Model: General (GW Models)			<b>Date</b> : 20-Dec-01		No.: RGene010	
Subject: Series Print Mode		Prepared by: K. Misugi				
From: Technical Services Dept., GTS Division						
Classification:	□ Troubleshooting	☐ Part inf	orma	tion	Action	n required
		☐ Electric	al		Service	ce manual revision
	☐ Paper path	Transm	nit/rec	eive	Retrot	fit information
	Other ( )					

In response to complaints from customers that the intervals between jobs are too long when sent in series, a new service switch has been added to improve performance.

#### New service switch:

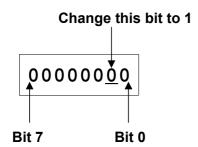
Controller SP mode bit switch 2, bit 1 Series print mode On/Off

**0:** Off (default setting)

**1:** On

This switch has been added to the following GW models: K-P1 (Kir-P1), J-P1, A-P3 (Adonis-P3), and R-C2 (Russian-C2).

Enter the printer controller service mode, access the bit switch settings display, then change bit 1 of bit switch 2 to "1."



**Important:** Do not change any other settings. (The default setting is "0.")

#### **Descriptions:**

Series print mode Off (default):

The machine starts to feed paper for the next job <u>after</u> the last sheet of the previous job has fed out from the machine.

Series print mode On:

The machine starts to feed paper for the next job <u>before</u> the last sheet of the previous job is fed out.



**PAGE: 2/2** 

Model: General (GW Models)

Date: 20-Dec-01

No.: RGene010

#### Conditions for use:

For the Series Print mode to become effective, jobs must be sent from the same PC, using the same PDL and interface (Ethernet, IEEE1284, IEEE1394).

#### Limitations:

Series Print mode cannot be used when:

- The above conditions are not met
- Stapling or punching is used
- A user code is used
- Color and black-and-white jobs are mixed (only for color machines)

#### Remarks:

When enabled, the machine handles the jobs waiting to be printed as a single job. When the Job Reset key on the operation panel is pressed, all jobs combined by this feature are cancelled.

#### Applied from the following software versions:

K-P1: Controller Ver. 1.11

J-P1: 1st mass production of P1b

A-P3: 1st mass production U-P1: 1st mass production R-C2: 1st mass production

佪	ጠ	ПП
G	w	Ш

Model: General RTB			Dat	e: 8-Nov-02	No.: RGene011
Subject: Euro symbol not printed with PS driver			Prepared by: T. II	toh	
From: Technical Services sec. Service Planning Dept.					
Classification:		☐ Part info	rmat	ion 🔀 Action	required
	☐ Mechanical	☐ Electrica	l	☐ Service	ce manual revision
	☐ Paper path	Transmit	/rec	eive Retro	fit information

**PAGE: 1/8** 

#### **SYMPTOM**

When printing with the PS driver, the Euro currency symbol is not printed out with 112 of 136 fonts, which are stored in the font ROM in GW-based products.

#### The following are GW-based products:

Other (

Model-K3, Model-K P2, Russian-C2, Adonis- C2, Model-A P3, Model-J P1b, Model-J CF Model-U P1, Model-U C1, Martini-C1.

#### **CAUSE**

The Euro currency symbol was not included in the font ROM.

)

#### **SOLUTION**

#### **Temporary Solution (1)**

A workaround for each operating system has been previously released on the FAQ page, and is included on pp. 5-8 below.

#### **Temporary Solution (2)**

Although the font ROM will be modified as a permanent solution (details below), before this can be applied, the controller firmware has been modified on the following GW-based products:

Product	Firmware Version	Product	Firmware Version
Model-K3	1.01 (Controller)	Model-J P1b	2.18 (Controller)
Model-K P2	1.06.1 (Controller)	Model-J CF	1.11 (Printer Application)
Russian-C2	2.03 (Printer Application)	Model-U P1	2.20 (Printer Application)
Adonis-C2	3.09 (Printer Application)	Model-U C1	1.22 (Printer Application)
Model-A P3	1.08 (Controller)	Martini-C1	1.01 (Printer Application)

Specifically, the Euro currency symbol has been added along with the "PS fonts download" feature, which allows the symbol to be downloaded to machine RAM. <u>Enable this feature</u> by changing the setting of Bit SW#3-0 to "1 (ON)" in SP mode (default: OFF).



**PAGE: 2/8** 

Model: General RTB Date: 8-Nov-02 No.: RGene011

#### **Remarks for Temporary Solution 2:**

1. Switching PDL to PS takes approximate 7 to 10 seconds.

When PS fonts download is enabled, the Euro symbol is temporarily downloaded to the machine RAM at the first PS printing job, and whenever the PDL is switched from RPCS or PCL to PS. The total download time is approximately 7 to 10 seconds. This is because once the data is downloaded, it will remain in the RAM until the PDL is switched or the power turned off.

2. Printing high image area documents at 1200 dpi may cause a memory overflow error in machines equipped only with 32MB of memory (ex. Model-K P2).

This is because the PS fonts download feature uses approximately 800kB, which can bring the amount of available memory close to capacity with the above printing conditions.

#### Workaround:

- Printing at 600dpi may prevent an overflow, even with just the 32MB memory installed.
- Changing the memory usage setting from "Frame Priority" to "Font Priority" may prevent an overflow.

#### **Permanent Solution**

Modification of the font ROM on the ROM DIMM or the Controller Board, from October '02, production or later (details differ depending on the model). Specifically, the Euro currency symbol has been added to the 112 fonts mentioned above.

#### Note:

- 1. When the new ROM DIMM or Controller Board is installed, it is <u>not</u> necessary to disable the PS fonts download feature (temporary solution).
- 2. An MB will be issued separately announcing the P/N change for the ROMM DIMM and Controller Boards, and cut-in serial number.

#### ROM DIMM and Controller Board P/N:

Model	Where the font ROM is soldered	Current P/N	Model	Where the font ROM is soldered	Current P/N
Model-K P2	Controller	G0735712	Model-J CF	ROM DIMM	G5706687
		G0745712	Model-U P1	ROM DIMM	G0705851
Adonis-C2	ROM DIMM	B3615117	Model-U C1	ROM DIMM	B5295117
		B3625118	1		B4635117
Model-A P3	Controller	G0656022	Martini-C1	ROM DIMM	G3395117
		G0656023	1		G3385117
Russian-C2	ROM DIMM	B4615117	Model-K3	Controller	B5165750
		B4535117			
Model-J P1b	ROM DIMM	G0776120			



**PAGE: 3/8** 

Model: General RTB Date: 8-Nov-02 No.: RGene011

#### **Font Table**

This is a symbol font, so no countermeasure is applied.	Euro symbol is printed correctly.
	This is a symbol font, so no countermeasure is applied.
Both temporary and permanent solutions work to print out the Euro currency symbol correctly.	Both temporary and permanent solutions work to print out the Euro currency symbol correctly.

AlbertusMT	Helvetica	Univers
AlbertusMT-Italic	Helvetica-Bold	Univers-Bold
AlbertusMT-Light	Helvetica-BoldOblique	Univers-BoldExt
AntiqueOlive-Bold	Helvetica-Condensed	Univers-BoldExtObl
AntiqueOlive-Compact	Helvetica-Condensed-Bold	Univers-BoldOblique
AntiqueOlive-Italic	Helvetica-Condensed-BoldObl	Univers-Condensed
AntiqueOlive-Roman	Helvetica-Condensed-Oblique	Univers-CondensedBold
Apple-Chancery	Helvetica-Narrow	Univers-CondensedBoldOblique
Arial-BoldItalicMT	Helvetica-Narrow-Bold	Univers-CondensedOblique
Arial-BoldMT	Helvetica-Narrow-BoldOblique	Univers-Extended
Arial-ItalicMT	Helvetica-Narrow-Oblique	Univers-ExtendedObl
ArialMT	Helvetica-Oblique	Univers-Light
AvantGarde-Book	HoeflerText-Black	Univers-LightOblique
AvantGarde-BookOblique	HoeflerText-BlackItalic	Univers-Oblique
AvantGarde-Demi	HoeflerText-Italic	Wingdings-Regular
AvantGarde-DemiOblique	HoeflerText-Ornaments	ZapfChancery-MediumItalic
Bodoni	HoeflerText-Regular	ZapfDingbats
Bodoni-Bold	JoannaMT	
Bodoni-BoldItalic	JoannaMT-Bold	
Bodoni-Italic	JoannaMT-BoldItalic	
Bodoni-Poster	JoannaMT-Italic	
Bodoni-PosterCompressed	LetterGothic	
Bookman-Demi	LetterGothic-Bold	
Bookman-Demiltalic	LetterGothic-BoldSlanted	
Bookman-Light	LetterGothic-Slanted	
Bookman-LightItalic	LubalinGraph-Book	
Carta	LubalinGraph-BookOblique	
Chicago	LubalinGraph-Demi	
Clarendon	LubalinGraph-DemiOblique	
Clarendon-Bold	Marigold	
Clarendon-Light	MonaLisa-Recut	
CooperBlack	Monaco	
CooperBlack-Italic	NewCenturySchlbk-Bold	
Copperplate-ThirtyThreeBC	NewCenturySchlbk-BoldItalic	
Copperplate-ThirtyTwoBC	NewCenturySchlbk-Italic	
Coronet-Regular	NewCenturySchlbk-Roman	
Courier	NewYork	
Courier-Bold	Optima	
Courier-BoldOblique	Optima-Bold	
Courier-Oblique	Optima-BoldItalic	
Eurostile	Optima-Italic	
Eurostile-Bold	Oxford	
Eurostile-BoldExtendedTwo	Palatino-Bold	
Eurostile-ExtendedTwo	Palatino-BoldItalic	

RIGOH

Model: General RTB

## Technical Bulletin

Date: 8-Nov-02 No.: RGene011

**PAGE: 4/8** 

Palatino-Italic
Palatino-Roman
StempelGaramond-Bold
StempelGaramond-BoldItalic
StempelGaramond-Italic
StempelGaramond-Roman
Symbol
Tekton
Times-Bold
Times-BoldItalic
Times-Italic
Times-Roman
TimesNewRomanPS-BoldItalicMT
TimesNewRomanPS-BoldMT
TimesNewRomanPS-ItalicMT
TimesNewRomanPSMT



**PAGE: 5/8** 

Model: General RTB Date: 8-Nov-02 No.: RGene011

#### **Workaround Announced on the FAQ Page**

#### **Question:**

Euro Fonts printing problem

#### **Answer:**

If Euro Fonts can't be printed by the PS driver, the following solutions may be effective.

#### **Solution**

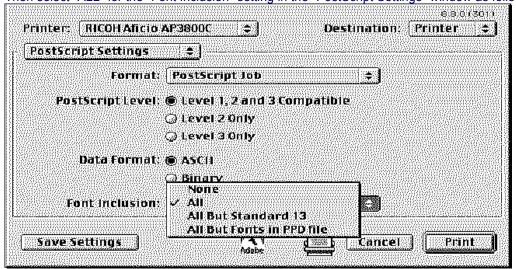
MacOS 9.x / 8.x

Use the AdobePS 8.8 printer driver.

Get the printer driver from the Adobe site on the web.

http://www.adobe.com/support/downloads/product.jsp?product=44&platform=Macintosh

Then select "ALL" for the "Font Inclusion" setting in the "PostScript Settings" window as follows.



#### Windows 95

Update Windows95 to "Euro Currency Support for Windows95".

You can get it from the following URL.

http://www.microsoft.com/windows95/downloads/contents/WURecommended/S\_WUFeatured/W95EuroPatch/Default.asp

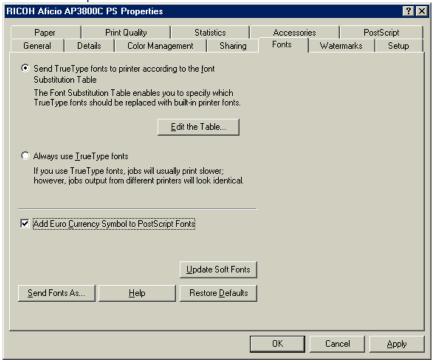
Then the "Add Euro Currency Symbol to PostScript Fonts" check box is available. Check "Add Euro Currency Symbol to PostScript Fonts". (Before update, the check box doesn't work.)



**PAGE: 6/8** 

Model: General RTB Date: 8-Nov-02 No.: RGene011

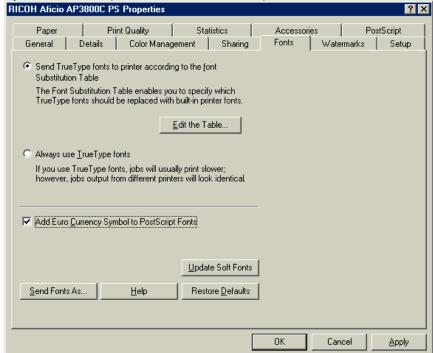
Windows95 after update



#### Windows 98 / ME / NT4.0 / XP

Check "Add Euro Currency Symbol to PostScript Fonts" .

Windows 98 / ME (Note: The AdobePS driver version 4.3.1 or later has "Add Euro Currency Symbol to PostScript Fonts" in the "Fonts" tab.)

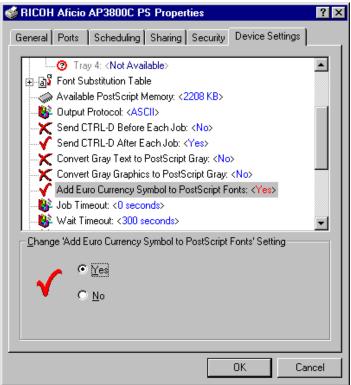




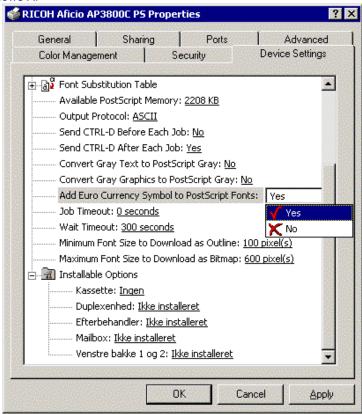
**PAGE: 7/8** 

Model: General RTB Date: 8-Nov-02 No.: RGene011

#### Windows NT4.0



#### Windows XP





Model: General RTB Date: 8-Nov-02 No.: RGene011

#### Windows 2000

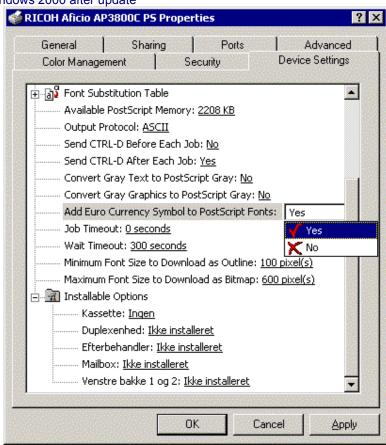
Update the printer driver to v5.5.2 or later.

You can get it from the printer driver v1.0.6 on the Adobe web site that includes the W2000 driver v 5.5.2.

**PAGE: 8/8** 

http://www.adobe.com/support/downloads/product.jsp?product=44&platform=Windows Then the "Add Euro Currency Symbol to PostScript Fonts" check box is displayed. Check "Add Euro Currency Symbol to PostScript Fonts".

#### Windows 2000 after update



## RIGOH

### Technical Bulletin

**PAGE: 1/2** 

Model: Model U-P1 Da			Dat	ate: 20-Dec-02		No.: RG071001	
Subject: Image Skew			Prepared by: H.K.				
From: Technical Services sec. Service Planning Dept.							
Classification:		☐ Part info	ormat	tion	Action	required	
	☐ Mechanical	☐ Electrical		☐ Servi		ce manual revision	
	☐ Paper path	☐ Transmi	it/rec	eive	☐ Retrof	fit information	
	☐ Other ( )						

#### **SYMPTOM**

Image skew when feeding from mainframe Tray 1.

#### Cause

The operator does not set the side fence flush against the paper stack.

#### Field Action 1

Advise customers that the side fence should be set flush against the loaded paper stack, or in cases where the customer gives approval, secure the side fences in place with two screws.

Note: The level of skew will increase twofold if there is a 1mm gap between the paper and side fence.

#### Field Action 2

As a supplement, the level of skew can be further minimized by increasing the paper buckle with SP1-003. Try adjusting this value several times while checking the level of skew on the printouts, keeping in mind that a higher value tends to cause Z-folds and a lower value tends to cause paper jams.

**PAGE: 2/2** 

Model: Model U-P1 Date: 20-Dec-02 No.: RG071001

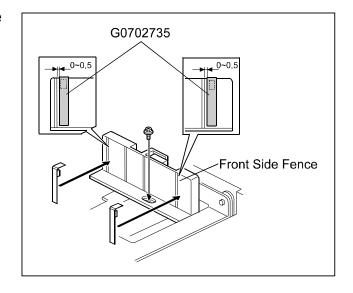
#### **Field Action 3**

The following sheets of Mylar have been added to the side fence from the September production machines. For the field machines, please refer to the procedure below.

Part number	Quantity	Description
G0702735	2/Tray	Guide Plate - Side Fence

#### Procedure

- 1. Clean the attachment surface on the Front Side Fence (AF016097) with alcohol.
- 2. Attach the Mylar (G0702735) to the Front Side Fence as shown in the illustration.



The following field machines require the Mylar to be attached:

August '02 production serial numbers are as follows.

G071-17: P75268xxxxx

11 units were shipped to US market as test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as test marketing machines (PMO).

നതത	пп
1G0	I #
பயை	UL

### Technical Bulletin

Model: General RTB Date			e: 27-Dec-	No.: RGene012		
Subject: GW Products - Hardware Ethernet Problem				Prepared by: T. Itoh		
From: Technical Services Sec. Service Planning Dept.						
Classification:		☐ Part informa		tion	Action	required
		☐ Electrical		☐ Service ma		e manual revision
	☐ Paper path	☐ Transmit/red		eive	☐ Retrof	it information
	Other ( )					

#### **SYMPTOM**

When the main switch is turned on, the error message "Hardware Ethernet Problem" may be displayed under the following condition on the GW-based products.

#### Conditions:

- Network speed on the hub has been set to 100Mbps fixed with full duplex, and
- Length of network cable is too long (60 m or more) or the cable quality is not good enough

#### **CAUSE**

When the main switch is turned on, the machine performs a loop-back test. If the cable length is too long or its quality is not good enough, the damping factor for the data transmission becomes worse, and the machine incorrectly detects an error during this test. This happens only when the network speed is set to 100Mbps fixed with full duplex. The PHY chip used on the controller board causes this.

