing (data in buffer to print job), if you take the printer off-line and try to print a PCL font list, the printer hangs up.	Print the PCL fonts list while the printer is idle (no data in buffer).	It is generally regarded as not possible to print Printer Fonts while printing a job.

No	Description	Recommendations/ Countermeasures	Note
7	When you print with "Graphic Mode: Raster + Graphic Quality: Mid or Low", Freehand 5.0 files cannot be printed properly. Only a part of the image gets printed and the rest of the image is missing.	Print with Graphic Quality: High.	The limitation is unique for Freehand 5.0 and occurs with HP 5si as well. With Freehand 7.0, there is no such limitation. The default setting of the printer driver is "High".
8	When you print a Pagemaker file with "Graphic Mode: Raster + Graphic Quality: Mid or low" setting, rotated text cannot be printed properly.	Print with Graphic Quality: High.	The default setting of the printer driver is "High".
9	When you print a Pagemaker file using Windows 3.1 with "Graphic Mode: Raster + Graphic Quality: High, Mid or low", you will get horizontal black lines on photographic images.	Print with Graphic Mode: HP/GL.	
10	More than one set of Acrobat 2.0 files cannot be printed.	Upgrade Acrobat 2.0 to 3.0.	The limitation is unique for Acrobat 2.0. With Acrobat 3.0, there is no such limitation.

RICOH

Technical Bulletin

Model: AD1E-Printer Type 251	Date: 30-Nov-97	No: 45
Subject: Firmware and Software History	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

A. Firmware for Controller Type 251.

1. History and checksum List.

Ver	Check Sum		Released on
	U23	U24	
5.13	DB12	A541	’97.9.30
5.09	0E06	D22F	’97.8.26
5.04			1st Mass Prod.

2.Corrected Symptoms

	Ver.
When printing a banner page in a staple job, the banner page is printed incorrectly.	5.13
Resource saving on the test page indicates “1219 kbytes allocated of 1219 Kbytes available.” It should be “0 kbytes allocated of ...”	
When printing with raster mode and custom paper size setting, output is incorrect.	
After printing a job using staple mode, if sending another job which changed the Page Protection Mode from the previous job’s setting, sometimes it does not work, and the data stays in the print queue.	5.09
When setting a User Code, if you send data to print while the LCD shows “Input user code...”, it does not work without pressing the offline / online key even if you input the User Code.	

B. Driver Software for Win 3.1/Win 95

1. History List

Ver	Released on
2.00	1st Mass Prod.

C. Host Panel for DOS

1. History List

Ver	Released on
1.02	1st Mass Prod.

RTB Correction

Reissue date: **15-Dec-97**

The items in bold italic have been corrected or added.

Model: AD1	Date: 15-Dec-97	No: 14C
Subject: ROM History (AD1-FAX Option)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other ( )

Firmware history for the AD1-Fax option.

USA Model

A1945581	File No. (A194uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
C	03	1.23	DD95	CB2A	27F0	BD19	72A5	1st Mass Prod.
D	04	1.29	E6D7	83C2	E9BD	47BC	7F1A	November Prod.'96
E	05	1.38	EAAE	A99A	5C74	919A	5A3A	December Prod.'96
F	06	1.48	5029	5D2A	E457	1FF3	4ED2	March Prod.'97
G	07	1.58	2AEF	27EO	FD88	286A	E367	May Prod.'97
H	08	1.77	43BO	3357	84BC	EAA2	C5F4	August Prod.'97

European/Asian Model

A1945582	File No. (A194exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	02	1.23	3A44	0A20	FC8A	691F	FEBA	1st Mass Prod.
C	03	1.29	3270	D0F9	39CD	F1E6	19A3	November Prod.'96
D	04	1.38	3745	FA2F	B98C	C966	E8B9	December Prod.'96
E	05	1.48	3745	FA2F	B98C	C966	E8B9	March Prod.'97
F	06	1.58	8D00	FFBE	C502	1BB4	55FE	May Prod.'97
(G)	07t	1.78	C19B	E4F1	FF0B	9B9F	3290	Temporary
G	07	1.79	C2A4	E4F2	FF14	9B9F	3290	August Prod.'97
H	***08***	***1.80***	***A450***	***E271***	***3B61***	***930F***	***E8EF***	***October Prod.'97***

European 2nd Language

A1945585	File No. ***(A194oxx)***	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.38	F398	E170	B392	56E5	EB06	December Prod.'97
B	02	1.48	E08A	B674	46C1	DDFC	29C9	March Prod.'97
C	03	1.58	5494	87A5	28B5	B595	F1DF	May Prod.'97
(D)	04t	1.78	77E2	2CD4	372E	23DD	8FB4	Temporary
D	04	1.79	3D4C	2F88	6AFD	121C	2E4F	August Prod.'97
E	***05***	***1.80***	***A63A***	***3372***	***A541***	***O793***	***FBF9***	***October Prod.'97***

For European 3rd Language

A194	File No. A194pxx	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	***02***	***1.80***	***385B***	***D3CF***	***9ABE***	***01CD***	***019D***	***October Prod.'97***

China

A194	File No. A194pxx	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	02	1.80	AB3E	C008	DDA3	7D7E	479B	August Prod.'97

Taiwan

A194	File No. A194txx	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
C	03	1.77	D672	7BEE	6E00	46A5	D572	August Prod.'97

Symptoms corrected	US	EU/ ASIA	EU2	EU3	China	Taiwan
The PC FAX (TR29) Option is supported	—	***H***	***E***	***B***	—	—
For PTT Approval 1. Dial pulse signal from the other terminal was detected as a ringing signal. (France) 2. Busy tone sometimes cannot be detected. It is solved by using two frequencies, 400 Hz and 900 Hz. (New Zealand) 3. Interval between the dial pulses is out of specification. ∗Specification: 1000 ms. (New Zealand)	—	G	D		B	C
Received files cannot be printed out from the HDD. When a small amount of data (less than 2 kbytes) is received and the communication is finished before writing to the HDD is finished, the data is not completely transferred the HDD.	H	G	D		B	C
In ISDN G3 mode, when a call comes from a PSTN G3 machine, the fax number stored in the machine's own Quick Dial 01 is displayed for a few seconds instead of the called terminal identification.	H	G	D		B	C
Only for the Netherlands Dial Tone cannot be detected when the dial tone frequency lower limit (PSTN: Address 480406 ~ 7, PABX: Address 480419 ~• A) is less than 255 Hz. This problem happens with ver 1.29 or higher.	H	(G)	(D)		B	C
The Two-in-one Function from HLT to LT size paper is not working.	G	F	C			
New System Switch When closed network is enabled and the ID is not programmed, all reception is disabled (this is a specification). A System Switch has been added to modify this. Switch 1E Bit 4. When closed network is turned on and the ID is not set: 0: Closed network is not available. 1: Only transmission is available.	G	F	C			
New System Switch The display of the remote terminal ID at AI redial: Switch 1E Bit 5 0: RTI/CSI is displayed. 1: The input Fax Number is displayed.	G	F	C			
The LCT and duplex tray are supported.	G	F	C			
The new HDD is supported.	G	F	C			
The NEST card option is supported.	G	F	C			
In the G3or G4 receiving mode, when the memory is full at the first block of any page, a part of the previous page is missing.	F	E	B			
Receiving error in G4 mode (When it is waiting for RSSP (or RSSN) after sending "CONN", the machine displays "communication error" if "DISC" comes.)	F	E	B			

Model: AD1	Date: 15-Dec-97	No: 14C

Symptom corrected	US	EU/ ASIA	EU2	EU3	China	Taiwan
The periodical auto service call function does not work.	F	E	B			
For Canada only The number of redials in Canada is changed to meet the CS-03 standard. System switch 0F The setting for Canada (10h) is added. If the above switch is set to 10h, the number of redials (Communication switch 10) is set to 02h.	—					
For the Netherlands only Marketing Requirments 1. Dialling method default setting: PD changed to DTMF (User switch 1A/bit 0.1 changed to 0.1) 2. Default setting of Transmision mode: Memory Tx changed to Immediate Tx (User switch 00/bit 6 changed to 1) 3. International Access code : 00 changed to FF	—	E	B			
For Austria only Marketing Requirments 1. Dialling method default setting: PD changed to DTMF (User switch 1A/bit 0.1 changed to 0.1) 2. Default setting of Transmission mode : Memory Tx changed to Immediate Tx (User switch 00/bit 6 changed to 1) 3. Number of redials : 5 changed to 10 (Communication switch 10/bit 0-4) 4. Redial interval in Memory Transmission: 5 min. changed to 1 min. (Communication switch 12/bit 0-7)	—	E	B			
For New Zealand only The ringing detection time is changed. NCU parameters 07 & 0.8 : 010 changed to 015	—	E	B			
For Australia only Tx time of 2100 Hz is changed from 2.7 s to 3.5 s.	—	E	B			
When the handset is picked up during ringing signal detection, the reception is disconnected but the reception job occasionally remains in the machine. In this case, the display does not go to “Handset Mode” even if the handset is picked up, or “line is busy” is displayed when directtx is made from the ADF.	E	D	A			
In manual tx mode with the handset, the operator presses the Start key and hangs up the handset at the same time. Then the transmission job remains in the machine. In this case, transmission and reception are both not available or “Handset mode” is always displayed. This problem can be solved by picking up the handset again.	E	D	A			
The chain dial function cannot be used in on-hook or handset mode.	E	D	A			
When the machine stores a letter-size original using image rotation, the compression does not succeed, then the job is reset if the original is a complicated image scanned in photo mode.	E	—	—			

RTB Correction

Reissue date: **15-Dec -97**

The items in bold Italics have been corrected or added.

Model: AD1	Date: 15-Jan-97	No: 15F
Subject: ROM History (AD1 Copy Version)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other ( )

Firmware history for the AD1.
USA

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January Prod.'97
J	———	1.36	———	———	———	January Prod.'97
K	10	1.38	A7FE	FB14	ACEA	February Prod.'97
L	11	1.43	BA4B	536A	66EI	March Prod.'97
M	11A	1.48	F9D6	3029	C9AD	May Prod.'97
N	12	1.54	7413	3D1A	36F9	June Prod.'97
P	13	1.60	3042	A726	891C	August Prod.'97
R	14	1.62	5B56	CF0D	8C49	September Prod.'97
T	***16***	***1.70***	***8D31***	***65E0***	***2751***	***October Prod.'97***

Europe/Asia

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January Prod.'97
H	———	1.36	———	———	———	January Prod.'97
J	110	1.38	ACCC	2927	8353	February Prod.'97
K	111	1.43	F537	6510	9027	March Prod.'97
L	111A	1.48	7218	5558	1CC0	May Prod.'97
M	112	1.54	AAA8	7837	3271	June Prod.'97
N	113	1.60	1FE3	AEE1	7102	August Prod.'97
P	114	1.62	794C	90BE	E88E	September Prod.'97
R	***116***	***1.70***	***2208***	***D8BC***	***494C***	***October Prod.'97***

∗Versions 1.35 and 1.3 are not released via Files.

European 2nd Language

A6485510(OL) A6485511(OH)	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	205	1.43EU2	4BC4	DE26H	6D9E
F	205A	1.48EU2	09F5	CC25	3DD0
G	206	1.54EU2	E768	F05C	F70C
H	208	1.57EU2	E765	F056	F70F
J	209	1.60EU2	AE02	2277	8B8B
K	210	1.62EU2	CB8A	0ACC	C0BE
M	***212***	***1.70EU2***	***4159***	***50F0***	***F069***

European 3rd Language

A6485514 (OL) A6485515(OH)	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	301	1.57EU3	9DBB	C908	D4B3
A	302	1.60EU3	390A	FD07	3C03
B	303	1.62EU3	C69E	D5E3	F0BB
D	***305***	***1.70EU3***	***006B***	***8E5E***	***720D***

European 4th Language

A6485516 (OL) A6485517(OH)	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	401	1.57EU4	1DF0	CA60	5390
A	402	1.60EU4	4490	FDEF	46A1
B	403	1.62EU4	A30C	D9E5	C927
D	***405***	***1.70EU4***	***3973***	***9405***	***A56E***

China

A6485512 (OL) A6485513(OH)	File No. (A193CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	04	1.62CH	B020	B056	FFCA
H	***07***	***1.70CH***	***1893***	***3AEA***	***DDA9***

Taiwan

A1935534	File No. (A193TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
B	03	1.62TW	C05F	3BA0	94BF
E	***06***	***1.70TW***	***470D***	***87F1***	***BF1C***

Symptom Corrected	USA	EU/ Asia	EU2	EU3	EU4	CHN	TWN
Dirty background problem (Refer to RTB 42) ***-Vt correction*** ***-Mixing time***	***T***	***R***	***M***	***D***	***D***	***H***	***E***
New SP mode ***•SP2-994: Vcont offset*** ***•SP9-999-14: Additional Mixing time display***	***T***	***R***	***M***	***D***	***D***	***H***	***E***
For the USA only New SP mode. SP5-950: LG size paper detection in the by pass tray. ∗ When this function is selected and LT ▭size paper is put in the by-pass tray, the machine detects it as LG ▭ size paper.	R	—	—	—	—	—	—
For the USA only Compliance with the Energy Star standard.	R						
After a fax transmission using the ARDF with the stamper, the registration of the 1st sheet copied using the ARDF is delayed.	R	P	K	B	B	E	B
New SP mode SP 5-949 0: Normal operation (during copying, if a tray empties, the paper end indicator does not light if paper in another tray can be used; the indicator will light if the user selects an empty tray) 1: When one of the trays is empty, the indicator lights	P	N	J	A	A	D	A
The DF Jam display is cleared by lifting the DF up and down	P	N	J	A	A	D	A
New SP Mode SP***6***-006-4: ARDF Main-Scan ***Registration*** for the rear side.	N	M	G				
Specification When the trays do not have the same size of paper in different orientations, the machine continues to print using the sort function even if the Rotate Sort function is selected.(The previous version software stops the copy job when one of the trays is empty.)	N	M	G				
The stapler may not work when the printer feeds out a stapled copy while feeding out paper into the finisher in copy or fax mode.	N	M	G				
When 2 sheets of paper remain in the Duplex Unit and the printer prints in duplex mode, the printer image will be printed on the rear side of the remaining paper.	N	M	G				
SP5-808: The 3 languages cannot be selected with the previous software version.	—	M	G				
If a duplex copy is made with the ADF, Duplex Unit and 12M Memory and the original is jammed, the jammed original cannot be copied correctly during recovery.	M	L	F				
Paper jam when paper is fed from the 3rd tray immediately after feeding the paper from the 4th tray.(A jam or Y jam) with the following paper types. ∗ 3rd Tray has paper of length less than 288 mm (A4 ▯) 4th Tray has paper of length 289mm to 401mm (A4 ▭)	M	L	F				

When the RAM was cleared with SP5-801, the white level and the standard white plate density set at the factory were erased.	L	K	E				
Toner scattering around black areas of the image on the rear side of duplex copies. The default of the separation output voltage was changed. (SP2-901-1→ -1800 SP2-901-2→ -1800 SP2-901-3→- 2500 SP2-901-4→- 2500)	K	J					
A blank sheet is printed out when the start key is pressed if the memory is full. The scanning restarts after printing the scanned image and then the first original jams.	J	H					
Dirty Background. 1) Toner Density (SP2-911) was changed from 2 to 3 (Lighter). 2) Free run time at PCU installation was changed from 1 min. to 3 min.	H	G					
Black Spots in the scanned image - A scanned low contrast image can be adjusted using 7 settings. Each setting has different gamma correction characteristics, MTF filter and threshold level (new SP mode: SP4-998,999)	G	F					
Dirty background on white images after negative\positive reversal.	G	F					
SC321 appears when the door is opened during memory copying if the start key is pressed after closing the door.	G	F					
The development bias setting (SP2-201) is initialized when the main switch is turned off.	G	F					
SC921-Memory Access Error After a paper jam while opening the door during memory output.	F	E					
SC101 appears when turning the main switch off/on after the IPU test pattern in SP mode.	F	E					
SP5-803: New PCU Detect is added to the input checks.	F	E					
Memory copy priority of SP5-945 is added to Salesman Program Mode.	F	E					
SP mode cannot be cleared when the main switch is turned off/on after going to the interrupt copy mode from SP mode.	F	E					
The finisher is supported.	F	E					
While feeding out an original from the ADF, the Start key can be pressed. Then the incorrect document size is detected.	E	D					
The ARDF is supported.	E	D					

A1935532	A193-10	A193-15	A193-17	A193-55
E	A10611001~	6A76100001~	A7226100001~	L5026110066~
F	_	6A76120001~	A7226110154~	L5026120516~
G	A107010001~	6A76120026~	A7226120149~	L5027011010~
H	_	6A77020001~	A7227010410~	L5027021541~
J	A107020001~	6A77020241~	_	L5027021563~
K	A107030001~	6A77020438~	A7227020001~	L5027031945~
L	A107040001~	6A77040001~	_	L5027042480~
M	A107050001~	6A77050001~	A7227050001~	L5027053186~
N	A107060036~	6A77060001~	A7227060001~	L5027063876~
P	***A107080001~***	***6A77080001~***	***A7227080001~***	***L5027085441~***
R	***A107090001~***	***6A77090001~***	***A7227090001~***	***L5027096321~***
T	***TBA***	***TBA***	***TBA***	***TBA***

A1935533	A193-22	A193-26	A193-27	A193-29	A193-65	***A193-69***
D	AH26110001~	3L01160001~	A7226101023~	A7226101492~	L5026110271~	
E	AH26120001~	3L01260001~	A7226111703~	A7226122087~	L5026120780~	
F	AH27010001~	3L00170001~	A7226121305~	A7227012021~	L5027011216~	
G	AH27020001~	3L00270001~	—	—	L5027011424~	
H	AH27020951~	—	A7227021026~	A7227021345~	L5027021685~	
J	AH27020967~	3L00370001~	A7227030441~	A7227031491~	L5027032180~	
K	TBA	3L00470001~	TBA	TBA	TBA	
L	AH27040251~	3L00570001~	A7227042629~	A7227052269~	L5027053561~	
M	AH27060960~	3L00670001~	A7227060651~	A7227062571~	L5027064111~	
N	***AH27080001~***	***3L00870001~***	***A7227080969~***	***A7227081769~***	***L5027085755~***	
P	***AH27090001~***	***3L00970001~***	***A7227090881~***	***A7227092701~***	***L5027096431~***	***A7227092891~***
R	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***	

A1935534	A193-19
B	A7227090821~

MB Correction

Reissue date: **15-Dce-97**

The items in bold italics have been corrected or added.

Model: AD1-E	Date: 15-Oct-97	No: 40A
Subject: ROM History (AD1-E Copy Version)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other ( )

Firmware history for the AD1-E (Copy)

USA Model

A2245532	File No. (A224uxx)	Version	Total C.SUM	SUM(OH)	SUM(***OL***)	Production
D	01	1.18	7766	6521	1245	1st Mass Prod.
E	02	1.20	01F7	98CE	6929	June Prod. ‘97
F	03	1.24	D441	9943	3AFE	August Prod. ‘97
H	04	1.26	C879	5895	6FE4	September Prod. ‘97
K	***06***	***1.30***	***432E***	***144E***	***2EE0***	***October Prod. ‘97***

European /Asian Model

A2245533	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
B	101	1.20EU1	46A8	65C6	E0E2	1st Mass Prod.
C	102	1.24EU1	F12D	8333	6DFA	August Prod. ‘97
D	103	1.26EU1	6693	55DF	10B4	September Prod. ‘97
F	***105***	***1.30EU1***	***6F80***	***F07D***	***7F03***	***October Prod. ’97***

European 2nd Language

A8105510(OL)
A8105511(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	202	1.24EU2	9FB1	FAE8	A4C9
B	203	1.26EU3	649F	D770	8D2F
D	***205***	***1.30EU3***	***76E6***	***6ED6***	***0810***

European 3rd Language

A8105514(OL)
A8105515(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	302	1.24EU3	2C91	F73A	3557
B	303	1.26EU3	649F	D770	8D2F
D	***305***	***1.30EU3***	***6B26***	***4D86***	***1DA0***

European 4th Language

A8105516(OL)
A8105517(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	402	1.24EU4	7A6A	F8BC	81AE
B	403	1.26EU4	E7F9	DA9F	0D5A
D	***405***	***1.30EU4***	***A7C1***	***4EF5***	***58CC***

China Version

A8105512(OL)
A8105513(OH)
	File No. (A224CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

–	–	–	–	–	–

Taiwan Version

A2245534	File No. (A224TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
–	–	–	–	–	–

Symptom Corrected	USA	EU/ Asia	EU2	EU3	EU4	CHN	TWN
Dirty background Problem (Refer to RTB 42) ***-Vt correction*** ***-Mixing time***	***K***	***F***	***D***	***D***	***D***	_	_
New SP mode ***•SP2-994: Vcont offset*** ***•SP9-999-14: Additional Mixing time display***	***K***	***F***	***D***	***D***	***D***	_	_
For the USA only New SP mode SP5-950: LG size paper detection on the by pass tray. ∗ When this function is selected and LT ▭ size paper is put in the by-pass tray, the machine detects it as LG▭ size paper.	H	_	_	_	_	_	_
For the USA only To meet the Energy Star standards.	H	_	_	_	_	_	_
After fax transmission using the ARDF with a stamper, the registration of the 1st copied paper by the ARDF is delayed.	H	D	B	B	B	_	_
A new SP has been added. SP5-949:1= When one of the trays is empty, the paper end indicator (red LED) lights.	F	C	A	A	A	_	_
The DF Jam display is cleared by lifting the DF up and down	F	C	A	A	A	_	_
New SP Mode SP6-006-4: ARDF Main-Scan Registration for the rear side.	E						
Specification When the trays do not have paper of the same size in different orientations, the machine continues to print using the sort function even if Rotate Sort is selected. (The previous software version stops the copy job when one of the trays is empty)	E						
The stapler may not work when the printer feeds out a stapled copy while feeding out the paper into the finisher in copy or fax mode.	E						
When two sheets of paper remain in the Duplex Unit and the printer prints in duplex mode, the printout will be made on the rear side of the paper remaining in the duplex unit.	E						

A2245532	A224-10	A224-15	A224-17	A22455
E	AK87070001~	9A37060001~	A7427060001~	L027080001~
F	AK87080023~	9A37080001~	A7427080001~	_
H	AK87090001~	9A37090001~	A7427090001~	L027090031~
K	***TBA***	***TBA***	***TBA***	***TBA***

A2245533	A224-22	A224-26	A224-27	A224-29	A224-65
C	AK97070543~	3P30870001~	A7427080601~	A7427081501~	_
D	AK97090001~	3P30970001~	A7427090305~	A7427091035~	L0247090216~
F	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***

MB Correction

Reissue date: **15-Dce-97**

The items in bold Italics have been corrected or added.

