SUBJECT: Points to note at installation

DATE:

June 30, 1994

PREPARED BY: H.Yokoyama CHECKED BY: S.Hamano	FROM: 2nd	d T.S. Section
CLASSIFICATION: Action Required Revision of serv Troubleshooting Information only Retrofit Information Other	ice manual	MODEL: LHO (USA only)

#### 1. Flap on the operation panel

#### <Problem>

The settings input by the user or service person will be lost if the flap on the right hand side of the operation panel is set to the down position (Fax mode is selected) after programming for machines which were produced in April (S/N: M1040400001 ~150).

Note: This problem will occur only once per machine.

#### <Cause>

The factory RAM reset will be done when the flap is in the down (Fax mode) position.

#### <Action>

Do the following when installing machines which were produced in April (S/N: M1040400001  $\sim$ 150).

- Before programming (e.g. TTI, RTI... e.t.c.) or switching on a machine, put the flap on the right hand side of the operation panel in the down position, so that the Fax mode is selected.
- Make sure that the machine resets.
  - The hour glass will appear on the LCD.

or

• Print the system parameter settings and check that bit switch 00, bit no.1 is at 0.

#### 2. Master Unit and Development Unit

#### <Problem>

While lines may appear on the print out.

This problem may occur if the new master unit and new development unit are installed at the same time (e.g. At the installation).

<Cause>

Setting powder (white powder) is attached to the cleaning blade in the master unit at the factory. The white powder will be transferred to between the development roller and development blade, which prevents toner from being transferred correctly. This problem will be solved after making about 100 copies.

#### <Action>

When installing the new master unit and new development unit at the same time, manually rotate the development roller to attach the toner to the development roller after installing the the toner cartridge.

**SUBJECT:** Points to note at installation

DATE: June 30, 1994

#### 3. Platen Cover Sensor

<Problem>

The machine will make a blank copy without feeding a document into the ADF original table. Note: This problem will happen only for the first copy after the main switch at the back of the machine is turned on/off.

<Cause>

Software problem.

<Action>

Remove the platen cover sensor when installing the optional ADF. The procedure is as shown below.

(1) Remove the Rear Upper Cover [A]

(2) Remove the Platen Cover Sensor [B] (1 screw, 1 connector)

(3) Fix the Sensor Harness with tape

#### This will be solved with a future software modification.



**SUBJECT:** Points to note at installation

DATE: June 30, 1994

#### 4. Excess parts in the optional kits.

The following parts are in excess for the following optional kits.

#### <ISDN G4 Option>

Description	Q'ty
Bracket	1
Harness Clamp	2
Screw	3

#### <Printer Option>

Description	Q'ty
Oscillator (X'tal)	1

#### This will be solved in a future production run.

#### 5. Optional Interface Board

#### <Problem>

The HIC on the FCU has been installed and this prevents the Optional Interface Board from installing smoothly.



#### <Action>

Reform the HIC to the correct position slowly when installing the board. Caution: Be careful not to break the legs of the HIC.

#### This will be solved from July '94 production.

July, 30, 1994

DATE: **SUBJECT:** Service Manual Correction PREPARED BY: H.Yokoyama FROM: 2nd T.S. Section CHECKED BY:S.Hamano CLASSIFICATION: MODEL: **Action Required** Revision of service manual LHO Troubleshooting Information only **Retrofit Information** Other We attach corrections for the LHO service manual. • Page 2-11 (Refer to the attached sheets) 2nd through 5 th lines are corrected • Page 4-34 (Refer to the attached sheets) No.84 bit 1  $1 \rightarrow 0$ : Blown

> bit 2  $1 \rightarrow 0$ : Blown 4-38 (Refer to the attached sheet

- Page 4-38 (Refer to the attached sheets) No.10 Comments column
  - Modes 12 and 13

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- Mode 13
- Page 4-39 (Refer to the attached sheets)
  - No.16 omments Column



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Mode 14

- Page 4-73 (Refer to the attached sheets) Add the definition for addresses 080629 - 08062B
- Page 4-74 (Refer to the attached sheets)
  - Change the meaning of the data 80(H) for address 080698.
  - Add the meaning of the data for Bit 7 of address 080699.
- Page 6-17 (Refer to the attached sheets) Add the sub code number for Master Motor Failure
- Page 6-17 and 6-26 (Refer to the attached sheets) Add the explanation for Master Motor Failure
- Page 6-26 (Refer to the attached sheets) Code 9-11, 16, 20, 22, 23, 24 (Refer to the attached sheets)

See section 6-3 See section 6-4

RIGOH

### Technical Bulletin No. LHO-002

**SUBJECT:** Service Manual Correction

DATE: July, 30, 1994

 Point to Point The following information was missing. **IOU Board Connector** 

CN202	Toner End Sensor
1	COM
2	Toner End : Low Active
3	Deveropment Unit Set : Low Active

#### 2.3.2.Used Toner Overflow Detection



When the used toner piles up, the pressure of the used toner pushes up the movable plate [B]. Up to 100 prints can be made after the actuator moves into the used toner overflow sensor [C]. At this time, printing is disabled, and the display on the operation panel instructs the operator to replace the master unit.

This condition can be cleared by replacing the master unit.

Also, the master counter is cleared automatically by replacing the master unit.

#### SERVICE TABLES AND PROCEDURES SP MODE PARAMETERS

NO.	Purpose	Default	Comments
80	Sensor status: Motor lock		Bit 0: Main motor 0: Locked
			Bit 1: Master unit drive motor 0: Locked
		00(H)	Bit 2: Polygon motor 0: Locked
			Bit 3: Optional PFU motor 1: Locked
			Bits 4-7: Not used
81	Sensor status: Sensors		Bit 0: By-pass feed sensor
			0: Paper present
			Bit 1: First relay sensor
			0. Paper present Bit 2: Registration sonsor
			0: Paper present
			Bit 3: Fusing unit exit sensor
			0: Paper present
			Bits 4-7: Not used
82	Sensor status: Toner		Bits 0-2: Not used
			Bit 3: Toner end sensor 0: Toner end
			Bits 4-5: Not used
			Bit 6: Toner overflow sensor
			1: Used toner tank full
	Concernent attactives Orational		Bit 7: Development unit 0: Installed
83	Sensor status: Optional		Bit 0: Duplex unit 0: Installed
	units, etc		Bit 2: Paper feed unit 0: Installed
			Bit 3: Not used
			Bit 4: Not used
			Bit 5: Expose the used car salesman
			0: Indicates that someone has
			tampered with the total print
			counter
			Bit 6: 3-bin sorter U: Installed
0.4	Concernation Abnormal		Bit 0: Operation quitable 1: OFF
04	conditions		Bit 1: PELI/Dupley unit fuse (IOL-E3)
	Conditions		0. Blown
			Bit 2: ADF fuse (IOU - F1) 0: Blown
			Bit 3: LD power failure 0: Failure
			Bit 4: +24V (IOU-F2) 0: Blown
			Bit 5: +24VS supply 0: OFF
			Bit 6-7: Not used
85	Sensor status: Duplex unit		Bit 0: Not used
			Bits 1 and 2: Duplex unit status
			Bit 2 1 Status
			0 0 Meady 0 1 There is namer at the relay
			sensor
			1 0 There is paper at the turn
			sensor or at the relav
			sensor.
			1 1 Ready signal to feed
			paper from the duplex unit
			Bit 3-7: Not used

#### 4.3.2. Printer

The following table shows the SP Mode Parameters for the printer. To use a printer SP Mode, use Function 12-3 (section 4-1-19).