#### **SOLUTION**

- Temporary Solution -
- Set the network speed on the hub to Auto-sensing,
- Use a shorter cable or a cable with a lower damping factor, or
- Disconnect the network cable and power on the printer; then, set the cable after the printer comes to the ready condition.
- Permanent Solution -

The controller firmware will be modified to avoid the incorrect detection of this error message. The schedule of firmware modification is as follows.

Product Type	Product	Firmware Modification Cut-in Schedule
Fov	Kaiser 3	at next modification
Fax	Kaisei 3	at next modification
Printer	Model-K P1	
	Model-K P2	
	Model-J P1b	
	Model-J CF	
	Model-U P1e	'03 January production run
	Model-A P3	'03 March production run
MFP	Model-R C2	at next modification run
	Model-A C2	
	Model-M C1	
	Model-U C1	'03 February production run

#### NOTE:

Firmware will be posted in the usual manner when it is released.

**PAGE: 1/1** 

## RIGOH

### Technical Bulletin

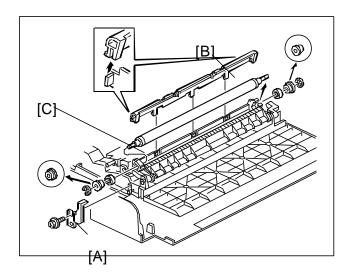
РΔ	GE:	1	/1
		- 1	, ,

Model: Model U-	P1		Date: 20-Jan	-03	No.: RG071002
Subject: Service	Manual		Prepare	d by: Y.U	rushihara
From: Technical	Services Sec. Service Planning	Dept.			
Classification:	☐ Troubleshooting	☐ Part info	ormation	☐ Action	required
	☐ Mechanical	☐ Electrica	al	⊠ Servic	ce manual revision
	☐ Paper path	☐ Transm	it/receive	Retro	fit information
	Other ( )				

Please apply the following correction to your Model U-P1 Service Manuals.

Page 3.23

The orientation of <u>both</u> bearings in the illustration below should be reversed. **Note:** This is an illustration correction only. The procedure itself is unchanged.



#### 3.8.2 TRANSFER ROLLER

- 1. Brace [A] (Screwx1)
- 2. Guide [B]

**Note:** To remove the screws, turn the roller unit on its pivot.

3. Transfer roller [C] (E-ringx2, Bushing x2, Bearingx2)



**PAGE: 1/9** 

Model: Model U-	P1		Date: 3-Feb-0	03	No.: RG071003
Subject: Firmwar	er	Prepare	d by: H.K	<b>.</b>	
From: Technical	Services Sec. Service Planning	Dept.			
Classification:	☐ Troubleshooting	☐ Part info	ormation	☐ Action	required
l	☐ Mechanical	☐ Electric	al	☐ Service	e manual revision
l	☐ Paper path	☐ Transm	it/receive	☐ Retrof	fit information
l	Other (Firmware History)				

This is to inform you of the Main Unit Controller firmware history.

Part No.	Program name			
G0705940	_	Version	C.SUM	Production
K	G0705941K.bin	V2.24	6E31	February Production '03
	G0705940K.bin		EF54	
J		V2.22.1	-	January Production '03
Н	-	V2.22	-	November Production
				'02
G	-	V2.21	-	Not applied to the
				production machines
F	-	V2.20	-	Not applied to the
				production machines
Е	-	V2.19	-	Not applied to the
				production machines
D	-	V2.18	-	August production '02

#### Note for updating test marketing machines (PMO) firmware:

Default values of the fusing temperature (SP1-105), paper transfer currents (SP2-310-001 to SP2-314-032), and paper transfer adjustment (SP2-903-01) have been reviewed. When firmware is updated to V2.20 or later for the first time, please check these settings. If the settings are still old ones, please set the type to 0 and press the # key in SP2-905-01 and SP1-905-01. For details, please refer to the corrected symptom explanations in V2.20 and V2.18 (pp. 2, 3 below).

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating main unit controller firmware:

Whenever updating main unit controller firmware from v2.22.1 or earlier to v2.24 or later, please be sure to update the BICU firmware at the same time to v1.38 or later. The BICU firmware history is described in RTB No. RG071004.



**PAGE: 2/9** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003

#### Main Unit Controller

Symptom Corrected	Version
SP1-105-01 (Fusing Temperature): Default for idling start changed from 145 to 140 (see SP mode table below).	V2.24
SP2-801-02 (Additional Value of the charge corona cleaning interval) has been newly added. The cleaning interval for the additional charge corona unit has been adjusted as shown. $[0 \sim 5000  /  \textbf{100}  /  100  \text{counts/step}]$	
With this new SP, it is possible to adjust the interval for charge corona cleaning in the middle of a job: Old:	
The charge corona cleaning is carried out after 600 (SP2-801-1) development counts, at job end or after 700 (no adjustment) development counts (stops in the middle of the job).	
After The charge corona cleaning is carried out after 600 (SP2-801-1) development counts, at job end or after 700 (= the sum of the settings in SP2-801-1 and -2)	
development counts (stops in the middle of the job).	V2.22.1
Hardware Ethernet Problem: For details, please refer to General RTB #RGene012.	V2.22.1
Selecting a HDD font or DIMM font may sometimes reduce available memory.	
Printing speed is sometimes low when printing an AutoCAD file.	
The machine may freeze during printing when using a certain application w/HDD font or DIMM font selection.	V2.22
Text characters may appear darker with a certain raster image.	
Graphics objects may appear darker when available memory is low.	
The wireless LAN card sometimes cannot communicate with the printer when the WEP key is ON.	
Translation corrections for some words in Polish and German.	V2.21
<ul> <li>SP1-905-01 (pressure roller type) has been newly added.</li> <li>new pressure roller type (2.1mm), 1 : old pressure roller type (1.5mm)</li> </ul>	V2.20
This has been added due to the pressure roller modification applied to prevent fusing jams (wrapping around the pressure roller), whereby the layer thickness of the pressure roller was changed from 1.5 mm to 2.1mm from first production.	
<b>NOTE:</b> When updating from v2.19 or former to v2.20 or later, it is necessary to manually enter a value of 0 into this SP mode and then press #, which instructs the machine to use the new data for fusing control.	
<ul> <li>Some default values of SP1-105 (Fusing Temperature) have been changed.</li> <li>See new default table below. (new settings input from August '02 production).</li> </ul>	



PAGE: 3/9

Symptom Corrected	Version
Default settings for SP2-944-4 and –5 have been changed to reduce the OPC	V 6131011
lubrication mode cycle :	
SP2-944-4: Sheets-1: [10 to 80/ 30 (old: 20) / 1sheet/step]	
SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> (old : 40) / 1sheet/step]	
Fure symbol not printed with DC driver (for details, one Conoral DTP No.	
Euro symbol not printed with PS driver (for details, see General RTB No. RGene011).	
roeneu i i).	
Minor bug corrections.	V2.19
First release.	V2.18
Display for SP5-945 (MidThickPaper) deleted, as this setting can be performed in	
User Tools.	
SP1-920-1 to 3 (PFMtrDelayTime) has been newly added (see table below).	
, , , , , , , , , , , , , , , ,	
SP2-310 to 2-314: Some defaults have been changed (see table below).	
of 2 010 to 2 014. Some defaults have been changed (500 table below).	
Default value of ODO 000 /DemarTrans Levy) has been always of from 0.0 to 4.0 to	
Default value of SP2-903 (PaperTrans_Low) has been changed from 8.0 to 1.0 to	
improve image quality in low-temperature and low-humidity conditions:	
Adjusts the paper transfer current applied when the machine is at low temperature.	
[0.0 $\sim$ 70.0 / <b>1.0</b> / 0.1 $\mu$ A/step]	
SP2-905-01 (paper transfer roller type) has been newly added due to a shape	
modification to the paper transfer roller to increase transferability (from 1st	
production).	
0: New paper transfer roller type (Drum type),	
1: Old paper transfer roller type (Braintype)	
The old paper transfer toner type (estaight type)	
NOTE: When updating from v2.18 to v2.19 or later, please check to see that the new	
defaults for the following SPs have been applied (new default table below). If they	
have not, set SP2-905-01 to a value of 0 and press #. A ugust production machines	
have the drum type installed, therefore it is not necessary to set this to 0 on these	
machines.	
Don't a the man and manufactured by the state of the stat	
Due to the paper transfer roller modification above, defaults have been changed for SP3 240,004 to SP3 244,033 (paper transfer current SPs), and SP3 203,044	
for SP2-310-001 to SP2-314-032 (paper transfer current SPs), and SP2-903-01	
(paper transfer adjustment).  Default for SP2-943 (Discharge Threshold) has been changed from 17.0 to 15.0, and	
the minimum setting changed from 13.0 to 9.0.	
<b>Note:</b> As with a II DFU SP modes, please do not adjust the setting.	
The second secon	
Adjusts the threshold of discharge. <b>DFU</b>	
[9.0 ~ 22.0 / <b>15.0</b> / 1.0 g/m³/step]	
· · · · · · · · · · · · · · · · · · ·	



PAGE: 4/9

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003

#### SP1

### New defaults (Old default)

920	PFN	/trDelayTime	
	1	Tray:Plain	Adjusts the timing of the paper feed motor when the registration roller feeds the paper by the fusing motor.
	2	By-pass:Plain	This adjusts the paper buckle at the registration by the start timing of the paper feed motor. Normally, the paper buckle is adjusted by SP1-003. It is not necessary to adjust in the the field. (The copier version has a clutch to control the timing. This adjustment is only for the printer
			model.) [0 ~ 50 / <b>15</b> / 5/step] <b>DFU</b>
	3	Tray:SmallSize	[0 ~ 50 / <b>0</b> / 5/step] <b>DFU</b> (Small size: A4/LT or narrower)
105*	Fusi	ng_Temp.	
	1	H: Pre	Sets the temperature at which the heating roller starts idling.  [100 ~ 180 / <b>140</b> (145) / 1°C/step]
	2	H: _Ready	Sets the temperature at which the heating roller enters the print ready condition.  [100 ~ 180 / 155 (165) / 1°C/step]
105*	3	H: _Standby	Sets the heating roller temperature for the ready (standby) condition. After the main switch has been turned on, the machine enters this condition when the heating roller temperature reaches the temperature specified in this SP mode. When the machine is recovering from energy saver or auto off mode, the machine becomes ready when both heat and pressure roller temperatures reach the specified temperature. Pressure roller: SP1-105-16
	4	H: Plain/1C	[100 ~ 180 / <b>160</b> (175) / 1°C/step]  Sets the heating roller temperature for plain paper in single-color mode.
			[120 ~ 190 / <b>155</b> (160) / 1°C/step]
	5	H: Plain/FC	Sets the heating roller temperature for plain paper in full-color mode.  [120 ~ 190 / <b>160</b> (170) / 1°C/step]
	6	H: M-Thick/1C	Sets the heating roller temperature for medium thickness paper in single-color mode.
	7	H: M-Thick/FC	[120 ~ 190 / <b>165</b> (170) / 1°C/step]  Sets the heating roller temperature for medium thickness paper in full-color mode.  [120 ~ 190 / <b>170</b> (180) / 1°C/step]
	8	H: Thick/1C	Sets the heating roller temperature for thick paper in single-color mode .  [120 ~ 190 / <b>165</b> (170) / 1°C/step]
	9	H: Thick/FC	Sets the heating roller temperature for thick paper in full-color mode.  [120 ~ 190 / 170 (175) / 1°C/step]

PAGE: 5/9

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071003
	10	H:OHP/1C	Sets the heating ro single-color mode. [120 ~ 190 / <b>165</b> (1	ller temperature for OHP 70) / 1°C/step]	sheets in
	11	H: OHP/FC		ller temperature for OHP	sheets in
	12	H: Duplex/1C		ller temperature for duple le-color mode.	x printing
	13	H: Duplex/FC	- '	ller temperature for duple color mode.	x printing
	14	P: Pre	Sets the temperatuidling . [10 (30) ~ 100 / 10	re at which the pressure r (30) / 1 °C/step]	oller starts
	15	P: _Ready		re at which the pressure in printing.	roller
105*	16	P: _Standby	(standby) condition turned on, the mac pressure roller tem specified in this SP recovering from en machine becomes		s been when the perature e is de, the d pressure
	27	H: OFFSET+	Sets the heating ro room temperature [0 ~ 20 / <b>5</b> / 1°C/ste		n for when
	28	P: OFFSET+	<u>-</u>	roller temperature correcti is 15°C or lower.	on for when
	29	H: OFFSET-		iller temperature correction is 30°C or higher.	n for when
	30	P: OFFSET-	-	roller temperature correcti is 30°C or higher.	on for when



**PAGE: 6/9** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003

#### SP2

### New defaults (Old default)

		ts (Old delault)	
310*	Pape	erTrans_LL1 (Paper Tra	Insfer LL1)  Weight/Side 1 or 2/Paper Width (mm)
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity
	, i	1411111/100/201	AH (g/m <sup>3</sup> ) is in the following range:
			0 < AH ≤ 3.5 (this is the 'LL1' humidity range)
			Adjust only if there are problems with insufficient transfer
			in the image area of the copy for a particular paper type
			or mode, or in response to field problems as directed by technical support staff.
			[0 ~ 70.0 / <b>25.0</b> (32.0) / 0.2 μA/step]
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>25.0</b> (34.0) / 0.2 μA/step]
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>25.0</b> (36.0) / 0.2 µA/step]
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>25.0</b> (39.0) / 0.2 µA/step]
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>25.0</b> (42.0 / 0.2 µA/step]
	6	Mid/1st/-297	[0 ~ 70.0 / <b>26.0</b> (33.0) / 0.2 μA/step]
	7	Mid/1st/257 -296	[0 ~ 70.0 / <b>26.0</b> (35.0) / 0.2 μA/step]
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>26.0</b> (37.0) / 0.2 μA/step]
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>26.0</b> (40.0) / 0.2 μA/step]
	10	Mid/1st/-128	[0 ~ 70.0 / <b>26.0</b> (43.0) / 0.2 μA/step]
	11	Thk/1st/-297	[0 ~ 70.0 / <b>14.0</b> (16.0) / 0.2 μA/step]
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (19.0) / 0.2 µA/step]
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>16.0</b> (21.0) / 0.2 μA/step]
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>18.0</b> (24.0) / 0.2 μA/step]
	15	Thk/1st/-128	[0 ~ 70.0 / <b>20.0</b> (27.0) / 0.2 μA/step]
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 μA/step]
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>30.0</b> (40.0) / 0.2 μA/step]
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>28.0</b> (42.0) / 0.2 µA/step]
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>28.0</b> (43.0) / 0.2 µA/step]
	20	Nrml/2nd/-128 Mid/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (44.0) / 0.2 μA/step]
	21	Mid/2nd/257-296	[0 ~ 70.0 / <b>29.0</b> (39.0) / 0.2 μA/step]
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>31.0</b> (41.0) / 0.2 µA/step]
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>29.0</b> (43.0) / 0.2 μA/step] [0 ~ 70.0 / <b>29.0</b> (44.0) / 0.2 μA/step]
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (45.0) / 0.2 μA/step]
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>12.0</b> (16.0) / 0.2 μA/step]
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (19.0) / 0.2 μA/step]
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>20.0</b> (21.0) / 0.2 μA/step]
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>24.0</b> / 0.2 μA/step]
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (26.0) / 0.2 μA/step]
	31	OHP/297	[0 ~ 70.0 / <b>16.0</b> / 0.2 μA/step]
	32	OHP/210	[0 ~ 70.0 / <b>20.0</b> (22.0) / 0.2 µA/step]
311*		erTrans_LL2 (Paper Tra display indicates: Paper	insfer LL2) Weight/Side 1 or 2/Paper Width (mm)
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity AH (g/m³) is in the following range:
			3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)
			See SP2-310 for comments.
044*		N	[0 ~ 70.0 / <b>27.0</b> (36.0) / 0.2 μA/step]
311*	2	Nrml/1st/257-296	$[0 \sim 70.0 / 28.0 (38.0) / 0.2 \mu A/step]$