Model: AD1-E	Date: 15-Dec-97	No: 41A
Subject: ROM History (AD1-E-FAX Option)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other ( )

Firmware history for the AD1-E Fax option.

USA Model

A2255581	File No. (A225uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	8BFA	1E6A	0E7F	8BEA	297B	1st Mass Prod.
B	02	1.42	5263	428B	6E43	AC89	D020	August Prod.'97

European/Asian Model

A2255582	File No. (A225exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	69B7	4A50	03D5	A175	A0E2	1st Mass Prod.
B	02	1.44	B8D4	1860	628D	C933	C347	August Prod.'97
C	***03***	***1.48***	***A559***	***17AD***	***588A***	***CC68***	***37CF***	***October Prod.'97***

European 2nd Language

A2255585	File No. (A225oxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	9B94	ABF0	CD23	2F39	A571	1st Mass Prod.
B	02	1.44	33BE	2E1B	00C5	7330	E7F9	August Prod.'97
C	***03***	***1.48***	***A73F***	***2F37***	***3F7E***	***6A45***	***EBC1***	***October Prod.'97***

European 3nd Language

A2255587	File No. (A225pxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.44	D106	F2A8	4FC6	CD50	8940	1st Mass Prod.
B	***02***	***1.48***	***3A07***	***F808***	***870A***	***C4D6***	***D4FD***	***October Prod.'97***

China Version

A2255586	File No. (A225cxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	FD76	933E	5C23	67C0	A353	1st Mass Prod.
B	02	1.42	A51B	C542	D6A2	0C23	6979	September Prod. '97

Taiwan Version

A2255584	File No. (A225txx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
A	01	1.23	0603	CF1A	54ED	74EA	AD16	1st Mass Prod.
B	02	1.42	F868	27F5	6104	69F5	AD64	September Prod. '97

Symptom corrected	US	EU/ ASIA	EU2	EU3	China	Taiwan
The PC FAX (TR29) option is supported.	_	***C***	***C***	***B***	_	_
For PTT Approval 1. Dial pulses from the other terminal were detected as a ringing signal. (France) 2. Busy tone sometimes cannot be detected. It is solved by using two frequencies , 400 Hz and 900 Hz. (New Zealand) 3. The interval between the dial pulses is out of specification. *Specification : 1000 ms. (New Zealand)	_	B	B	A	B	B
Received files cannot be printed out from the HDD. When a small amount of data (less than 2 kbytes) is received and the communication is finished before writing to the HDD is finished, the data is not completely written to the HDD.	B	B	B	A	B	B
In ISDN G3 mode, when a call comes from a PSTN G3 machine, the fax number stored in Quick Dial 01 is displayed for a few seconds instead of the called terminal identification.	B	B	B	A	B	B
Only for the Netherlands Dial tone cannot be detected. When the dial tone frequency lower limit (PSTN: Address 480406~7, PABX: Address 480419~A) is less than 255HZ, this problem may occur. This problem happens with software version 1.29 or higher.	_	B	B	A	B	B

A2255581	A225–01	A225–06	A225–07	A225–08
B	A7567090071~	AN67090001~	9A47090001~	L025709146~

A2255582	A225–02	A225–03	A225–04	A225–09	A225–10
B	A7567081811~	A7567092653~	A7567083005~	A7567093083~	AN97100001~
C	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***

RICOH

Technical Bulletin

MB Correction

Reissue date: **15-Dce-97**

The items in bold Italics have been corrected or added.

Model: AD1/AD1-E		Date: 20-Oct-97	No: 42A
Subject: Dirty Background Problem		Prepared by: K.Ugaeri	
From: QAC Field Information Dept.			
Classification:	☒ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☐ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☐ Retrofit information

Symptom: Dirty Background (Overtoning)

Cause: Too much toner was supplied to the PCU because of a low q/m in the toner due to the following conditions.

1. After pre-setting the machine, it was not used for a few days.
2. Low copy volume machines had this problem after a vacation of more than 3 weeks.
3. Chemical reaction with ammonia gas, etc.

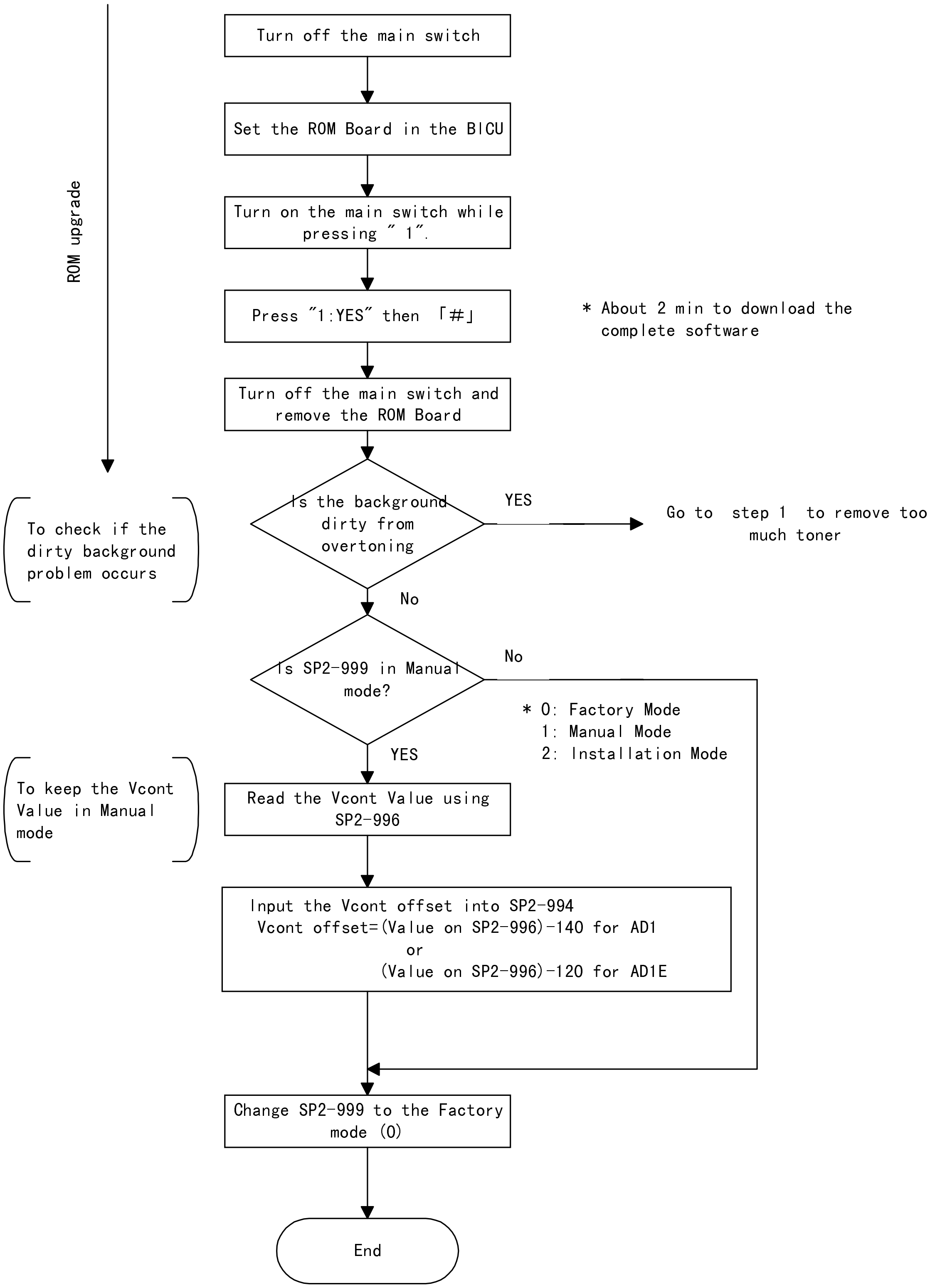
Action Required:

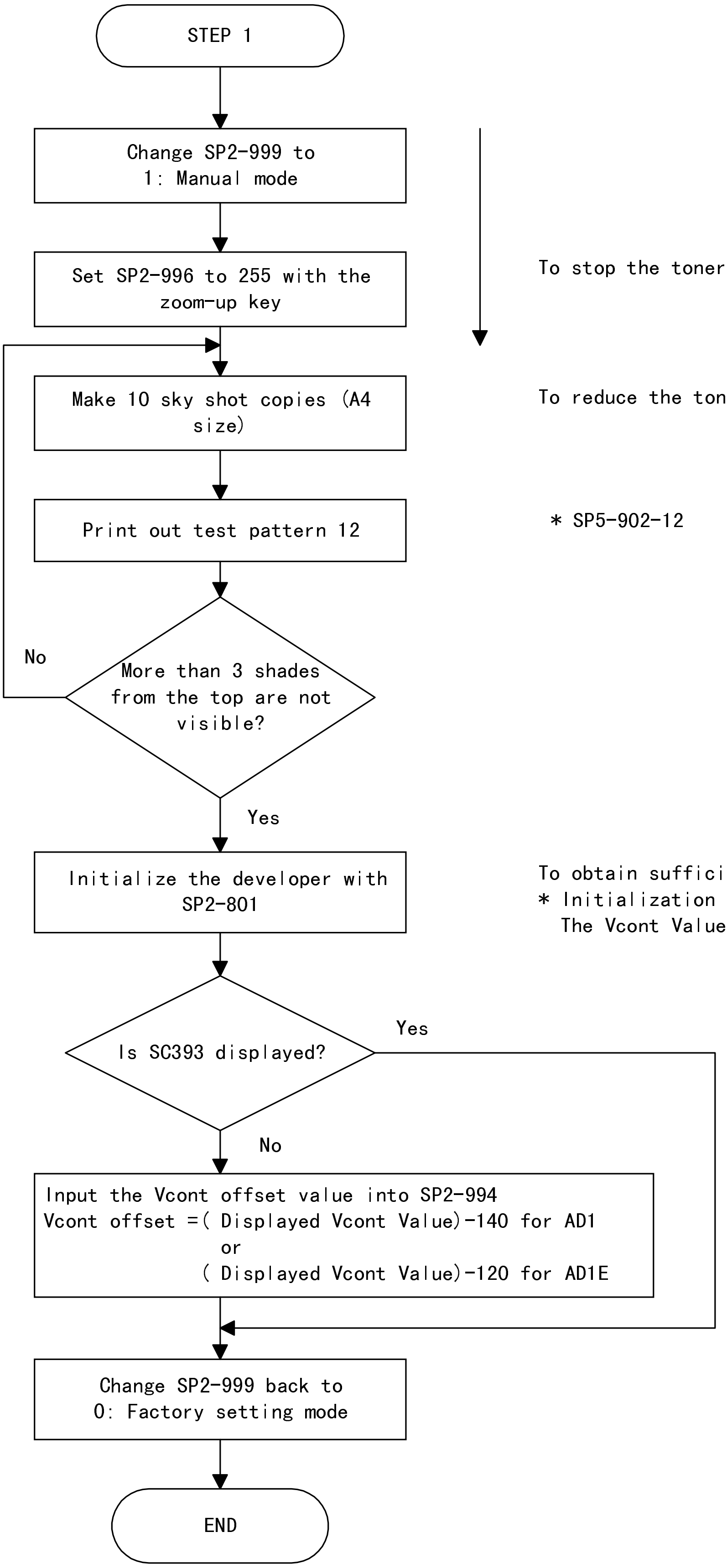
The new BICU Firmware has been released for the dirty background problem for the following versions.

(AD1)	***(AD1E)***
A1935532 T (USA)	***A2245532 K (USA)***
A1935533 R (EU/Asia)	***A2245533 F (EU/Asia)***
A6485570 M (EU2)	***A8105570 D (EU2)***
A6485573 D (EU3)	***A8105573 D (EU3)***
A6485574 D (EU4)	***A8105574 D (EU4)***
A6485572 H (China)	
A1935534 E (Taiwan)	

The new firmware has the countermeasure in which not too much toner is supplied, as shown on the attached sheets (refer to the 4th and 5th pages).
Download the above software into the BICU board at installation or at emergency maintenance using the attached procedure if the machine has the previous version software.

Upgrade Procedure


ROM upgrade
Turn off the main switch
Set the ROM Board in the BICU
Turn on the main switch while pressing " 1".
Press "1:YES" then 「#」
* About 2 min to download the complete software
Turn off the main switch and remove the ROM Board
To check if the dirty background problem occurs
Is the background dirty from overtoning
YES
Go to step 1 to remove too much toner
No
Is SP2-999 in Manual mode?
No
* 0: Factory Mode
1: Manual Mode
2: Installation Mode
YES
To keep the Vcont Value in Manual mode
Read the Vcont Value using SP2-996
Input the Vcont offset into SP2-994
Vcont offset=(Value on SP2-996)-140 for AD1
or
(Value on SP2-996)-120 for AD1E
Change SP2-999 to the Factory mode (0)
End


STEP 1
Change SP2-999 to 1: Manual mode
Set SP2-996 to 255 with the zoom-up key
Make 10 sky shot copies (A4 size)
Print out test pattern 12
More than 3 shades from the top are not visible?
No
Yes
Initialize the developer with SP2-801
Is SC393 displayed?
Yes
No
Input the Vcont offset value into SP2-994
Vcont offset =(Displayed Vcont Value)-140 for AD1
or
(Displayed Vcont Value)-120 for AD1E
Change SP2-999 back to 0: Factory setting mode
END

To stop the toner supply

To reduce the toner density

* SP5-902-12

To obtain sufficient q/m
* Initialization will be completed.
The Vcont Value is displayed.

< PERMANENT COUNTERMEASURE >

The firmware will be improved for this problem as follows.
This firmware will be available from the middle of October production '97.

1. The default of the Vcont value will be corrected.
   AD1 : approx 140 (Current) ---> 10 is added to the default. (150: New for USA)
   ---> 20 is added to the default. (160: New for EU/ASIA)
   AD1E : approx 120 (Current) ---> 10 is added to the default. (130: New for USA)
   ---> 20 is added to the default. (140: New for EU/ASIA)
   The added value is stored in the new SP mode 2-994.

2. Initializing time will be longer. When a new PCU is installed, the machine initializes the PCU to attain a sufficient q/m for the toner. Its time has been changed from 3 min to 5 min.

3. Mixing time will be added.
   The required mixing time for the developer will be calculated by comparing the difference between the previous VT and the latest one. The latest VT will be checked when the main switch is turned on or the machine is not used for more than 12 hours.

The table below will decide the mixing time.

Previous VT - Latest VT	Mixing Time (s)
-0.1	10
-0.2	30
-0.3	100
-0.4	300
0.5-	500

The developer will be mixed for 30 s after every printing job.
Then, 30 s will be deducted from the required mixing time (determined by the above table) till it is over.

Note

If the machine is not run for a long time (at the week-end or during a vacation), the machine will maintain the mixing of the developer unit to keep a sufficient toner q/m.

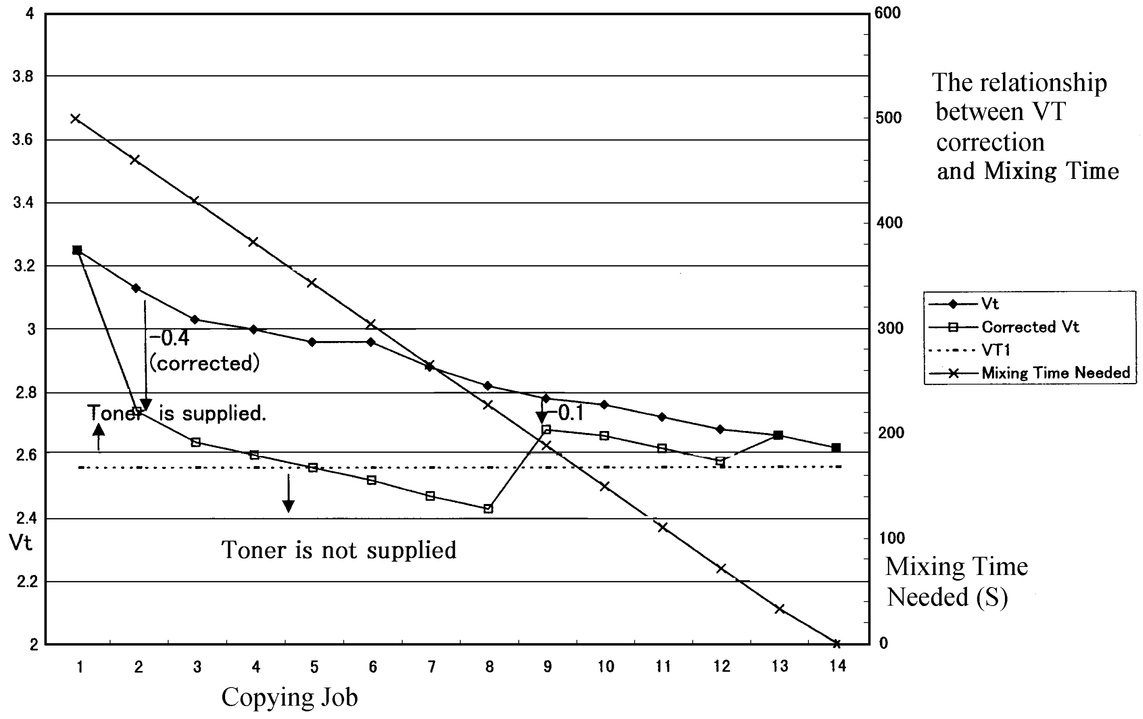
4. The Vt value is corrected.
   If any mixing time (item 3) remains, the Vt value is corrected as shown in the table below.

Remaining mixing time (s)	Vt correction
-100	0
-200	0.1
-300	0.4
-500	0.4

Note

If mixing time remains, Vt is corrected and toner is not supplied as easily.

∗ Items 3 and 4 are not available in Manual setting mode (SP2-999).



The relationship between VT correction and Mixing Time

RICOH **T**echnical **B**ulletin **PAGE: 1/1**

Model: ISDN Option	Date: 15-Dec-97	No: 46
Subject: US National ISDN	Prepared by: K.Hattori	
From: IPP Business Division Technical Service Dpt.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☒ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☐ Other (   )

This bulletin informs the settings required when the machine is connected to the US National ISDN network

Models: ADAM

- **Subscriber Number**

Input the subscriber number given by the telephone company at :

1.G4 SUBSCRIBER NO.1 (MAIN)

2.G3 SUBSCRIBER NO.1 (MAIN)

- **SPID Number (Service Profile Identification Number)**

Input the SPID number given by the telephone company at :

1.G4 SUBSCRIBER NO.2 (Sub)

2.G3 SUBSCRIBER NO.2 (Sub)

Note: Input a ”_” (pause) before the SPID number.