To read in the currect status data (in SP Mode Parameters 80 to 92 and A0 to A4), do the following:

- 1. Set the SP mode parameter 93 to 01(H).
- 2. Press Yes.
- 3. Press 3.
- 4. Check any of SP Modes 80 to 92 and A0 to A4.
- 5. After checking all that you need, return to standby mode (SP Mode 93 automatically returns to 00).

No.	Purpose	Default	Comments
10	Copy mode: leading edge registration	12(H)	Before adjusting this value, reset Printer SP Mode 13 to the default setting. Increase the stored value to move the image up in steps of 0.0635 mm. Adjust using the trim pattern generated by SP Mode 60.
11	Copy mode: side registration (first paper feed station)	4D(H)	Before adjusting this value, reset Printer SP Mode 14 to the default setting. Increase the stored value to move the image left in steps of 0.0635 mm. Adjust using the trim pattern generated by SP Mode 60.
13	Copy mode: trailing edge margin (all paper feed stations)	3A(H)	Increase the stored value to make the blank area wider in steps of 0.254 mm.
14	Copy mode: left edge margin (all paper feed stations)	40(H)	Increase the stored value to make the blank area wider in steps of 0.254 mm.

#### SERVICE TABLES AND PROCEDURES SP MODE PARAMETERS

No.	Purpose	Default	Comments
16	Copy mode: side registration (2nd paper feed station)	4D(H)	Before adjusting this value, reset Printer SP Mode 14 to the default setting. Increase the stored value to move the image left
17	Copy mode: side registration (3rd paper feed station)	4D(H)	in steps of 0.0635 mm. Adjust using the trim pattern generated by SP Mode 60.
18	Copy mode: side registration (4th paper feed station)	4D(H)	
19	Copy mode: side registration (bypass feed)	4D(H)	
1A	Copy mode: side registration (duplex tray)	4D(H)	
51	Power to the fusing lamp, ozone fan, and scanner fan while standby mode key is enabled.	00(H)	00: 100% 01: 70% (Energy saving mode level) Refer to section 1.6.3 for details.
52	Printer free run	00(H)	<ul><li>00: Service mode 12-1 is a scanner and printer free run test.</li><li>01: Service mode 12-1 is a printer free run test only.</li></ul>
60	Printer test patterns	00(H)	<ul> <li>01(H): Trim pattern (this is explained in the Removal and Adjustments section)</li> <li>02(H): 16-tone grayscale pattern</li> <li>03(H): 32-tone grayscale pattern</li> <li>To print one of these test patterns:</li> <li>1. Select one of these with this parameter.</li> <li>2. Exit service mode.</li> <li>3. Select the required paper size.</li> <li>4. Press Start without an original on the exposure glass.</li> <li>5. The test pattern will be printed on the selected paper.</li> <li>This SP Mode value is reset to 00 when the power is switched on.</li> </ul>
70	Development bias test (B)	00(H)	01(H): Test mode To start a test, change the value of the
71	Transfer corona bias test (T)	00(H)	appropriate parameter to 01. However, the power to these devices is shut off if the covers
72	Quenching lamp test	00(H)	are opened. Switch the machine off after the test. The
73	Charge corona bias test (C)	00/11	settings are reset to 00(H) at power-on.
		00(H)	The letters in the brackets are the same as the letters printed on the power pack.

#### 080269 (Copier Switch 04)

Bit

Bits 0 to 3 (Europe/Asia): Use of N. American standard paper sizes

To use a N. American paper size, put a paper size detector actuator for F size in the cassette, then set this RAM address to the required settings.

Example: If a customer wants to have one cassette for letter-sized paper, put an actuator for F size in that cassette, and set these bits to 1,1,1,0 or 0,0,0,1.

The setting for F size (1,0,0,1) has the same effect as the setting for "Disabled".

0	1 0 1	2 0 1	3 0	Setting Disabled 8.5 x 11" (Lotter)
0	0	0	1	11 x 8.5" (Letter)
1	0	0	1	F
0	0	1	1	11 x 17" (Double Letter)
0	1	0	1	8.5 x 14" (Legal )

#### 08026A (Copier Switch 05)

Maximum Copy Quantity (this can be from 1 to 99, programmed in hex code)

**080400 - 0804FF:** Scanner SP Mode Parameters (Refer to section 4.3 for details.) Lower two digits of an address represents a parameter number. (e.g., 0804<u>1F</u> is for the scanner SP mode parameter 1F.)

**080500 - 0805FF:** Printer SP Mode Parameters (Refer to section 4.3 for details.) Lower two digits of an address represents a parameter number. (e.g., 0805<u>1F</u> is for the printer SP mode parameter 1F.)

080605 - 080607: Number of copy jams in location (A) [BCD]

080608 - 08060A: Number of copy jams in location (B) [BCD]

08060B - 08060D: Number of copy jams in location (C) [BCD]

08060E - 080610: Number of copy jams in location (E) [BCD]

080611 - 080613: Number of copy jams in location (Y) [BCD]

080614 - 080616: Number of copy jams in location (R) [BCD]

080617 - 080619: Number of Auto Service Calls for Main Motor Lock Failure [BCD]

**08061A - 08061C:** Number of Auto Service Calls for Polygonal Mirror Motor Failure [BCD]

08061D - 08061F: Number of Auto Service Calls for Fusing Unit Failure [BCD]

080620 - 080622: Number of Auto Service Calls for Laser Diode Power Control Failure [BCD]

080623 - 080625: Number of Auto Service Calls for Scanner Home Position Failure [BCD]

080626 - 080628: Number of Auto Service Calls for Fuse Failure [BCD]

080629 - 08062B: Number of Auto Service Calls for Master Unit Failure [BCD]

#### SERVICE TABLES AND PROCEDURES SP MODE PARAMETERS

080698: Details of the current Auto Service Call

00(H): PM call interval (number of pages between PM calls) expired

01(H): Fusing Unit Failure - temperature exceeded 220 °C

02(H): Fusing Unit Failure - temperature did not reach 50°C within 40 seconds of switching the machine on.