PAGE: 7/9

wouel	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071	1003
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>29.0</b> (40	.0) / 0.2 μA/step]		
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>28.0</b> (43	.0) / 0.2 μA/step]		
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>27.0</b> (46	.0) / 0.2 μA/step]		
	6	Mid/1st/-297	[0 ~ 70.0 / <b>28.0</b> (37	.0) / 0.2 μA/step]		
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>29.0</b> (39	.0) / 0.2 μA/step]		
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (41	.0) / 0.2 μA/step]		
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (44	.0) / 0.2 μA/step]		
	10	Mid/1st/-128	[0 ~ 70.0 / <b>28.0</b> (47	.0) / 0.2 μA/step]		
	11	Thk/1st/-297	[0 ~ 70.0 / <b>15.0</b> (20	.0) / 0.2 μA/step]		
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (21			
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (23	.0) / 0.2 μA/step]		
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>16.0</b> (24	.0) / 0.2 μA/step]		
	15	Thk/1st/-128	[0 ~ 70.0 / <b>17.0</b> (26	.0) / 0.2 μA/step]		
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (40	.0) / 0.2 μA/step]		
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>29.0</b> (43	.0) / 0.2 μA/step]		
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>29.0</b> (45	.0) / 0.2 μA/step]		
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>29.0</b> (47	.0) / 0.2 μA/step]		
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (50	.0) / 0.2 μA/step]		
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (41.	.0) / 0.2 μA/step]		
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>30.0</b> (44	, , , , ,		
Ī	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (46	.0) / 0.2 μA/step]		
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>30.0</b> (48	.0) / 0.2 μA/step]		
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (51	.0) / 0.2 μA/step]		
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>13.0</b> (20	.0) / 0.2 μA/step]		
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (24	.0) / 0.2 μA/step]		
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>19.0</b> (27	.0) / 0.2 μA/step]		
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (31	, , , , -		
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (34	.0) / 0.2 μA/step]		
	31	OHP/297	[0 ~ 70.0 / <b>17.0</b> (19	.0) / 0.2 μA/step]		
	32	OHP/210	[0 ~ 70.0 / <b>21.0</b> (26	.0) / 0.2 μA/step]		
040	Door-	rTropo NNI (Dopor Tr	onofor NINIA)			
312*	rape	erTrans_NN1 (Paper Tr	ansier inin i)	\A/: - t - ()		
312*	The	display indicates: Pape	r Weight/Side 1 or 2/Pap		Aluto la uno inite	
312*	The o	display indicates: Pape Nrml/1st/-297	r Weight/Side 1 or 2/Pa Sets the paper tran	sfer current when abso	olute humidity	
312*	The	display indicates: Pape	er Weight/Side 1 or 2/Pa Sets the paper tran AH (g/m³) is in the t	nsfer current when absort	•	
312*	The	display indicates: Pape	Sets the paper tran AH (g/m <sup>3</sup> ) is in the 1 $80 < AH \le 14$ (thi	nsfer current when absort following range: is is the 'NN1' humidity	•	
312*	The	display indicates: Pape	Fr Weight/Side 1 or 2/Pa Sets the paper tran AH (g/m <sup>3</sup> ) is in the factor $80 < AH \le 14$ (thing See SP2-310 for continuous)	sfer current when absortallowing range: is is the 'NN1' humidity omments.	•	
312*	The	display indicates: Pape	Sets the paper tran AH (g/m <sup>3</sup> ) is in the 1 $80 < AH \le 14$ (thi See SP2-310 for co $[0 \sim 70.0 / 28.0)$ (40	isfer current when absorted following range: is is the 'NN1' humidity omments.	•	
312*	The o	display indicates: Pape Nrml/1st/-297	Sets the paper tran AH (g/m <sup>3</sup> ) is in the factor of the set of the paper tran AH (g/m <sup>3</sup> ) is in the factor of the set	sfer current when absorbed following range: is is the 'NN1' humidity the same of the same	•	
312*	The o	display indicates: Pape Nrml/1st/-297 Nrml/1st/257-296	Sets the paper tran AH (g/m <sup>3</sup> ) is in the 1 $80 < AH \le 14$ (thi See SP2-310 for co $[0 \sim 70.0 / 28.0)$ (40	sefer current when absorbed following range: is is the 'NN1' humidity the following range: is is the 'NN1' humidity the following range: (a) / 0.2 μA/step] (b) / 0.2 μA/step] (c) / 0.2 μA/step]	•	
312*	2 3	display indicates: Pape Nrml/1st/-297 Nrml/1st/257-296 Nrml/1st/210-256	Sets the paper tran AH (g/m <sup>3</sup> ) is in the fall 80 < AH $\leq$ 14 (thing See SP2-310 for considering to a considering for the set of	isfer current when absorbollowing range: is is the 'NN1' humidity parments.  i.0) / 0.2 μA/step]  i.0) / 0.2 μA/step]  i.0) / 0.2 μA/step]  i.0) / 0.2 μA/step]	•	
312*	2 3 4	Nrml/1st/257-296 Nrml/1st/210-256 Nrml/1st/129-209	Sets the paper tran AH (g/m <sup>3</sup> ) is in the factor $80 < AH \le 14$ (thing See SP2-310 for considering $[0 \sim 70.0 / 28.0]$ (44) $[0 \sim 70.0 / 32.0]$ (44) $[0 \sim 70.0 / 31.0]$ (47) $[0 \sim 70.0 / 30.0]$ (50)	isfer current when absorbill significant services is services.  is is the 'NN1' humidity the services is services.  i.0) / 0.2 μA/step]	•	
312*	2 3 4 5	Nrml/1st/-297  Nrml/1st/-297  Nrml/1st/257-296  Nrml/1st/210-256  Nrml/1st/129-209  Nrml/1st/-128	Sets the paper tran AH (g/m <sup>3</sup> ) is in the fall 80 < AH $\leq$ 14 (thing See SP2-310 for considering to a considering for the set of	isfer current when absorbollowing range: is is the 'NN1' humidity parments. i.0) / 0.2 μA/step]	•	
312*	2 3 4 5 6	Nrml/1st/-297  Nrml/1st/257-296  Nrml/1st/210-256  Nrml/1st/129-209  Nrml/1st/-128  Mid/1st/-297	Sets the paper tran AH (g/m <sup>3</sup> ) is in the fall 80 < AH $\leq$ 14 (thing see SP2-310 for comparing to a function of the fall of	isfer current when absorbollowing range: is is the 'NN1' humidity paraments.  i.0) / 0.2 μA/step]	•	
312*	2 3 4 5 6 7	Nrml/1st/-297  Nrml/1st/257-296  Nrml/1st/210-256  Nrml/1st/129-209  Nrml/1st/-128  Mid/1st/-297  Mid/1st/257-296	Sets the paper tran AH (g/m³) is in the factor $80 < AH \le 14$ (thing See SP2-310 for considering $[0 \sim 70.0 / 28.0]$ (42) $[0 \sim 70.0 / 30.0]$ (42) $[0 \sim 70.0 / 31.0]$ (44) $[0 \sim 70.0 / 30.0]$ (50) $[0 \sim 70.0 / 30.0]$ (50) $[0 \sim 70.0 / 29.0]$ (41) $[0 \sim 70.0 / 31.0]$ (43)	isfer current when absorbollowing range: is is the 'NN1' humidity paraments.  i.0) / 0.2 μA/step]	•	
312*	1 2 3 4 5 6 7 8	Nrml/1st/-297  Nrml/1st/-297  Nrml/1st/257-296  Nrml/1st/210-256  Nrml/1st/129-209  Nrml/1st/-128  Mid/1st/-297  Mid/1st/257-296  Mid/1st/210-256	Sets the paper tran AH (g/m³) is in the factor $80 < AH \le 14$ (thing See SP2-310 for comparison of $[0 \sim 70.0 / 28.0]$ (44) $[0 \sim 70.0 / 32.0]$ (44) $[0 \sim 70.0 / 31.0]$ (47) $[0 \sim 70.0 / 30.0]$ (50) $[0 \sim 70.0 / 31.0]$ (41) $[0 \sim 70.0 / 31.0]$ (43) $[0 \sim 70.0 / 33.0]$ (45)	isfer current when absorbill a control of significant series of sincreasing series of significant series of significant series of s	•	
312*	The c  1  2  3  4  5  6  7  8  9	Nrml/1st/-297  Nrml/1st/-297  Nrml/1st/257-296  Nrml/1st/210-256  Nrml/1st/129-209  Nrml/1st/-128  Mid/1st/-297  Mid/1st/257-296  Mid/1st/210-256  Mid/1st/129-209	Sets the paper tran AH (g/m³) is in the factor and AH (find a factor) is in the factor and AH (go ~ 70.0 / 28.0 (44) [0 ~ 70.0 / 31.0 (47) [0 ~ 70.0 / 31.0 (47) [0 ~ 70.0 / 31.0 (43) [0 ~ 70.0 / 33.0 (45) [0 ~ 70.0 / 32.0 (47)]	isfer current when absorbill a control of significant series of sincreasing series of significant series of significant series of s	•	
	The c  1  2  3  4  5  6  7  8  9  10	Nrml/1st/-297  Nrml/1st/-297  Nrml/1st/257-296  Nrml/1st/210-256  Nrml/1st/129-209  Nrml/1st/-128  Mid/1st/-297  Mid/1st/257-296  Mid/1st/210-256  Mid/1st/129-209  Mid/1st/-128	Sets the paper tran AH (g/m³) is in the factor $80 < AH \le 14$ (thing See SP2-310 for comparison of $[0 \sim 70.0 / 28.0]$ (40) $[0 \sim 70.0 / 30.0]$ (42) $[0 \sim 70.0 / 31.0]$ (47) $[0 \sim 70.0 / 30.0]$ (50) $[0 \sim 70.0 / 31.0]$ (41) $[0 \sim 70.0 / 31.0]$ (43) $[0 \sim 70.0 / 33.0]$ (45) $[0 \sim 70.0 / 32.0]$ (47) $[0 \sim 70.0 / 33.0]$ (45) $[0 \sim 70.0 / 31.0]$ (51)	isfer current when absorbollowing range: is is the 'NN1' humidity omments.  i.0) / 0.2 μA/step]	•	
	The c  1  2 3 4 5 6 7 8 9 10 11	Nrml/1st/257-296 Nrml/1st/257-296 Nrml/1st/210-256 Nrml/1st/129-209 Nrml/1st/-128 Mid/1st/-297 Mid/1st/257-296 Mid/1st/210-256 Mid/1st/129-209 Mid/1st/-128 Thk/1st/-297	Sets the paper tran AH (g/m³) is in the factor $AH = 14$ (thing See SP2-310 for compared [0 ~ 70.0 / 28.0 (40) [0 ~ 70.0 / 32.0 (44) [0 ~ 70.0 / 31.0 (47) [0 ~ 70.0 / 31.0 (47) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (48) [0 ~ 70.0 / 31.0 (51) [0 ~ 70.0 / 31.0 (51) [0 ~ 70.0 / 31.0 (51) [0 ~ 70.0 / 31.0 (51) [0 ~ 70.0 / 31.0 (23	isfer current when absorbollowing range: is is the 'NN1' humidity omments.  i.0) / 0.2 μA/step]	•	

PAGE: 8/9

	45	el U-P1		Date: 3-Feb-03	No.: RG071
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24	.0) / 0.2 μA/step]	
-  -  -	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>27.0</b> (42	.0) / 0.2 μA/step]	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>28.0</b> (45	.0) / 0.2 μA/step]	
<u> </u>	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (48	.0) / 0.2 μA/step]	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>30.0</b> (51	.0) / 0.2 μA/step]	
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (55	.0) / 0.2 μA/step]	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (43	i.0) / 0.2 μA/step]	
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>29.0</b> (46	.0) / 0.2 μA/step]	
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>31.0</b> (49	.0) / 0.2 μA/step]	
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>31.0</b> (52	.0) / 0.2 μA/step]	
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>31.0</b> (56	.0) / 0.2 μA/step]	
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (23	.0) / 0.2 μA/step]	
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (28	.0) / 0.2 μA/step]	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (32		
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (37	.0) / 0.2 μA/step]	
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (42	.0) / 0.2 μA/step]	
	31	OHP/297	[0 ~ 70.0 / <b>17.0</b> (22	.0) / 0.2 μA/step]	
	32	OHP/210	[0 ~ 70.0 / <b>21.0</b> (30	.0) / 0.2 μA/step]	
313*	Pape	erTrans_NN2 (Paper Tra	ansfer NN2)		
		display indicates: Paper		. , ,	
	1	Nrml/1st/-297		sfer current when abso	olute humidity
			AH $(g/m^3)$ is in the		
			14 < AH ≤ 19 (th See SP2-310 for co	is is the 'NN2' humidity	range)
			[0 ~ 70.0 / <b>29.0</b> (36		
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (38		
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (39	· · · · · · · · · · · · · · · · · · ·	
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>30.0</b> (40	· · · · · · · · · · · · · · · · · · ·	
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>28.0</b> (42	<u> </u>	
	6	Mid/1st/-297	[0 ~ 70.0 / <b>30.0</b> (37	· · · · · ·	
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (39	, , , , , , , , , , , , , , , , , , , ,	
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>32.0</b> (40		
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>31.0</b> (41		
	10	Mid/1st/-128	[0 ~ 70.0 / <b>29.0</b> (43	<u> </u>	
_	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (25		
_	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25		
	13	Thk/1 st/210-256	[0 ~ 70.0 / <b>15.0</b> (24	· · · · · · · · · · · · · · · · · · ·	
-	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24	, , , , , , , , , , , , , , , , , , ,	
_	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24		
-	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (43	· · · · · · · · · · · · · · · · · · ·	
-	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>31.0</b> (45	<u>, , , , , , , , , , , , , , , , , , , </u>	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>33.0</b> (46	, , , , <u>-</u>	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>32.0</b> (48	<u>, , , , , , , , , , , , , , , , , , , </u>	
-	. •	Nrml/2nd/-128	[0 ~ 70.0 / <b>31.0</b> (50		
313*	20				
313*	20 21	Mid/2nd/-297	[0 ~ 70 0 / <b>30 0</b> /44	.()) / ().2 u A/sten1	
313*	21	Mid/2nd/-297 Mid/2nd/257 <i>-</i> 296	[0 ~ 70.0 / <b>30.0</b> (44		
313*	21 22	Mid/2nd/257-296	[0 ~ 70.0 / <b>32.0</b> (46	.0) / 0.2 μA/step]	
313*	21 22 23	Mid/2nd/257-296 Mid/2nd/210-256	[0 ~ 70.0 / <b>32.0</b> (46 [0 ~ 70.0 / <b>34.0</b> (47	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	21 22	Mid/2nd/257-296	[0 ~ 70.0 / <b>32.0</b> (46	.0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step]	

PAGE: 9/9

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071003
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32	2.0) / 0.2 μA/step]	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (36		
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (41	.0) / 0.2 μA/step]	
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (45	5.0) / 0.2 μA/step]	
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (23	s.0) / 0.2 μA/step]	
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (33	s.0) / 0.2 μA/step]	
314*	Pape The	erTrans_HH (Paper Tra display indicates: Pape	nsfer HH). r Weight/Side 1 or 2/Pa	per Width (mm)	
	1	Nrml/1st/-297		sfer current when absolu	te humidity
			AH (g/m <sup>3</sup> ) is in the		
			•	he 'HH' humidity range)	
			See SP2-310 for co		
	0	N===1/4 =+/057, 000	[0 ~ 70.0 / <b>30.0</b> (32		
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (33		
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (33		
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>28.0</b> (34	<u> </u>	
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>26.0</b> (34	, , , , ,	
	6	Mid/1st/-297	[0 ~ 70.0 / <b>31.0</b> (33	<i>,</i> , , , , , , , , , , , , , , , , , ,	
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (34	, , , , , ,	
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (34	· · · · · · · · · · · · · · · · · · ·	
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (35		
	10	Mid/1st/-128	[0 ~ 70.0 / <b>27.0</b> (35	<u> </u>	
	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (26		
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25	· · · · · · · · · · · · · · · · · · ·	
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (25		
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24		
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24		
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>30.0</b> (44	<u> </u>	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>33.0</b> (44		
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>36.0</b> (44	, , , , , , , , , , , , , , , , , , , ,	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>34.0</b> (44	, , , , , , , , , , , , , , , , , , ,	
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>32.0</b> (44	, , , , -	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>31.0</b> (45		
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>34.0</b> (45		
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>37.0</b> (45	, , , , ,	
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>35.0</b> (45		
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>33.0</b> (45		
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (28	<u> </u>	
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32		
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>16.0</b> (36		
314*	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>22.0</b> (40	, , , , ,	
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (44		
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (24		
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (36	i.0) / 0.2 μA/step]	



Classification:

Model: Model U-P1

### Technical Bulletin

Electrical

☐ Transmit/receive

Dat		e: 3-Feb-03	No.: RG071004
		Prepared by: H.K	ζ.
Dept.			
☐ Part informati		tion	n required

☐ Service manual revision ☐ Retrofit information

**PAGE: 1/2** 

This is to inform you of the BCU firmware history.

From: Technical Services Sec. Service Planning Dept. ☐ Troubleshooting

☐ Paper path

○ Other (Firmware History)

Subject: Firmware History - BCU (Engine)

Part No.	Program name			
G0705150		Version	C.SUM	Production
V	G0705150V.bin	V1.38	F699	February Production '03
Т	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.



**PAGE: 2/2** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004

### BICU

Symptom Corrected	Version
Software changed so that oil end detection is not performed while the fusing unit is in operation, in order to prevent oil end misdetections caused by winter humidity (humidification).  SP mode newly added: SP2-801-02 (Additional Value of the charge corona cleaning interval). Refer to RTB No. RG071003 for the main unit controller firmware history.  SC687 misdetections sometimes occur when paper is loaded into the bypass	V1.38
tray after the bypass tray reaches paper end.  The detection conditions for SC412 (2 <sup>nd</sup> transfer disconnection) have been changed from 60ms to 240ms to prevent misdetections that can sometimes occur in low-temperature conditions.	
Minor bugs corrected.	V1.37
Misdetection of toner end and/or toner near end even when the toner cartridge still contains enough toner to continue printing.  The paper end condition may not be detected even when the paper in the optional tray has run out.	V1.36
SP1-905-01 (pressure roller type) newly added. For details, please refer to the main unit controller firmware history (RTB No. RG071003).  Detection conditions for SC560 (Zero cross error) have been changed as follows (upper limits eliminated, as they are unnecessary): Old: 50Hz: Machine detects less than 45Hz or greater than 54Hz. 60Hz: Machine detects less than 55Hz or greater than 64Hz. New: 50Hz: Machine detects less than 45Hz. 60Hz: Machine detects less than 55Hz.  Default settings for SP2-944-4 and –5 have been changed to reduce the OPC lubrication mode cycle: SP2-944-4: Sheets-1: [10 to 80/ 30 / 1sheet/step] SP2-944-5: Sheets-2: [10 to 80/ 60 / 1sheet/step]	V1.35
Minor bug corrections.	V1.33
First release.	V1.32

# RIGOH

## Technical Bulletin

PA	GE:	1/1

Model: Model U-P1 Dat			ate: 3-Feb-03		No.: RG071005	
Subject: Firmwar		Prepared by: H.K.				
From: Technical Services Sec. Service Planning Dept.						
Classification:	assification: Troubleshooting Part informa		orma	tion	Action	required
	☐ Mechanical	☐ Electric	al		Service	ce manual revision
	☐ Paper path	Transm	it/rec	eive	Retrof	fit information
	☑ Other (Firmware History)					

This is to inform you of the NIB firmware history.

Part No.	Program name			
G0705911	Network Support	Version	C.SUM	Production
J	G0705911J.bin	V3.74	6EB6	January Production 03'
	-	V3.73	-	October Production '02
Н	-	V3.72	-	August production '02

Symptom Corrected	Version
SC990 (Software perfomance error) may occur if continuous print jobs are	V3.74
sent using the LPR port when network traffic is very heavy.	
Software changed to support the new IC chip on the new wireless LAN option	V3.73
(old chip discontinued).	
Note: This version works with both the old and new IC chips.	
First release	V3.72



**PAGE: 1/4** 

Reissued: 19-Mar-03

Model: General RTB Date: 4	-Feb-03 No.: RGene013b	
----------------------------	------------------------	--

#### **RTB Reissue**

The items in **bold italics** have been corrected or updated.

Subject: Service remarks at installation				Prepared by: T. Itoh		
From: Technical Service Sec. Service Planning Dept.						
Classification:	☐ Troubleshooting	☐ Part informat	tion	Action required		
	☐ Mechanical	Electrical		☐ Service manual revision		
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information		
	☐ Other (Specification change	je)				

Please note the following change in counter specification. Although a production line modification will not be applied to some products, the action described in *4. Important Notes for Installation* below must be taken for **all products** at installation.

#### Overview:

Electronic counters will now be set to  $\underline{\mathbf{0}}$  when released from the factory, instead of being set to a negative value.

#### **Background:**

Previously, counters were set to a negative value when shipped from the factory, and later set to "0" at installation, following installation test copies/prints. However this may cause confusion among some customers as to why the counter value at the commencement of the contract is "0", even though some installation test copies have already been made.