- **G4 Internal Switches**

SW No.	Bit	Setting	Definition
SW11	Bit 1	0: Dynamic TEI	Type of TEI used (Layer 2) (Default)
SW13	Bit 2	1: Yes	Attachment of calling party number (L3 SET UP)
	Bit 5	1: Yes	Attachment of channel information element (L3 CONN)
SW14	Bit 0	1: Speech	ISDN G3 information transfer capability (L3)
	Bit 5	1: Keypad facility	Called ID mapping (L3)
SW15	Bit 7	1: On	Transmission of STAT in reply to STAT_ENQ received in the U0 state.
SW19	Bit 0	1: Permanent	Permanence of the link (L2)
	Bit 2	1: On	SPID procedure (L2)
	Bit 3	1: On	G4 SPID procedure (L2)

Note: After completing a G4 service mode operation, turn off the machine and turn it back on to make the new settings take effect.

RICOH

Technical Bulletin

PAGE: 1/1

Model: PS330 (Paper Tray for AD1/AD1-E)	Date: 15-Dec-97	No: 47
Subject: Paper Feed Roller	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☒ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☐ Other ( )

SYMPTOM: Paper jam

CAUSE: Paper skewing or no feed from PS330 (Paper Tray)

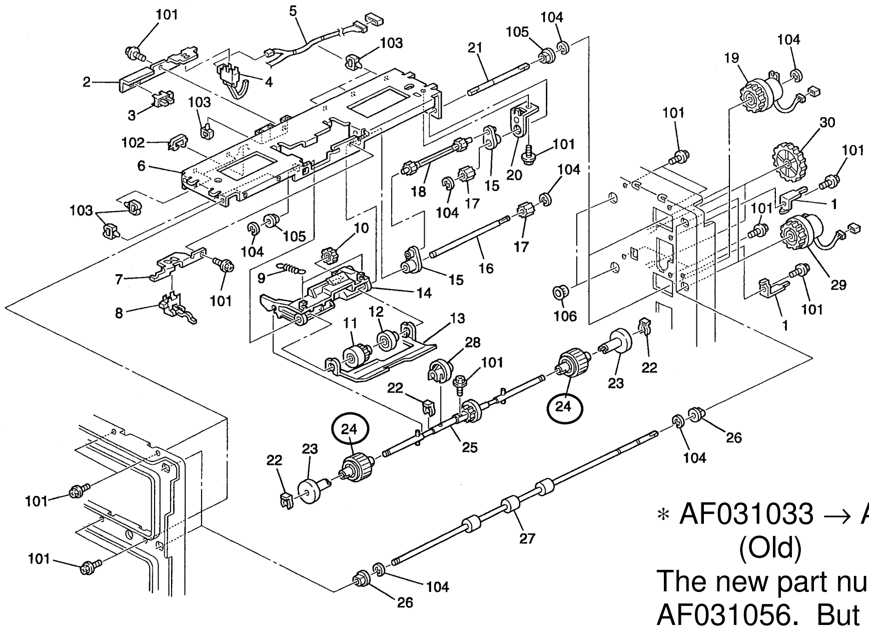
Countermeasure: The diameter of the paper feed roller has been modified from 30ϕ to 32ϕ to improve paper feed.

Action Required: Ricoh has prepared a countermeasure roller kit for the machines in the field and sent them to each subsidiary.

RC: 2150 sets	(4 rollers/set)
RE: 3750 sets	(4rollers/set)
RH: 374 sets	(4rollers/set)

∗ Use these new rollers for machines which have the paper jam problem.

2. Paper Feed Section (G697)



∗ AF031033 → AF031056
(Old) (New)

The new part number of the feed roller is AF031056. But do not order this part until the countermeasure kit is out of stock.

∗The new rollers are available from September production '97

RICOH

Technical Bulletin

RTB Correction

Reissue date: **15-Jan-98**

The items in bold italic have been corrected or added.

Model: AD1	Date: 15-Dec-97	No: 14D
Subject: ROM History (AD1-FAX Option)	Prepared by: K.Ugaeri	
From: QAC 2nd Field Information Dept.		

Classification:

☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other (   )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☒ Retrofit information

AD1-Fax option firmware history.

USA

A1945581	File No. (A194uxx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
C	03	1.23	DD95	CB2A	27F0	BD19	72A5	1st Mass Prod.
D	04	1.29	E6D7	83C2	E9BD	47BC	7F1A	November Prod.'96
E	05	1.38	EAAE	A99A	5C74	919A	5A3A	December Prod.'96
F	06	1.48	5029	5D2A	E457	1FF3	4ED2	March Prod.'97
G	07	1.58	2AEF	27EO	FD88	286A	E367	May Prod.'97
H	08	1.77	43BO	3357	84BC	EAA2	C5F4	August Prod.'97

Europe/Asia

A1945582	File No. (A194exx)	Version	Total C.SUM	SUM (OH)	SUM (OL)	SUM (1H)	SUM (1L)	Production
B	02	1.23	3A44	0A20	FC8A	691F	FEBA	1st Mass Prod.
C	03	1.29	3270	D0F9	39CD	F1E6	19A3	November Prod.'96
D	04	1.38	3745	FA2F	B98C	C966	E8B9	December Prod.'96
E	05	1.48	***ABC7***	***EEBA***	***0F84***	***A0D9***	***0943***	March Prod.'97
F	06	1.58	8D00	FFBE	C502	1BB4	55FE	May Prod.'97
(G)	07t	1.78	C19B	E4F1	FF0B	9B9F	3290	Temporary
G	07	1.79	C2A4	E4F2	FF14	9B9F	3290	August Prod.'97
H	08	1.80	A450	E271	3B61	930F	E8EF	October Prod.'97

RICOH

Technical Bulletin

MB Correction

Reissue date: **15-Jan-98**

The items in bold italics have been corrected or added.

Model: AD1-E	Date: 15-Oct-97	No: 40B
Subject: ROM History (AD1-E Copy Version)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

AD1-E (Copy) firmware history.

USA

A2245532	File No. (A224uxx)	Version	Total C.SUM	SUM(OH)	SUM(***OL***)	Production
D	01	1.18	7766	6521	1245	1st Mass Prod.
E	02	1.20	01F7	98CE	6929	June Prod. ‘97
F	03	1.24	D441	9943	3AFE	August Prod. ‘97
H	04	1.26	C879	5895	6FE4	September Prod. ‘97
K	06	1.30	432E	144E	2EE0	October Prod. ‘97

Europe/Asia

A2245533	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
B	101	1.20EU1	46A8	65C6	E0E2	1st Mass Prod.
C	102	1.24EU1	F12D	8333	6DFA	August Prod. ‘97
D	103	1.26EU1	6693	55DF	10B4	September Prod. ‘97
F	105	1.30EU1	6F80	F07D	7F03	October Prod. ’97

Europe 2nd Language

A8105510(OL)
A8105511(OH)
	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

A	202	1.24EU2	9FB1	FAE8	A4C9
B	203	1.26EU***2***	***F29A***	***D4BF***	***1DDB***
D	205	1.30EU***2***	76E6	6ED6	0810

MB Correction

Reissue date: **31-Jan-97**

The items in bold Italics have been corrected or added.

Model: AD1/AD1-E	Date: 20-Oct-97	No: 42B
Subject: Dirty Background Problem	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☒ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

Symptom: Dirty Background (Overtoning)

Cause: Too much toner was supplied to the PCU because of a low q/m in the toner due to the following conditions.

1. After pre-setting the machine, it was not used for a few days.
2. Low copy volume machines had this problem after a vacation of more than 3 weeks.
3. Chemical reaction with ammonia gas, etc.

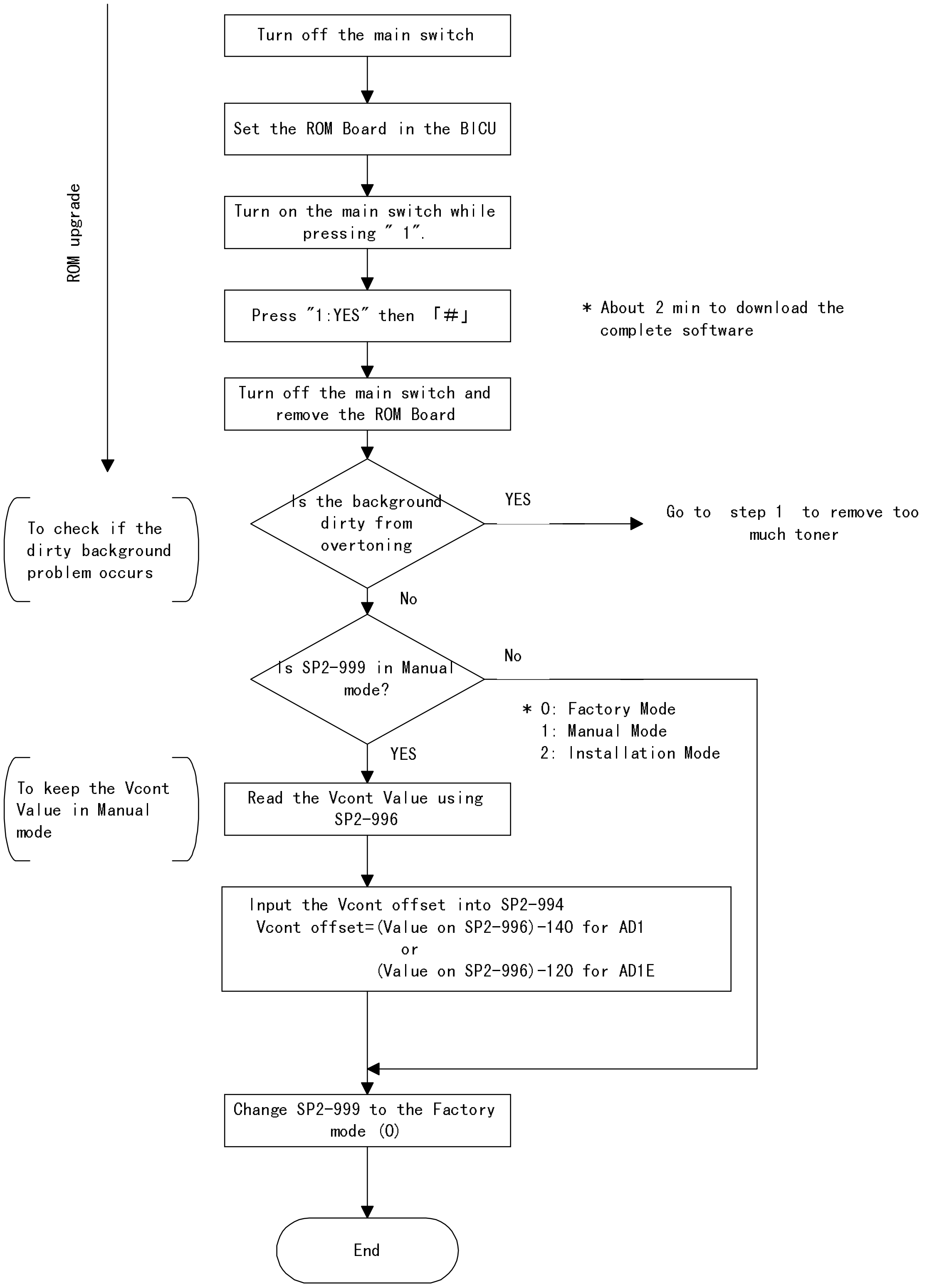
Action Required:

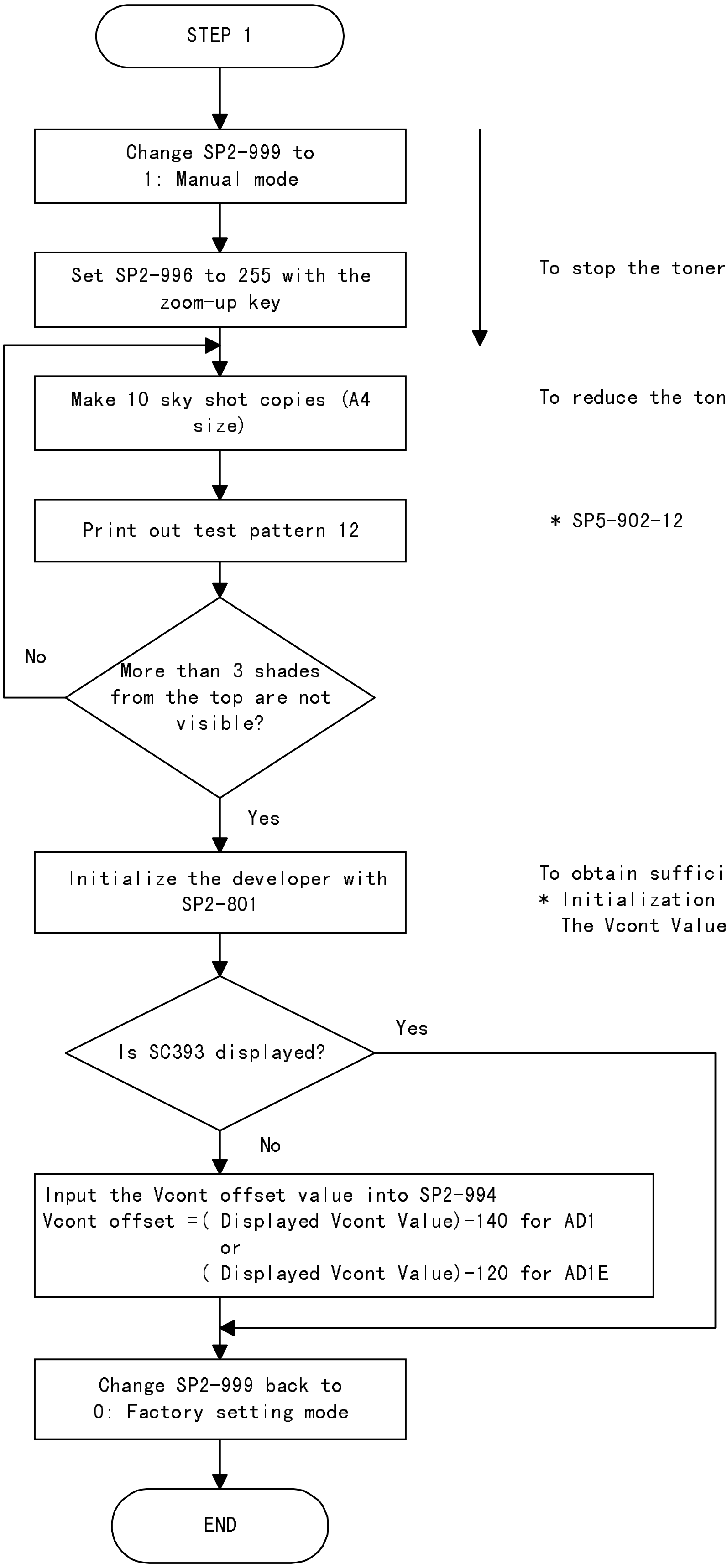
The new BICU Firmware have been released for the dirty background problem from the following versions.

(AD1)	(AD1E)
A1935532 T (USA)	A2245532 K (USA)
A1935533 R (EU/Asia)	A2245533 F (EU/Asia)
A6485570 M (EU2)	A8105570 D (EU2)
A6485573 D (EU3)	A8105573 D (EU3)
A6485574 D (EU4)	A8105574 D (EU4)
A6485572 H (China)	
A1935534 E (Taiwan)	

The new firmware has the countermeasure in which not too much toner is supplied, as shown on the attached sheets (refer to the 4th and 5th pages).
Download the above software into the BICU board at installation or at emergency maintenance using the attached procedure if the machine has the previous version software.

Upgrade Procedure


ROM upgrade
Turn off the main switch
Set the ROM Board in the BICU
Turn on the main switch while pressing " 1".
Press "1:YES" then 「#」
* About 2 min to download the complete software
Turn off the main switch and remove the ROM Board
To check if the dirty background problem occurs
Is the background dirty from overtoning
YES
Go to step 1 to remove too much toner
No
Is SP2-999 in Manual mode?
No
* 0: Factory Mode
1: Manual Mode
2: Installation Mode
YES
To keep the Vcont Value in Manual mode
Read the Vcont Value using SP2-996
Input the Vcont offset into SP2-994
Vcont offset=(Value on SP2-996)-140 for AD1
or
(Value on SP2-996)-120 for AD1E
Change SP2-999 to the Factory mode (0)
End


STEP 1
Change SP2-999 to 1: Manual mode
Set SP2-996 to 255 with the zoom-up key
Make 10 sky shot copies (A4 size)
Print out test pattern 12
More than 3 shades from the top are not visible?
No
Yes
Initialize the developer with SP2-801
Is SC393 displayed?
Yes
No
Input the Vcont offset value into SP2-994
Vcont offset =(Displayed Vcont Value)-140 for AD1
or
(Displayed Vcont Value)-120 for AD1E
Change SP2-999 back to 0: Factory setting mode
END

To stop the toner supply

To reduce the toner density

* SP5-902-12

To obtain sufficient q/m
* Initialization will be completed.
The Vcont Value is displayed.

DETAILS

The firmware has been improved to deal with this problem as shown below.

1. The default of the Vcont value will be corrected.

AD1 : approx 140 (Current) ---> 10 is added to the default. (150: New for USA)
---> 20 is added to the default. (160: New for EU/ASIA)
AD1E : approx 120 (Current) ---> 10 is added to the default. (130: New for USA)
---> 20 is added to the default. (140: New for EU/ASIA)

The added value is stored in the new SP mode 2-994.

2. Initializing time will be longer. When a new PCU is installed, the machine initializes the PCU to attain a sufficient q/m for the toner. Its time has been changed from 3 min to 5 min.

3. Mixing time will be added.

The required mixing time for the developer will be calculated by comparing the difference between the previous VT and the latest one. The latest VT will be checked when the main switch is turned on or the machine is not used for more than 12 hours.

The table below will decide the mixing time.

Previous VT - Latest VT	Mixing Time (s)
-0.1	10
-0.2	30
-0.3	100
-0.4	300
0.5-	500

The developer will be mixed for 30 s after every printing job.

Then, 30 s will be deducted from the required mixing time (determined by the above table) till it is over.

Note

If the machine is not run for a long time (at the week-end or during a vacation), the machine will maintain the mixing of the developer unit to keep a sufficient toner q/m.

4. The Vt value is corrected.

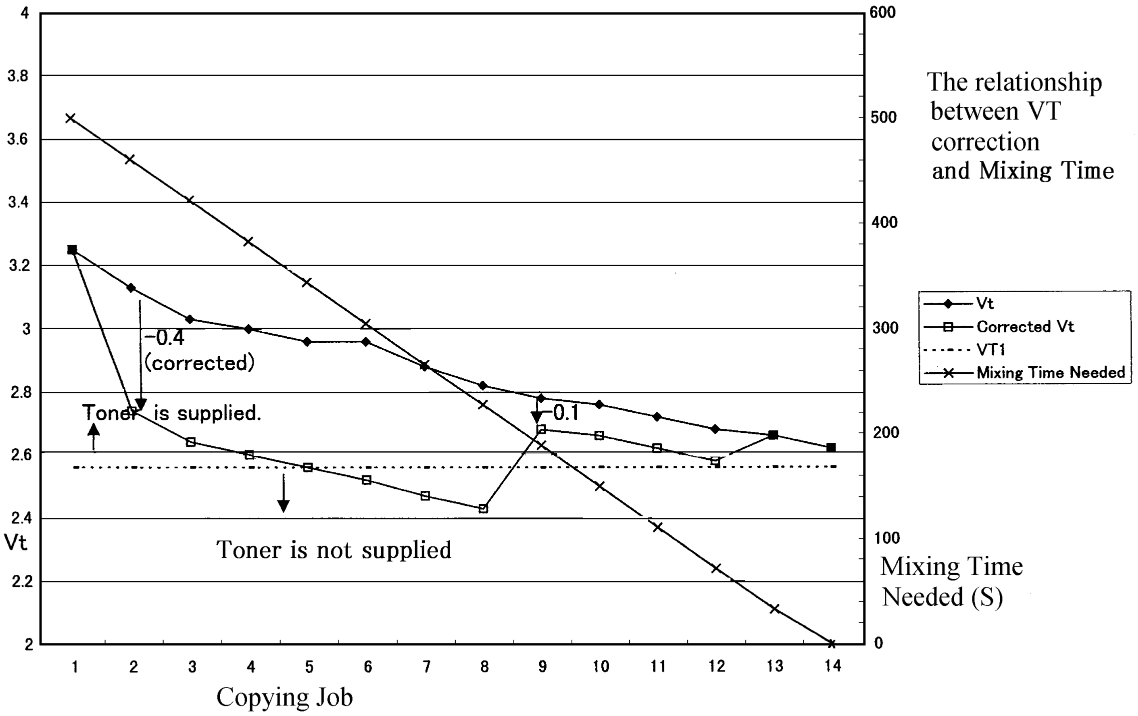
If any mixing time (item 3) remains, the Vt value is corrected as shown in the table below.

Remaining mixing time (s)	Vt correction
-100	0
-200	0.1
-300	0.4
-500	0.4

Note

If mixing time remains, Vt is corrected and toner is not supplied as easily.

∗ Items 3 and 4 are not available in Manual setting mode (SP2-999).



The relationship between VT correction and Mixing Time

RICOH Technical Bulletin

RTB Correction
Reissue date : **15-Jun-98**
The items in bold italics have been corrected or added.
The illustration has changed as shown below.