11(H): Main Motor Failure - lock not achieved within 3 seconds of switching on

21(H): Polygonal Mirror Motor Failure - lock not achieved within 5 seconds of switching on

41(H): Laser Diode Power Control Failure

51(H): Master Unit Motor Failure - lock not achieved within 10 seconds of switching on

61(H): Scanner Home Position Failure - home position not achieved within 14 seconds

71(H): Fuse Failure - either the PFU Main Motor fuse, ADF, or general +24V fuse has blown

80(H): Excessive jams in the ADF

81(H): Excessive jams in the duplex unit

82(H): Excessive jams at the first paper feed station

83(H): Excessive jams at the second paper feed station

84(H): Excessive jams at the third paper feed station

85(H): Excessive jams at the fourth paper feed station

86(H): Excessive jams in the paper exit area (including jams in the sorter, if installed)

87(H): Excessive jams in the fusing unit

90(H): The used toner tank is full

A0(H): The PM interval has expired

080699: Reason for the Auto Service Call

Bit 0 - 1: Main Motor Failure

Bit 1- 1: Polygonal Mirror Motor Failure

Bit 2 - Not used

Bit 6 - 1: Fuse Failure

Bit 3 - 1: Fusing Unit Failure

Bit 7 - 1: Master Unit Motor

Bit 4 - 1: Laser Diode Power Control Failure

Bit 5 - 1: Scanner Home Position Failure

All error conditions can be cleared by switching the main power off/on, except for Fusing Unit Failure. To clear a Fusing Unit Failure, enter 00 in this address, then turn the main switch off/on.

#### 4.8. SPECIAL TOOLS AND LUBRICANTS

- Scanner positioning pins (4 pcs.): P/N A0069104
- Test chart OS-A3 (10 pcs): P/N 54209516
- Silicone grease G-501: P/N 52039501
- Heat resistant grease (MT-78): P/N 54479078

#### **6.4. SERVICE CALL CONDITIONS**

If the Call Service indicator is lit, one of the following conditions has occurred.

- Main Motor
- Polygonal Mirror Motor Locked
- Fusing Unit Failure (fusing lamp failure)
- LD Power Control Failure
- Blown Fuse Failure (IOU Fuse F1 has blown)
- Scanner Initialization Failure
- Master Motor Failure

(Sub code - 11 or 51) (Sub code - 21) (Sub code - 01 or 02) (Sub code - 41) (Sub code - 71) (Sub code - 61)

(Sub-code - 51)

If the Call Service indicator is not lit, one of the following conditions has occurred.

- Excessive ADF jam call the ADF has jam problems frequently. (Sub-code: 80; see section 4.6.1)
- Excessive printer jam call the printer has jam problems frequently. (Sub-code: 81 through 87; see section 4.6.1)
- Periodic service call (Sub-code: A0; see section 4.6.2)
- PM call interval (number of printed pages) has expired (Sub-code: 00; see section 4.6.3)

To find out which problem has occurred, either:

- See the Auto Service Report, System Parameter List, and Service Monitor Report that were sent to the service station.
- Check the error code history using function 03.
- Try to clear the service call condition: switch the power off, wait 10 seconds, then switch back on.
- Check the sub-code which is stored at RAM address 080698 (H). Note that the sub-codes do not appear on the reports that were sent to the service station, but they are stored in the above mentioned RAM.

If the problem remains, work through the appropriate troubleshooting procedure from the following pages.

After each troubleshooting attempt, reset the machine and try to operate it. If the machine still does not work, continue troubleshooting.

**Note:** A sub-code is stored in the RAM address 080698(H) when there is a service call. See section 4.7 for details.

Symptom: Scanner Home Position Failure (Error Code 9-11)			
This error occurs in the follow	ving condition:		
<ul> <li>If SPU CN253-7 does not g switched on.</li> </ul>	oes low after 14 s of the machin	ne's main power being	
Check Action if Yes Action if No			
1. Check that the mechanism is not obstructed.			
2. Is the scanner motor working ?	Go to step 3.	Check the +24V connection from the SPU to the scanner motor, then replace the motor or the SPU.	
3. Does the +5V from the SPU reach the scanner home position sensor ?	Replace the scanner home position sensor.	Check the +5V connection from the PSU to the SPU (through the FCU), then replace the defective PCB.	

Symptom: Blown Fuse Failu	Symptom: Blown Fuse Failure (Error Code 9-16)			
This error occurs in either of t	he following conditions:			
• If IOU CN203-1 (+24VADF)	goes low: IOU fuse F1 may have	ve blown.		
• If IOU CN202-1 (+24V) goe	s low: IOU fuse F2 may have bl	own.		
Check	Action if Yes Action if No			
1. Are either of the fuses F1 or F2 on the IOU blown ?     Replace the defective fuse or the IOU. If the problem still remains after replacement, check the ADE drive components.     Replace the SPU.		Replace the SPU.		

Symptom: Master Unit Motor Failure (Error Code 9-28)				
This error occurs in the follow	ring condition:			
<ul> <li>If IOU CN221-4 does not go</li> </ul>	• If IOU CN221-4 does not go low within 10 s of the master unit motor being switched on			
(sub-code 51)				
Check Action if Yes Action if No				
1. Check that the mechanism is not obstructed.				
2. Does the front cover inter-	Replace the IOU, SPU, or	Replace the defective		
lock switch pass +24V? the master unit motor. switch mechanism.				

\_

Code	Meaning	Suggested Cause/Action
6-05	Facsimile data frame not received within 18 s of CFR, but there was no line fail (G3 ECM)	Check the line connection. Check connections from the FCU to the NCU. Check for a bad line or defective remote terminal. Replace the FCU, NCU or MBU. Switch the rx cable equalizer on (bit switch 0A, bits 6 and 7).
6-06	Coding/decoding error (G3 ECM)	Defective FCU. The other terminal may be defective.
6-08	PIP/PIN received in reply to PPS.NULL (G3 ECM)	The other end pressed Stop during communication. The other terminal may be defective.
6-09	ERR received (G3 ECM)	Check for a noisy line. Adjust the tx levels of the communicating machines. See code 6-05.
6-10	Error frames still received at the other end after all communication attempts at 2400 bps (G3 ECM)	Check for line noise. Adjust the tx level (use NCU parameter 01 or the dedicated tx parameter for that address). Check the line connection. Defective remote terminal.
9-07	Copy jam at the cassette entrance	See section 6-2-2. If the problem remains, replace the FCU.
9-08	Copy jam inside the machine	See section 6-2-2. If the problem remains, replace the FCU.
9-09	Copy jam in the copy feed-out area	See section 6-2-2. If the problem remains, replace the FCU.
9-11	Scanner home position failure	See section 6-4 (Scanner Home Position Failure).
9-16	Blown fuse failure	See section 6-4 (Blown Fuse Failure).
9-20	Laser diode power control failed	See section 6-4 (LD Power Control Failure). If the problem remains, replace the FCU.
9-22	Fusing lamp failure	See section 6-4 (Hot Roller Down). If the problem remains, replace the FCU.
9-23	Hexagonal mirror motor lock failure, or laser main scan synch failure	See section 6-4 (Mirror Motor Locked). If the problem remains, replace the FCU.
9-24	Main motor lock failed	See section 6-4 (Main Motor Locked). If the problem remains, replace the FCU.
9-28	Master unit motor failure	See section 6-4 (Master Unit Motor Failure). If the problem remains, replace the FCU.
9-50	Copy jam in the PFU	See section 6-2-2. If the problem remains, replace the FCU.