#### **Details:**

#### 1. Specification Change

	Specification
Current	The initial value of the electrical counter is <u>negative</u> when products are shipped from the factory.
	<b>Note:</b> After making test samples at installation, the negative counter value can be set to "0" with SP mode.
New	The initial value of the electrical counter is "0" when products are shipped from the factory.
	<b>Note:</b> After making test samples at installation, the (positive) counter value cannot be set back to "0" with SP mode.



**PAGE: 2/4** 

Model: General RTB Date: 4-Feb-03 No.: RGene013b

#### 2. Firmware Modification

Due to the counter modification, SP5-849 has also been changed as follows for products that have this SP mode (listed below).

	SP mode name:	Specification:	
Current	Counter Clear Day	When the electrical counter is changed <u>from a</u> <u>negative value to 0</u> , the machine recognizes this as the counter clear day and stores this date in the NVRAM.	
New	Installation Date	When the electrical counter <u>reaches a value of</u> 20, the machine recognizes this as the installation date and stores this date in the NVRAM.	

**NOTE:** The following products have SP5-849. The new firmware for these products has not yet been released. However the release notes for each will clearly mention the new firmware version.

New products: Bellini-C2, Adonis C3 Current products: Martini C1, Model-U C1

#### 3. Schedule for the Counter Modification

The following is the current schedule for when the counter modification will be applied. Please note that there are some models to which the change will not be applied (marked as "---"), due to production schedules, production lot quantities and sales figures.

**NOTE:** The actual cut-in months that have been confirmed appear in the "Cut-in production month" column below. This RTB will be reissued when these dates have been confirmed for the remaining products.

#### (1) New products

Product Name	Product Code	Target cut-in production month	Cut-in production month
Bellini C2	B070	2003.03	April '03 production
Adonis C3	B079/82	2003.03	First mass production lot
Model J-P2	G080	2003.03	March '03 production
Model J-P2 CF	G367	2003.03	March '03 production
Model AR- P1	G081/92	2003.03	March '03 production
Model K-C1a	B120	2003.03	March '03 production



**PAGE: 3/4** 

Reissued: 19-Mar-03

Model: General RTB Date: 4-Feb-03 No.: RGene013b

#### (2) Current products

Product Name	Product	Target cut-in	Cut-in production month	
	Code	production month		
Digital B&W Cop	iers			
Bellini C1	A294			
Martini C1	B064/65	2003.03	April '03 production (see Note)	
Model M-C2b	B098	2003.03	March '03 production	
Adonis C2	B003/04/06/07			
Russian C2	B022/27/31	2003.03	February '03 production	
Model K-C1	B039/40/43	2003.03	March '03 production	
Stella C1	B044/45/46/49	2003.03	March '03 production	
Digital WF Copie	rs			
Dolphin	B010	2003.03	March '03 production	
<b>Analog Copiers</b>				
All products	-			
J2SS-C3	B047/48	(See Note)	March '03 production	
Whale	A174		March '03 production	
Color Copiers				
Model I2	B018			
Model L2	B017			
Model C2	B023	2003.02	February '03 production	
Model U-C1	B051/52	2003.03	April '03 production	
Color Printers				
Model J-P1	G060			
Model J-P1 CF	G570			
Model U-P1	G071	2003.03	March '03 production	
Pomelo P3	G063	2003.03	March '03 production	

**NOTE:** The counter change will be applied as a running change to production units only. For machines already shipped out or in the field, please be sure to take the action described below in Section 4.

NOTE: For Martini-C1 mainframes assembled in Japan, the counter change will be applied from the first unit of April '03 production. For mainframes assembled at REI, the change will be applied midway through April production. These cut-in serial numbers will be announced as soon as they have been confirmed.

NOTE: The change will also be applied to analog models J2SS-C3 and Whale, as production will continue for a while. However, as these models use only mechanical counters, the initial value when shipped from the factory will be 1 or 2 (not 0), following the 1 or 2 factory test copies.



**PAGE: 4/4** 

Model: General RTB Date: 4-Feb-03 No.: RGene013b

#### 4. Important Notes for Machine Installation - All Products

Please be sure to perform the following at machine installation:

1. If the product is from before the counter modification, i.e. the counter is at a negative value, be sure to <u>set the counter value to 0 first</u>, then make the installation test <u>samples</u>.

Digital products	Set the electrical counter to 0 with SP mode.
Analog products	Set the mechanical counter to 0 with a reset key (tool).

- 2. If the product is modified, i.e. the counter is already at 0 (or above 0 following preinstallation at a service depot), simply make the installation test samples.
- 3. After completing the installation, make sure to **record the counter value**. This is very important, as this value will be used for billing with Meter Click contracts. Also, inform the customer of the value along with the reason why the counter does not start from "0".

### RIGOH Baisawadu a Mass a'

### Technical Bulletin

**PAGE: 1/2** 

Reissued: 2-May-03

#### **RTB Reissue**

The items in bold italics have been added.

Subject: Firmware History - BCU (Engine)			Prepared by: H.K.	
From: Technical Services Sec. Service Planning Dept.				
Classification:	Troubleshooting	☐ Part informat	tion	Action required
	☐ Mechanical	Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☑ Other (Firmware History)			

#### BCU firmware history.

Part No.	Program name	Version	C.SUM	Production
G0705151				
	G0705151.bin	V1.40	5FBA	April Production '03
G0705150				
V	G0705150V.bin	V1.38	F699	February Production '03
Т	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

• G071-17: P75268xxxxx

11 units were shipped to the US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.



**PAGE: 2/2** 

Reissued: 2-May-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004a

BICU

Symptom Corrected	Version V1.40			
Minor bugs corrected.				
Changes made in preparation for the addition of SP3-921-01/02 (from the next version). Note: These SP modes are not yet operational.				
Software changed so that oil end detection is not performed while the fusing unit is in operation, in order to prevent oil end misdetections caused by winter humidity (humidification).	V1.38			
SP mode newly added: SP2-801-02 (Additional Value of the charge corona cleaning interval). Refer to RTB No. RG071003 for the main unit controller firmware history.				
SC687 misdetections sometimes occur when paper is loaded into the bypass tray after the bypass tray reaches paper end.				
The detection conditions for SC412 (2 <sup>nd</sup> transfer disconnection) have been changed from 60ms to 240ms to prevent misdetections that can sometimes occur in low-temperature conditions.				
Minor bugs corrected.	V1.37			
Misdetection of toner end and/or toner near end even when the toner cartridge still contains enough toner to continue printing.	V1.36			
The paper end condition may not be detected even when the paper in the optional tray has run out.				
SP1-905-01 (pressure roller type) newly added. For details, please refer to the main unit controller firmware history (RTB No. RG071003).	V1.35			
Detection conditions for SC560 (Zero cross error) have been changed as follows (upper limits eliminated, as they are unnecessary): Old:				
50Hz: Machine detects less than 45Hz or greater than 54Hz. 60Hz: Machine detects less than 55Hz or greater than 64Hz. New:				
50Hz: Machine detects less than 45Hz. 60Hz: Machine detects less than 55Hz.				
Default settings for SP2-944-4 and -5 have been changed to reduce the OPC lubrication mode cycle :				
SP2-944-4 : Sheets-1 : [10 to 80/ <b>30</b> / 1sheet/step] SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> / 1sheet/step]				
Paper end is sometimes not detected even when the paper in the standard tray runs out.				
Minor bug corrections.	V1.33			
First release.	V1.32			

# RIGOH

### Technical Bulletin

**PAGE: 1/3** 

Reissued: 7-May-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG071003a
-------------------	----------------	----------------

#### **RTB Reissue**

The items in bold italics have been added or changed.

Subject: Firmware History - Main Unit Controller			Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.				
Classification:	☐ Troubleshooting	☐ Part informat	tion	Action required
		☐ Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☐ Other (Firmware History)			

Main Unit Controller firmware history.

Part No.	Program name			5
G0705940		Version	C.SUM	Production
M	G0705941M.bin	V2.26	211D	April Production '03
	G0705940M.bin		FD70	
L	G0705941L.bin	V2.25	FCB9	March Production '03
	G0705940L.bin		A00C	
K	G0705941K.bin	V2.24	6E31	February Production '03
	G0705940K.bin		EF54	-
J		V2.22.1	-	January Production '03
Н	-	V2.22	-	November Production '02
G	-	V2.21	-	Not applied to the production machines
F	-	V2.20	-	Not applied to the production machines
E	-	V2.19	-	Not applied to the production machines
D	-	V2.18	-	August production '02

#### Note for updating test marketing machines (PMO) firmware:

Default values of the fusing temperature (SP1-105), paper transfer currents (SP2-310-001 to SP2-314-032), and paper transfer adjustment (SP2-903-01) have been reviewed. When firmware is updated to V2.20 or later for the first time, please check these settings. If the settings are still the old ones, please set the type to 0 and press the #key in SP2-905-01 and SP1-905-01. For details, please refer to the corrected symptom explanations in V2.20 and V2.18 (pp. 2, 3 below).

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to the US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).



**PAGE: 2/3** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003a

#### Note for updating main unit controller firmware:

Whenever updating main unit controller firmware from v2.22.1 or earlier to v2.24 or later, please be sure to update the BICU firmware at the same time to v1.38 or later. The BICU firmware history is in RTB No. RG071004.

Whenever updating the main unit controller firmware from v2.25 or earlier to v2.26 or later, please be sure to update the BICU firmware at the same time to v1.40 or later. The BICU firmware history is in RTB No. RG071004a.

# Reissued: 7-May-03

## Technical Bulletin

**PAGE: 3/3** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003a

### Main Unit Controller

Symptom Corrected	Version
Changes made in preparation for the addition of SP3-921-01/02 (from the next	V2.26
version). Note: These SP modes are not yet operational.	
New SP mode added: SP2-803-01 (Charge Cleaning Off time).	
[0 ~ 200 / 60 / 10 seconds/step]	
Although a 60-second interval already exists for performing an idle discharge after corona wire cleaning, this new SP mode allows the interval to be adjusted. The idle discharge is to maintain an even charge wire surface, ensuring proper charging.	
The new Wireless LAN card (produced from Dec '02) is sometimes unable to communicate with the PC after a certain interval when using 802.11adhoc mode.	V2.25
Note: This does not occur with 1) adhoc or infrastructure modes, or 2) previous Wireless LAN cards (produced up until Nov '02).	

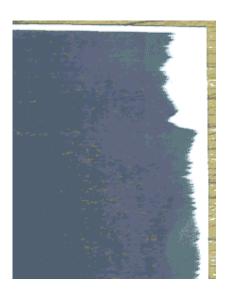
佪	ጠ	ПП
G	w	吅

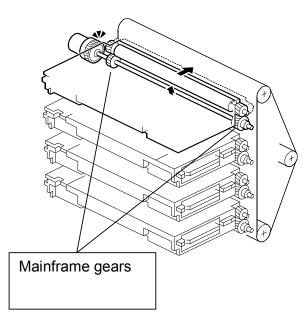
_	_	_	_	_	
D	Λ	വ		4	/1
Г	М	u	ᆮ		, ,

Model: Model U-P1			Date: 21-May-03		No.: RG071006	
Subject: Blank area at the one side of the development unit			t	Prepared by: Y.Urushihara		
From: 1st Tech. Support Sec. Service Support Dept.						
Classification:		Part informati		ion		
	☐ Mechanical	Electrical		☐ Servi	☐ Service manual revision	
	☐ Paper path	☐ Transmit/rec		eive		
	Other ( )					

#### **SYMPTOM**

A blank area may appear on one side of the image (development unit front or rear).





#### **CAUSE**

The development unit front gears engage their mainframe counterparts slightly differently than the rear gears.

#### **SOLUTION**

Rotate the mainframe gears manually, removing the development unit(s) on which the symptom occurs, then reinstall the development unit(s).

PAGE: 1/11 Reissued: 17-Jun-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG071003b

#### **RTB Reissue**

The items in bold italics have been added or changed.

Subject: Firmware History - Main Unit Controller			Prepare	d by: H.K.
From: 1st Tech. Support Sec. Service Support Dept.				
Classification:	<ul><li>☐ Troubleshooting</li><li>☐ Mechanical</li><li>☐ Paper path</li><li>☒ Other (Firmware History)</li></ul>	☐ Part informa☐ Electrical☐ Transmit/rec		<ul><li>☐ Action required</li><li>☐ Service manual revision</li><li>☐ Retrofit information</li></ul>

This is to inform you of the Main Unit Controller firmware history.

Part No.	Program name			
G0705940		Version	C.SUM	Production
N	G0705941N.bin G0705940 N.bin	V2.27	E37C 2774	April Production '03
М	G0705941M.bin G0705940M.bin	V2.26	211D FD70	April Production '03
L	G0705941L.bin G0705940L.bin	V2.25	FCB9 A00C	March Production '03
K	G0705941K.bin G0705940K.bin	V2.24	6E31 EF54	February Production '03
J		V2.22.1	-	January Production '03
Н	-	V2.22	-	November Production '02
G	-	V2.21	-	Not applied to the production machines
F	-	V2.20	-	Not applied to the production machines
E	-	V2.19	-	Not applied to the production machines
D	-	V2.18	-	August production '02

#### Note for updating test marketing machines (PMO) firmware:

Default values of the fusing temperature (SP1-105), paper transfer currents (SP2-310-001 to SP2-314-032), and paper transfer adjustment (SP2-903-01) have been reviewed. When firmware is updated to V2.20 or later for the first time, please confirm these settings. If the settings are still old ones, please set the type to 0 and press # key in SP2-905-01 and SP1-905-01. For details, please refer to the corrected symptom explanations in V2.20 and V2.18 (pp. 2, 3 below).

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).



PAGE: 2/11

Reissued: 17-Jun-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003b

#### Note for updating main unit controller firmware:

Whenever updating main unit controller firmware from v2.22.1 or earlier to v2.24 or later, please be sure to update the BICU firmware at the same time to v1.38 or later. The BICU firmware history is described in RTB No. RG071004.

Whenever updating the main unit controller firmware from v2.25 or earlier to v2.26 or later, please be sure to update the BICU firmware at the same time to v1.40 or later. The BICU firmware history is described in RTB No. RG071004a.



PAGE: 3/11

Reissued: 17-Jun-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003b

Main Unit Controller

Symptom Corrected	Version
To ensure proper printing quality, the default values for the	V2.27
following SP modes have been reviewed and some SP modes	
newly added.	
newly added.	
-SP3-920-001 (Lubrication Cleaning Time) ( ): old default	
` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	
[0 ~ 100 / 50 (100) / 1% /step]	
-SP2-941-001(OPC Lubricant Time – job end )	
[0 ~ 30 / 14 (20) / 1s /step]	
SP2 024 004 /Lubricant Clutch OFF: 40\: Nouth, added	
-SP3-921-001 (Lubricant Clutch OFF: 1C): Newly added	
-SP3-921-002 (Lubricant Clutch OFF: 2C/3C/4C): Newly added	
[0 ~ 11 / 6 / 1s /step]	
Allows the image transfer belt cleaning clutch off timing to be	
adjusted. The setting determines the number of seconds after	
image transfer belt cleaning roller charging that the clutch is	
turned off. With previous versions, the clutch is always running	
while the development roller motor rotates.	
mine the development rener meter retailed.	
-SP2-938-001 (OPC Reverse Interval): Newly added	
[0 ~ 100 / 10 / 10 counts /step]	
The main motor rotates the OPC belt backwards for 500 ms at the	
end of every job, in order to remove foreign particles between the	
OPC belt and OPC cleaning blade. However, this does not need to	
be performed so often. In addition, reducing the frequency of	
OPC belt reverse rotation improves the cleaning blade	
performance.	
This SP adjusts the counter for the OPC belt reverse rotation, and	
is incremented as follows:	
LT/A4 LEF or smaller: 1, larger than LT/A4 LEF: 2.	
When this SP reaches its set maximum, reverse rotation is	
performed for 500ms at job end.	
NOTE AL MARIE IN A MARIE A LA	
NOTE: Along with this main unit controller version, be sure to update	
the BICU firmware to v1.42 or later. For fetails, please refer to RTB #RG071007 (black faint images).	
Changes made in preparation for the addition of SP3-921-01/02 (from the next	V2.26
version).	
Note: These SP modes are not yet operational.	
New SP mode added: SP2-803-01 (Charge Cleaning Off time).	
[0 ~ 200 / 60 / 10 seconds/step]	
Although a CO according to make a large discount of the state of the s	
Although a 60-second interval already exists for performing an idle discharge after	
corona wire cleaning, this new SP mode allows the interval to be adjusted. The idle discharge is to maintain an even charge wire surface, ensuring proper charging.	
	V2.25
The new Wireless LAN card (produced from Dec'02) is sometimes unable to communicate with the PC after a certain interval when using 802.11adhoc mode.	VZ.Z3
Note: This does not occur with 1) adhoc or infrastructurer modes, or 2) previous	
Wireless LAN cards (produced up until Nov '02).	