Model: AD1(LCT Option)	Date: 31-Jan-98	No: 48A
Subject: Paper jam and Noise	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		
Classification:	☒ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☒ Part information ☐ Electrical ☐ Transmit/receive
	☐ Action required ☐ Service manual revision ☐ Retrofit information	

During an internal test, the following problems were found and some parts have been improved from December production '97.

SYMPTOM

1. The grounding plate (A6676151) was broken at installation.
2. Paper jam
3. Noise

CAUSE

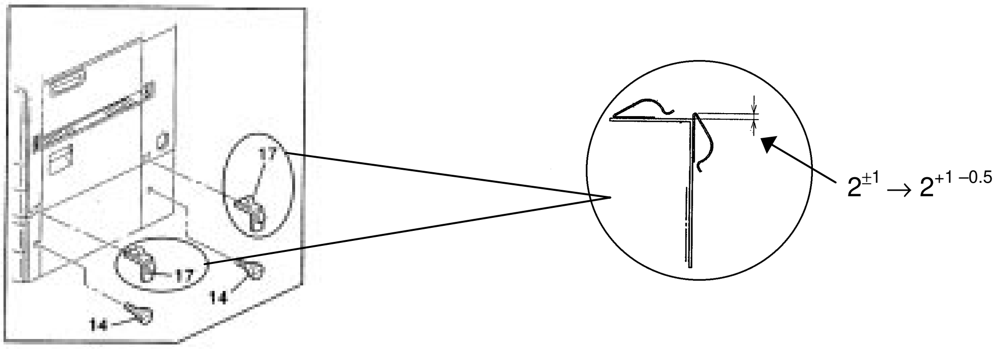
1. When the LCT is installed on the main frame, the spring plate might be cracked.
2. When the dust rubbed off the timing belt gets between the timing pulley and the drive shaft, the rotation of the pulley is affected and paper jams might occur.
3. Rotation noise from the relay roller (but the noise level is still within specification)

COUNTERMEASURE

1. When installing the LCT, take care not to press the grounding plate too hard.

   Permanent countermeasure
   The shape of the grounding plate has been modified (A6676151->A6676151A) and RCL will supply the countermeasure parts to each subsidiary.
   RC : 50 sets
   RE : 80 sets
   RH : 20 sets

1.LCT UNIT 1(A667)



2. Clean the drive shaft of the timing pulleys (P7 – Index 24,***25,27***).

Permanent Countermeasure

To prevent this problem in the LCT , the material of the shaft and the shape of the pulley and collar have been modified to reduce the dust from the timing belt and to prevent the dust from getting into the pulley . RCL will supply the countermeasure parts to each subsidiary.

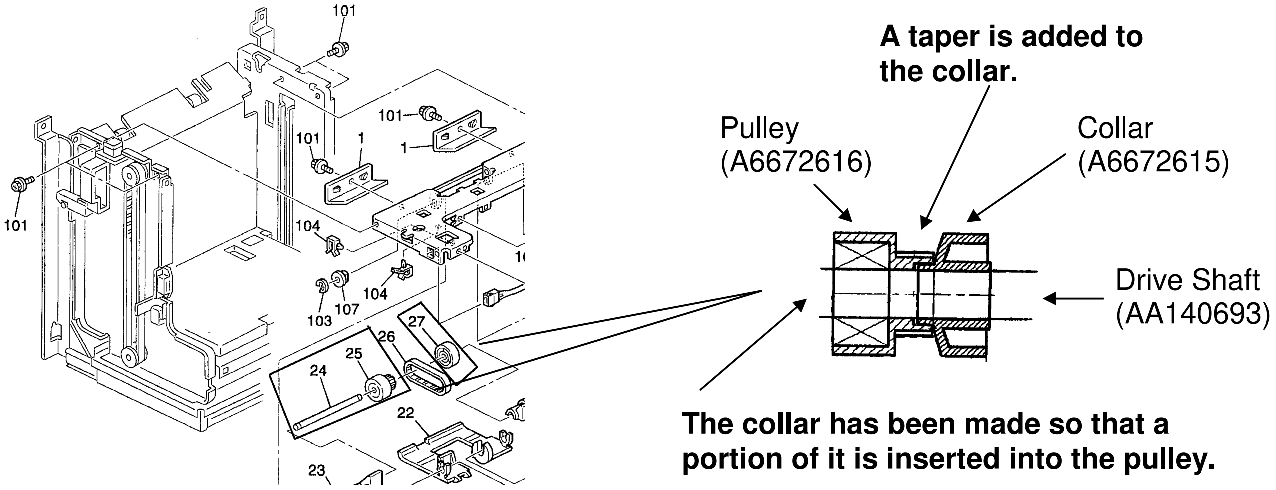
RC : 100 sets
RE : 160 sets
RH : 40 sets

1. AA140627 → AA140693 ***Drive Shaft – Feed Roller***
2. H5154713 → A6672615 ***Timing Pulley Collar – 6x8***
3. H5154714 → A6672616 ***Timing Pulley – 22Z***

} X/O as a combination

The interchangeability for these parts is available as a combination.

3.LCT UNIT 3 (A667)



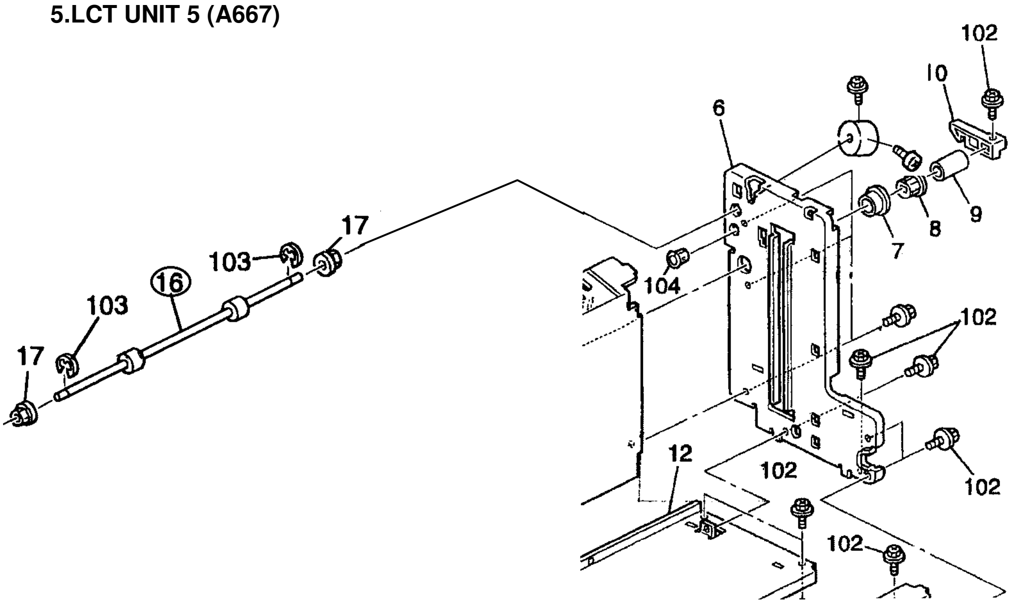
A taper is added to the collar.

The collar has been made so that a portion of it is inserted into the pulley.

3. Lubricate the shaft of the feed rollers.

Permanent Countermeasure
To reduce the rotation noise from the relay roller, a fly wheel is added to stabilize the rotation. The material of the shaft and the shape of the timing pulley have been modified.

5.LCT UNIT 5 (A667)



Technical Bulletin

RTB Correction
Reissue date: **15-Feb-98**
The items in bold italic have been corrected or added.

Model: AD1-Printer Type 250		Date: 23-Jul-97	No: 35C
Subject: Firmware and Software History		Prepared by: K.Ugaeri	
From: QAC Field Information Dept.			
Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

A. Firmware for Controller Type 250.

1. History and Checksum List.

Ver	Check Sum		Released on
	U23	U24	
1.37	***C722***	***1E0C***	***'97.12.17***
1.35	3301	1D08	'97.9.30
1.32	8FD5	3EFD	'97.8.26
1.26	3EC3	64E8	'97.6.10
(1.24)	F38F	AC48	Temporary ('97.5.28)
(1.21)	7A04	AC4F	Temporary ('97.5.20)
1.08	59BA	F0C2	'97.4.2
1.07	901F	6D97	'97.2.2
1.06	5DAD	1E45	'96.12.17
1.03			1st Mass Prod. ('96.12.5)

2.Corrected Symptom

	Ver.
In the Dutch version, the expressions of "On" and "Off" are incorrect.	***1.37***
When printing a banner page in a staple job, the banner page is printed incorrectly.	1.35
Resource saving on the test page indicates "1219 kbytes allocated of 1219 kbytes available." It should be "0 Kbytes allocated of ..."	
When printing in Raster mode with custom paper size setting, output is incorrect.	
The Line Per Page setting value in the PCL menu was changed after power was switched off/on.	1.32
While data is in the print queue, if you press the Job Reset key, some problems may occur.	
While data is in the print queue, either Memory Overflow or Lock Up occured. (Acrobat, Page Maker)	
After printing 300 dpi data, only half of the 600 dpi data is printed out,.	
Image cut off if the previous job was printed using long edge feed (300 dpi) and the current job is printed with short edge feed (300 dpi).	
After printing data for a small paper size, if you print data for a bigger paper size, only data to fill the previous paper size is printed out.	

	Ver.
After printing a job using staple mode, if sending another job which changed the Page Protection Mode from the previous job’s setting, sometimes it does not work, and the data stays in the print queue.	1.32
When setting User Code, if you send data to print while the LCD shows “Input user code...”, it does not work without pressing the offline / online key even if you input the User Code.	
Side-to-side motion of the finisher does not work in the energy save and night timer mode.	1.26
The demo page cannot be printed. (∗This is a problem only for version 1.24)	
Lock-up occurs occasionally while the printing data is being stored on the HDD due to a sector control failure.	
Lock-up when the job reset button is pressed during data storage.	(1.24)
The finisher is supported.	(1.21)
Print overrun because of access time to HDD. The band buffer is increased from 660KB to 4MB. ∗∗ If the controller has a HDD, more than 4MB of SIMM memory must be added.	
General Protection Fault during Landscape Printing in Raster mode.	
Output of a Genoa FTS file is different from that of HP (∗∗Genoa FTS file).	1.08
Page ordering is wrong. (∗∗ For duplex printing, interleave on, and interrupt copying)	
The printer hangs up when printing word data with lines shaded with colours as HP/GL. (∗ Duplex printing, HP/GL mode and coloured lines)	1.07
Paper jam in Duplex mode when an A4 size page is printed on A3 paper.	

Model: AD1-Printer Type 250	Date: 23-Jul-97	No: 35C

B. Driver Software for Win 3.1/Win 95

1. History List

Ver	Released on
2.11	***’97.12.17***
2.00	‘97.7.9
1.30	’97.5.19
1.21	’97.4.2
1.10	’97.2.2
1.00	1st Mass Prod.(’96.12.5)

2. Corrected Symptoms

	Ver.
1) When you set Lines Per Page to a small value and print Landscape data, the top margin will be shifted down. ***2) PageMaker 6.5 and Word Perfect 8.0, duplex setting is disabled (grayed out) in the application’s setting boxes.*** ***3) Help file*** ***(1) The wording “External Tray (F/U)” has been deleted. This may confuse users who don’t understand that External Tray and External Tray (F/U) are the same thing.*** ***(2) In the Staple section, the first sentence contains a mistake.*** ***(3) In the Printer Memory section, it says that the printer self test page shows the memory size in KB. The test page actually shows it in MB.*** ***4) The default setting of Page Protect is changed from On to Auto.*** ***5) A driver installation error occurs when you install using Add Printer.***	***2.11***
1) Even if setting True Type Mode to “ Download as True Type “, it is output as a bit image. 2) When printing Hound.doc with Win 3.1, a part of the Univers Font was printed incorrectly. 3) When setting B5 Env.in the Bypass Tray, WinPanel shows “Add F4 paper into Bypass Tray.” 4) When installing Win95 driver by Add Printer, the help File was not installed.	2.00
The finisher is supported.	1.30
In Raster mode, a part of the graphic data cannot be printed correctly.	1.21
Power Point for Windows 95 cannot print raster Images.	1.10

C. Host Panel for DOS

1.History List

Ver	Released on
1.02	’97.5.25
1.01	’97.4.2
1.00	1st Mass Prod. (’96.12.5)

2. Corrected Symptom

	Ver.
Profile which has the Host Panel setting information in Duplex mode cannot be opened correctly.	1.02
TBA (To Be Announced)	1.01

RICOH Technical Bulletin

MB Correction

Reissue date: **15-Feb-98**

The items in bold italics have been corrected or added.

Model: AD1E-Printer Type 251
Date: 30-Nov-97
No: 45A
Subject: Firmware and Software HIstory
Prepared by: K.Ugaeri
From: QAC Field Information Dept.

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☒ Retrofit information

A. Firmware for Controller Type 251.

1. History and checksum List.

Ver	Check Sum		Released on
	U23	U24	
5.15	***8C25***	***AC42***	***'97.12.17***
5.13	DB12	A541	'97.9.30
5.09	0E06	D22F	'97.8.26
5.04			1st Mass Prod.

2.Corrected Symptoms

	Ver.
For the Dutch version, the expressions of "On" and "Off" are incorrect.	***5.15***
When printing a banner page in a staple job, the banner page is printed incorrectly.	5.13
Resource saving on the test page indicates "1219 kbytes allocated of 1219 Kbytes available." It should be "0 kbytes allocated of ..."	
When printing with raster mode and custom paper size setting, output is incorrect.	
After printing a job using staple mode, if sending another job which changed the Page Protection Mode from the previous job's setting, sometimes it does not work, and the data stays in the print queue.	5.09
When setting a User Code, if you send data to print while the LCD shows "Input user code...", it does not work without pressing the offline / online key even if you input the User Code.	

B. Driver Software for Win 3.1/Win 95

1. History List

Ver	Released on
2.11	***'97.12.17***
2.00	1st Mass Prod.

2. Corrected Symptom

	Ver.
1) When you set Lines Per Page to a small value and print Landscape data, the top margin will be shifted down. ***2) Pagemaker 6.5 and Word Perfect 8.0, duplex setting is disabled (grayed out) in the application's setting boxes.*** ***3) Help file*** ***(1) The wording "External Tray (F/U)" has been deleted. This may confuse users who don't understand that External Tray and External Tray (F/U) are the same thing.*** ***(2) In the Staple section, the first sentence contains a mistake.*** ***(3) In the Printer Memory section, it says that the printer self test page shows the memory size in KB. The test page actually shows it in MB.*** ***4) The default setting of Page Protect is changed from On to Auto.*** ***5) A driver install error occurs when you install using Add Printer.***	***2.11***

C. Host Panel for DOS

1. History List

Ver	Released on
1.02	1st Mass Prod.

RICOH **Technical Bulletin** **PAGE: 1/1**

Model: Adam	Date: 15-Feb-98	No: 49
Subject: PC-Fax Expander Type 250	Prepared by: Y. Furuya	
From: Technical Service Department.		

Classification:

☐ Troubleshooting
☐ Mechanical
☐ Paper path
☒ Other (Service manual for new option)
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

The service manual for the PC-Fax Expander Type 250 (12 pages) follows.

SERVICE MANUAL
PC-FAX EXPANDER TYPE 250

February 9th, 1998
Subject to change

TABLE OF CONTENTS

1. OVERALL INFORMATION

1.1 SPECIFICATIONS

Item	Description
PC Fax Interface	EIA/TIA Class 2 (Class 1 is not supported)
Host Interface Connector	EIA/TIA RS232C DB25 female connector
Scanner	TWAIN interface Maximum resolution: 200 x 200 dpi

1.2 FEATURES

- ❑ Class 2 fax transmission directly from a host PC
  (PC fax application required)
- ❑ Class 2 fax transmission through SAF memory
  (PC fax application required)
- ❑ Class 2 fax reception directly to a host PC
  (PC fax application required)
- ❑ Class 2 fax reception through SAF memory
  (PC fax application required)
- ❑ Local printing from a PC fax application
  (PC fax application required)
- ❑ Local scanning from the machine’s scanner using TWAIN API
  (CFM Twain driver required)

2. DETAILED DESCRIPTIONS

2.1 AT COMMANDS AND RESPONSES

2.1.1 CLASS 0 COMMANDS

Command	Function	Remarks
ATA	Answer	
ATD	Dial	
ATE	Command echo	
ATH	Switch-hook control	
ATI	Identification	
ATL	Speaker volume	
ATM	Speaker control	
ATP	Set pulse dial as default	The machine returns OK, but the function is not supported.
ATQ	Result code display	
ATS	S register	
ATT	Set tone dial as default	
ATV	Result code form	
ATX	Extended result codes	The machine returns OK, but the function is not supported.
ATZ	Reset	
AT&C	DCD option	The machine returns OK, but the function is not supported.
AT&D	DTR option	
AT&F	Restore factory configuration	

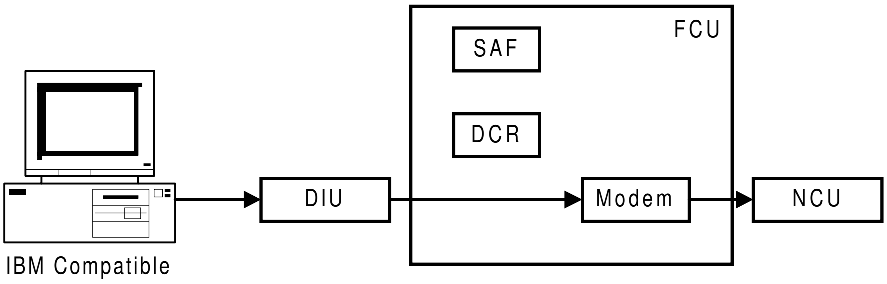
2.1.2 CLASS 2 COMMANDS

Command	Function	Remarks
AT+FCLASS?	Service class	The machine responds “22”.
AT+FMFR?	Identify manufacturer	The machine responds “RICOH(CF1)”.
AT+FLID	Local ID string	
AT+FBOR	Phase C data bit order	
AT+FCR	Capability to receive	The machine returns OK, but the function is not supported.
AT+FDCC	DCE capability parameters	
AT+FDIS	Current session parameters	
AT+FDT	Data transmission	
AT+FET	Transmit page punctuation	
AT+FDR	Phase C receive data	
AT+FMDL?	Identify model	The machine responds “PC-FAX EXPANDER (CF1)”.

Command	Function	Remarks
AT+FREV?	Identify revision	The machine responds with FCU ROM version and release date.
AT+FAA	Adaptive answer	The machine returns OK, but the function is not supported.
AT+FPHCTO	Phase C timeout	
AT+FECM	ECM parameter	
AT+FBUG	Session manager reporting parameter	
AT+FPTS	Page transfer status	
AT+FAXERR	Fax error value	The machine returns OK, but the function is not supported.
AT+FDCS	Current session results	
AT+FCQ	Copy quality capability parameter	The machine returns OK, but the function is not supported.
AT+FK	Session termination	
+FHNG	Call termination with status	
+FCON	Facsimile connection response	
+FCSI	Report the CSI	
+FTSI	Report the TSI	
+FCFR	Indicate CFR	

2.2 CLASS 2 FAX COMMUNICATION

2.2.1 DIRECT TRANSMISSION

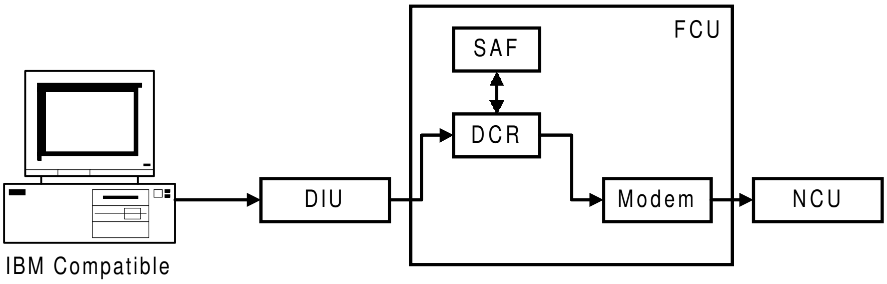


A824D001.WMF

The host computer sends commands and image data to the machine through the DIU during transmission.

NOTE: 1) Group dials programmed in the machine cannot be used.
2) ISDN G4 numbers programmed in quick or speed dials cannot be used.
3) If ISDN is selected for G3 communication (system switch 0A, bit 6), the G3 numbers must have been programmed in quick or speed dial.
4) T.30 optional protocols (e.g., BFT) are not supported by class 2 fax communication.