- Press a key from 0 to 5, depending on the required pattern. Use ↑ and ↓ to see what patterns are available.
- 4. Start

A test pattern is printed.

5. To finish: Yes x 2

#### 4.1.14. RAM Tests (Function 13)

<b>Note:</b> It is not recommended to try the S-RAM check at a culo In S-RAM check mode, the software may hang up if the fax address that is currently being checked. If this occurrs, the r"NOW CHECKING", and will have to be switched off. Switch set of the stored RAM data.	ustomer site. machine's progr machine will con ning the power o	ram tries to access an tinue to indicate ff will cause a total re-		
1. After entering service mode,	RAM TEST	NO.		
press 1 3	0 SRAM	1 SAF		
	2 PAGE MEMOR	Y		
2. Either:				
• Test the SRAM: 0 Start				
Test the SAF: 1 Start				
Test the page memory: 2 Start				
If there is a problem, a display of the following type will occur				
SAF				
PRESS START				
ADDRESS=300002 W=55 R=00				
Keep a note of the information on the display, then press Start to resume testing.				
3. When the test has finished, "OK" is displayed. Press Yes to finish.				
4.1.15. Service Station Telephone Number (Function 14)				
1. After entering service mode,	S.S.NO	ENTER FAX NUMBER		
press 1 4		NO TO CANCEL		

2. Input the telephone number of the service station that will receive Auto Service calls from this machine.

Then press Yes .

If the ISDN Option kit has been installed, press the Line Selector key to select either G3 or G4 before inputting the number.

SUBJECT: Points to note at installation

DATE:

July, 30, 1994

PREPARED BY: H.Yokoyama CHECKED BY: S.Hamano	FROM: 2nd T.S. Section
CLASSIFICATION: Action Required Rev Troubleshooting Information Other	on of service manual ation only MODEL: LHO (Europe and Asia)

#### 1. Master Unit and Development Unit

#### <Problem>

While lines may appear on the print out.

This problem may occur if the master unit and development unit are replaced at the same time (e.g. At the installation).

#### <Cause>

White powder is attached to the cleaning blade in the master unit when exported from Japan. The white powder will be transferred to between the development roller and development blade, which prevents toner from being transferred correctly. This problem will be solved after making about 100 copies.

<Action>

When installing the master unit and development unit at the same time, rotate the development roller to attach the toner to the development roller before installing the development unit in the machine.

#### 2. Platen Cover Sensor

#### <Problem>

After the main switch has been turned off/on, the machine will read the document in the platen mode even if there is a document in the ADF.

However this problem will happen only for the first copy after the main switch at the back of the machine is turned on/off.

#### <Cause>

The machine contains a platen cover sensor and this will cause the problem.

#### <Action>

Remove the platen cover sensor when installing the optional ADF. The procedure is as shown below.

- (1) Remove the Rear Upper Cover [A] (2 screws)
- (2) Remove the Platen Cover Sensor [B] (1 screw, 1 connector)
- (3) Fix the Sensor Harness with tape

**SUBJECT:** Points to note at installation

DATE: July, 30, 1994

#### This will be solved with the following software modification.

 $H5207206B \rightarrow C (PROM \text{ for MBU-F})$  $H5207207B \rightarrow C$  (PROM for MBU-F)  $H5207209B \rightarrow C$  (PROM for MBU-S)



#### 3. Optional kits

The following parts are in excess for the optional kits.

#### <ISDN G4 Option>

Description	Q'ty
Bracket	1
Harness Clamp	2
Screw	3

#### <Printer Option>

Description	Q'ty
Oscillator (X'tal)	1

# RIGOR Technical Bulletin No. LHO-003

SUBJECT: Points to note at installation

**DATE:** July, 30, 1994

#### 4. Optional Interface Board

#### <Problem>

The HIC on the FCU has been bent and this prevents the Optional Interface Board from installing smoothly.



<Action>

Bend the HIC to the correct position slowly when installing the board. Please be careful not to break the legsof the HIC.

#### This will be solved from July '94 production.

### Technical Bulletin No.

NO. LHO-004
-------------

SUBJECT: Software Modific	cation			DATE: July, 30th, 1994
PREPARED BY: H.Yokoya CHECKED BY: S.Hamano	ma	FROM: 2nd	1 T.S. S	ection
CLASSIFICATION:			MODE	L:
Action Required	Revision of servi	ce manual	LHO (A	All models)
Troubleshooting	☐ Information only			
Retrofit Information	Other			

#### 1. Double Copy problem

RIGOH

#### <Problem>

The double copy function will not work correctly when more than 3 copies are made



<Cause> Software problem

<Modification> The ROM on the PCB-MBU-S has been modified

H5207209 A  $\rightarrow$  B

This will be effective from July production

#### 2. The following function will be added.

#### <New function>

To erase the shadow of the original's trailing edge, the machine will delete a few lines according to the following data.

SP Mode Parameters, Scanne	er,
----------------------------	-----

No.	Default	Comments	
2E	02(H)	Increase the stored value to	o increase
		the area for deleting.	Unit: mm

### RIGO L L

### Technical Bulletin No. LHO-004

**SUBJECT:** Software Modification

DATE: July, 30th, 1994

#### <Modification>

A120-17:

$\begin{array}{l} H5207204B \ \rightarrow C \\ H5207205B \ \rightarrow C \\ H5207209B \ \rightarrow C \end{array}$	(PROM-1: PCB-MBU-F) (PROM-2: PCB-MBU-F) (PROM : PCB-MBU-S)
A120-27:	

H5207206B $\rightarrow$ C	(PROM-1: PCB-MBU-F)
H5207207B $\rightarrow$ C	(PROM-1: PCB-MBU-F)
H5207209B $\rightarrow$ C	(PROM : PCB-MBU-S)

The above ROMs should be replaced at the same time.

RIGOH	Technical B	Bulletin	No.	LHO-005
SUBJECT: Taiwan version i	information			DATE: September 14th. '94
PREPARED BY: S. Tomoe CHECKED BY:		FROM: Ov	erseas <sup>-</sup>	Tech. Section
CLASSIFICATION:			MODE	iL:
Action Required     Trouble shooting     Betrofit Information	<ul> <li>Revision of servi</li> <li>Information only</li> <li>Other</li> </ul>	ce manual	LHO (	Taiwan only)

The Taiwan version of the LHO will be launched in November. The following are different items for Taiwan.