PAGE: 4/11

Reissued: 17-Jun-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG07	1003b
Symptom Corrected		Version	
SP1-105-01 (Fusing Temperature): Default for idling start ch (see SP mode table below).	nanged from 145 to 140	V2.24	
SP2-801-02 (Additional Value of the charge corona cleaning added. The cleaning interval for the additional charge coron as shown.  [0 ~ 5000 / <b>100</b> / 100 counts/step]			
With this new SP, it is possible to adjust the interval for char middle of a job: Old:	ge corona cleaning in the		
The charge corona cleaning is carried out after 600 (SP2-counts, at job end or after 700 (no adjustment) development middle of the job).  After			
The charge corona cleaning is carried out after 600 (SP2-counts, at job end or after 700 (= the sum of the settings in development counts (stops in the middle of the job).	n SP2-801-1 and-2)		
Hardware Ethernet Problem: For details, please refer to Ger	neral RTB #RGene012.	V2.22.1	
Selecting HDD font or DIMM font may sometimes reduce av	railable memory.		
Printing speed is sometimes low when printing an AutoCAD	file.		
Machine may freeze during printing when using a certain a DIMM font selection.	application w/HDD font or	V2.22	
Text characters may appear darker with a certain raster image.			
Graphics objects may appear darker when available memory is low.			
Wireless LAN card sometimes cannot communicate with the key is ON.	ne printer when the WEP		
Translation corrections for some words in Polish and Germa		V2.21	
<ul> <li>SP1-905-01 (pressure roller type) has been newly adde</li> <li>new pressure roller type (2.1mm), 1 : old pressure roller</li> </ul>		V2.20	
This has been added due to the pressure roller modification jams (wrapping around the pressure roller), whereby the pressure roller was changed from 1.5 mm to 2.1mm from first pressure roller.	e layer thickness of the		
<b>NOTE:</b> When updating from v2.19 or former to v2.20 or later, it is necessary to manually enter a value of 0 into this SP mode and then press #, which instructs the machine to use the new data for fusing control.			
<ul> <li>Some default values of SP1-105 (Fusing Temperatu See new default table below. (new settings input from A</li> </ul>			



PAGE: 5/11

Reissued: 17-Jun-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003b

Symptom Corrected	Version
Default settings for SP2-944-4 and -5 have been changed to reduce the OPC	V 0101011
lubrication mode cycle :	
SP2-944-4: Sheets-1: [10 to 80/ 30 (old: 20) / 1sheet/step]	
SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> (old : 40) / 1sheet/step]	
Euro symbol not printed with PS driver (for details, see General RTB No.	
RGene011).	
Minor bug corrections.	V2.19
First release.	V2.18
Display for SP5-945 (MidThickPaper) deleted, as this setting can be performed in User Tools.	
SP1-920-1 to 3 (PFMtrDelayTime) has been newly added (see table below).	
SP2-310 to 2-314: Some defaults have been changed (see table below).	
Default value of SP2-903 (PaperTrans_Low) has been changed from 8.0 to 1.0 to improve image quality in low-temperature and low-humidity conditions:	
Adjusts the paper transfer current applied when the machine is at low temperature. [0.0 $\sim 70.0$ / 0.1 $\mu A/step$ ]	
<ul> <li>SP2-905-01 (paper transfer roller type) has been newly added due to a shape modification to the paper transfer roller to increase transferability (from 1<sup>st</sup> production).</li> </ul>	
O: New paper transfer roller type (Drum type), 1: Old paper transfer roller type (straight type)	
<b>NOTE:</b> When updating from v2.18 to v2.19 or later, please check to see that the new defaults for the following SPs have been applied (new default table below). If they have not, set SP2-905-01 to a value of 0 and press #. A ugust production machines have the drum type installed, therefore it is not necessary to set this to 0 on these machines.	
<ul> <li>Due to the paper transfer roller modification above, defaults have been changed for SP2-310-001 to SP2-314-032 (paper transfer current SPs), and SP2-903-01 (paper transfer adjustment).</li> </ul>	
Default for SP2-943 (Discharge Threshold) has been changed from 17.0 to 15.0, and	
the minimum setting changed from 13.0 to 9.0. <b>Note:</b> As with all DFU SP modes, please do not adjust the setting.	
Adjusts the threshold of discharge. <b>DFU</b>	
[9.0 ~ 22.0 / <b>15.0</b> / 1.0 g/m <sup>3</sup> /step]	



Bulletin PAGE: 6/11

Reissued: 17-Jun-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003b

## SP1

## New defaults (Old default)

920	PFN	/ltrDelayTime	
	1	Tray:Plain	Adjust the timing of the paper feed motor when the registration roller feeds the paper by the fusing motor.
2 ву		By-pass:Plain	This adjusts the paper backle at the registration by the start timing of the paper feed motor. Normally, the paper backle is adjusted by SP1-003. It is not necessary to adjust in the the field. (The copier version has clutch to controll the timing. This adjustment is only for printer model.)
	3	Tray Creal(Ci-a	[0 ~ 50 / <b>15</b> / 5/step] <b>DFU</b> [0 ~ 50 / <b>0</b> / 5/step] <b>DFU</b>
		Tray:SmallSize	(Small size: A4/LT or narrower)
105*	Fusi	ing_Temp.	
	1	H: Pre	Sets the temperature at which the heating roller starts idling.  [100 ~ 180 / <b>140</b> (145) / 1°C/step]
	2	H: _Ready	Sets the temperature at which the heating roller enters the print ready condition.  [100 ~ 180 / 155 (165) / 1°C/step]
105*	3	H: _Standby	Sets the heating roller temperature for the ready (standby) condition. After the main switch has been turned on, the machine enters this condition when the heating roller temperature reaches the temperature specified in this SP mode. When the machine is recovering from energy saver or auto off mode, the machine becomes ready when both heat and pressure roller temperatures reach the specified temperature. Pressure roller: SP1-105-16 [100 ~ 180 / 160 (175) / 1°C/step]
	4	H: Plain/1C	Sets the heating roller temperature for plain paper in single-color mode.  [120 ~ 190 / 155 (160) / 1°C/step]
	5	H: Plain/FC	Sets the heating roller temperature for plain paper in full- color mode.  [120 ~ 190 / <b>160</b> (170) / 1°C/step]
	6	H: M-Thick/1C	Sets the heating roller temperature for medium thickness paper in single-color mode.  [120 ~ 190 / 165 (170) / 1°C/step]
	7	H: M-Thick/FC	Sets the heating roller temperature for medium thickness paper in full-color mode.  [120 ~ 190 / 170 (180) / 1°C/step]
	8	H: Thick/1C	Sets the heating roller temperature for thick paper in single-color mode .  [120 ~ 190 / 165 (170) / 1°C/step]
	9	H: Thick/FC	Sets the heating roller temperature for thick paper in full-color mode.  [120 ~ 190 / 170 (175) / 1°C/step]



PAGE: 7/11

Reissued: 17-Jun-03

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071003b
	10	H:OHP/1C	Sets the heating rosingle-color mode. [120 ~ 190 / <b>165</b> (1	ller temperature for OHP	sheets in
	11	H: OHP/FC		oller temperature for the O	HP sheets
	12	H: Duplex/1C		oller temperature for duple lle-color mode.	x printing
	13	H: Duplex/FC	•	oller temperature for duple color mode.	x printing
	14	P: Pre	Sets the temperatuidling. [10 (30) ~ 100 / 10	re at which the pressure r	oller starts
	15	P: _Ready		re at which the pressure in printing.	roller
105*	16	P: _Standby	(standby) condition turned on, the mac pressure roller tem specified in this SF recovering from en machine becomes		s been when the perature e is de, the d pressure
	27	H: OFFSET+		ller temperature correction is 15°C or lower.	n for when
	28	P: OFFSET+		roller temperature correcti is 15°C or lower.	on for when
	29	H: OFFSET-	<del>-</del>	iller temperature correction is 30°C or higher.	n for when
	30	P: OFFSET-		roller temperature correcti is 30°C or higher.	on for when