2.2.2 MEMORY TRANSMISSION

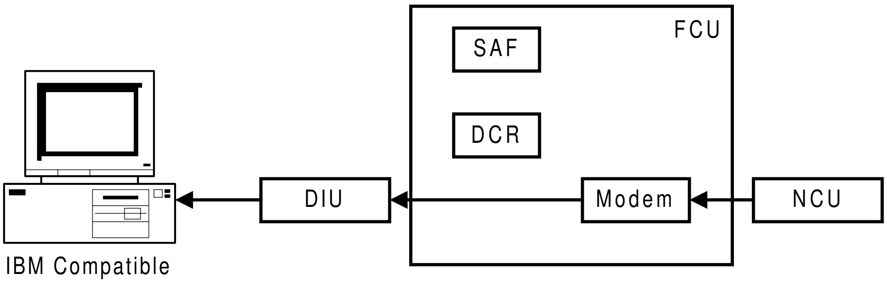


A824D002.WMF

The host computer sends destination number(s) and image data to the machine through the DIU during transmission. The machine stores the image in the SAF memory, then makes a fax transmission.

NOTE: 1) If the memory overflows while storing the first page into SAF memory, the machine does not start the transmission.
2) If the memory overflows while storing the second or subsequent page into SAF memory, the machine transmits all the successfully stored pages.
3) When fax numbers programmed in the machine's quick or speed dials are specified using the PC fax application, all the specified numbers must have been programmed in the fax machine.
4) T.30 optional protocols (e.g., BFT) are not supported by class 2 fax communication.

2.2.3 DIRECT RECEPTION

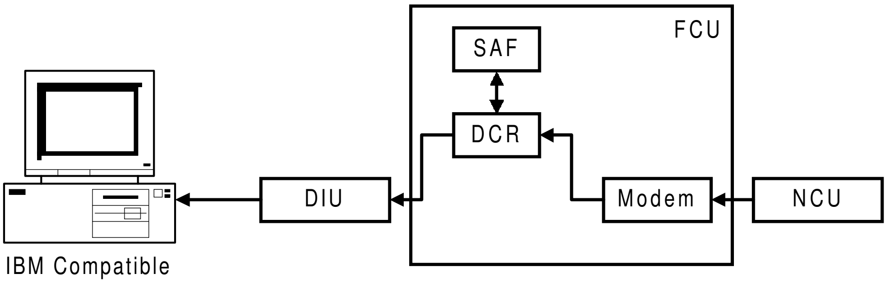


A824D003.WMF

The machine transfers received image data directly to the host PC without storing it into SAF memory.

NOTE: 1) If the host PC is not ready to receive a fax message, the machine receives the message into SAF memory.
2) Even if the SAF memory is full, the machine starts fax reception. However, the machine will not continue reception if the host computer is not ready to receive a message.
3) The "Number of rings to answer" parameter in the PC fax application must not exceed 4.

2.2.4 MEMORY RECEPTION



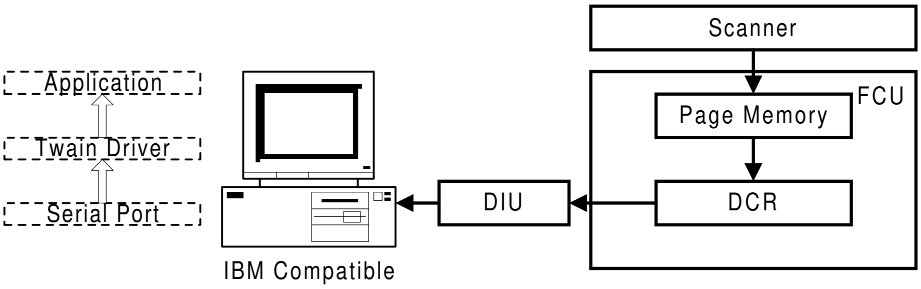
A824D004.WMF

The machine receives a fax message in the SAF memory, then transfers data to the host computer after the reception has finished. The machine prints the received message after transferring data to the host if user parameter 20 – bit 4 is set to "1: Print".

NOTE: 1) If an error occurs due to cable disconnection, the PC fax application must be restarted to receive the message.
2) Memory reception is not possible when forwarding is enabled.
3) Manual reception from the PC fax application is not supported.
4) The "Number of rings to answer" parameter in the PC fax application must not exceed 4.

2.3 SCANNING AND PRINTING

2.3.1 SCANNING

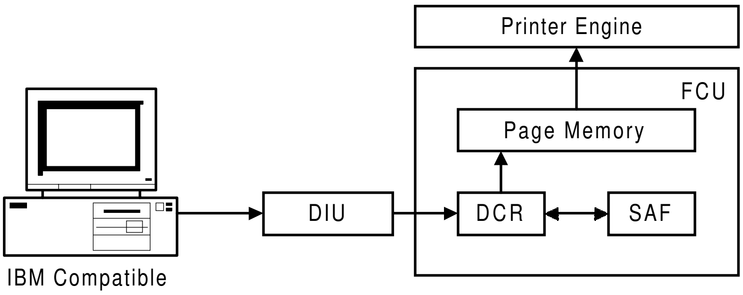


A824D005.WMF

The machine scans an original into page memory, then transfers the data to the host PC. The data is sent to the application through the CFM Twain driver.

NOTE: 1) The maximum resolution is 200 x 200 dpi.

2.3.2 PRINTING



A824D006.WMF

The machine receives print data into SAF memory as fax image data, then prints it after all the data has been transferred from the host PC.
The destination number “0000” informed from the host PC identifies a print job.

NOTE: 1) If SAF memory runs out while receiving print data, the machine prints up to the successfully received data.
2) The machine cannot receive print data while printing a message from the SAF memory. The data will be received after printing.
3) If a fax destination is specified together with the print destination “0000”, the destinations specified after “0000” will be delayed until the machine prints all pages in the message.

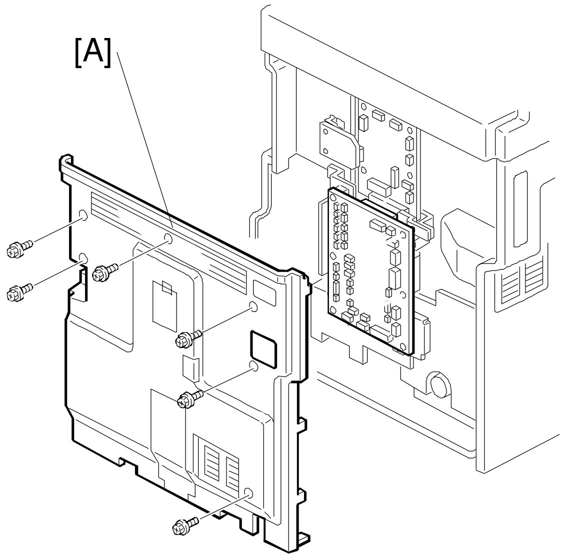
3. INSTALLATION

THIS OPTION MUST BE INSTALLED BY A CUSTOMER SERVICE REPRESENTATIVE WHO HAS COMPLETED THE TRAINING COURSES ON THE BASE COPIER AND THIS OPTION.

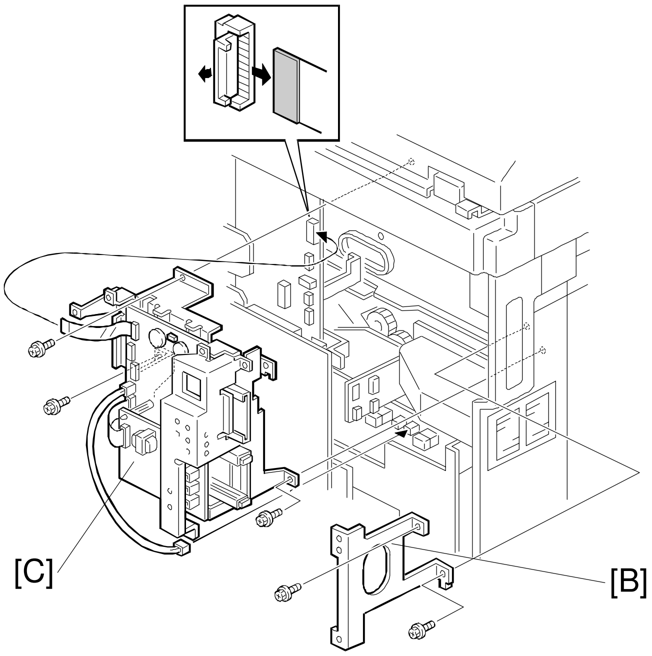
NOTE: 1) Never install telephone wiring during a lightning storm.
2) Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
3) Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
4) Use caution when installing or modifying telephone lines.
5) Avoid using a telephone (other than a cordless type) during an electric storm. There may be a remote risk of electric shock from lightning.
6) Do not use an telephone to report a gas leak in the vicinity of the leak.

⚠CAUTION

Before installing this option, switch off the main and ac switches, and disconnect the power cord.

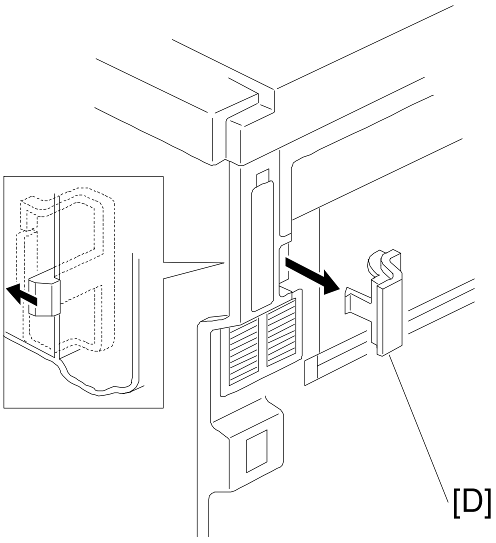


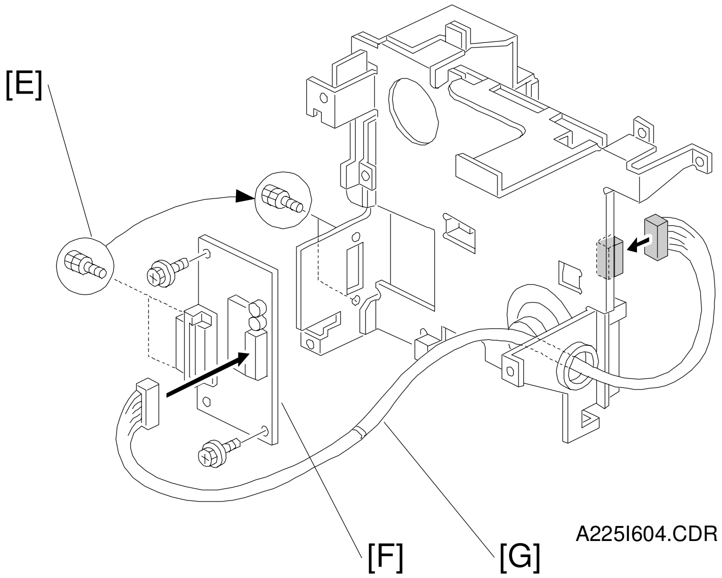
A225I601.CDR



A225I602.CDR

1. Remove the rear cover [A] (6 screws).
2. Remove the bracket [B] (2 screws), or the fax unit [C] if it has been installed in the machine (13 screws, 2 brackets, 2 connectors).





3. Remove the cover [D] from the left side cover.
4. Remove the ISDN G4 interface from the fax unit if it is present (2 screws, 1 connector).
5. Remove two hexagonal screws [E] from the DIU.
6. Install the DIU (RS232C interface) [F] in the fax unit (4 screws, 2 of them are the hexagonal screws removed in the previous step).
7. Connect the harness [G] from the DIU to CN506 on the FCU as shown, and put back the ISDN G4 interface if it was removed in step 4.
8. Install the fax unit [C] (13 screws, 2 brackets, 2 connectors), and the rear cover [A] (6 screws).
9. Turn on the machine and print the system parameter list. If “TR29” appears in the “Option” section of the system parameter list, go on to step10. Otherwise, check the ROM version or the cable connections.
   FCU ROM Versions which support this option
   - A1945582H or later
   - A1945585E or later
   - A1945587B or later
   - A2255582C or later
   - A2255585C or later
   - A2255587B or later
10. Follow the Operator’s Manual for how to connect the machine to a host computer, how to set up the machine and the computer, if required.
    NOTE: 1) A “straight-through” shielded serial cable is required, but it is not enclosed in this option.
    2) One end of the serial cable must have a DB25 male type connector to be connected to the DIU.

4. SERVICE TABLES AND PROCEDURES

4.1 SERVICE MODE FUNCTIONS

4.1.1 PC PROTOCOL DUMP LIST

Use this function to check the AT commands and responses that are exchanged between a host computer and the machine.
Refer to section 2.1 for details of the supported AT commands.

1. Enter service mode, and select 05 “Protocol Dump”.
2. Select 3 “PC Protocol List”, then press Start.

4.2 BIT SWICTHES

System Switch 1C		
No	**FUNCTION**	**COMMENTS**
0	PC-DIU communication record on the Journal **0:** Disabled **1:** Enabled	**1:** Communications between the DIU and a host PC are logged on the Journal. Also, the Data-in LED turns on while data is coming in and going out to the PC. Be sure to reset this bit to “0” after a test.
1 to 7	Not used	Do not change the settings.

4.3 USER PARAMETERS

User Switch 20		
No	**FUNCTION**	**COMMENTS**
0	Class 2 transmission **0:** Direct tx **1:** Memory tx	**0:** Image data is sent directly from a host during communication. **1:** Image data is sent to the fax machine’s SAF memory before starting a fax communication, then it is sent by the fax machine.
1	Addition of fax TTI in class 2 memory transmission **0:** Disabled **1:** Enabled	**1:** The machine adds its TTI to all the messages sent through SAF memory. This setting is effective only when bit 0 is set to “1”.
2	Message received to: **0:** Fax **1:** PC	**0:** Received messages are printed at the machine. **1:** Received messages are transferred to the host PC.

User Switch 20		
No	**FUNCTION**	**COMMENTS**
3	Class 2 reception **0:** Direct rx **1:** Memory rx	**0:** Received messages are transferred to the host PC directly during fax communication. **1:** Received messages are stored in the SAF memory during reception. Then they are transferred to the host PC after reception has been completed.
4	Message printout in class 2 memory rx **0:** Disabled **1:** Enabled	**1:** A message received into memory is printed after it has been transferred to the host PC.
5	Checkered mark on printouts from a PC **0:** Disabled **1:** Enabled	**1:** The machine prints a checkered mark on a document printed through the DIU.
6 to 7	Not used	Do not change the settings.

User Switch 21		
No	**FUNCTION**	**COMMENTS**
0 to 3	Scan density for the “Light” setting in scanner mode. $\begin{pmatrix}1\\0\\0\\0\end{pmatrix} = Level1 \begin{pmatrix}0\\1\\0\\0\end{pmatrix} = Level2 \begin{pmatrix}1\\1\\0\\0\end{pmatrix} = Level3$	
4 to 7	Scan density for the “Dark” setting in scanner mode. $\begin{pmatrix}1\\0\\1\\0\end{pmatrix} = Level5 \begin{pmatrix}0\\1\\1\\0\end{pmatrix} = Level6 \begin{pmatrix}1\\1\\1\\0\end{pmatrix} = Level7$	

5. PARTS LIST

Index	Part Number	Name	Q’ty/Unit
1	A2255172	PCB - DIU	1
2	A2255290	Harness – DIU-FCU	1
3	04513006B	Screw – M3 x 6	3

RICOH

Technical Bulletin

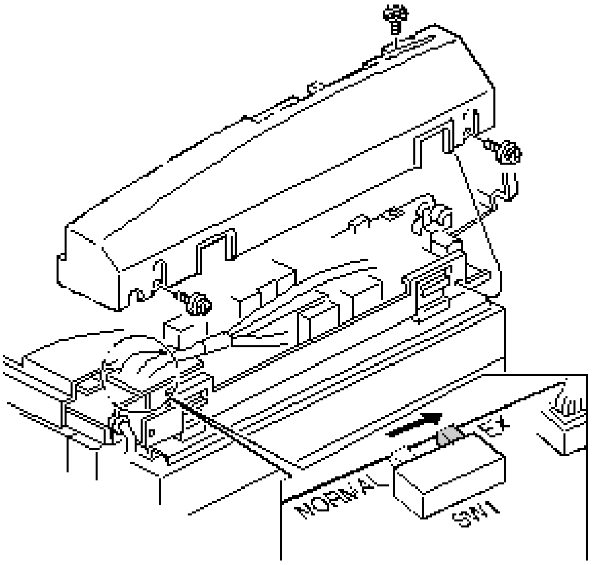
Model: AD1 (New DF65 Option)
Date: 15-Mar-98
No: 50
Subject: New Model for AD1E
Prepared by: K.Ugaeri
From: QAC Field Information Dept.

Classification:
☐ Troubleshooting
☐ Mechanical
☐ Paper path
☒ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

We hereby inform you that a new ARDF has been launched with a new trailing edge sensor to speed up ARDF scanning for the AD1E (25 cpm). New product codes are as follows.

Product Code	Model Name	Current Product Code
A661-50	DF65 for Gestetner	A661-10
A661-30	DF65 for Savin	A661-15
A661-57	DF65 for Ricoh	A661-17
A661-66	DF65 for Danka	A661-26
A661-60	DF65 for Lanier	A661-55

New product can be installed on the AD1 and the AD1E. When installed on the AD1E, please change the dip switch on the ARDF control board from Normal to Ex position as shown the instruction manual. The different parts list between new product and old one is attached (Scanning speed with AD1E: 20cpm by 1 to 1 copy).



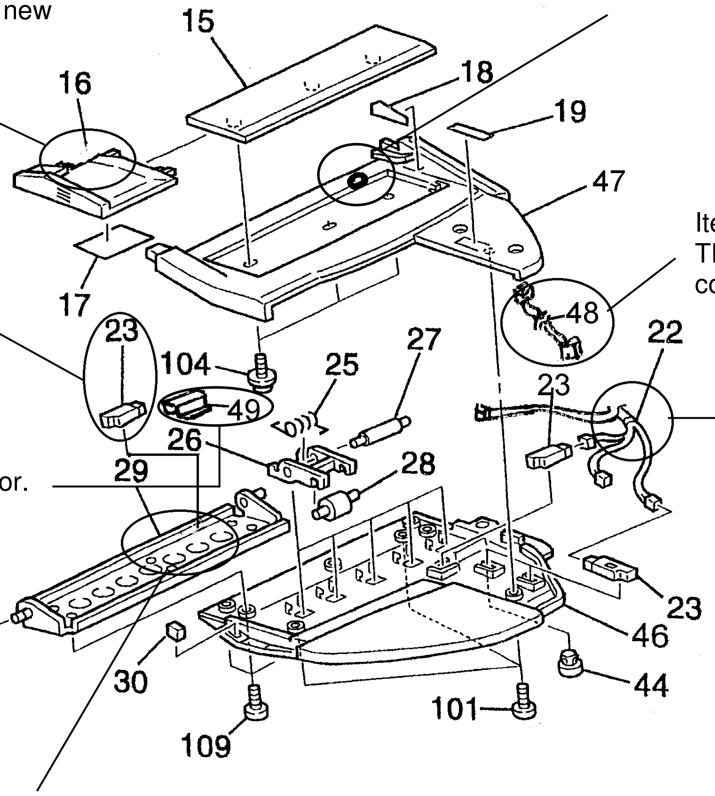
The old product can also be used with the AD1 and AD1E (its scanning speed for both models is 15 cpm for 1 to 1 copying).

Different parts between old and new DF65

	New Part Number	Description	Index No
1.	A6612211	Side Fence	5-16
2.	A6615760	Relay Harness - Original Tray	5-22
3.	A6615765	Relay Harness - Trailing Edge Sensor	5-48 (new)
4.	A6612165C	Original Table Bracket	5-29
5.	A6612232	Bracket - Trailing Edge Sensor	5-49 (new)
6.	A6612141D	Front Original Table	5-47
7.	A6615510	ARDF Control Board 2	13-21
8.	AW010066	Photosensor-PS-R50D1-B	5-23 (new)

Note

Items 1, 2, 4, 6, & 7 can be used for the old DF65. Refer to MB no.2 for the DF65.
To standardize the service spare parts, you can use new parts for old DF65 units in the field.



Item 1:
The collar is removed so the new sensor will not be blocked.

Item 6:
A hole is made for the new sensor.

Item 3:
The harness between the ARDF control board and harness 22.

Item 8: New sensor

Item 2:

Item 5:
The bracket for new sensor.

Item4:
Holes for installing the sensor have been made in the bracket.

RICOH **Technical Bulletin**

Model: AD1	Date: 15-Jun-98	No: 51
Subject: China version information	Prepared by: S.Tomoe	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☒ Other ( )

The China version was launched in February 1998. This RTB clarifies the differences between the Asia version (A193-27) and this version.

1. Model Name and Machine Code

Version	Machine code	Model Name
China version	A193-69	Aficio 200

2. Technical information

All specifications for the China version are exactly the same as for the Asia version.

3. Parts Information

The following are unique part numbers for the China version.