### **1. Machine Configuration**

Unit	Model Name	Model Code	Version
Main body	MV 715	A120-19	Taiwan
Paper Feed Unit	PS 260	A545-17	U.S.A.
3-bin Sorter	CS 310	A546-20	Universal
ADF	DF 41	A546-30	Universal
Duplex Unit	AD 320	A546-10	Universal
Platen Cover	Platen Type 310	A547-10	Universal
1 MB Memory	Fax Memory Type 80 1 MB	H130-36	Universal
2 MB Memory	Fax Memory Type 80 2 MB	H130-37	Universal
40 MB Hard Disk	Fax Memory Type 80 40 MB HD	H130-38	Universal
400 dpi Page Memory	400 DPI Option Type 80	H130-39	Universal
Printer Interface	Printer Interface Type 80	H144-16	U.S.A.
ISDN G4	ISDN G4 option Type 80	H143-07	Europe

### 2. System Configuration

#### 2.1 Overall

The Taiwan version machine is based on the U.S.A. version. So, the following items are changed.

- 1) Original and paper size : Metric paper size
- 2) Default values of the NCU parameters : Refer to the next page
- 3) Decals and operator's manual : Chinese

#### 2.2 Mechanical

The following items are the same as the Europe version

- 1) By-pass Feed table
- 2) Cassette

3) Paper feed roller assembly (the number and position of the rollers have been changed from the U.S.A. version)



SUBJECT: Taiwan version information

DATE: September 14th. '94

#### 2.3 Electrical

The following items are the same as the U.S.A. version.

- 1) PSU
- 2) FCU

The following items are newly designed for the Taiwan version.

- 1) Operation panel
- 2) MBU-F
- 3) NCU

#### 2.4 Software

- 1) mm-system operation
- \* Original and paper size determination
- \* Paper size display on the LCD
- 2) Default values of the NCU parameters have been changed.

Address	Function	Value
080364 [H]	DTMF tone attenuation value	10
080365 [H]	Tx level from the modem	10
08035D [H]	Break time for pulse dialling	64
08035E [H]	Make time for pulse dialling	31

The default values of the other parameters are the same as for the **UK country code**.

### 3. Service Parts

The following parts are only for the Taiwan version.

Parts Number	Description	Page and Index
H510 6015	NCU Board - TWN	45 - 18
H510 4183	Caution Decal (TWN)	35 - 7
H520 4751	Copy Operation Panel - GB	7 - 10
H520 5034	Operation Panel Ass'y (TWN)	7 - 3
H520 6025	MBU-F Board - TWN	43 - 22
H520 7215	IC - Programmed ROM - MBU-F 1 (TWN)	43 - 8
H520 7216	IC - Programmed ROM - MBU-F 1 (TWN)	43 - 7
H520 8503	Operator's Manual - TWN	3 - *

The attached parts list is a revised version, made for Taiwan. Please replace the list in the parts catalog which we sent previously.



### Technical Bulletin

### No. LHO-005

SUBJECT: Taiwan version information

DATE: September 14th. '94

### 4. Service Remarks

#### 4.1 Main body

1) There is no Taiwan country code for NCU parameters. However, there is no need to input the default values of the parameters which are explained on the pervious page after performing a RAM clear.

#### 4.2 Options

#### 4.2.1 Paper Feed Unit

1) The U.S.A. version will be supplied. So, it is necessary to modify the paper feed roller assembly.

Add two rollers per assembly and reposition the rollers (refer to the service manual).

2) Change the paper size plate to the Europe version.

3) When A3 paper is used, the A3 End Fence should be installed.

#### 4.2.2 Printer Interface

The U.S.A. version (Epson) will be supplied. Sometimes American paper sizes (LT, LG etc) appear on the LCD. This is because the firmware of the printer controller is the same as the U.S.A. version. However, metric paper size data can be printed.

### 5. Attachments

1) The revised lists of the parts catalog

2) PCB component list of the MBU-F

SUBJECT:Software Modification	ation			DATE: Dec. 15, 1994
PREPARED BY: H.Yokoya CHECKED BY: S.Hamano	ma	FROM: 2nd	d T.S. Se	ection
CLASSIFICATION:			MODE	L:
Action Required	Revision of se	vice manual	LF	IO
Troubleshooting	Information on	ly		
Retrofit Information	Other	-		

The following functions have been added with the following ROM versions.

A120-17: H5207204C	A120-27: H5207206C	Other model
H5207205C	H5207207C	1st mass
H5207209C	H5207209C	production

#### < New Function >

1. Specified Cassette Selection for all facsimile receptions can be available. If the paper of the specified cassette (second paper tray) is used up when receiving a message, the message will be stored in memory until the paper is replaced.

#### - Merit -

To prevent the machine from printing the received image on white paper (e.g. A4 sideways) after image rotation, even if the customer uses colored paper for fax reception (e.g. A4 lengthwise).

#### - Operation -

- [1] Change the setting of Bit SW13, bit 1 to 1.
- [2] Turn on the specified cassette selection feature with the customers' On/Off switch (Function 81).

**Note:** If Bit SW13 bit 1 set to 1, all incoming messages will be printed using the second pape rtray whether the RTI/CSI is programmed for specified cassette selection or not.

The error report (without a sample of the image) will be printed on A5 size paper.
 Europe and Asia versions only.

# RIGOH

### Technical Bulletin No.

No. LHO-007
-------------

SUBJECT: Fan Noise

DATE:

Dec. 15, 1994

PREPARED BY: H.Yokoyar	na	FROM: 2nd	d T.S. Section	
Action Required	Revision of servi	ice manual	LHO	
Troubleshooting	Information only			
Retrofit Information	Other			

LHO has several power saving modes.

The description of the power saving modes is in section 1.6.3 of the service manual.

If the Energy Saving modes are used, the noise from the fans is also reduced by about 30% when the machine is in energy saving mode.

**Note:** In this condition, printer output is disabled and incoming fax messages are stored in the memory and printed after warming up.

(The customer have to wait for warming up to make a copy.)

#### <How to select Energy Saving Mode >

- 1. Press [6] [0], then enter [1] [9] [9] [1], [Yes]
- 2. Press [1] [2], then [3]
- 3. Press [5] [1]
- 4. Press [0] [1]

The machine is set to energy saving enable mode.

In this situation, if the customer presses the standby key for more than one second, the machine will go into the idle mode (Energy Saving Mode).

**SUBJECT:** Paper Cassette Corner Separator

DATE:

Dec. 15, 1994

PREPARED BY: H.Yokoya CHECKED BY: S.Hamano	ma	FROM: 2nd	d T.S. Section	
CLASSIFICATION: Action Required Troubleshooting Retrofit Information	<ul> <li>Revision of servi</li> <li>Information only</li> <li>Other</li> </ul>	ice manual	MODEL: LHO	

#### <Problem>

Paper skew and / or jams may occur.

#### <Cause>

The corner separators on the paper cassettes (at the rear side of each cassette) do not keep the paper in place, because the fence is pushed to the rear by the weight of the paper when the customer close the cassette.

#### <Modification>

The following will be done.