PAGE: 8/11

Reissued: 17-Jun-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003b

#### SP2

## New defaults (Old default)

The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m $^3$ ) is in the following range:  0 < AH $\leq$ 3.5 (this is the 'LL1' humidity range)	310*	PaperTra	ans_LL1 (Paper Transf	fer LL1)
AH (g/m³) is in the following range:		The disp	lay indicates: Paper W	eight/Side 1 or 2/Paper Width (mm)
Adjust only if there are problems with insufficient transin the image area of the copy for a particular paper ty or mode, or in response to field problems as directed technical support staff.  [0 − 70.0 / 25.0 (32.0) / 0.2 µA/step]  2 Nrml/1st/257-296 [0 − 70.0 / 25.0 (32.0) / 0.2 µA/step]  3 Nrml/1st/210-256 [0 − 70.0 / 25.0 (38.0) / 0.2 µA/step]  4 Nrml/1st/129-209 [0 − 70.0 / 25.0 (38.0) / 0.2 µA/step]  5 Nrml/1st/128 [0 − 70.0 / 25.0 (38.0) / 0.2 µA/step]  6 Mid/1st/297 [0 − 70.0 / 26.0 (33.0) / 0.2 µA/step]  7 Mid/1st/257-296 [0 − 70.0 / 26.0 (35.0) / 0.2 µA/step]  8 Mid/1st/210-256 [0 − 70.0 / 26.0 (37.0) / 0.2 µA/step]  9 Mid/1st/210-256 [0 − 70.0 / 26.0 (37.0) / 0.2 µA/step]  10 Mid/1st/29 209 [0 − 70.0 / 26.0 (43.0) / 0.2 µA/step]  11 Thk/1st/297 [0 − 70.0 / 14.0 (16.0) / 0.2 µA/step]  12 Thk/1st/257-296 [0 − 70.0 / 14.0 (16.0) / 0.2 µA/step]  13 Thk/1st/210-256 [0 − 70.0 / 15.0 (19.0) / 0.2 µA/step]  14 Thk/1st/210-256 [0 − 70.0 / 16.0 (21.0) / 0.2 µA/step]  15 Thk/1st/210-256 [0 − 70.0 / 18.0 (24.0) / 0.2 µA/step]  16 Nrml/2nd/297 [0 − 70.0 / 28.0 (38.0) / 0.2 µA/step]  17 Nrml/2nd/257-296 [0 − 70.0 / 28.0 (38.0) / 0.2 µA/step]  18 Nrml/2nd/257-296 [0 − 70.0 / 28.0 (38.0) / 0.2 µA/step]  19 Nrml/2nd/256-256 [0 − 70.0 / 28.0 (43.0) / 0.2 µA/step]  19 Nrml/2nd/257-296 [0 − 70.0 / 28.0 (43.0) / 0.2 µA/step]  20 Nrml/2nd/297 [0 − 70.0 / 28.0 (43.0) / 0.2 µA/step]  21 Mid/2nd/297 [0 − 70.0 / 28.0 (43.0) / 0.2 µA/step]  22 Mid/2nd/257-296 [0 − 70.0 / 29.0 (43.0) / 0.2 µA/step]  23 Mid/2nd/257-296 [0 − 70.0 / 29.0 (43.0) / 0.2 µA/step]  24 Mid/2nd/257-296 [0 − 70.0 / 29.0 (43.0) / 0.2 µA/step]  25 Mid/2nd/128 [0 − 70.0 / 29.0 (43.0) / 0.2 µA/step]  26 Thk/2nd/29-209 [0 − 70.0 / 29.0 (43.0) / 0.2 µA/step]  27 Thk/2nd/256 [0 − 70.0 / 29.0 (45.0) / 0.2 µA/step]  28 Thk/2nd/210-256 [0 − 70.0 / 29.0 (45.0) / 0.2 µA/step]  29 Thk/2nd/128 [0 − 70.0 / 29.0 (45.0) / 0.2 µA/step]  21 Mid/2nd/219-209 [0 − 70.0 / 29.0 (45.0) / 0.2 µA/step]  27 Thk/2nd/256 [0 − 70.0 / 29.0 (45.0) / 0.2 µA/step]  30 Thk/2nd/128 [0 − 70.		1 Nr	ml/1st/-297	Sets the paper transfer current when absolute humidity AH (g/m <sup>3</sup> ) is in the following range:
in the image area of the copy for a particular paper ty or mode, or in response to field problems as directed technical support staff.  [0 - 70.0 / 25.0 (32.0) / 0.2 µA/step]  2 Nrml/1st/257-296 [0 - 70.0 / 25.0 (34.0) / 0.2 µA/step]  3 Nrml/1st/210-256 [0 - 70.0 / 25.0 (34.0) / 0.2 µA/step]  4 Nrml/1st/129-209 [0 - 70.0 / 25.0 (39.0) / 0.2 µA/step]  5 Nrml/1st/128 [0 - 70.0 / 25.0 (39.0) / 0.2 µA/step]  6 Mid/1st/297 [0 - 70.0 / 26.0 (33.0) / 0.2 µA/step]  7 Mid/1st/257-296 [0 - 70.0 / 26.0 (33.0) / 0.2 µA/step]  8 Mid/1st/210-256 [0 - 70.0 / 26.0 (37.0) / 0.2 µA/step]  9 Mid/1st/128 [0 - 70.0 / 26.0 (37.0) / 0.2 µA/step]  10 Mid/1st/128 [0 - 70.0 / 26.0 (43.0) / 0.2 µA/step]  11 Thk/1st/297 [0 - 70.0 / 14.0 (16.0) / 0.2 µA/step]  12 Thk/1st/257-296 [0 - 70.0 / 14.0 (16.0) / 0.2 µA/step]  13 Thk/1st/210-256 [0 - 70.0 / 15.0 (19.0) / 0.2 µA/step]  14 Thk/1st/129-209 [0 - 70.0 / 16.0 (21.0) / 0.2 µA/step]  15 Thk/1st/129-209 [0 - 70.0 / 16.0 (21.0) / 0.2 µA/step]  16 Nrml/2nd/297 [0 - 70.0 / 28.0 (38.0) / 0.2 µA/step]  17 Nrml/2nd/297 [0 - 70.0 / 28.0 (38.0) / 0.2 µA/step]  18 Nrml/2nd/297 [0 - 70.0 / 28.0 (43.0) / 0.2 µA/step]  19 Nrml/2nd/2956 [0 - 70.0 / 28.0 (42.0) / 0.2 µA/step]  19 Nrml/2nd/129 [0 - 70.0 / 28.0 (42.0) / 0.2 µA/step]  20 Nrml/2nd/129 [0 - 70.0 / 28.0 (42.0) / 0.2 µA/step]  21 Mid/2nd/210-256 [0 - 70.0 / 28.0 (42.0) / 0.2 µA/step]  22 Mid/2nd/210-256 [0 - 70.0 / 29.0 (43.0) / 0.2 µA/step]  23 Mid/2nd/210-256 [0 - 70.0 / 29.0 (43.0) / 0.2 µA/step]  24 Mid/2nd/297 [0 - 70.0 / 29.0 (43.0) / 0.2 µA/step]  25 Mid/2nd/129-209 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  26 Thk/2nd/297 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  27 Thk/2nd/297 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  28 Thk/2nd/129-209 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  29 Thk/2nd/210-256 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  21 Thk/2nd/257-296 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  23 Thk/2nd/210-256 [0 - 70.0 / 29.0 (44.0) / 0.2 µA/step]  31 Thk/2nd/257-296 [0 - 70.0 / 29.0 (40.0) / 0.2 µA/step]  31 Thk/2nd/297 [0 - 70.0 / 29.0 (2				$0 < AH \le 3.5$ (this is the 'LL1' humidity range)
or mode, or in response to field problems as directed technical support staff. [0 ~ 70.0 / 25.0 (32.0) / 0.2 µA/step]  2 Nrml/1st/257-296 [0 ~ 70.0 / 25.0 (34.0) / 0.2 µA/step] 3 Nrml/1st/129-209 [0 ~ 70.0 / 25.0 (36.0) / 0.2 µA/step] 4 Nrml/1st/129-209 [0 ~ 70.0 / 25.0 (36.0) / 0.2 µA/step] 5 Nrml/1st/128 [0 ~ 70.0 / 25.0 (39.0) / 0.2 µA/step] 6 Mid/1st/297 [0 ~ 70.0 / 26.0 (33.0) / 0.2 µA/step] 7 Mid/1st/256 [0 ~ 70.0 / 26.0 (33.0) / 0.2 µA/step] 8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (37.0) / 0.2 µA/step] 9 Mid/1st/128 [0 ~ 70.0 / 26.0 (37.0) / 0.2 µA/step] 10 Mid/1st/29 209 [0 ~ 70.0 / 26.0 (43.0) / 0.2 µA/step] 11 Thk/1st/297 [0 ~ 70.0 / 15.0 (19.0) / 0.2 µA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 µA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 15.0 (19.0) / 0.2 µA/step] 14 Thk/1st/29-209 [0 ~ 70.0 / 16.0 (21.0) / 0.2 µA/step] 15 Thk/1st/2128 [0 ~ 70.0 / 16.0 (21.0) / 0.2 µA/step] 16 Nrml/2nd/297 [0 ~ 70.0 / 18.0 (24.0) / 0.2 µA/step] 17 Nrml/2nd/297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (43.0) / 0.2 µA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (43.0) / 0.2 µA/step] 20 Nrml/2nd/129 [0 ~ 70.0 / 28.0 (43.0) / 0.2 µA/step] 21 Mid/2nd/257-296 [0 ~ 70.0 / 28.0 (43.0) / 0.2 µA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 28.0 (43.0) / 0.2 µA/step] 23 Mid/2nd/256 [0 ~ 70.0 / 29.0 (39.0) / 0.2 µA/step] 24 Mid/2nd/256 [0 ~ 70.0 / 29.0 (39.0) / 0.2 µA/step] 25 Mid/2nd/256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 µA/step] 26 Thk/2nd/297 [0 ~ 70.0 / 29.0 (43.0) / 0.2 µA/step] 27 Thk/2nd/256 [0 ~ 70.0 / 29.0 (45.0) / 0.2 µA/step] 28 Thk/2nd/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step] 30 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (45.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0) / 0.2 µA/step] 31				Adjust only if there are problems with insufficient transfer
technical support staff.  [0 ~ 70.0 / 25.0 (32.0) / 0.2 μA/step]  2 Nrml/1st/257-296 [0 ~ 70.0 / 25.0 (34.0) / 0.2 μA/step]  3 Nrml/1st/210-256 [0 ~ 70.0 / 25.0 (34.0) / 0.2 μA/step]  4 Nrml/1st/128 [0 ~ 70.0 / 25.0 (34.0) / 0.2 μA/step]  5 Nrml/1st/128 [0 ~ 70.0 / 25.0 (32.0) / 0.2 μA/step]  6 Mid/1st/297 [0 ~ 70.0 / 25.0 (32.0) / 0.2 μA/step]  7 Mid/1st/257-296 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step]  8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step]  9 Mid/1st/129-209 [0 ~ 70.0 / 26.0 (37.0) / 0.2 μA/step]  10 Mid/1st/128 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step]  11 Thk/1st/297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step]  12 Thk/1st/257-296 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step]  13 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step]  14 Thk/1st/129-209 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step]  15 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step]  16 Nrml/2nd/297 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step]  17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step]  18 Nrml/2nd/256 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step]  19 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]  18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]  19 Nrml/2nd/128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step]  20 Nrml/2nd/128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step]  21 Mid/2nd/257-296 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step]  22 Mid/2nd/257-296 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step]  23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (30.0) / 0.2 μA/step]  24 Mid/2nd/257 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  25 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  26 Thk/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  27 Thk/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  28 Thk/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  29 Thk/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  30 Thk/2nd/128 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 29.0 (26.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 29.0 (26.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) /				
[0 ~ 70.0 / 25.0 (32.0) / 0.2 μA/step]				
2 Nrml/1st/257-296 [0 ~ 70.0 / 25.0 (34.0) / 0.2 μA/step] 3 Nrml/1st/210-256 [0 ~ 70.0 / 25.0 (36.0) / 0.2 μA/step] 4 Nrml/1st/2129-209 [0 ~ 70.0 / 25.0 (36.0) / 0.2 μA/step] 5 Nrml/1st/-128 [0 ~ 70.0 / 25.0 (32.0) / 0.2 μA/step] 6 Mid/1st/-297 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step] 7 Mid/1st/257-296 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step] 8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (37.0) / 0.2 μA/step] 9 Mid/1st/129-209 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 10 Mid/1st/-28 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 11 Thk/1st/-297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 14 Thk/1st/29-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 19 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 20 Nrml/2nd/128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/129 (0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 22 Mid/2nd/297 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 23 Mid/2nd/297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 24 Mid/2nd/297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 25 Mid/2nd/299 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 26 Thk/2nd/299 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 27 Thk/2nd/2909 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 28 Thk/2nd/297 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 29 Thk/2nd/297 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 30 Thk/2nd/129-209 [0 ~ 70.0 / 20.0 (20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 μA/step] 32 OHP/210 [0 ~ 70.0 / 20.0 (20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 / 20.0 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (20.0 / 20.0 / 20.0 μA/step]				• •
3 Nrml/1st/210-256 [0 ~ 70.0 / 25.0 (36.0) / 0.2 μA/step] 4 Nrml/1st/129-209 [0 ~ 70.0 / 25.0 (39.0) / 0.2 μA/step] 5 Nrml/1st/-128 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step] 6 Mid/1st/-297 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step] 7 Mid/1st/257-296 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step] 8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (35.0) / 0.2 μA/step] 9 Mid/1st/129-209 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 10 Mid/1st/-128 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 11 Thk/1st/297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 14 Thk/1st/128 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 15 Thk/1st/128 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 16 Nrml/2nd/297 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 17 Nrml/2nd/297 [0 ~ 70.0 / 20.0 (27.0) / 0.2 μA/step] 18 Nrml/2nd/297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 19 Nrml/2nd/128 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 21 Mid/2nd/297 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 24 Mid/2nd/297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 25 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 28 Thk/2nd/297 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 29 Thk/2nd/297 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 23 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/128 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (29.0) (29.0) / 0.2 μA/step] 31 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (29.0) / 0.2 μA/step] 31 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (29.0) / 0.2 μA/step] 31 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (29.0) / 0.2 μA/step] 31 Thk/2n		2 Nr	ml/1et/257-206	
4   Nrml/1st/129-209   [0 ~ 70.0 / 25.0 (39.0) / 0.2 μA/step]     5   Nrml/1st/-128   [0 ~ 70.0 / 25.0 (42.0 / 0.2 μA/step]     6   Mid/1st/-297   [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step]     7   Mid/1st/257-296   [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step]     8   Mid/1st/210-256   [0 ~ 70.0 / 26.0 (37.0) / 0.2 μA/step]     9   Mid/1st/129-209   [0 ~ 70.0 / 26.0 (43.0) / 0.2 μA/step]     10   Mid/1st/-128   [0 ~ 70.0 / 26.0 (43.0) / 0.2 μA/step]     11   Thk/1st/-297   [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step]     12   Thk/1st/257-296   [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step]     13   Thk/1st/210-256   [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step]     14   Thk/1st/129-209   [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step]     15   Thk/1st/-128   [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step]     16   Nrml/2nd/-297   [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step]     17   Nrml/2nd/257-296   [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step]     18   Nrml/2nd/210-256   [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]     19   Nrml/2nd/129-209   [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]     20   Nrml/2nd/129   [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step]     21   Mid/2nd/-297   [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step]     22   Mid/2nd/210-256   [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step]     23   Mid/2nd/129-209   [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step]     24   Mid/2nd/129   [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]     25   Mid/2nd/128   [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step]     26   Thk/2nd/297   [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step]     27   Thk/2nd/256   [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step]     28   Thk/2nd/210-256   [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step]     29   Thk/2nd/128   [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step]     29   Thk/2nd/256   [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step]     29   Thk/2nd/128   [0 ~ 70.0 / 29.0 (20.0) / 0.2 μA/step]     30   Thk/2nd/128   [0 ~ 70.0 / 29.0 (20.0) / 0.2 μA/step]     311* PaperTrans_LL2 (Paper Transfer LL2)     The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)     Nrml/1st/-297   Sets the paper transfer current when absolute humidit AH				
5 Nrml/1st/-128 [0 ~ 70.0 / 25.0 (42.0 / 0.2 μA/step] 6 Mid/1st/-297 [0 ~ 70.0 / 26.0 (33.0) / 0.2 μA/step] 7 Mid/1st/257-296 [0 ~ 70.0 / 26.0 (35.0) / 0.2 μA/step] 8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (37.0) / 0.2 μA/step] 9 Mid/1st/129-209 [0 ~ 70.0 / 26.0 (43.0) / 0.2 μA/step] 10 Mid/1st/-128 [0 ~ 70.0 / 26.0 (43.0) / 0.2 μA/step] 11 Thk/1st/-297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 18 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 24 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 25 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 28 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (20.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 OHP/				
6 Mid/1st/-297 [0 ~ 70.0 / 26.0 (33.0 ) / 0.2 μA/step] 7 Mid/1st/257-296 [0 ~ 70.0 / 26.0 (35.0 ) / 0.2 μA/step] 8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (37.0 ) / 0.2 μA/step] 9 Mid/1st/128 [0 ~ 70.0 / 26.0 (40.0 ) / 0.2 μA/step] 10 Mid/1st/-128 [0 ~ 70.0 / 26.0 (40.0 ) / 0.2 μA/step] 11 Thk/1st/-297 [0 ~ 70.0 / 14.0 (16.0 ) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 14.0 (16.0 ) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 15.0 (19.0 ) / 0.2 μA/step] 14 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0 ) / 0.2 μA/step] 15 Thk/1st/128 [0 ~ 70.0 / 18.0 (24.0 ) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0 ) / 0.2 μA/step] 17 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0 ) / 0.2 μA/step] 18 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (43.0 ) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0 ) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0 ) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (43.0 ) / 0.2 μA/step] 22 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (43.0 ) / 0.2 μA/step] 23 Mid/2nd/257-296 [0 ~ 70.0 / 28.0 (44.0 ) / 0.2 μA/step] 24 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (30.0 ) / 0.2 μA/step] 25 Mid/2nd/256 [0 ~ 70.0 / 29.0 (30.0 ) / 0.2 μA/step] 26 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (43.0 ) / 0.2 μA/step] 27 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0 ) / 0.2 μA/step] 28 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (45.0 ) / 0.2 μA/step] 29 Thk/2nd/128 [0 ~ 70.0 / 29.0 (45.0 ) / 0.2 μA/step] 21 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0 ) / 0.2 μA/step] 22 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (45.0 ) / 0.2 μA/step] 23 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (45.0 ) / 0.2 μA/step] 24 Thk/2nd/210-256 [0 ~ 70.0 / 10.0 (19.0 ) / 0.2 μA/step] 25 Thk/2nd/257-296 [0 ~ 70.0 / 10.0 (19.0 ) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 20.0 (21.0 ) / 0.2 μA/step] 27 Thk/2nd/129-209 [0 ~ 70.0 / 20.0 (21.0 ) / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 20.0 (21.0 ) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0 ) / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 28.0 (26.0 ) / 0.2 μA/step] 31 Thk/2nd/-128 [0 ~ 70.0 / 28.0 (26.0 ) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0 ) / 0.2 μA/step] 31 Nr				- , , , -
7 Mid/1st/257-296 [0 ~ 70.0 / 26.0 (35.0) / 0.2 μA/step] 8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (37.0) / 0.2 μA/step] 9 Mid/1st/128 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 10 Mid/1st/-128 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 11 Thk/1st/-297 [0 ~ 70.0 / 16.0 (10.0) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 14 Thk/1st/129-209 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 16 Nrml/2nd/297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (40.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 24 Mid/2nd/297 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 26 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 27 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 28 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step] 29 Thk/2nd/-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 29 Thk/2nd/128 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 30 Thk/2nd/128 [0 ~ 70.0 / 24.0 (20.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)				· · · ·
8 Mid/1st/210-256 [0 ~ 70.0 / 26.0 (37.0) / 0.2 μA/step] 9 Mid/1st/129-209 [0 ~ 70.0 / 26.0 (40.0) / 0.2 μA/step] 10 Mid/1st/-128 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 11 Thk/1st/297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 16 Nrml/2nd/297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (40.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 24 Mid/2nd/297 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 27 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step] 28 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 29 Thk/2nd/128 [0 ~ 70.0 / 29.0 (21.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 30 Thk/2nd/128 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 31 PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) 1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.		_		
9 Mid/1st/129-209 [0 ~ 70.0 / 26.0 (40.0) / 0.2 µA/step] 10 Mid/1st/-128 [0 ~ 70.0 / 26.0 (43.0) / 0.2 µA/step] 11 Thk/1st/-297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 µA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 µA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 µA/step] 14 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 µA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 µA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (43.0) / 0.2 µA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 µA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 µA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step] 23 Mid/2nd/256 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step] 25 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step] 26 Thk/2nd/-128 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 29.0 (45.0) / 0.2 µA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 29.0 (45.0) / 0.2 µA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step] 30 Thk/2nd/129-209 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 32 OHP/210 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 32 OHP/210 [0 ~ 70.0 / 28.0 (26.0) / 0.2 µA/step] 311 PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) 1 Nrml/1st/-297 Sets the paper tran				- , , , , -
10 Mid/1st/-128 [0 ~ 70.0 / 26.0 (43.0) / 0.2 µA/step]  11 Thk/1st/-297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 µA/step]  12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 µA/step]  13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 µA/step]  14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 µA/step]  15 Thk/1st/-128 [0 ~ 70.0 / 20.0 (27.0) / 0.2 µA/step]  16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step]  17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 µA/step]  18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 µA/step]  19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 µA/step]  20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 µA/step]  21 Mid/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 µA/step]  22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step]  23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step]  24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 µA/step]  25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (44.0) / 0.2 µA/step]  26 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (45.0) / 0.2 µA/step]  27 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step]  28 Thk/2nd/210-256 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step]  29 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 µA/step]  29 Thk/2nd/-128 [0 ~ 70.0 / 20.0 (21.0) / 0.2 µA/step]  30 Thk/2nd/-128 [0 ~ 70.0 / 20.0 (21.0) / 0.2 µA/step]  31 OHP/297 [0 ~ 70.0 / 20.0 (21.0) / 0.2 µA/step]  32 OHP/210 [0 ~ 70.0 / 20.0 (20.0) / 0.2 µA/step]  31 OHP/297 [0 ~ 70.0 / 20.0 (20.0) / 0.2 µA/step]  32 OHP/210 [0 ~ 70.0 / 20.0 (22.0) / 0.2 µA/step]  311* PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)  See SP2-310 for comments.				. , , , , ,
11 Thk/1st/-297 [0 ~ 70.0 / 14.0 (16.0) / 0.2 μA/step] 12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 20.0 (27.0) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 18 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (40.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 22 Mid/2nd/297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/210-256 [0 ~ 70.0 / 31.0 (41.0) / 0.2 μA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/128 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 29 Thk/2nd/210-256 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 30 Thk/2nd/129-209 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 311* Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)				- , , , , -
12 Thk/1st/257-296 [0 ~ 70.0 / 15.0 (19.0) / 0.2 μA/step] 13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step] 14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 20.0 (27.0) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 30.0 (40.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 29 Thk/2nd/128 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 Nrml/1st/-297 Set the paper transfer current when absolute humidit AH (g/m²) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				- , , , -
13 Thk/1st/210-256 [0 ~ 70.0 / 16.0 (21.0) / 0.2 μA/step]  14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step]  15 Thk/1st/-128 [0 ~ 70.0 / 20.0 (27.0) / 0.2 μA/step]  16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step]  17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]  18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]  19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step]  20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step]  21 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step]  22 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step]  23 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step]  25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step]  26 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step]  27 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step]  28 Thk/2nd/210-256 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step]  29 Thk/2nd/129-209 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step]  30 Thk/2nd/-128 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 20.0 (20.0) / 0.2 μA/step]  31 OHP/297 [0 ~ 70.0 / 20.0 (20.0) / 0.2 μA/step]  311* PaperTrans_LL2 (Paper Transfer LL2)  The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Set the paper transfer current when absolute humidit AH (g/m³) is in the following range:  3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)  See SP2-310 for comments.				- · · · · · · · · · · · · · · · · · · ·
14 Thk/1st/129-209 [0 ~ 70.0 / 18.0 (24.0) / 0.2 μA/step] 15 Thk/1st/-128 [0 ~ 70.0 / 20.0 (27.0) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 22 Mid/2nd/-297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 311* PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) 1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				•
15 Thk/1st/-128 [0 ~ 70.0 / 20.0 (27.0) / 0.2 μA/step] 16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 30.0 (40.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 31.0 (41.0) / 0.2 μA/step] 23 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (45.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 20.0 (21.0) / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 311* PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) 1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				- , , , , -
16 Nrml/2nd/-297 [0 ~ 70.0 / 28.0 (38.0) / 0.2 μA/step] 17 Nrml/2nd/257-296 [0 ~ 70.0 / 30.0 (40.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 31.0 (41.0) / 0.2 μA/step] 23 Mid/2nd/257-296 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 24 Mid/2nd/10-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 25 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 28.0 (26.0) / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 16.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31 PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				· · · · · · ·
17 Nrml/2nd/257-296 [0 ~ 70.0 / 30.0 (40.0) / 0.2 μA/step] 18 Nrml/2nd/210-256 [0 ~ 70.0 / 28.0 (42.0) / 0.2 μA/step] 19 Nrml/2nd/129-209 [0 ~ 70.0 / 28.0 (43.0) / 0.2 μA/step] 20 Nrml/2nd/-128 [0 ~ 70.0 / 28.0 (44.0) / 0.2 μA/step] 21 Mid/2nd/-297 [0 ~ 70.0 / 29.0 (39.0) / 0.2 μA/step] 22 Mid/2nd/257-296 [0 ~ 70.0 / 31.0 (41.0) / 0.2 μA/step] 23 Mid/2nd/210-256 [0 ~ 70.0 / 29.0 (43.0) / 0.2 μA/step] 24 Mid/2nd/129-209 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 25 Mid/2nd/-128 [0 ~ 70.0 / 29.0 (44.0) / 0.2 μA/step] 26 Thk/2nd/-297 [0 ~ 70.0 / 12.0 (16.0) / 0.2 μA/step] 27 Thk/2nd/257-296 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 28 Thk/2nd/210-256 [0 ~ 70.0 / 16.0 (19.0) / 0.2 μA/step] 29 Thk/2nd/129-209 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 30 Thk/2nd/-128 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 31 OHP/297 [0 ~ 70.0 / 24.0 / 0.2 μA/step] 32 OHP/210 [0 ~ 70.0 / 20.0 (22.0) / 0.2 μA/step] 31* PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) 1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				- , , , - , -
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- · · · · · · · · · · · · · · · · · · ·
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- , , , , -
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- · · · · · · · · · · · · · · · · · · ·
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				· · · · · · ·
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- , , , - , -
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- , , , , -
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				, , , ,
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- , , , , -
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- · · · · -
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				- , , , - , -
311* PaperTrans_LL2 (Paper Transfer LL2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				- , , -
The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)  1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range:  3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)  See SP2-310 for comments.	311*			- , , , , , , , , , , , , , , , , , , ,
1 Nrml/1st/-297 Sets the paper transfer current when absolute humidit AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.	311			
AH (g/m³) is in the following range: 3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				• , ,
3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range) See SP2-310 for comments.				AH (g/m <sup>3</sup> ) is in the following range:
				$3.5 < AH \le 8.0$ (this is the 'LL2' humidity range)
[0 ~ 70.0 / <b>27.0</b> (36.0) / 0.2 μA/step]				See SP2-310 for comments.
				[0 ~ 70.0 / <b>27.0</b> (36.0) / 0.2 µA/step]
311* 2 Nrml/1st/257-296 [0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 μA/step]	311*	2 Nr	ml/1st/257-296	[0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 μA/step]



PAGE: 9/11

Reissued: 17-Jun-03

Model: Mod	del U-P1		Date: 3-Feb-03	No.: RG071003
3	Nrml/1st/210-256	[0 ~ 70.0 / <b>29.0</b> (40	0.0) / 0.2 μA/step]	
4	Nrml/1st/129-209	[0 ~ 70.0 / <b>28.0</b> (43		
5	Nrml/1st/-128	[0 ~ 70.0 / <b>27.0</b> (46		
6	Mid/1st/-297	[0 ~ 70.0 / <b>28.0</b> (37	'.0) / 0.2 μA/step]	
7	Mid/1st/257 -296	[0 ~ 70.0 / <b>29.0</b> (39	9.0) / 0.2 μA/step]	
8	Mid/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (41	.0) / 0.2 μA/step]	
9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (44	I.0) / 0.2 μA/step]	
10	Mid/1st/-128	[0 ~ 70.0 / <b>28.0</b> (47	7.0) / 0.2 μA/step]	
11	Thk/1st/-297	[0 ~ 70.0 / <b>15.0</b> (20	0.0) / 0.2 μA/step]	
12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (21	.0) / 0.2 μA/step]	
13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (23	3.0) / 0.2 μA/step]	
14	Thk/1st/129-209	[0 ~ 70.0 / <b>16.0</b> (24	I.0) / 0.2 μA/step]	
15	Thk/1st/-128	[0 ~ 70.0 / <b>17.0</b> (26	6.0) / 0.2 μA/step]	
16	Nrml/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (40	0.0) / 0.2 μA/step]	
17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>29.0</b> (43	3.0) / 0.2 μA/step]	
18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>29.0</b> (45	5.0) / 0.2 μA/step]	
19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>29.0</b> (47	7.0) / 0.2 μA/step]	
20	Nrml/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (50	0.0) / 0.2 μA/step]	
21	Mid/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (41	.0) / 0.2 μA/step]	
22	Mid/2nd/257-296	[0 ~ 70.0 / <b>30.0</b> (44	I.0) / 0.2 μA/step]	
23	Mid/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (46	6.0) / 0.2 μA/step]	
24	Mid/2nd/129-209	[0 ~ 70.0 / <b>30.0</b> (48	3.0) / 0.2 μA/step]	
25	Mid/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (51	.0) / 0.2 μA/step]	
26	Thk/2nd/-297	[0 ~ 70.0 / <b>13.0</b> (20	0.0) / 0.2 μA/step]	
27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (24	I.0) / 0.2 μA/step]	
28	Thk/2nd/210-256	[0 ~ 70.0 / <b>19.0</b> (27	, , , , ,	
29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (31	, , , , <del>,</del>	
30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (34	<u> </u>	
31	OHP/297	[0 ~ 70.0 / <b>17.0</b> (19	9.0) / 0.2 μA/step]	
32	OHP/210	[0 ~ 70.0 / <b>21.0</b> (26	5.0) / 0.2 μA/step]	
312* Pap	erTrans_NN1 (Paper Tr	ansfer NN1)		
1 ne	display indicates: Pape Nrml/1st/-297		iper width (mm) nsfer current when abso	luto humiditu
1	NIIII/ 150-291	AH (g/m <sup>3</sup> ) is in the		nute numbers
			is is the 'NN1' humidity	range)
		See SP2-310 for c		957
		[0 ~ 70.0 / <b>28.0</b> (40		
2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (42	2.0) / 0.2 µA/step]	
3	Nrml/1st/210-256	[0 ~ 70.0 / <b>32.0</b> (44	I.0) / 0.2 μA/step]	
4	Nrml/1st/129-209	[0 ~ 70.0 / <b>31.0</b> (47	7.0) / 0.2 μA/step]	
5	Nrml/1st/-128	[0 ~ 70.0 / <b>30.0</b> (50	0.0) / 0.2 μA/step]	
6	Mid/1st/-297	[0 ~ 70.0 / <b>29.0</b> (41	.0) / 0.2 μA/step]	
7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (43	3.0) / 0.2 μA/step]	
8	Mid/1st/210-256	[0 ~ 70.0 / <b>33.0</b> (45	5.0) / 0.2 µA/step]	
9	Mid/1st/129-209	[0 ~ 70.0 / <b>32.0</b> (47	7.0) / 0.2 µA/step]	
10	Mid/1st/-128	[0 ~ 70.0 / <b>31.0</b> (51		
312* 11	Thk/1st/-297	[0 ~ 70.0 / <b>15.0</b> (23	, , , , , ,	
4.0	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (23	3.0) / 0.2 μA/step]	
12		<u>`</u>		
12 13 14	Thk/1st/210-256 Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24		