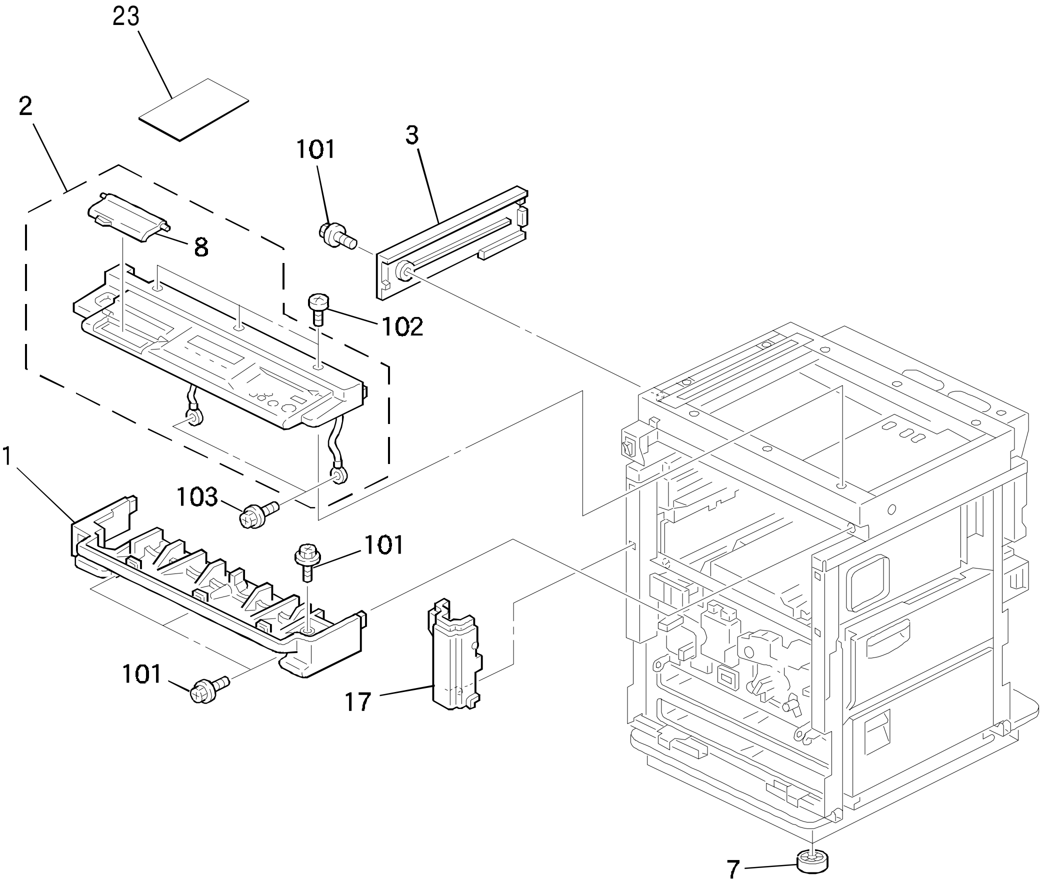
- A193 -

Part Number	Description	Index No.	Page
A1935094	BICU Board (CHN)	3	45
A1935715	Power Supply Cord (CHN)	16	47
A1937365	Decal – Main (CHN)	6	63
A1937366	Decal – AC Switch (CHN)	8	63
A2041297 (new)	Sheet – Service Tel.	23	7
A1938606	Operating Instructions – Copy (CHN)	10	63
A6848606	Operating Instructions – Main (CHN)	11	63

- Printer -

Part Number	Description	Index No.	Page
A1937367	Decal – Copy/Printer	8	25

Model: AD1	Date: 15-Jun-98	No: 51



RICOH

Technical Bulletin

MB Correction
Reissue date: **15-Sep-98**
The items in bold italics have been corrected or added.

Model: AD1 & AD1E	Date: 31-Jul-98	No: 52A
Subject: Light Copies	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☒ Troubleshooting
☐ Mechanical
☐ Paper path
☐ Other ( )
☐ Part information
☐ Electrical
☐ Transmit/receive
☐ Action required
☐ Service manual revision
☐ Retrofit information

Symptom

After making a few hundred copies, the image density becomes lighter and lighter

Cause

If the monthly copy volume is higher than 3K, the machine with new firmware from ver1.70 for AD1 and ver1.30 for AD1E may have this problem because of the lack of the toner supply.

Action required

A. If the customer has this problem and their copy volume is higher than 3K, change the following SP modes to ensure that the toner density is enough.

1. To ensure sufficient density:
(1) Change SP2-999 to 1 for the manual mode and input 100 into SP2-996.
(2) Make few copies until the density is sufficient.
(3) Change back SP2-999 to 0 for the factory setting mode.

*Caution: Do not keep it in the manual mode. Otherwise too much toner will be added.

2. To maintain a sufficient image density:
(1) Set SP2-201 for development bias adjustment to -700V.
(2) Set SP2-***994*** for offset value of the Vcont setting to 0.
(3) Set SP2-911 for the image density selection to 1 (Dark).

B. If the customer has this problem and their copy volume is less than 3K, change the following SP mode.

1. To ensure sufficient density:
(1) Change SP2-999 to 1 for the manual mode and input 100 into SP2-996.
(2) Make a few copies until the density is sufficient.
(3) Change back SP2-999 to 0 for the factory setting mode.

*Caution: Do not keep it in the manual mode. Otherwise too much toner will be added.

2. To maintain a sufficient image density:
(1) Set SP2-201 for the development bias adjustment to -700V.
(2) Set SP2-911 for the image density selection to 1 (Dark).

If the density is still light even after the above action, please contact a Ricoh sales branch.

RTB Correction

Reissue date: **31-Jul-98**

The items in bold Italics have been corrected or added.

Model: AD1	Date: 15-Jan-97	No: 15G
Subject: ROM History (AD1 Copy Version)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☒ Retrofit information
☐ Other ( )

AD1 firmware history
USA

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January Prod.'97
J	———	1.36	———	———	———	January Prod.'97
K	10	1.38	A7FE	FB14	ACEA	February Prod.'97
L	11	1.43	BA4B	536A	66EI	March Prod.'97
M	11A	1.48	F9D6	3029	C9AD	May Prod.'97
N	12	1.54	7413	3D1A	36F9	June Prod.'97
P	13	1.60	3042	A726	891C	August Prod.'97
R	14	1.62	5B56	CF0D	8C49	September Prod.'97
T	16	1.70	8D31	65E0	2751	October Prod.'97
V	***17***	***1.72***	***2708***	***2870***	***FE98***	***February Prod.'98***

Europe/Asia

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January Prod.'97
H	———	1.36	———	———	———	January Prod.'97
J	110	1.38	ACCC	2927	8353	February Prod.'97
K	111	1.43	F537	6510	9027	March Prod.'97
L	111A	1.48	7218	5558	1CC0	May Prod.'97
M	112	1.54	AAA8	7837	3271	June Prod.'97
N	113	1.60	1FE3	AEE1	7102	August Prod.'97
P	114	1.62	794C	90BE	E88E	September Prod.'97
R	116	1.70	2208	D8BC	494C	October Prod.'97
S	***117***	***1.72***	***76BE***	***909E***	***E620***	***February Prod. '98***

∗The versions 1.35 and 1.3 are not released as files.

European 2nd Language

A6485570	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	205	1.43EU2	4BC4	DE26H	6D9E
F	205A	1.48EU2	09F5	CC25	3DD0
G	206	1.54EU2	E768	F05C	F70C
H	208	1.57EU2	E765	F056	F70F
J	209	1.60EU2	AE02	2277	8B8B
K	210	1.62EU2	CB8A	0ACC	C0BE
M	212	1.70EU2	4159	50F0	F069
N	***213***	***1.72EU2***	***8982***	***08DC***	***80A6***

European 3rd Language

A6485573	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	301	1.57EU3	9DBB	C908	D4B3
A	302	1.60EU3	390A	FD07	3C03
B	303	1.62EU3	C69E	D5E3	F0BB
D	305	1.70EU3	006B	8E5E	720D
E	***306***	***1.72EU3***	***BA31***	***2700***	***9331***

European 4th Language

A6485574	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	401	1.57EU4	1DF0	CA60	5390
A	402	1.60EU4	4490	FDEF	46A1
B	403	1.62EU4	A30C	D9E5	C927
D	405	1.70EU4	3973	9405	A56E
E	***406***	***1.72EU4***	***78ED***	***301F***	***48CE***

China

A6485572	File No. (A193CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	04	1.62CH	B020	B056	FFCA
H	07	1.70CH	1893	3AEA	DDA9
J	***08***	***1.72CH***	***690B***	***C1A7***	***A764***

Taiwan

A1935534	File No. (A193TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
B	03	1.62TW	C05F	3BA0	94BF
E	06	1.70TW	470D	87F1	BF1C
F	***07***	***1.72TW***	***A7C2***	***0C5B***	***9B67***

<table>
<tr><th>Symptom Corrected</th><th>USA</th><th>EU/
Asia</th><th>EU2</th><th>EU3</th><th>EU4</th><th>CHN</th><th>TWN</th></tr>
<tr><td>***The tables for Vt correction & mixing time are changed.***
<table>
<tr><th>Pre.Vt-Latest Vt</th><th>Mixing Time</th></tr>
<tr><td>~ 0.1</td><td>10</td></tr>
<tr><td>~ 0.2</td><td>30</td></tr>
<tr><td>~ 0.3</td><td>**50**</td></tr>
<tr><td>~ 0.5</td><td>300</td></tr>
<tr><td>0.5 ~</td><td>500</td></tr>
</table>
<table>
<tr><th>Remaining Mixing time</th><th>Vt Correction</th></tr>
<tr><td>100</td><td>0</td></tr>
<tr><td>200</td><td>0.1</td></tr>
<tr><td>**400**</td><td>**0.4**</td></tr>
<tr><td>**450**</td><td>**0.6**</td></tr>
<tr><td>500</td><td>**0.8**</td></tr>
</table>
</td><td>***V***</td><td>***S***</td><td>***N***</td><td>***E***</td><td>***E***</td><td>***J***</td><td>***F***</td></tr>
<tr><td>Dirty background problem (Refer to RTB42)
-Vt correction
-Mixing time</td><td>T</td><td>R</td><td>M</td><td>D</td><td>D</td><td>H</td><td>E</td></tr>
<tr><td>New SP mode
•SP2-994: Vcont offset
•SP9-999-14: Additional mixing time display</td><td>T</td><td>R</td><td>M</td><td>D</td><td>D</td><td>H</td><td>E</td></tr>
<tr><td>For the USA only
New SP mode
SP5-950: LG size paper detection on the by pass tray.
* When this function is selected and LT size is put in the by-pass tray, the machine detects it as LG size paper.</td><td>R</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>For the USA only
To meet the Energy Star standard.</td><td>R</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>After a fax transmission through ARDF with a stammer, the registration of the 1st copied paper by ARDF is delayed.</td><td>R</td><td>P</td><td>K</td><td>B</td><td>B</td><td>E</td><td>B</td></tr>
<tr><td>New SP mode.
SP5-949:1= When one of the trays is empty, the paper end indicator (red LED) lights.</td><td>P</td><td>N</td><td>J</td><td>A</td><td>A</td><td>D</td><td>A</td></tr>
<tr><td>The DF Jam display is cleared by lifting the DF up and down</td><td>P</td><td>N</td><td>J</td><td>A</td><td>A</td><td>D</td><td>A</td></tr>
<tr><td>New SP Mode
SP6-006-4: ARDF Main-Scan Registration for the rear side.</td><td>N</td><td>M</td><td>G</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Specification
When the trays do not have paper of the same size in different orientations, the machine continues to print using the sort function even if Rotate Sort is selected. (The previous software version stops the copy job when one of the trays is empty)</td><td>N</td><td>M</td><td>G</td><td></td><td></td><td></td><td></td></tr>
<tr><td>The stapler may not work when the printer feeds out a stapled copy while feeding out the paper into the finisher in copy or fax mode.</td><td>N</td><td>M</td><td>G</td><td></td><td></td><td></td><td></td></tr>
<tr><td>When two sheets of paper remain in the Duplex Unit and the printer prints in duplex mode, the printout will be made on the rear side of the paper remaining in the duplex unit.</td><td>N</td><td>M</td><td>G</td><td></td><td></td><td></td><td></td></tr>
<tr><td>SP5-808: The three languages cannot be selected using the previous software version N</td><td>—</td><td>M</td><td>G</td><td></td><td></td><td></td><td></td></tr>
</table>

If a duplex copy is made with the ADF, Duplex Unit and 12M Memory and the original is jammed, the jammed original cannot be copied correctly during recovery.	M	L	F				
Paper jam when paper is fed from the 3rd tray immediately after feeding the paper from the 4th tray.(A jam or Y jam) with the following paper types. ∗ 3rd Tray has paper of length less than 288mm (A4 ☐) 4th Tray has paper of length 289mm to 401mm (A4 ☐)	M	L	F				
When the RAM was cleared with SP5-801, the white level and the standard white plate density set at the factory were erased.	L	K	E				
Toner scattering around black areas of the image on the rear side of duplex copies. The default of the separation output voltage was changed. SP2-901-1→ -1800 SP2-901-2→ -1800 SP2-901-3→- 2500 SP2-901-4→- 2500	K	J					
A blank sheet is printed out when the start key is pressed if the memory is full. The scanning restarts after printing the scanned image and then the first original jams.	J	H					
Dirty Background. 1) Toner Density (SP2-911) was changed from 2 to 3 (Lighter). 2) Free run time at PCU installation was changed from 1 min. to 3 min.	H	G					
Black Spots in the scanned image - A scanned low contrast image can be adjusted using 7 settings. Each setting has different gamma correction characteristics, MTF filter and threshold level (new SP mode: SP4-998,999)	G	F					
Dirty background on white images after negative\positive reversal.	G	F					
SC321 appears when the door is opened during memory copying if the start key is pressed after closing the door.	G	F					
The development bias setting (SP2-201) is initialized when the main switch is turned off.	G	F					
SC921-Memory Access Error After a paper jam while opening the door during memory output.	F	E					
SC101 appears when turning the main switch off/on after the IPU test pattern in SP mode.	F	E					
SP5-803: New PCU Detect is added to the input checks.	F	E					
Memory copy priority of SP5-945 is added to Salesman Program Mode.	F	E					
SP mode cannot be cleared when the main switch is turned off/on after going to the interrupt copy mode from SP mode.	F	E					
The finisher is supported..	F	E					
While feeding out an original from the ADF, the Start key can be pressed. Then the incorrect document size is detected.	E	D					
The ARDF is supported.	E	D					

A1935532	A193-10	A193-15	A193-17	A193-55
E	A10611001~	6A76100001~	A7226100001~	L5026110066~
F	_	6A76120001~	A7226110154~	L5026120516~
G	A107010001~	6A76120026~	A7226120149~	L5027011010~
H	_	6A77020001~	A7227010410~	L5027021541~
J	A107020001~	6A77020241~	_	L5027021563~
K	A107030001~	6A77020438~	A7227020001~	L5027031945~
L	A107040001~	6A77040001~	_	L5027042480~
M	A107050001~	6A77050001~	A7227050001~	L5027053186~
N	A107060036~	6A77060001~	A7227060001~	L5027063876~
P	A107080001~	6A77080001~	A7227080001~	L5027085441~
R	A107090001~	6A77090001~	A7227090001~	L5027096321~
T	***A107100001~***	***6A77100001~***	***A7227100006~***	***L5027117581~***
V	***A108020001~***	***6A78020001~***	***A7228020001~***	***L5028019178~***

A1935533	A193-22	A193-26	A193-27	A193-29	A193-65	A193-69
D	AH26110001~	3L01160001~	A7226101023~	A7226101492~	L5026110271~	
E	AH26120001~	3L01260001~	A7226111703~	A7226122087~	L5026120780~	
F	AH27010001~	3L00170001~	A7226121305~	A7227012021~	L5027011216~	
G	AH27020001~	3L00270001~	—	—	L5027011424~	
H	AH27020951~	—	A7227021026~	A7227021345~	L5027021685~	
J	AH27020967~	3L00370001~	A7227030441~	A7227031491~	L5027032180~	
K	TBA	3L00470001~	TBA	TBA	TBA	
L	AH27040251~	3L00570001~	A7227042629~	A7227052269~	L5027053561~	
M	AH27060960~	3L00670001~	A7227060651~	A7227062571~	L5027064111~	
N	AH27080001~	3L00870001~	A7227080969~	A7227081769~	L5027085755~	
P	AH27090001~	3L00970001~	A7227090881~	A7227092701~	L5027096431~	A7227092891~
R	***AH27100463~***	***3L01070007~***	***A722710771~***	***A7227102371~***	***L5027118101~***	***A727102531~***
S	***AH28020001~***	***3L00280001~***	***A72280011266~***	***A7228011756~***	***L5028019336~***	***A7228043126~***

A1935534	A193-19
B	A7227090821~
F	***A7228042025~***

RICOH

Technical Bulletin

MB Correction

Reissue date: **31-Jul-98**

The items in bold italics have been corrected or added.

Model: AD1-E	Date: 15-Oct-97	No: 40C
Subject: ROM History (AD1-E Copy Version)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

AD1-E (Copy) firmware history.

USA

A2245532	File No. (A224uxx)	Version	Total C.SUM	SUM(OH)	SUM(***OL***)	Production
D	01	1.18	7766	6521	1245	1st Mass Prod.
E	02	1.20	01F7	98CE	6929	June Prod. ‘97
F	03	1.24	D441	9943	3AFE	August Prod. ‘97
H	04	1.26	C879	5895	6FE4	September Prod. ‘97
K	06	1.30	432E	144E	2EE0	October Prod. ‘97
L	***07***	***1.32***	***DECC***	***12FA***	***CBC2***	***November Prod.’97***
M	***08***	***1.33***	***A5B9***	***A28F***	***032A***	***February Prod.’98***

Europe/Asia

A2245533	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
B	101	1.20EU1	46A8	65C6	E0E2	1st Mass Prod.
C	102	1.24EU1	F12D	8333	6DFA	August Prod. ‘97
D	103	1.26EU1	6693	55DF	10B4	September Prod. ‘97
F	105	1.30EU1	6F80	F07D	7F03	October Prod. ’97
G	***106***	***1.32EU1***	***AD8D***	***EF92***	***BDFB***	***November Prod.’97***
H	***107***	***1.33EU1***	***3D82***	***8357***	***BA2B***	***February Prod.’98***

European 2nd Language

A8105570	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	202	1.24EU2	9FB1	FAE8	A4C9
B	203	1.26EU2	F29A	D4BF	1DDB
D	205	1.30EU2	76E6	6ED6	0810
E	***206***	***1.32EU2***	***6349***	***6E3B***	***F50E***
F	***207***	***1.33EU2***	***EE69***	***0204***	***EC65***

European 3rd Language

A8105573	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	302	1.24EU3	2C91	F73A	3557
B	303	1.26EU3	649F	D770	8D2F
D	305	1.30EU3	6B26	4D86	1DA0
E	***306***	***1.32EU3***	***EE17***	***646C***	***89AB***
F	***307***	***1.33EU3***	***FE7F***	***D5DD***	***28A2***

European 4th Language

A8105574	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	402	1.24EU4	7A6A	F8BC	81AE
B	403	1.26EU4	E7F9	DA9F	0D5A
D	405	1.30EU4	A7C1	4EF5	58CC
E	***406***	***1.32EU4***	***DFE0***	***4E0F***	***91D1***
F	***407***	***1.33EU4***	***8EEA***	***DAFC***	***B3EE***

China

A8105512(OL)
A8105513(OH)
	File No. (A224CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

–	–	–	–	–	–

Taiwan Version

A2245534	File No. (A224TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
–	–	–	–	–	–