- A spacer will be added. (To prevent the rear side fence from being pushed to the rear.)
- The cassette will be modified. (The ribs for the spacer will be added.)
- A side fence positioning decal will be added to make clear the position for each paper size.
- A decal marked "Close the cassette gently" will be added.
- Two black mylars will be added for each cassettes. (Refer to the following diagram)



< e.g. Europe & Asia>

- **Note:** The spacer will be able to be changed by a customer depending on the size of the paper (Install the spacer, fitting the notches in the spacer onto the ribs which will be on the rear side of the cassette.)
  - If the customer want to use the 8 1/2" or 8" (Europe & Asia) or A4 size (USA), peal off the black mylar.

Technical Bulletin

SUBJECT: Paper Cassette Corner Separator

DATE: Dec. 15, 1994

No. LHO-008

#### <Temporary Countermeasure>

- We will send the spacer for temporary countermeasure. Please attach the spacer to the cassette as shown in the diagram.
- Note: This spacer is just for a temporary countermeasure, so the available quantity is limited.
  When using a type (2) spacer, first set the sidefence before attaching the spacer.

— Shape of the spacer.



# Image: Constraint of the section Image: Constraint of the section Image: Constraint of the section SUBJECT: Points to note during field activities DATE: Dec. 15, 1994 PREPARED BY: H.Yokoyama EBOM: 2nd T S. Section

CHECKED BY: S.Hamano		FROM: 2nd	a 1.5. Section	
CLASSIFICATION:			MODEL:	
Action Required	Revision of servi	ce manual	LHO	
Troubleshooting	Information only			
Retrofit Information	Other			

When checking the FCU and SPU boards of the machine, please note the following. Otherwise, the boards may be broken by a short circuit by contact with the main frame of the machine.

- 1. Turn off the main switch (at the rear side of the machine) when removing the boards.
- 2. Insert paper (at least 3 sheets) between the FCU and the main frame of the machine when checking a TP or adjusting a VR on the board.



# **RIGOR** Technical Bulletin No. LHO-010

SUBJECT: Sub code for the 9-22 error code

DATE:

Dec. 15, 1994

PREPARED BY: H.Yokoya CHECKED BY: S.Hamano	ma	FROM: 2nd	d T.S. Section	
CLASSIFICATION: Action Required Troubleshooting Retrofit Information	<ul> <li>Revision of servi</li> <li>Information only</li> <li>Other</li> </ul>	ce manual	MODEL: LHO	

The following code has been included.

Address: 080698 Data : 03 (H)

The meaning of 03 (H) is as follows.

• The temperature fell below 50°C more than twice during standby mode or after the temperature reached 120°C.

#### < Effective Date >

September, 1994 ~

- H520-17 -

H5206022E: MBU-F Board : 115V (H5207204D): PROM - MBU-F : 1 (H5207205D): PROM - MBU-F : 2

- H520-27 -

H5206023E: MBU-F Board : 220V (H5207206D): PROM - MBU-F : 1 (H5207207D): PROM - MBU-F : 2

#### - Both Model -

H5206029D: MBU-S Board (H5207209D): PROM - MBU-S

**Note:** The above modification has been included from 1st mass production for the other models.

# RIGOII Technical Bulletin No. LHO-011 SUBJECT: Vertical black bands / lines (Zebra stripes) DATE:

•	• *		Feb. 15, 1995
PREPARED BY: M.Watanabe	FBOM: 2nd	TS Section	n
CHECKED BY: S.Hamano			
CLASSIFICATION:		MODEL:	
Action Required Revision of	service manual	LHO	
Troubleshooting Information	only		
Retrofit Information Other			

#### <Problem>

Vertical black bands or lines like zebra appear on copies.

#### <Cause>

The corona discharge becomes uneven because of dust adhered onto the charge corona wires under low humidity environment.

#### <Action 1: Insulating tape on the ozone filter >

It has been confirmed that the condition of corona discharge becomes stabler if the ozone filter is grounded because it is electrically conductive. This will lengthen the interval of occurrence of this problem.

In order to make the ozone filter to be grounded, the insulating tape on the ozone filter has been removed since February 1995 production. The cut-in serial number is as follows:

Machine Code	Serial Number
A120-15	S3050200001
A120-17	M1050200001
A120-19	A1950200001
A120-22	8915020141
A120-27	U8050200001
A120-30	F0650200001

For the machines manufactured before the above serial number, remove the insulating tape from the ozone filter during machine installation or at the next EM call according to the following procedure.

SUBJECT: Vertical black bands / lines (Zebra stripes)

DATE: Feb. 15, 1995



- 1. Open the front cover.
- 2. Remove the development unit.
- 3. Remove the master unit.
- 4. Remove the ozone filter case [A].
- 5. Remove the ozone filter [B] from the ozone filter case.
- 6. Remove the insulating tape [C] from the ozone filter.
- 7. Install the ozone filter to the ozone filter case.
- 8. Install the ozone filter case and then push up the ozone filter so that the upper surface of the ozone filter touches the guide rail [D].
- 9. Clean the charge corona wire with dry cloth carefully as shown below.



- 10. Reinstall the master unit on the development unit.
- 11. Close the front cover.
- 12. Check the copy quality.
- **Note**: Clean the charge corona wire at every EM call to minimize the incidence of this problem.

SUBJECT: Vertical black bands / lines (Zebra stripes)

DATE: Feb. 15, 1995

#### <Action 2: Change corona wire cleaner >

All LHO machines manufactured after the following serial number will have the charge corona wire cleaner and the instruction sheet (see page 4/5 and 5/5.) In order to minimize the EM calls caused by this problem, explain and demonstrate to the key operator how to use the cleaner after installing the machine and when this problem occurs.

Machine Code	Serial Number
A120-15	S30501XXXXX
A120-17	M1050100001
A120-19	A19501XXXXX
A120-22	8915010112
A120-27	U8050100001
A120-30	F065010001

For the machines manufactured before the above serial number, we will ship the cleaners corresponding to about 25% of machines shipped to you by the end of February, 1995.

**SUBJECT:** Installation Procedure Changes for Optional Equipment

**DATE:** Mar. 15, 1995

PREPARED BY: M.Watanabe CHECKED BY: S.Hamano	FROM: 2nd	d T.S. Section
CLASSIFICATION:         Action Required         Troubleshooting         Retrofit Information	vice manual	MODEL: LHO (only for A120-22, -27, and -30)

Due to the modification (MB No.19 issued on March 15, 1995) to meet the Radio Interference Regulation (EN55022 Class B) in Europe, some hardware and accessories to install the following optional equipments have been newly added to their packages and the installation procedures have been changed accordingly.

Optional Equipment	Cut-in Serial Number		
1. Sorter (A546-20)	W0950200001		
2. 40MB Hand Disc	(Instullation Procedure Only)		
3. Memory Board for 400dpi Reception	(Installation Procedure Only)		
4. Printer Interface Board (H144-17)	U2950200001		
5. ISDN-G4 Board (H143-07)	U3150200001		

1. Sorter



#### - Installation Procedure -

**Caution:** Check whether there are any fax messages in memory or not. If there are fax messages in memory, you have to install this unit and turn on the power within 1 hour.