Chnical Bulletin Page: 10/11

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003b  $[0 \sim 70.0 / 14.0 (24.0) / 0.2 \mu A/step]$ 15 Thk/1st/-128 Nrml/2nd/-297 16  $[0 \sim 70.0 / 27.0 (42.0) / 0.2 \,\mu\text{A/step}]$ 17 Nrml/2nd/257-296  $[0 \sim 70.0 / 28.0 (45.0) / 0.2 \mu A/step]$ Nrml/2nd/210-256 18  $[0 \sim 70.0 / 30.0 (48.0) / 0.2 \mu A/step]$ 19 Nrml/2nd/129-209  $[0 \sim 70.0 / 30.0 (51.0) / 0.2 \,\mu\text{A/step}]$ [0 ~ 70.0 / **30.0** (55.0) / 0.2 μA/step] 20 Nrml/2nd/-128 21 Mid/2nd/-297  $[0 \sim 70.0 / 28.0 (43.0) / 0.2 \mu A/step]$ Mid/2nd/257-296 22  $[0 \sim 70.0 / 29.0 (46.0) / 0.2 \,\mu\text{A/step}]$ 23 Mid/2nd/210-256  $[0 \sim 70.0 / 31.0 (49.0) / 0.2 \mu A/step]$ Mid/2nd/129-209 24  $[0 \sim 70.0 / 31.0 (52.0) / 0.2 \mu A/step]$ 25 Mid/2nd/-128  $[0 \sim 70.0 / 31.0 (56.0) / 0.2 \mu A/step]$ 26 Thk/2nd/-297  $[0 \sim 70.0 / 14.0 (23.0) / 0.2 \mu A/step]$ 27 Thk/2nd/257-296  $[0 \sim 70.0 / 16.0 (28.0) / 0.2 \,\mu\text{A/step}]$ 28 Thk/2nd/210-256  $[0 \sim 70.0 / 17.0 (32.0) / 0.2 \mu A/step]$ 29 Thk/2nd/129-209  $[0 \sim 70.0 / 23.0 (37.0) / 0.2 \mu A/step]$ 30 Thk/2nd/-128  $[0 \sim 70.0 / 30.0 (42.0) / 0.2 \mu A/step]$ 31 OHP/297  $[0 \sim 70.0 / 17.0 (22.0) / 0.2 \mu A/step]$ OHP/210  $[0 \sim 70.0 / 21.0 (30.0) / 0.2 \mu \text{A/step}]$ 32 313\* PaperTrans\_NN2 (Paper Transfer NN2) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) Nrml/1st/-297 Sets the paper transfer current when absolute humidity AH  $(g/m^3)$  is in the following range:  $14 < AH \le 19$  (this is the 'NN2' humidity range) See SP2-310 for comments.  $[0 \sim 70.0 / 29.0 (36.0) / 0.2 \mu A/step]$ 2 Nrml/1st/257-296  $[0 \sim 70.0 / 30.0 (38.0) / 0.2 \,\mu\text{A/step}]$ 3 Nrml/1st/210-256  $[0 \sim 70.0 / 31.0 (39.0) / 0.2 \mu A/step]$ 4 Nrml/1st/129-209  $[0 \sim 70.0 / 30.0 (40.0) / 0.2 \,\mu\text{A/step}]$ 5 Nrml/1st/-128  $[0 \sim 70.0 / 28.0 (42.0) / 0.2 \,\mu\text{A/step}]$ Mid/1st/-297 6  $[0 \sim 70.0 / 30.0 (37.0) / 0.2 \mu A/step]$ 7 Mid/1st/257 - 296  $[0 \sim 70.0 / 31.0 (39.0) / 0.2 \mu A/step]$ 8 Mid/1st/210-256  $[0 \sim 70.0 / 32.0 (40.0) / 0.2 \,\mu\text{A/step}]$ Mid/1st/129-209 9  $[0 \sim 70.0 / 31.0 (41.0) / 0.2 \mu A/step]$ 10 Mid/1st/-128  $[0 \sim 70.0 / 29.0 (43.0) / 0.2 \,\mu\text{A/step}]$ 11 Thk/1st/-297  $[0 \sim 70.0 / 16.0 (25.0) / 0.2 \mu A/step]$ 12 Thk/1st/257-296  $[0 \sim 70.0 / 15.0 (25.0) / 0.2 \mu A/step]$ 13 Thk/1 st/210-256  $[0 \sim 70.0 / 15.0 (24.0) / 0.2 \,\mu\text{A/step}]$ 14 Thk/1st/129-209  $[0 \sim 70.0 / 14.0 (24.0) / 0.2 \mu A/step]$ Thk/1st/-128 15  $[0 \sim 70.0 / 14.0 (24.0) / 0.2 \mu A/step]$ 16 Nrml/2nd/-297  $[0 \sim 70.0 / 29.0 (43.0) / 0.2 \,\mu\text{A/step}]$ 17 Nrml/2nd/257-296 [0 ~ 70.0 / **31.0** (45.0) / 0.2 μA/step] 18 Nrml/2nd/210-256  $[0 \sim 70.0 / 33.0 (46.0) / 0.2 \mu A/step]$ 19 Nrml/2nd/129-209  $[0 \sim 70.0 / 32.0 (48.0) / 0.2 \,\mu\text{A/step}]$ Nrml/2nd/-128 313\* 20  $[0 \sim 70.0 / 31.0 (50.0) / 0.2 \,\mu\text{A/step}]$ 21 Mid/2nd/-297  $[0 \sim 70.0 / 30.0 (44.0) / 0.2 \mu A/step]$ 22 Mid/2nd/257-296  $[0 \sim 70.0 / 32.0 (46.0) / 0.2 \mu A/step]$ 23 Mid/2nd/210-256  $[0 \sim 70.0 / 34.0 (47.0) / 0.2 \mu A/step]$ 24 Mid/2nd/129-209  $[0 \sim 70.0 / 33.0 (49.0) / 0.2 \mu A/step]$ 25 Mid/2nd/-128  $[0 \sim 70.0 / 32.0 (51.0) / 0.2 \,\mu\text{A/step}]$ Thk/2nd/-297  $[0 \sim 70.0 / 14.0 (28.0) / 0.2 \mu A/step]$ 



PAGE: 11/11

Reissued: 17-Jun-03

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071003b
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32	2.0) / 0.2 μA/step]	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (36		
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (41	.0) / 0.2 μA/step]	
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (45	5.0) / 0.2 μA/step]	
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (23	5.0) / 0.2 μA/step]	
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (33	s.0) / 0.2 μA/step]	
314*		erTrans_HH (Paper Trans display indicates: Paper \		per Width (mm)	
	1	Nrml/1st/-297	Sets the paper tran	sfer current when absolut	e humidity
			AH (g/m <sup>3</sup> ) is in the		
				he 'HH' humidity range)	
			See SP2-310 for co		
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (32 [0 ~ 70.0 / <b>30.0</b> (33		
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (33		
	4	Nrml/1st/129-209	$[0 \sim 70.0 / 30.0 (33)]$		
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>26.0</b> (34	, · · · ·	
	6	Mid/1st/-297	[0 ~ 70.0 / <b>31.0</b> (33	, , , , , ,	
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (34	, , , , , , , , , , , , , , , , , , , ,	
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (34	/ 1 1 2	
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (35	, , , -	
	10	Mid/1st/-128	[0 ~ 70.0 / <b>27.0</b> (35		
	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (26	, , , , ,	
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25		
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (25		
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24	0) / 0.2 μA/step]	
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24	·.0) / 0.2 μA/step]	
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>30.0</b> (44	0) / 0.2 μA/step]	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>33.0</b> (44	0) / 0.2 μA/step]	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>36.0</b> (44	0) / 0.2 μA/step]	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>34.0</b> (44		
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>32.0</b> (44	, , , , -	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>31.0</b> (45		
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>34.0</b> (45		
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>37.0</b> (45		
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>35.0</b> (45		
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>33.0</b> (45		
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (28		
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32		
04.4	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>16.0</b> (36	<u>, , , , , , , , , , , , , , , , , , , </u>	
314*	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>22.0</b> (40		
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (44	· · · · · ·	
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (24		
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (36	.υ) / 0.2 μΑ/step]	

## RIGOH

## Technical Bulletin

PAGE: 1/2

Reissued: 17-Jun-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004b

#### **RTB Reissue**

The items in bold italics have been added.

Subject: Firmware History - BCU (Engine)		Prepare	Prepared by: H.K.	
From: Technical	Services Sec. Service Planning	Dept.		
Classification:	<ul><li>☐ Troubleshooting</li><li>☐ Mechanical</li><li>☐ Paper path</li><li>☐ Other (Firmware History)</li></ul>	☐ Part information ☐ Electrical ☐ Transmit/receive	☐ Action required ☐ Service manual revision ☐ Retrofit information	

This is to inform you of the BCU firmware history.

Part No.	Program name	Version	C.SUM	Production
G0705151				
	G0705151B.bin	V1.42	D6E3	April Production '03
	G0705151.bin	V1.40	5FBA	April Production '03
G0705150				
V	G0705150V.bin	V1.38	F699	February Production '03
Т	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

• G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

• G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.



Model: Model U-P1

## Technical Bulletin

PAGE: 2/2

Date: 3-Feb-03

No.: RG071004b

BICU

Symptom Corrected	Version
Modified in accordance with main unit controller v2.27 modification. For details, please see RTB #RG071003b.	V1.42
NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).	
Minor bugs corrected.	V1.40
Changes made in preparation for the addition of SP3-921-01/02 (from the next version).  Note: These SP modes are not yet operational.	
Software changed so that oil end detection is not performed while the fusing unit is in operation, in order to prevent oil end misdetections caused by winter humidity (humidification).	V1.38
SP mode newly added: SP2-801-02 (Additional Value of the charge corona cleaning interval). Refer to RTB No. RG071003 for the main unit controller firmware history.	
SC687 misdetections sometimes occur when paper is loaded into the bypass tray after the bypass tray reaches paper end.	
The detection conditions for SC412 (2 <sup>nd</sup> transfer disconnection) have been changed from 60ms to 240ms to prevent misdetections that can sometimes occur in low-temperature conditions.	
Minor bugs corrected.  Misdetection of toner end and/or toner near end even when the toner cartridge still contains enough toner to continue printing.	V1.37 V1.36
The paper end condition may not be detected even when the paper in the optional tray has run out.	
SP1-905-01 (pressure roller type) newly added. For details, please refer to the main unit controller firmware history (RTB No. RG071003).	V1.35
Detection conditions for SC560 (Zero cross error) have been changed as follows (upper limits eliminated, as they are unnecessary): Old:	
50Hz: Machine detects less than 45Hz or greater than 54Hz. 60Hz: Machine detects less than 55Hz or greater than 64Hz. New:	
50Hz: Machine detects less than 45Hz. 60Hz: Machine detects less than 55Hz.	
Default settings for SP2-944-4 and -5 have been changed to reduce the OPC lubrication mode cycle: SP2-944-4: Sheets-1: [10 to 80/ 30 / 1sheet/step] SP2-944-5: Sheets-2: [10 to 80/ 60 / 1sheet/step]	
Paper end is sometimes not detected even when the paper in the standard tray runs out.	
Minor bug corrections.	V1.33
First release.	V1.32

	ПП
(ՄյՄ	Ш

PAGE:	1/3
-------	-----

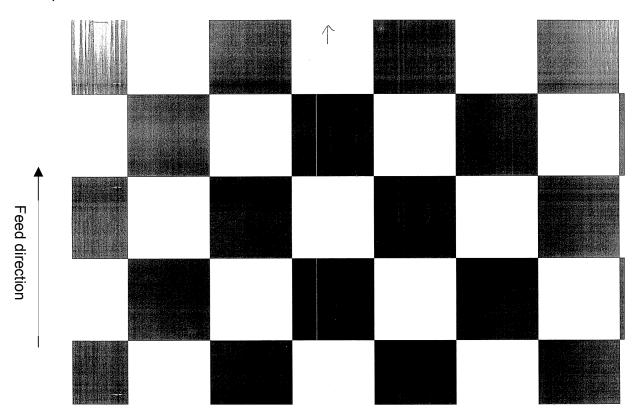
Model: Model U-P1		Date: 17-Jun-03		No.: RG071007	
Subject: Black Faint Image			Prepared by: S. Tomoe		
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	☐ Troubleshooting	☐ Part informa		ition	
	☐ Mechanical	☐ Electric	al	☐ Servi	ce manual revision
	☐ Paper path	☐ Transm	it/rec	eive 🗌 Retro	ofit information
	☐ Other ( )				

## 1. SYMPTOM

Image density becomes lighter across the image, beginning from the leading edge and both sides. This is visible in solid image and halftone areas, and occurs more easily with:

- 1) B/W image areas
- 2) Originals with low image coverage ratios and3) Jobs with a low quantity of sets (e.g. 1 or 2P/J)

## Sample:





PAGE: 2/3

Model: Model U-P1 Date: 17-Jun-03 No.: RG071007

#### 2. CAUSE

The lubricant applied to the OPC belt gets inside the black development unit via the development roller, causing the friction level on the roller surface to decrease. This makes it more difficult for the toner to be transferred onto the roller surface, causing the image to gradually get lighter.

**Note:** The symptom temporarily subsides when the toner cartridge is replaced and new toner is supplied to the hopper (concentration of lubricant in the unit is minimized). However it will recur when the above process repeats.

#### 3. SOLUTION

1. When the symptom is reported:

Please perform the following update and replacements, which will minimize the chances of symptom occurrence. The modified firmware reduces the amount of lubrication used on the OPC, which in effect minimizes the amount of lubrication that can get inside the development unit and toner cartridge.

1) Update to the following modified firmware

**Note**: These versions were applied from April '03 production (S/N list below).

- Main Unit Controller ver2.27 or later.
- BCU ver1.42 or later

After updating the firmware, input the following default values manually.

SP No.	Description	Value
2-938-001 (New SP)	OPC Reverse Interval	10
2-941-001	OPC Lubricant Time – Interrupt	14
3-920-001	Lubrication Cleaning Time	50
3-921-001	Lubricant Clutch OFF: 1C	6
3-921-002	Lubricant Clutch OFF: 2C/3C/4C	6

- 2) Replace the black development unit.
- 3) Replace the black toner cartridge.

**Note:** It is necessary to replace the toner cartridge since the lubricant also gets into the cartridge.

2. At EM visits made for another reason Update to the software listed above.



Model: Model U-P1

## Technical Bulletin

 Ulletin
 PAGE: 3/3

 Date: 17-Jun-03
 No.: RG071007

## 4. Cut-in Serial Numbers

Code	Serial Numbers
G071-17	P7536400358~
G071-22	P7536300073, P75364000236~0239, 0241~
G071-24	L104384001~
G071-27	P7536300185, 0256~0258, 0260~0272, 0276, 0279, 0285, 0290,
	0292~0298, 0300~0305, 0307~0311, 0313, 0316, 0319, 0320, 0322,
	0323, 0325, 0326, 0328, 0330~0335, 0339~0343, 0345, 0346,
	0348~0352, 0355~0359, 0361,
	P7536400007, 0012, 0013, 0017, 0034, 0036, 0041, 0044, 0046, 0056,
	0059, 0070, 0080~

# RIGOH

## Technical Bulletin

**PAGE: 1/3** 

Reissued: 7-Aug-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG071003c

#### **RTB Reissue**

The items in bold italics have been added or changed.

Subject: Firmware History - Main Unit Controller			Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.				
Classification:	Troubleshooting	☐ Part informat	tion	☐ Action required
	☐ Mechanical	☐ Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☐ Other (Firmware History)			

This is to inform you of the Main Unit Controller firmware history.

Part No.	Program name			
G0705940		Version	C.SUM	Production
Q	G0705941Q.bin G0705940Q.bin	V2.28.2	798D 3423	August Production '03
P	G0705941P.bin G0705940P.bin	V2.28	7B7C 80AF	June Production '03
N	G0705941N.bin G0705940N.bin	V2.27	E37C 2774	April Production '03
М	G0705941M.bin G0705940M.bin	V2.26	211D FD70	April Production '03
L	G0705941L.bin G0705940L.bin	V2.25	FCB9 A00C	March Production '03
К	G0705941K.bin G0705940K.bin	V2.24	6E31 EF54	February Production '03
J		V2.22.1	-	January Production '03
Н	-	V2.22	-	November Production '02
G	-	V2.21	-	Not applied to the production machines
F	-	V2.20	-	Not applied to the production machines
Е	-	V2.19	-	Not applied to the production machines
D	-	V2.18	-	August production '02

#### Note for updating test marketing machines (PMO) firmware:

Default values of the fusing temperature (SP1-105), paper transfer currents (SP2-310-001 to SP2-314-032), and paper transfer adjustment (SP2-903-01) have been reviewed. When firmware is updated to V2.20 or later for the first time, please confirm these settings. If the settings are still old ones, please set the type to 0 and press # key in SP2-905-01 and SP1-905-01. For details, please refer to the corrected symptom explanations in V2.20 and V2.18 (pp. 2, 3 below).

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).



**PAGE: 2/3** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003c

#### Note for updating main unit controller firmware:

Whenever updating main unit controller firmware from v2.22.1 or earlier to v2.24 or later, please be sure to update the BICU firmware at the same time to v1.38 or later. The BICU firmware history is described in RTB No. RG071004.