<table>
<tr><th>Symptom Corrected</th><th>USA</th><th>EU/ Asia</th><th>EU2</th><th>EU3</th><th>EU4</th><th>CHN</th><th>TWN</th></tr>
<tr><td><b><i>The tables for Vt correction & mixing time have been changed.</i></b>
<table>
<tr><th>Pre.Vt-Latest Vt</th><th>Mixing Time</th></tr>
<tr><td>~ 0.1</td><td>10</td></tr>
<tr><td>~ 0.2</td><td>30</td></tr>
<tr><td>~ 0.3</td><td><b>50</b></td></tr>
<tr><td>~ 0.5</td><td>300</td></tr>
<tr><td>0.5 ~</td><td>500</td></tr>
</table>
<table>
<tr><th>Remaining Mixing time</th><th>Vt Correction</th></tr>
<tr><td>100</td><td>0</td></tr>
<tr><td>200</td><td>0.1</td></tr>
<tr><td><b>400</b></td><td><b>0.4</b></td></tr>
<tr><td><b>450</b></td><td><b>0.6</b></td></tr>
<tr><td>500</td><td><b>0.8</b></td></tr>
</table></td><td><b><i>M</i></b></td><td><b><i>H</i></b></td><td><b><i>F</i></b></td><td><b><i>F</i></b></td><td><b><i>F</i></b></td><td>_</td><td>_</td></tr>
<tr><td><b><i>AD1E Only</i></b>
<b><i>After initializing the developer, the transfer current is supplied until making a copy, turning the main switch off and on, or opening the front cover.</i></b></td><td><b><i>L</i></b></td><td><b><i>G</i></b></td><td><b><i>E</i></b></td><td><b><i>E</i></b></td><td><b><i>E</i></b></td><td>_</td><td>_</td></tr>
<tr><td>Dirty background problem (Refer to RTB42)
-Vt correction
-Mixing time</td><td>K</td><td>F</td><td>D</td><td>D</td><td>D</td><td>_</td><td>_</td></tr>
<tr><td>New SP mode
•SP2-994: Vcont offset
•SP9-999-14: Additional mixing time display</td><td>K</td><td>F</td><td>D</td><td>D</td><td>D</td><td>_</td><td>_</td></tr>
<tr><td>For the USA only
New SP mode
SP5-950: LG size paper detection on the by pass tray.
* When this function is selected and LT ▭ size is put in the by-pass tray, the machine detects it as LG ▭ size paper.</td><td>H</td><td>_</td><td>_</td><td>_</td><td>_</td><td>_</td><td>_</td></tr>
<tr><td>For the USA only
To meet the Energy Star standard.</td><td>H</td><td>_</td><td>_</td><td>_</td><td>_</td><td>_</td><td>_</td></tr>
<tr><td>After a fax transmission through ARDF with a stamper, the registration of the 1st copied paper by ARDF is delayed.</td><td>H</td><td>D</td><td>B</td><td>B</td><td>B</td><td>_</td><td>_</td></tr>
<tr><td>New SP mode.
SP5-949:1= When one of the trays is empty, the paper end indicator (red LED) lights.</td><td>F</td><td>C</td><td>A</td><td>A</td><td>A</td><td>_</td><td>_</td></tr>
<tr><td>The DF Jam display is cleared by lifting the DF up and down</td><td>F</td><td>C</td><td>A</td><td>A</td><td>A</td><td>_</td><td>_</td></tr>
<tr><td>New SP Mode
SP6-006-4: ARDF Main-Scan Registration for the rear side.</td><td>E</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Specification
When the trays do not have paper of the same size in different orientations, the machine continues to print using the sort function even if Rotate Sort is selected. (The previous software version stops the copy job when one of the trays is empty)</td><td>E</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>The stapler may not work when the printer feeds out a stapled copy while feeding out the paper into the finisher in copy or fax mode.</td><td>E</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>When two sheets of paper remain in the Duplex Unit and the printer prints in duplex mode, the printout will be made on the rear side of the paper remaining in the duplex unit.</td><td>E</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>

A2245532	A224-10	A224-15	A224-17	A22455
E	AK87070001~	9A37060001~	A7427060001~	L027080001~
F	AK87080023~	9A37080001~	A7427080001~	_
H	AK87090001~	9A37090001~	A7427090001~	L027090031~
K	***AK87100001~***	***9A37100001~***	***A7427100021~***	***L027111066~***
L	***AK87120001~***	***9A37120001~***	***A7427120001~***	***L027121721~***
M	***AK88020001~***	***9A38020001~***	***A7428020001~***	***L0248022670~***

A2245533	A224-22	A224-26	A224-27	A224-29	A224-65
C	AK97070543~	3P30870001~	A7427080601~	A7427081501~	_
D	AK97090001~	3P30970001~	A7427090305~	A7427091035~	L0247090216~
F	***AK97100001~***	***3P31070001~***	***A7427100176~***	***A7427101246~***	_
G	***AK97110001~***	***3P31170001~***	***A7427110081~***	***A7427110881~***	***L0247111341~***
H	***AK98020001~***	***3P30280001~***	***A7428030351~***	***A7428020101~***	***L0248023356~***

RTB Correction

Reissue date: **31-Aug-98**

The items in bold Italics have been corrected or added.

Model: AD1		Date: 15-Jan-97	No: 15H
Subject: ROM History (AD1 Copy Version)		Prepared by: K.Ugaeri	
From: QAC Field Information Dept.			
Classification:	☐ Troubleshooting ☐ Mechanical ☐ Paper path ☐ Other ( )	☐ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☒ Retrofit information

AD1 firmware history
USA

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January Prod.'97
J	———	1.36	———	———	———	January Prod.'97
K	10	1.38	A7FE	FB14	ACEA	February Prod.'97
L	11	1.43	BA4B	536A	66EI	March Prod.'97
M	11A	1.48	F9D6	3029	C9AD	May Prod.'97
N	12	1.54	7413	3D1A	36F9	June Prod.'97
P	13	1.60	3042	A726	891C	August Prod.'97
R	14	1.62	5B56	CF0D	8C49	September Prod.'97
T	16	1.70	8D31	65E0	2751	October Prod.'97
V	17	1.72	2708	2870	FE98	February Prod.'98
W	***18***	***1.73***	***0BF0***	***1A1D***	***F1D3***	***September Prod.'98***

Europe/Asia

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January Prod.'97
H	———	1.36	———	———	———	January Prod.'97
J	110	1.38	ACCC	2927	8353	February Prod.'97
K	111	1.43	F537	6510	9027	March Prod.'97
L	111A	1.48	7218	5558	1CC0	May Prod.'97
M	112	1.54	AAA8	7837	3271	June Prod.'97
N	113	1.60	1FE3	AEE1	7102	August Prod.'97
P	114	1.62	794C	90BE	E88E	September Prod.'97
R	116	1.70	2208	D8BC	494C	October Prod.'97
S	117	1.72	76BE	909E	E620	February Prod. '98
T	***118***	***1.73***	***4C5F***	***714E***	***DB11***	***September Prod.'98***

∗ Versions 1.35 and 1.3 are not released as files.

European 2nd Language

A6485570	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	205	1.43EU2	4BC4	DE26H	6D9E
F	205A	1.48EU2	09F5	CC25	3DD0
G	206	1.54EU2	E768	F05C	F70C
H	208	1.57EU2	E765	F056	F70F
J	209	1.60EU2	AE02	2277	8B8B
K	210	1.62EU2	CB8A	0ACC	C0BE
M	212	1.70EU2	4159	50F0	F069
N	213	1.72EU2	8982	08DC	80A6
P	***214***	***1.73EU3***	***9E75***	***EC59***	***B21C***

European 3rd Language

A6485573	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	301	1.57EU3	9DBB	C908	D4B3
A	302	1.60EU3	390A	FD07	3C03
B	303	1.62EU3	C69E	D5E3	F0BB
D	305	1.70EU3	006B	8E5E	720D
E	306	1.72EU3	BA31	2700	9331
F	***307***	***1.73EU3***	***3774***	***27A0***	***0FD4***

European 4th Language

A6485574	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	401	1.57EU4	1DF0	CA60	5390
A	402	1.60EU4	4490	FDEF	46A1
B	403	1.62EU4	A30C	D9E5	C927
D	405	1.70EU4	3973	9405	A56E
E	406	1.72EU4	78ED	301F	48CE
F	***407***	***1.73EU4***	***1D07***	***11EC***	***0BEB***

China

A6485572	File No. (A193CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	04	1.62CH	B020	B056	FFCA
H	07	1.70CH	1893	3AEA	DDA9
J	08	1.72CH	690B	C1A7	A764
K	***09***	***1.73CH***	***D423***	***A74A***	***2CD9***

Taiwan

A1935534	File No. (A193TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
B	03	1.62TW	C05F	3BA0	94BF
E	06	1.70TW	470D	87F1	BF1C
F	07	1.72TW	A7C2	0C5B	9B67
G	***08***	***1.73TW***	***59DD***	***FB05***	***5ED8***

<table>
<tr><th>Symptoms Corrected (New Items only – for old ones, see previous bulletins)</th><th>USA</th><th>EU/ Asia</th><th>EU2</th><th>EU3</th><th>EU4</th><th>CHN</th><th>TWN</th></tr>
<tr><td><b><i>Copy quality in duplex mode</i></b>
∗<b><i>When the quality of the rear side copy is poor, the added transfer current must be decreased using SP2-301-3. With the new table, it can be adjusted to a lower range.</i></b>
Current Table (SP2-301-3)
<table>
<tr><th>Table No./ Paper width</th><th>0</th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>275•</td><td>15</td><td>17</td><td>19</td><td>21</td></tr>
<tr><td>250• 275</td><td>15</td><td>17</td><td>19</td><td>21</td></tr>
<tr><td>200• 250</td><td>15</td><td>17</td><td>19</td><td>21</td></tr>
<tr><td>• 200</td><td>15</td><td>17</td><td>19</td><td>21</td></tr>
</table>
↑ Default
→
New Table (SP2-301-3)
<table>
<tr><th>Table No./ Paper width</th><th>0</th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>275•</td><td>8</td><td>11</td><td>14</td><td>17</td></tr>
<tr><td>250• 275</td><td>10</td><td>12</td><td>15</td><td>17</td></tr>
<tr><td>200• 250</td><td>12</td><td>14</td><td>16</td><td>17</td></tr>
<tr><td>• 200</td><td>14</td><td>15</td><td>16</td><td>17</td></tr>
</table>
↑ Default</td><td><b><i>W</i></b></td><td><b><i>T</i></b></td><td><b><i>P</i></b></td><td><b><i>F</i></b></td><td><b><i>F</i></b></td><td><b><i>K</i></b></td><td><b><i>G</i></b></td></tr>
<tr><td><b><i>SC544 is sometimes displayed when the machine shifts to night mode or pre-heat mode.</i></b></td><td><b><i>W</i></b></td><td><b><i>T</i></b></td><td><b><i>P</i></b></td><td><b><i>F</i></b></td><td><b><i>F</i></b></td><td><b><i>K</i></b></td><td><b><i>G</i></b></td></tr>
<tr><td><b><i>When paper longer than A4 is fed in a toner near end condition, not enough toner is supplied.</i></b></td><td><b><i>W</i></b></td><td><b><i>T</i></b></td><td><b><i>P</i></b></td><td><b><i>F</i></b></td><td><b><i>F</i></b></td><td><b><i>K</i></b></td><td><b><i>G</i></b></td></tr>
</table>

A1935532	A193-10	A193-15	A193-17	A193-55
E	A10611001~	6A76100001~	A7226100001~	L5026110066~
F	-	6A76120001~	A7226110154~	L5026120516~
G	A107010001~	6A76120026~	A7226120149~	L5027011010~
H	-	6A77020001~	A7227010410~	L5027021541~
J	A107020001~	6A77020241~	-	L5027021563~
K	A107030001~	6A77020438~	A7227020001~	L5027031945~
L	A107040001~	6A77040001~	-	L5027042480~
M	A107050001~	6A77050001~	A7227050001~	L5027053186~
N	A107060036~	6A77060001~	A7227060001~	L5027063876~
P	A107080001~	6A77080001~	A7227080001~	L5027085441~
R	A107090001~	6A77090001~	A7227090001~	L5027096321~
T	A107100001~	6A77100001~	A7227100006~	L5027117581~
V	A108020001~	6A78020001~	A7228020001~	L5028019178~
W	***TBA***	***TBA***	***TBA***	***TBA***

A1935533	A193-22	A193-26	A193-27	A193-29	A193-65
D	AH26110001~	3L01160001~	A7226101023~	A7226101492~	L5026110271~
E	AH26120001~	3L01260001~	A7226111703~	A7226122087~	L5026120780~
F	AH27010001~	3L00170001~	A7226121305~	A7227012021~	L5027011216~
G	AH27020001~	3L00270001~	-	-	L5027011424~
H	AH27020951~	-	A7227021026~	A7227021345~	L5027021685~
J	AH27020967~	3L00370001~	A7227030441~	A7227031491~	L5027032180~
K	TBA	3L00470001~	TBA	TBA	TBA
L	AH27040251~	3L00570001~	A7227042629~	A7227052269~	L5027053561~
M	AH27060960~	3L00670001~	A7227060651~	A7227062571~	L5027064111~
N	AH27080001~	3L00870001~	A7227080969~	A7227081769~	L5027085755~
P	AH27090001~	3L00970001~	A7227090881~	A7227092701~	L5027096431~
R	AH27100463~	3L01070007~	A722710771~	A7227102371~	L5027118101~
S	AH28020001~	3L00280001~	A72280011266~	A7228011756~	L5028019336~
T	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***

A6485572	***A193-69***
E	***A7227092891***~
H	***A7227102531***~
J	***A7228043126***~
K	***TBA***

A1935534	A193-19
B	A7227090821~
F	A7228042025~
G	***TBA***

MB Correction

Reissue date: **31-Aug-98**

The items in bold italics have been corrected or added.

Model: AD1-E
Date: 15-Oct-97
No: 40D
Subject: ROM History (AD1-E Copy Version)
Prepared by: K.Ugaeri
From: QAC Field Information Dept.

Classification:
- ☐ Troubleshooting
- ☐ Mechanical
- ☐ Paper path
- ☐ Other (   )
- ☐ Part information
- ☐ Electrical
- ☐ Transmit/receive
- ☐ Action required
- ☐ Service manual revision
- ☒ Retrofit information

AD1-E (Copy) firmware history.

USA

A2245532	File No. (A224uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	01	1.18	7766	6521	1245	1st Mass Prod.
E	02	1.20	01F7	98CE	6929	June Prod. ‘97
F	03	1.24	D441	9943	3AFE	August Prod. ‘97
H	04	1.26	C879	5895	6FE4	September Prod. ‘97
K	06	1.30	432E	144E	2EE0	October Prod. ‘97
L	07	1.32	DECC	12FA	CBC2	November Prod.’97
M	08	1.33	A5B9	A28F	032A	February Prod.’98
N	***09***	***1.34***	***67BC***	***73E2***	***F3DA***	***September Prod.’98***

Europe/Asia

A2245533	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
B	101	1.20EU1	46A8	65C6	E0E2	1st Mass Prod.
C	102	1.24EU1	F12D	8333	6DFA	August Prod. ‘97
D	103	1.26EU1	6693	55DF	10B4	September Prod. ‘97
F	105	1.30EU1	6F80	F07D	7F03	October Prod. ’97
G	106	1.32EU1	AD8D	EF92	BDFB	November Prod.’97
H	107	1.33EU1	3D82	8357	BA2B	February Prod.’98
J	***108***	***1.34EU1***	***C46A***	***790E***	***4B5C***	***September Prod.’98***

European 2nd Language

A8105570	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	202	1.24EU2	9FB1	FAE8	A4C9
B	203	1.26EU2	F29A	D4BF	1DDB
D	205	1.30EU2	76E6	6ED6	0810
E	206	1.32EU2	6349	6E3B	F50E
F	207	1.33EU2	EE69	0204	EC65
G	***208***	***1.34EU2***	***153D***	***F11B***	***2422***

European 3rd Language

A8105573	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	302	1.24EU3	2C91	F73A	3557
B	303	1.26EU3	649F	D770	8D2F
D	305	1.30EU3	6B26	4D86	1DA0
E	306	1.32EU3	EE17	646C	89AB
F	307	1.33EU3	FE7F	D5DD	28A2
G	***308***	***1.34EU3***	***3DF8***	***C1D0***	***7C28***

European 4th Language

A8105574	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	402	1.24EU4	7A6A	F8BC	81AE
B	403	1.26EU4	E7F9	DA9F	0D5A
D	405	1.30EU4	A7C1	4EF5	58CC
E	406	1.32EU4	DFE0	4E0F	91D1
F	407	1.33EU4	8EEA	DAFC	B3EE
G	***408***	***1.34EU4***	***6B87***	***C26F***	***A918***

China

A8105512(OL)
A8105513(OH)
	File No. (A224CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

-	-	-	-	-	-

Taiwan

A2245534	File No. (A224TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
-	-	-	-	-	-

<table>
<tr><th>Symptoms Corrected (New items only – for previous items, see older bulletins)</th><th>USA</th><th>EU/
Asia</th><th>EU2</th><th>EU3</th><th>EU4</th><th>CHN</th><th>TWN</th></tr>
<tr><td><b><i>Copy quality in duplex mode</i></b>
<b><i>∗When the quality of the rear side copy is poor, the added transfer current must be decreased using SP2-301-3. With the new table, it can be adjusted to a lower range.</i></b>
Currernt Table (SP2-301-3)
<table>
<tr><th>Table No./ Paper width</th><th>0</th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>275•</td><td>14</td><td>16</td><td>18</td><td>20</td></tr>
<tr><td>250• 275</td><td>16</td><td>18</td><td>20</td><td>22</td></tr>
<tr><td>200• 250</td><td>18</td><td>20</td><td>22</td><td>24</td></tr>
<tr><td>• 200</td><td>19</td><td>21</td><td>23</td><td>25</td></tr>
</table>
↑ Default
→
New Table (SP2-301-3)
<table>
<tr><th>Table No./ Paper width</th><th>0</th><th>1</th><th>2</th><th>3</th></tr>
<tr><td>275•</td><td>8</td><td>11</td><td>14</td><td>16</td></tr>
<tr><td>250• 275</td><td>10</td><td>13</td><td>16</td><td>18</td></tr>
<tr><td>200• 250</td><td>12</td><td>15</td><td>18</td><td>20</td></tr>
<tr><td>• 200</td><td>14</td><td>17</td><td>19</td><td>21</td></tr>
</table>
↑ Default</td><td><b><i>N</i></b></td><td><b><i>J</i></b></td><td><b><i>G</i></b></td><td><b><i>G</i></b></td><td><b><i>G</i></b></td><td>–</td><td>–</td></tr>
<tr><td><b><i>SC544 is sometimes displayed when the machine shifts to night mode or pre-heat mode.</i></b></td><td><b><i>N</i></b></td><td><b><i>J</i></b></td><td><b><i>G</i></b></td><td><b><i>G</i></b></td><td><b><i>G</i></b></td><td>–</td><td>–</td></tr>
<tr><td><b><i>When paper longer than A4 is fed in a toner near end condition, not enough toner is supplied.</i></b></td><td><b><i>N</i></b></td><td><b><i>J</i></b></td><td><b><i>G</i></b></td><td><b><i>G</i></b></td><td><b><i>G</i></b></td><td>–</td><td>–</td></tr>
</table>

A2245532	A224-10	A224-15	A224-17	A22455
E	AK87070001~	9A37060001~	A7427060001~	L027080001~
F	AK87080023~	9A37080001~	A7427080001~	_
H	AK87090001~	9A37090001~	A7427090001~	L027090031~
K	AK87100001~	9A37100001~	A7427100021~	L027111066~
L	AK87120001~	9A37120001~	A7427120001~	L027121721~
M	AK88020001~	9A38020001~	A7428020001~	L0248022670~
N	***TBA***	***TBA***	***TBA***	***TBA***

A2245533	A224-22	A224-26	A224-27	A224-29	A224-65
C	AK97070543~	3P30870001~	A7427080601~	A7427081501~	_
D	AK97090001~	3P30970001~	A7427090305~	A7427091035~	L0247090216~
F	AK97100001~	3P31070001~	A7427100176~	A7427101246~	_
G	AK97110001~	3P31170001~	A7427110081~	A7427110881~	L0247111341~
H	AK98020001~	3P30280001~	A7428030351~	A7428020101~	L0248023356~
J	***TBA***	***TBA***	***TBA***	***TBA***	***TBA***

RICOH

Technical Bulletin

Model: AD1	Date: 31-Aug-98	No: 53
Subject: Factory change information	Prepared by: S.Tomoe	
From: QAC Field Information Dept.		

Classification:
☐ Troubleshooting ☐ Part information ☐ Action required
☐ Mechanical ☐ Electrical ☐ Service manual revision
☐ Paper path ☐ Transmit/receive ☐ Retrofit information
☒ Other ( )

The factory for the 115 V version of the AD1 will be changed from Japan to Korea from September production. This RTB informs the new AD1 which will be made in Korea.

Machine Code and Model Name

Brand	Ricoh	Gestetner	Savin
Machine Code	A264-17	A264-10	A264-15
Model Name	Aficio 200	3220	9920DP

1. Parts Information

1.1 The following parts will be made in Korea. These parts will be orderable using the same part number as for the A193 machine.