- 1. Turn off the main switch and unplug the power supply cord, then remove the rear cover [A] of the main machine.
- 2. Remove the rear left lower cover [B] (1 screw).
- 3. Remove the stub of the left cover [C] with nippers.
- 4. Remove the caps [D].
- 5. Install the magnet bracket [E] (2 M3 x 6 screws) and the upper fulcrum bracket [F] (2 M4 x 5 screws).
- 6. Install the lower fulcrum bracket [G] while pushing it up (1 M4 x 5 screw).
- 7. Reinstall the rear left lower cover.





- 8. Remove the rear cover of the sorter [A] (2 screws).
- 9. Install the sorter to the main machine (1 clip).
- 10. Remove the Printer I/F Unit, if it has been installed.
- 11. Remove the shield plate [B] (11 screws 1 connector).
- 12. Remove the ISDN board and Hard Disk Unit, if they have been installed.
- 13. Remove the MBU-F [C] (2 screws) and slide out the PCB bracket [D] (2 screws).
- 14. Clip the ferrite core [E] around the interface harness [F] as in the figure. **NOTE:** Be careful not to pinch the harness in the ferrite core.
- 15. Connect the interface harness to the CN153 on the SPU board.
- 16. Secure the ground wire [G] (1 M4 x 8 screw with toothed washer).
- 17. Install the interface harness bracket [H] (2 M3 x 6 screws).
- 18. Install the four trays [I] and reassemble the machine.
- 19. Plug in the power supply cord and turn on the main switch, then check the operation of the sorter unit.

#### 2. 40MB Hard Disc

**Note:** If a printer interface unit or G4 board are installed, remove them before doing the following procedure.

#### - Installation Procedure -

**Caution:** Make sure that 100% is displayed on the operation panel before installing a hard disk, or data may be lost.

1. Attach the bracket [A] to the hard disk unit (2 small screws), and change the TB1 jumper setting to ON position.

**Caution:**The initial setting of TB1 is at OFF position. Without changing the TB1 setting, data stored in the Hard Disk will be lost, whenever the machine's main switch is turned off.

- 2. Set bit no.0 of bit switch 0D to "1".
- 3. Turn off the main switch, and unplug the machine from the wall socket.

**Caution:** Do not plug in or switch on again until everything is connected up.

4. Remove the rear cover [B] (4 screws).







#### - 115V version machine -

5. Connect the hard disk [C] to CN 101 on the FCU [D].

Note: Make sure the hard disk connector is plugged into the FCU connector correctly.

- 6. Tighten the two screws that secure the hard disk.
- 7. Put back the rear cover [A] (4 screws).
- 8. Plug the machine into the wall socket and turn on the main switch.
- 9. Enter the service mode and format the hard disk (function 17).
- **Caution:** Do not turn off the switch until format is completed. Formatting the hard disk takes about 10 minutes.
- 10. Print the system parameter list and make sure that the Total Memory Size indicates "HD".
- 11. Go to the standby mode and make sure that remaining memory indicator shows "100%".

#### - 230V version machine-

- 5. Remove the upper shield plate [E] (11 screws, 1 connector).
- 6. Remove the lower shield plate [F] (2 screws).
- 7. Connect the hard disk [C] to CN 101 on the FCU [D].
  - Note: Make sure the hard disk connector is plugged
    - into the FCU connector correctly.
- 8. Tighten the two screws that secure the hard disk.
- 9. Put back the upper and lower shield plates.
- 10. Put back the rear cover [A] (4 screws).
- 11. Plug the machine into the wall socket and turn on the main switch.
- 12. Enter the service mode and format the hard disk (function 17).

```
Caution: Do not turn off the switch until format is
completed.
Formatting the hard disk takes about 10
minutes.
```

- 13. Print the system parameter list and make sure that the Total Memory Size indicates "HD".
- 14. Go to the standby mode and make sure that remaining memory indicator shows "100%".





#### 3. Memory Board for 400 dpi Reception

This product is to be used with the A120 machine. This installation must only be done by qualified service personnel.

#### - Installation Procedure -

1. Turn off the main switch, and unplug the machine from the wall socket.

#### Caution:

Do not plug in or switch on again until everything is connected up.

- 2. Remove the rear cover [A] (4 screws).
- 3. **230V version machine only:** Remove the shield plate [B] (11 screws, 1 connector).





- 4. Plug the 400dpi card [C] into connector CN160 [D] on the SPU.
- 5. Reassemble the machine.
- 6. Plug the machine into the wall socket and turn on the main switch.
- 7. Make sure that bit 7 of the RAM data (address: 0800E5(H)) is set to "1".



#### 4. Printer Interface Board







- [A] : 4 screws
- [B] : 11 screws, 1 connector
- [C] : 2 screws
- Install [D]
- Install [E]
- Install [F]
- Install [C] : 2 screws
- Install [B] : 11 screws, 1 connector

Install [G], [H], [I] and [J]

- [G] : 2 screws
- [H]: 2 screws
- [I]: 1 screws
- [J] : 3 screws, 1 connector
- [K] : 8 screws









[L] : 2 screws Install [M] : 2 screws

#### 5. ISDN-G4 Board



After the hardware installation, program the G4 parameter switches, internal switches, and ISDN service modes as explained in the service manual for the G4 kit.

#### Page 1/2

# Technical Bulletin No. LHO-013

SUBJECT: Offset Image			DATE: Aug. 10, 1995
PREPARED BY: K. Ugaeri CHECKED BY: M. Iwasa <i>The Clive</i>	FROM: 2nd	d T.S. Se	ection
CLASSIFICATION: Action Required Revision of serv Troubleshooting Information only Retrofit Information Other	ice manual	MODEI LF	L: IO

In order to prevent the toner from adhering to the hot roller, the Oil Supply Unit as a PM part (60K) has been added to the fusing unit since July '95 production.

Refer to MB No. LHO-029 for the cut-in serial number.

Part No. of the Oil Supply Unit: H5202502

C

For the machines manufactured before the cut-in serial number, install the oil supply unit on the fusing unit at the next EM call.

**Remarks:** The following phenomenon may appear after installing the oil supply unit.

- 1. The oil mark may be slightly visible on the solid black area.
- 2. The oil mark may be slightly visible on a copy on OHP sheet.

# RIGOR Technical Bulletin No. LHO-013

SUBJECT: Black Spots by toner adhesive

**DATE:** Aug. 10, 1995

### <Oil Supply Unit Installation Procedure>

- 1. Turn off the operation switch and the main switch, and unplug the power cord from the wall outlet.
- 2 Open the fusing exit cover [A] and the front cover [B].
- 3 Remove the fusing unit (1 screw).
  - Note: a) When removing the fusing unit, keep pushing the unit towards the fusing exit cover to prevent the paper guide [C] from being damaged.
    - b) When pulling out the fusing unit, keep one hand under it at the rear end.
- Remove the fusing unit upper cover [D] [ 2 screws].
- 5. Remove and dispose the bracket [E] (1 screw).
- Install the oil supply unit [F] ( 3 screws provided).
- Reinstall the fusing unit upper cover ( 2 screws).
  - Note: The edge (1) of the bracket must be parallel with the border of the opening in the upper frame.
    - . The bent (2) of the bracket must touch the underside of the upper frame.
- Reinstall the fusing unit (1 screw).
   Note: When inserting the fusing unit, keep holding the unit and insert it slowly to prevent the unit from being damaged.
- 9. Close the fusing exit cover and the front cover.



SUBJECT: Correction of Service Manual for Data	DATE: Aug. 10, 1995		
PREPARED BY: K. Ugaeri CHECKED BY: M. Iwasa	FROM: 2nd	d <b>T.S</b> . Se	ection
CLASSIFICATION:		MODE	L:
Action Required Revision of serv	rice manual	LF	łO
Troubleshooting Information only	,		
Retrofit Information Other			

#### <Problem>

The LHO stalls when a fax message, or a print job is received, if the same bit of both address 08004F and 080050 is set to "O".

#### <Cause>

Wrong Explanation of Service Manual.

#### <Action>

Correct the service manual (Page 2-32).



# Technical Bulletin No. Multi-001

 

 SUBJECT: Memory Back-up Battery
 DATE: Jan. 19, 1995

 PREPARED BY: Y.Okunishi CHECKED BY: S.Hamano
 FROM: 2nd T.S. Section

 CLASSIFICATION:
 MODEL:

 Action Required
 Revision of service manual

 Troubleshooting
 Information only

 Retrofit Information
 Other

#### [Symptom]

Stored documents in the memory might be erased when the main power goes down. A power failure report is printed with the following information.

- Memory Tx Files: Destination names or fax numbers are printed.
- Substitute Reception Files: The Sender's RTI or CSI is printed if they are programmed.
  - CSO rejects incoming messages without RTI or CSI because of the factory setting.
- Memory Lock Files: Programmed Quick Numbers are printed.

#### [Cause]

Power loss from the memory back-up battery on FCU caused by excessive charge current, for the following reasons.

- Leak current from Diode The battery is charged after it is already fully charged. This type of battery is damaged if this occurs.
- (2) Excessive charge voltage (CFO, CS1,LHO) The target charge voltage was 6.2V against 6.4V or under which is recommended by the battery maker. This margin was too small for this battery.



#### [Modification]

See MB C Series-048A.

# R[[(C)(0

### Technical Bulletin No. Multi-001

SUBJECT: Memory Back-up Battery

DATE: Jan. 19, 1995

#### [Action Taken]

- 1. Install the modified FCU to deal with customer claims.
- 2. Request technicians not to turn off the main power if a document is stored in the memory.

#### [Note]

• Stored data other than documents is not erased even if the main power goes down.

# Technical Bulletin No. Multi-002

SUBJECT: Toner Spillage during Transportation

DATE:

Jul. 15.1995

PREPARED BY: Y. Okunis CHECKED BY: M. Iwasa	hi	FROM: 2nd	d T.S. Section
CLASSIFICATION:		ice manual n	MODEL: All laser plain paper fax machines

Background: Machines have been sent to customers after pre-installation and sent back to the service center for repair.

#### Problem: Toner had spread inside the machine during transportation.

Cause: Toner leaked from the development unit, the toner cartridge, or somewhere in the toner path during transportation.

#### Preparation for transportation:

- (1) Transportation without heavy vibration
  - (Example: A technician should carry the machine with care.)
  - F/L series fax machines:

The development unit can be connected to a CTM with toner. However, the toner path under the CTM must be covered by some adhesive tape. See the attached illustration.

• C series fax machines:

Follow RTB No. CSO-006

Other order machines:

Follow (2) below.

- (2) Transportation with heavy vibration
  - (If a third party handles the transportation, follow this procedure.)
  - F/L series fax machines:

Remove the development unit and the CTM from the machine if toner has been installed. They must not be delivered in the same box as the machine, because they contain toner which may spill out. The toner inside the machine must be cleaned away or the toner path under the CTM must be covered with tape.

• C series fax machines and others:

Remove the development unit and CTM (or Toner Cartridge) from the machine if toner has been installed, and clean the toner from inside the machine.

The removed development unit and CTM must not be delivered in the same box as the machine.



SUBJECT: Toner Spillage during Transportation

DATE: Jul. 15.1995

#### Inside of FX6 and LSO



Note: Adhesion of the tape should not be strong. Otherwise, it may not be taken off cleanly from the machine, or the toner path may be damaged when it is taken off.

Please request tape samples for the FX6 and LSO from Ricoh.

## RIGOH

### Technical Bulletin

#### **PAGE: 1/1**

Model: ISDN Opt	ion		Date	e: 30-Nov-97	No: Multi - 006
Subject: US National ISDN			Prepared by: H.k	Kamiya	
From: IPP Busine	ess Division Technical Service [	Opt.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Other ()</li> </ul>	Part info	orma al it/rec	tion Action Action Servio	n required ce manual revision fit information

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

Models: CFO, CGO, LHO, FX4, 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	Bit1	0: Dynamic TEI	Type of TEI used (Layer 2) (Default)
SW13	Bit2	1: Yes	Attachment of calling party number (L3 SET UP)
	Bit5	1: Yes	Attachment of channel information element (L3 CONN)
SW14	Bit0	1: Speech	ISDN G3 information transfer capability (L3)
	Bit5	1: Keypad facility	Called ID mapping (L3)
SW15	Bit7	1: On	Transmission of STAT in reply to STAT_ENQ received in the U0 state.
SW19	Bit0	1: Permanent	Permanence of the link (L2)
	Bit2	1: On	SPID procedure (L2)
	Bit3	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.

RC	RE	ASIA	
*			



### Technical Bulletin

#### **RTB Correction**

Reissue date: 30-Apr-98

The items in bold italic have been corrected or added.

Model: <i>LHO</i> Date			e: 15-Apr-98	No: 015	
Subject: Pressure Plate Dev.unit			Prepared by: Y.Tamaoka		
From: QAC Field	Information Dept.				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Other ()</li> </ul>	Part inf Electric	orma al iit/rec	tion Action Servio eive Retro	n required ce manual revision fit information

#### SYMPTOM

White lines and/or background appear on the printed copy, especially after replacing the master unit.

#### CAUSE

Insufficient pressure from the development unit on the master unit.

#### ACTION

Check the copies to see if white horizontal lines or light spots appear. If there are white lines on the rear side of the copy, replace the "Rear Pressure Plate" (A1003120). If the white lines are on the front side of the copy, replace the "Pressure Plate Dev. Rail" (A1003111).

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