No.	Description	Index	Page
1	Release Spring	14	19
2	Paper Guide	8	15
3	Lower Rear Cover	6	9
4	Scanner Left Cover	3	7
5	Upper Rear Cover	10	7
6	Scanner Right Cover	11	7
7	Lower Cover – Operation Panel	1	7
8	Middle Left Cover	4	9
9	Rear Right Cover	12	9
10	Lower Right Cover	14	9
11	Front Cover	18	7
12	Lower Exit Cover	21	9
13	Left Exit Cover	15	49
14	Right Exit Cover	26	49
15	Left Front Cover	17	7
16	Right Front Cover	16	7
17	Cap – G4	7	9

No.	Description	Index	Page
18	Cap - Sorter	22	9
19	Cap - NCU	8	9
20	Cap - CSS	10	9
21	Cap - Memory	9	9
22	Cap – IC Card	2	9
23	Cap – RS232C	1	9
24	Cap – Paper Tray Unit	11	9
25	Left Original Scale	4	7
26	Rear Original Scale	6	7
27	Upper Harness Guide	4	25
28	Paper Size Detector (LT)	7	17
29	Fusing Unit (115V)	*	33
30	Fusing Unit Frame	24	33
31	BICU Board (115V)	3	45
32	IOC Board	6	45
33	MSU – 4MB	4	45
34	Mother Board	27	45
35	Relay Harness – Scanner Unit	14	45
36	Relay Harness – Polygon Mirror Motor	5	27
37	DC Harness – Mother Board	22	45
38	Harness – Power Supply Board	19	45
39	Harness – Operation Switch	13	49
40	Harness – Fusing Lamp	20	45
41	Harness – Key Counter	18	45
42	Harness – Mother Board	23	45
43	LD Unit Harness	1	27
44	DC Power Supply Board	10	45
45	Left Relay Guide	8	51
46	Right Shielding Plate	2	21
47	Right Duct	2	35
48	Inner Cover – Paper Feed Tray	18	9
49	Cap – Inverter Unit	20	9
50	Front Side Fence	5	17
51	Rear Side Fence	6	17

No.	Description	Index	Page
52	Guide Plate – Vertical Transport	16	21
53	Release Lever – Bottom Plate	9	17
54	Release Arm – Paper End Feeler	24	21
55	Paper Tray Cover	1	17
56	Front Stopper Lever	16	17
57	Support – Paper Tray - Right	15	9
58	Support – Paper Tray - Left	19	9
59	Spring – 2.4N	34	43
60	Cover – By-pass Table	2	15
61	Right Side Fence – By-pass Feed Table	5	15
62	Left Side Fence – By-pass Feed	3	15
63	Bottom Plate – By-pass Table	7	15
64	Stay – By-pass Feed	19	19
65	Cover – Feed Roller Shaft	27	19
66	Upper Fusing Cover	5	33
67	Guide Plate – Feed Down	26	39
68	Shaft – Transport Roller	20	37
69	Left Cover Tray	2	39
70	Sub Copy Tray - FU	1	39
71	Exit Relay Roller	8	39
72	Exit Roller - FD	10	39
73	Right Vertical Guide	4	39
74	Inverter Unit Connector	13	47
75	By-pass Feed Sensor	9	15
76	Harness – Paper Size Detector	17	9
77	Harness – Paper End Sensor	21	21
78	Harness – Fan Motor	17	45
79	Harness – Humidity Sensor	16	49
80	Harness – Registration Sensor	28	19
81	Harness – Main Motor	4	41
82	Lower Left Cover	3	9
83	By-pass Feed Shaft	29	19
84	Upper Rear Guide – Paper Tray	4	21
85	Upper Front Guide – Paper Tray	3	21
86	Exposure Glass – A3T – 3.2	5	7
87	Lens Holder Ass’y	9	23

1.2 For the –15 machine

The –15 machine will be changed to an OEM generic version. So, the following part numbers will be changed.

A193-15 machine	**A624-15 machine**	**Description**	**Index**	**Page**
A1931453	A1931451	Operation Panel Ass'y	2	7
A1931498	A1931458	Key Top - Memory	13	13
A1931496	A1931461	Key Top – 10 Key	11	13
A1931491	A1931477	Key Top - Start	6	13
A1931492	A1931478	Key Top – Clear Mode	7	13
A1931493	A1931479	Key Top - Interrupt	8	13
A1931494	A1931480	Key Top – Program Mode	9	13
A1931495	A1931481	Key Top - Clear	10	13
A1931497	A1931483	Key Top - LCD	12	13
A1931499	A1931485	Key Top - Internal	14	13
A1931449	A1931486	Key Top - Behind	15	13
A1937224	A1937226	Front Door	14	7

The following part will not be used.

A193-15 machine	**A624-15 machine**	**Description**	**Index**	**Page**
A1337112		Emblem (SVN)	15	7

RICOH Technical Bulletin

PAGE: 1/2

Model: AD1/AD1-E	Date: 15-Nov-98	No.: 54

Subject: Copy Jam HIstory Codes and P to P Diagram	Prepared by: S.Tomoe
From: GTSS Field Information Dept.	

Classification:

☐ Troubleshooting	☐ Part information	☐ Action required
☐ Mechanical	☐ Electrical	☐ Service manual revision
☐ Paper path	☐ Transmit/receive	☐ Retrofit information
☒ Other (Service manual correction)		

1. The jam codes in the copy jam history display, which are listed on page 4-38 should be corrected as follows.

   1. Jam code correction

Incorrect Jam Code	Correct Jam Code	Meaning
100	124	Duplex entrance sensor not activated.
124	100	Duplex turn sensor not activated.

   2. The following new jam codes should be added.

Jam Code	Meaning
1	Jam detected just after power is switched on
60	Registration sensor not activated (from LCT)
61	LCT relay sensor not activated
160	Finisher entrance sensor not activated
161	Finisher entrance sensor remained activated by paper
162	Finisher exit sensor not activated
163	Finisher exit sensor remained activated by paper
164	Finisher jogger unit paper sensor not activated
165	Finisher jogger unit paper sensor remained activated by paper
166	Finisher inverter sensor not activated
167	Finisher inverter sensor remained activated by paper

2. Point to Point Diagram

CN157-8 and CN157-11 of the IOCSS board should be exchanged as follows. Also, correct the service manual, page 7-11.

Point to Point	Service Manual	Correct	Incorrect
Page 1/2 Location B-17	Page 7-11 Section 3.1 Sensors	CN 157-8 Upper Exit Sensor	CN 157-11 Upper Exit Sensor
		CN157-11 Lower Exit Sensor	CN157-8 Lower Exit Sensor

Reissued: 29-Mar-00

RTB Correction

The items in bold Italics have been corrected or added.

Model: AD1	Date: 15-Jan-97	No: 15j
Subject: ROM History (AD1 Copy Version)	Prepared by: K.Ugaeri	
From: Technical Services Dept., GTS Division		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

Firmware history for the AD1.
- USA Model -

A1935532	File No. (A193uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	04	1.16	55DD	178E	3E4F	1st Mass Prod.
E	05	1.23	FB24	B285	489F	November Prod.'96
F	06	1.31	F96B	F66D	02FE	December Prod.'96
G	07	1.33	5D03	2ECA	2E39	January Prod.'97
H	———	1.35	———	———	———	January Prod.'97
J	———	1.36	———	———	———	January Prod.'97
K	10	1.38	A7FE	FB14	ACEA	February Prod.'97
L	11	1.43	BA4B	536A	66EI	March Prod.'97
M	11A	1.48	F9D6	3029	C9AD	May Prod.'97
N	12	1.54	7413	3D1A	36F9	June Prod.'97
P	13	1.60	3042	A726	891C	August Prod.'97
R	14	1.62	5B56	CF0D	8C49	September Prod.'97
T	16	1.70	8D31	65E0	2751	October Prod.'97
V	17	1.72	2708	2870	FE98	February Prod.'98
W	18	1.73	0BF0	1A1D	F1D3	September Prod.'98
Y	20	1.75	89F2	02F7	86FB	March Prod. '99

- European/Asian Model -

A1935533	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
C	103	1.16	B574	E4C1	D0B3	1st Mass Prod.
D	104	1.23	FC4B	98CE	637D	November Prod.'96
E	105	1.31	OADC	41C5	C917	December Prod.'96
F	107	1.33	4C77	CFF3	7C84	January Prod.'97
G	———	1.35	———	———	———	January Prod.'97
H	———	1.36	———	———	———	January Prod.'97
J	110	1.38	ACCC	2927	8353	February Prod.'97
K	111	1.43	F537	6510	9027	March Prod.'97
L	111A	1.48	7218	5558	1CC0	May Prod.'97
M	112	1.54	AAA8	7837	3271	June Prod.'97
N	113	1.60	1FE3	AEE1	7102	August Prod.'97
P	114	1.62	794C	90BE	E88E	September Prod.'97
R	116	1.70	2208	D8BC	494C	October Prod.'97
S	117	1.72	76BE	909E	E620	February Prod. '98
T	118	1.73	4C5F	714E	DB11	September Prod.'98
W	120	1.75	4840	0B94	3CAC	March Prod. '99

∗Versions 1.35 and 1.3 are not released via Files.

- European 2nd Language -

A6485570	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	205	1.43EU2	4BC4	DE26H	6D9E
F	205A	1.48EU2	09F5	CC25	3DD0
G	206	1.54EU2	E768	F05C	F70C
H	208	1.57EU2	E765	F056	F70F
J	209	1.60EU2	AE02	2277	8B8B
K	210	1.62EU2	CB8A	0ACC	C0BE
M	212	1.70EU2	4159	50F0	F069
N	213	1.72EU2	8982	08DC	80A6
P	214	1.73EU3	9E75	EC59	B21C
R	216	1.75EU2	7E27	8168	FCBF

- European 3rd Language -

A6485573	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	301	1.57EU3	9DBB	C908	D4B3
A	302	1.60EU3	390A	FD07	3C03
B	303	1.62EU3	C69E	D5E3	F0BB
D	305	1.70EU3	006B	8E5E	720D
E	306	1.72EU3	BA31	2700	9331
F	307	1.73EU3	3774	27A0	0FD4
H	309	17.5EU3	6CFA	0D13	5FE7

- European 4th Language -

A6485574	File No. (A193exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
	401	1.57EU4	1DF0	CA60	5390
A	402	1.60EU4	4490	FDEF	46A1
B	403	1.62EU4	A30C	D9E5	C927
D	405	1.70EU4	3973	9405	A56E
E	406	1.72EU4	78ED	301F	48CE
F	407	1.73EU4	1D07	11EC	0BEB
H	409	1.75EU4	7DB1	0CFB	70B6

- China Version -

A6485572	File No. (A193CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
E	04	1.62CH	B020	B056	FFCA
H	07	1.70CH	1893	3AEA	DDA9
J	08	1.72CH	690B	C1A7	A764
K	09	1.73CH	D423	A74A	2CD9
M	11	1.75CH	C817	33D6	9441

Reissued: 29-Mar-00

Model: AD1	Date: 15-Jan-97	No: 15j

- Taiwan Version -

A1935534	File No. (A193TWxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
B	03	1.62TW	C05F	3BA0	94BF
E	06	1.70TW	470D	87F1	BF1C
F	07	1.72TW	A7C2	0C5B	9B67
G	08	1.73TW	59DD	FB05	5ED8
J	10	1.75TW	B845	9643	2202

Symptom Corrected (New/corrected items only – for old ones, see previous bulletins)	USA	EU/ Asia	EU2	EU3	EU4	CHN	TWN
White copy problem on 1st scanning.	***Y***	***W***	***R***	***H***	***H***	***M***	***J***

A. Two new SP modes have been added:

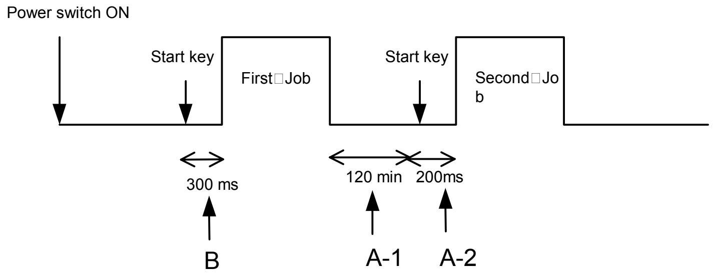
1. ***SP4***-916-1: Scanner lamp off counter
   Default: 120min
   Range: 0-300min

2. ***SP4***-916-2: Scanner lamp warm-up time
   Default: 200ms
   Range: 0-500ms

If the scanner lamp remains off for 120 minutes or longer in between the first and second scans of each job, the machine will allow the scanner 120 ms for warm-up (default).

B. When the scanner lamp is turned on for the first time after the main power switch has been turned on, the machine allows the scanner 300 ms for warm-up.

Warm up time



A1935532	A193-10	A193-15	A193-17	A193-55
E	A10611001~	6A76100001~	A7226100001~	L5026110066~
F	-	6A76120001~	A7226110154~	L5026120516~
G	A107010001~	6A76120026~	A7226120149~	L5027011010~
H	-	6A77020001~	A7227010410~	L5027021541~
J	A107020001~	6A77020241~	-	L5027021563~
K	A107030001~	6A77020438~	A7227020001~	L5027031945~
L	A107040001~	6A77040001~	-	L5027042480~
M	A107050001~	6A77050001~	A7227050001~	L5027053186~
N	A107060036~	6A77060001~	A7227060001~	L5027063876~
P	A107080001~	6A77080001~	A7227080001~	L5027085441~
R	A107090001~	6A77090001~	A7227090001~	L5027096321~
T	A107100001~	6A77100001~	A7227100006~	L5027117581~
V	A108020001~	6A78020001~	A7228020001~	L5028019178~
W	***A108090001~***	***6A78090001~***	***A7228090001~***	***L5028092927~***
Y	***-***	***-***	***-***	***L0529037236~***

A1935533	A193-22	A193-26	A193-27	A193-29	A193-65
D	AH26110001~	3L01160001~	A7226101023~	A7226101492~	L5026110271~
E	AH26120001~	3L01260001~	A7226111703~	A7226122087~	L5026120780~
F	AH27010001~	3L00170001~	A7226121305~	A7227012021~	L5027011216~
G	AH27020001~	3L00270001~	-	-	L5027011424~
H	AH27020951~	-	A7227021026~	A7227021345~	L5027021685~
J	AH27020967~	3L00370001~	A7227030441~	A7227031491~	L5027032180~
K	TBA	3L00470001~	TBA	TBA	TBA
L	AH27040251~	3L00570001~	A7227042629~	A7227052269~	L5027053561~
M	AH27060960~	3L00670001~	A7227060651~	A7227062571~	L5027064111~
N	AH27080001~	3L00870001~	A7227080969~	A7227081769~	L5027085755~
P	AH27090001~	3L00970001~	A7227090881~	A7227092701~	L5027096431~
R	AH27100463~	3L01070007~	A722710771~	A7227102371~	L5027118101~
S	AH28020001~	3L00280001~	A72280011266~	A7228011756~	L5028019336~
T	***AH28090001~***	***3L00980001~***	***A7228090494~***	***A7228091104~***	***L5028093202~***
W	***AH29030294~***	***3L00390001~***	***A7229030021~***	***A7229032398~***	***L5029037451~***

A6485572	A193-69
E	A7227092891~
H	A7227102531~
J	A7228043126~
K	***-***
M	***A7229081098~***

A1935534	A193-19
B	A7227090821~
F	A7228042025~
G	***A7228090449~***
J	***A7229030001~***

Reissued date 29-Mar-00

RTB Correction

The items in bold italics have been corrected or added.

Model: AD1-E	Date: 15-Oct-97	No: 40f
Subject: ROM History (AD1-E Copy Version)	Prepared by: K.Ugaeri	
From: QAC Field Information Dept.		

Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

Firmware history for the AD1-E (Copy)

USA Model

A2245532	File No. (A224uxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
D	01	1.18	7766	6521	1245	1st Mass Prod.
E	02	1.20	01F7	98CE	6929	June Prod. ‘97
F	03	1.24	D441	9943	3AFE	August Prod. ‘97
H	04	1.26	C879	5895	6FE4	September Prod. ‘97
K	06	1.30	432E	144E	2EE0	October Prod. ‘97
L	07	1.32	DECC	12FA	CBC2	November Prod.’97
M	08	1.33	A5B9	A28F	032A	February Prod.’98
N	09	1.34	67BC	73E2	F3DA	September Prod.’98
Q	11	1.36	DF85	E4C8	FABD	March Prod.’99

European /Asian Model

A2245533	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)	Production
B	101	1.20EU1	46A8	65C6	E0E2	1st Mass Prod.
C	102	1.24EU1	F12D	8333	6DFA	August Prod. ‘97
D	103	1.26EU1	6693	55DF	10B4	September Prod. ‘97
F	105	1.30EU1	6F80	F07D	7F03	October Prod. ’97
G	106	1.32EU1	AD8D	EF92	BDFB	November Prod.’97
H	107	1.33EU1	3D82	8357	BA2B	February Prod.’98
J	108	1.34EU1	C46A	790E	4B5C	September Prod.’98
L	110	1.36EU1	F872	24D1	D3A1	March Prod.’99

European 2nd Language

A8105570	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	202	1.24EU2	9FB1	FAE8	A4C9
B	203	1.26EU2	F29A	D4BF	1DDB
D	205	1.30EU2	76E6	6ED6	0810
E	206	1.32EU2	6349	6E3B	F50E
F	207	1.33EU2	EE69	0204	EC65
G	208	1.34EU2	153D	F11B	2422
J	210	1.36EU2	0717	AA5A	5CBD

European 3rd Language

A8105573	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	302	1.24EU3	2C91	F73A	3557
B	303	1.26EU3	649F	D770	8D2F
D	305	1.30EU3	6B26	4D86	1DA0
E	306	1.32EU3	EE17	646C	89AB
F	307	1.33EU3	FE7F	D5DD	28A2
G	308	1.34EU3	3DF8	C1D0	7C28
J	310	1.36EU3	4D07	5E6C	EE9B

European 4th Language

A8105574	File No. (A224exx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
A	402	1.24EU4	7A6A	F8BC	81AE
B	403	1.26EU4	E7F9	DA9F	0D5A
D	405	1.30EU4	A7C1	4EF5	58CC
E	406	1.32EU4	DFE0	4E0F	91D1
F	407	1.33EU4	8EEA	DAFC	B3EE
G	408	1.34EU4	6B87	C26F	A918
J	410	1.36EU4	3F54	6149	DE0B

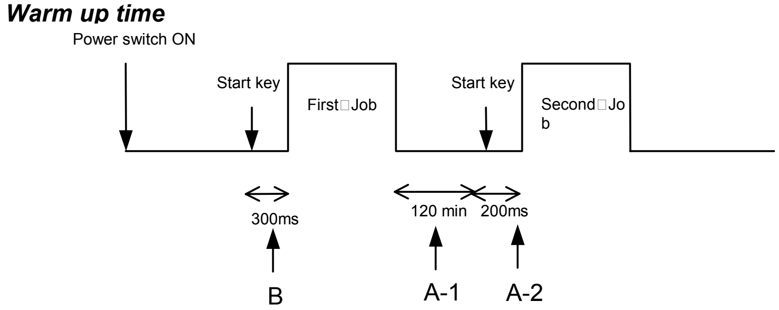
China Version

A8105512(OL)
A8105513(OH)
	File No. (A224CHxx)	Version	Total C.SUM	SUM(OH)	SUM(OL)

-	-	-	-	-	-

Taiwan Version

A2245534	File No. (A224TW xx)	Version	Total C.SUM	SUM(OH)	SUM(OL)
-	-	-	-	-	-

Symptom Corrected (New/corrected items only – for old ones, see previous bulletins)	USA	EU/ Asia	EU2	EU3	EU4	CHN	TWN
White copy problem on 1st scanning. A. Two new SP modes have been added: 1. ***SP4***-916-1: Scanner lamp off counter Default: 120 min Range: 0-300 min 2. ***SP4***-916-2: Scanner lamp warm-up time Default: 200 ms Range: 0-500 ms If the scanner lamp remains off for 120 min or longer (in between each job), the machine will allow the scanner 120 ms for warm-up (default). B. When the scanner lamp is turned on for the first time after the main power switch has been turned on, the machine allows the scanner 300 ms for warm-up.  Warm up time Power switch ON Start key First Job Start key Second Job 300ms 120 min 200ms B A-1 A-2	Y	W	R	H	H	M	J

A2245532	A224-10	A224-15	A224-17	A22455
E	AK87070001~	9A37060001~	A7427060001~	L027080001~
F	AK87080023~	9A37080001~	A7427080001~	_
H	AK87090001~	9A37090001~	A7427090001~	L027090031~
K	AK87100001~	9A37100001~	A7427100021~	L027111066~
L	AK87120001~	9A37120001~	A7427120001~	L027121721~
M	AK88020001~	9A38020001~	A7428020001~	L0248022670~
N	***AK88090001~***	***9A38090001~***	***A7428090001~***	***L0248094106~***
Q	***AK89030001~***	***9A39090001~***	***A7429090001~***	***L0249036677~***

A2245533	A224-22	A224-26	A224-27	A224-29	A224-65
C	AK97070543~	3P30870001~	A7427080601~	A7427081501~	_
D	AK97090001~	3P30970001~	A7427090305~	A7427091035~	L0247090216~
F	AK97100001~	3P31070001~	A7427100176~	A7427101246~	_
G	AK97110001~	3P31170001~	A7427110081~	A7427110881~	L0247111341~
H	AK98020001~	3P30280001~	A7428030351~	A7428020101~	L0248023356~
J	***AK98090001~***	***3P30980001~***	***A7428090576~***	***A7428091241~***	***L0248094201~***
L	***AK99030001~***	***3P30390001~***	***A7429030471~***	***A7429041178~***	***L0249036811~***