Whenever updating the main unit controller firmware from v2.25 or earlier to v2.26 or later, please be sure to update the BICU firmware at the same time to v1.40 or later. The BICU firmware history is described in RTB No. RG071004a.

# Reissued: 7-Aug-03

## Technical **B**ulletin

**PAGE: 3/3** 

Model: Model U-P1	Date: 3-Feb-03	No.: RG071003c
-------------------	----------------	----------------

Main Unit Controller

Symptom Corrected	Version
Merged PCL job cannot print (TechMail#TS030100).	V2.28.2
1. The following SP modes have been added.	V2.28
For details, please refer to BICU firmware release note RB051004c:	
BICU v1.44A.	
SP2-400-008: Cleaning Bias LL1: OPC lubrication time	
SP2-401-008: Cleaning Bias LL2: OPC lubrication time	
SP2-402-008: Cleaning Bias NN1: OPC lubrication time	
SP2-403-008: Cleaning Bias NN2: OPC lubrication time	
SP2-404-008: Cleaning Bias HH: OPC lubrication time	
[0 to 2000/ 1400 / 10 Volt/step]	
2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6:	
SP2-941-01: Job End: [6 ~ 30 / 14 / 1 s/step]	
SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]	
NOTE: Along with this main unit controller version, be sure to update the BICU firmware to v1.44A or later.	

## RIGOR Beingwedt 7 Aug 63

## Technical Bulletin

**PAGE: 1/2** 

Reissued: 7-Aug-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004c

#### **RTB Reissue**

The items in bold italics have been added.

The Reme III bela Railed Have been added.						
Subject: Firmware History - BCU (Engine)			Prepare	d by: H.K.		
From: 1st Tech. Support Sec. Service Support Dept.						
Classification:	ification: Troubleshooting Part information: Mechanical Electrical		tion	<ul><li>☐ Action required</li><li>☐ Service manual revision</li></ul>		
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information		
	☐ Other (Firmware History)					

This is to inform you of the BCU firmware history.

Part No.	Program name	Version	C.SUM	Production
G0705151				
	G0705151D.bin	V1.45	A657	August Production '03
	G0705151C.bin	V1.44A	0C47	July Production '03
	G0705151B.bin	V1.42	D6E3	April Production '03
	G0705151.bin	V1.40	5FBA	April Production '03
G0705150				
V	G0705150V.bin	V1.38	F699	February Production '03
Т	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

• G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.

## RIGOH

## Technical **B**ulletin

**PAGE: 2/2** 

Reissued: 7-Aug-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004c

BCU

Commente on Commente d	Manaian
Symptom Corrected	Version
Eliminated unnecessary occurrences of SC420 (Fusing bias discharge error):	V1.45
SC420 will not be triggered when a leak occurs as a result of a small	
hole on the fusing belt surface, since from field experience it has been	
confirmed that belt lifetime is actually longer when the SC is not	
triggered in these conditions. If the leak should occur, instead of the SC	
the machine turns SP2-510 OFF (fusing bias SW), and the fusing bias is	
not applied until the fusing counter is cleared when the user replaces	
the unit or the SP is set back to ON.	
1. Eliminated unnecessary occurrences of SC410 (2 <sup>nd</sup> transfer electric leakage):	V1.44A
SC410 tends to frequently occur when using paper with a high moisture	
content under high-temperature, high-humidity conditions when the	
resistance on the paper transfer roller is low. The roller current was	
previously lowered for mono-color mode (45% that of full color), which	
lowered the resistance and caused frequent occurrences. This version	
uses the color mode current for mono-color until job end to eliminate	
unecessary occurrences under the conditions described above.	
2. SP modes newly added (listed below).	
These SPs have been added to ensure proper (higher) transfer belt	
cleaning by applying the following bias voltages at job end (OPC lubrication time):	
SP2-400-008: Cleaning Bias LL1: OPC lubrication time	
SP2-401-008: Cleaning Bias LL2: OPC lubrication time	
SP2-402-008: Cleaning Bias NN1: OPC lubrication time	
SP2-403-008: Cleaning Bias NN2: OPC lubrication time	
SP2-404-008: Cleaning Bias HH: OPC lubrication time	
[0 to 2000/ 1400 / 10 Volt/step]	
3. Minimum value changed for SP2-941-01, -02 (OPC lubrication time).	
Minimum increased from 0 to 6:	
SP2-941-01: Job End: [ <u>6</u> ~ 30 / 20 / 1 s/step]	
SP2-941-02: OPC Lubrication Interval: [ <u>6</u> ~ 60 / 10 / 1 s/step]	
NOTE: Along with this BCU version, be sure to update the main unit controller firmware to v2.28 or later.	

## RIGOH

## Technical Bulletin

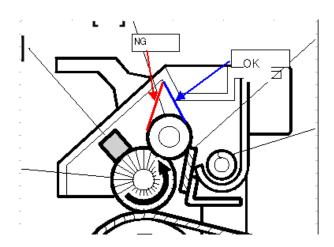
Model: Model U-P1 Dat			e: 25-Sep-0	)3	No.: RG071008	
Subject: Dirty spots on the prints			Prepared	by: H.K	•	
From: 1st Tech. Support Sec. Service Support Dept.						
Classification:		☐ Part inf	orma	tion [	Action	required
		☐ Electric	al	[	Servic	e manual revision
	☐ Paper path	Transm	it/rec	eive [	Retrof	fit information
	Other ( )					

#### **SYMPTOM**

Dirty spots appear during early stages of printing after installation (around 200 prints or so).

## **CAUSE**

The Mylar next to the cleaning roller in the image transfer belt cleaning unit was placed in the opposite position. Refer to the following illustration. (Incorrect position: red, correct position: blue)



These machines were picked up for the QA sample check after they were produced in the production line. After the QA check, the cleaning unit was cleaned in the line. It is likely that the mylars were moved to the opposite position during cleaning the ITB cleaning unit. If the cleaning roller is rotated by turning the gear incorrectly during the cleaning stage, the mylar is then in the opposite position.



**PAGE: 2/2** 

Model: Model U-P1 Date: 25-Sep-03 No.: RG071008

## **SOLUTION**

In the production line

The instruction of the correct gear rotation has been added and an inspection process has been added to the cleaning procedure from February 12 production machines.

In the field

Replace the image transfer belt cleaning unit (G0706300: Belt Cleaning Assembly).

Model: Model U-P1 Date			e: 25-Sep-03	No.: RG071009	
Subject: Gears on the Development Shaft			Prepared by: H.k	ζ.	
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:		☐ Part info	ormat	tion	n required
		☐ Electric	al	☐ Servi	ce manual revision
	☐ Paper path	Transm	it/rec	eive 🗌 Retro	fit information
	Other ( )				

#### **SYMPTOM**

Almost all white copies & prints, or light image for one or more of YMCK colors.

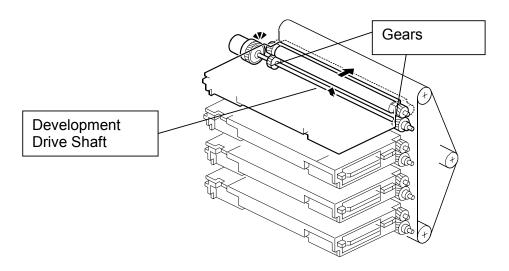
#### **CAUSE**

The gear on development drive shaft shifts due to production line errors. Specifically:

- Diameter of the gear shafts 0.04mm smaller than specification minimum.
- Gear rotational torque (0.5kgf) much lower than specification minimum (10kgf)

The gear on the development shaft shifts when the development drive is supplied.

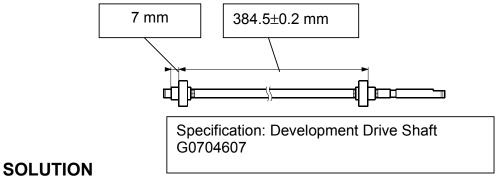
The manufacturer reported that they normally perform surface grinding if dirt or other materials or scratches are detected on the shaft. This can cause the diameter to be reduced to below spec minimum.





PAGE: 2/2

Model: Model U-P1 Date: 25-Sep-03 No.: RG071009



In the field

Replace the development shaft with the spare part (G0704607: Development Shaft - FC).

Note: We estimate the occurrence ratio is very low according to the investigation results in the factory and by the manufacturer.

#### In the production line

Temporary solution: From July 17 production

- 1. Shaft diameters checked to make sure only those within specification are used.
- 2. Gear rotational torque measured to make sure only those within specification are used.

#### Permanent:

- 1) When materials or scratches are detected on the surface, the shaft is not used (no grinding/polishing).
- 2) The factory continues to check the parts produced with the temporary countermeasure above.

RIGOR Technical E			ull	etin	PAGE: 1/12
Model: Model U-P1			Dat	e: 28-Oct-03	No.: RG071010
Subject: Skew Ir	mage Adjustment Procedure		Prepared by: H.I	ζ.	
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	Classification: ⊠ Troubleshooting □ Part inform			tion Actio	n required
	☐ Mechanical	☐ Electric	al	☐ Servi	ce manual revision
	☐ Paper path	Transm	it/rec	eive	ofit information
	☐ Other ( )				

Please use this RTB as a troubleshooting guide for skewed, trapezoid and parallelogram images.

# Correcting Skewed, Parallelogram, and Trapezoid Images

## **Model U-P1**

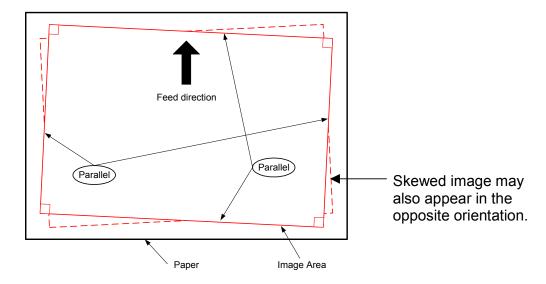
## **Contents**

1.	. VISUAL DIFFERENCES BETWEEN SKEWED, TRAPEZOID ANI	D
	PARALLELOGRAM IMAGES	1
	1.1 SKEWED IMAGES	1
	1.2 TRAPEZOID IMAGES	1
	1.3 PARALLELOGRAM IMAGES	2
2.	CHECKING THE IMAGE WITH THE TRIMMING PATTERN	3
^	CORRECTING THE IMAGES	4
_	CORRECTING THE IMAGES	
	3.1 FLOWCHART	
	3.2 ACTION	5

# 1. VISUAL DIFFERENCES BETWEEN SKEWED, TRAPEZOID AND PARALLELOGRAM IMAGES

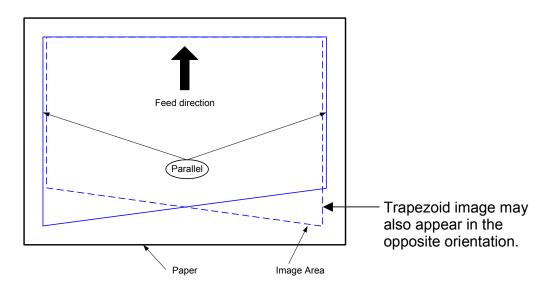
#### 1.1 SKEWED IMAGES

- The image's leading and trailing edges are parallel to one another.
- The image's left and right edges are also parallel.
- However, all four sides are slanted with respect to the paper's edge.



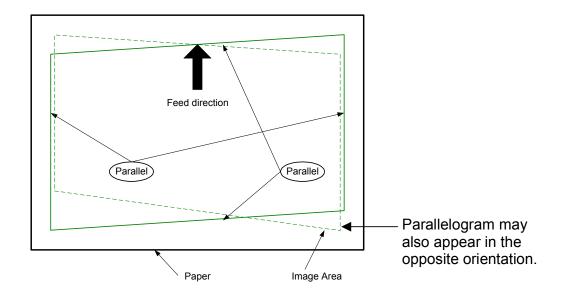
## 1.2 TRAPEZOID IMAGES

• Only the image's **trailing edge** is slanted with respect to the paper. The remaining 3 sides are parallel to the paper's edges.

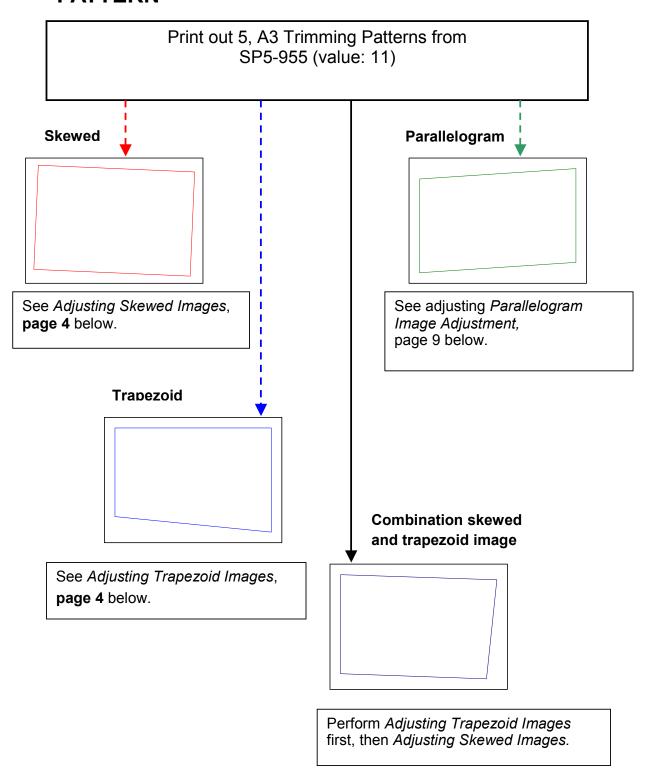


## 1.3 PARALLELOGRAM IMAGES

• Like skewed images, the leading/trailing edges and left/right edges are parallel to each other, but here, the **leading and trailing edges** are both slanted with respect to the paper's edge.



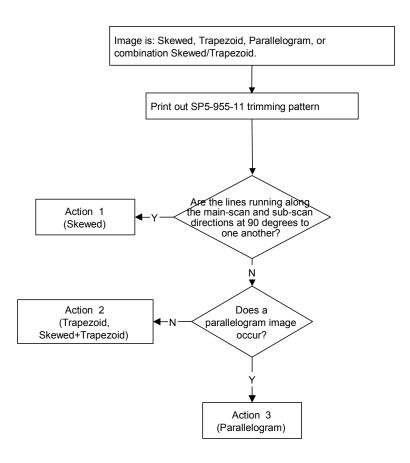
# 2. CHECKING THE IMAGE WITH THE TRIMMING PATTERN



## 3. CORRECTING THE IMAGES

## 3.1 FLOWCHART

Please use the following flowchart to correct skewed, parallelogram, and trapezoid images as described on page 3.



## **ACTION**

## **Action 1 (skewed image of trimming pattern)**

Perform the Solution described in RTB No. RG071001.

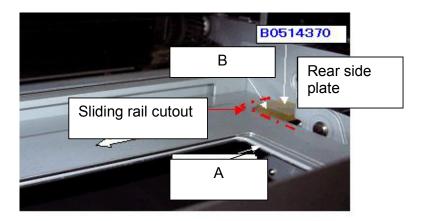
## Action 2 (trapezoid image or skewed + trapezoid image of trimming pattern)

Attach the following two spacers to the fusing rail and fusing unit as shown below. Applied from: May 2003 production.

Part number	Description	Attachment Location	Remarks
B0514370	Rail spacer - 18.5X19.5X3.3	Fusing rail	
B0514371	Lower pressure spacer	Fusing unit	

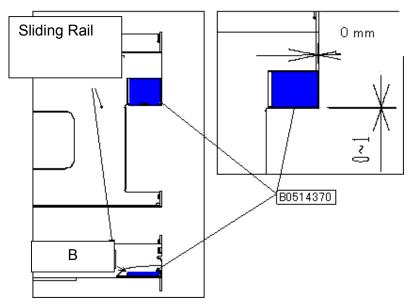
#### Attaching the Spacer to the Fusing Rail

- 1. Remove the fusing unit.
- 2. Clean the attachment area for the rail spacer with alcohol.
- 3. Attach the rail spacer (B0514370) to the rear of the non-sliding fusing rail [A] so that the tapered side [B] is facing the front.



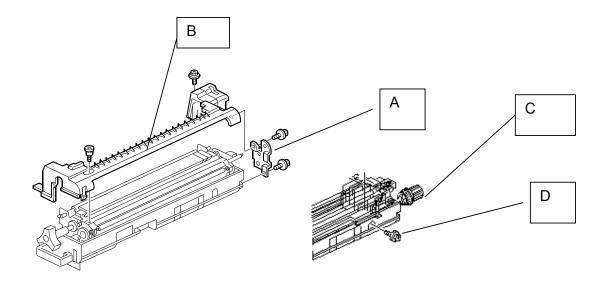
#### Note:

- 1. The actual color of the B0514370 service part rail spacer is black.
- 2. After attaching the spacer, move the fusing unit along the rail to make sure the spacer does not interfere with the rail.



## **Attaching the Spacer to the Fusing Unit**

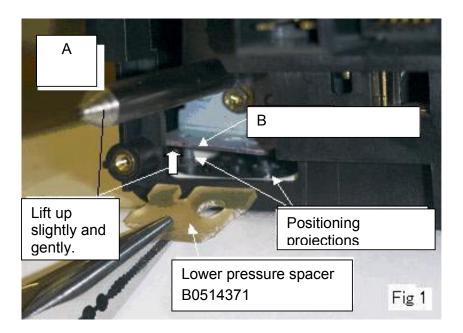
- 1. Remove the fusing unit. Then, remove the oil supply unit.
- 2. Remove the gear bracket [A] (2 screws).
- 3. Remove the upper cover [B] (2 screws, 1 shoulder screw).
- 4. Remove the drive gear [C].
- 5. Remove the pressure side plate securing screw (rear side only) [D].



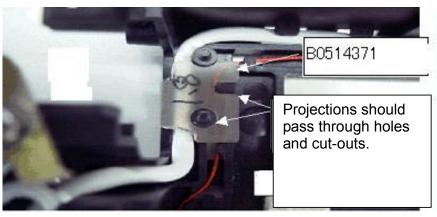
**Important**: In the next step, be sure and lift up the shaft **slowly and gently**. If it is lifted up too quickly or with too much force, the fusing lamp will be damaged.

6. Lift up the shaft [A] very gently, just enough so that the lower pressure spacer can be inserted. While holding the shaft up, insert the lower pressure spacer (B0514371) between the pressure side plate [B] and lower cover.

**Note:** Insert the spacer so that the positioning projections can pass through the hole and cut-outs in the spacer (see the illustrations below).



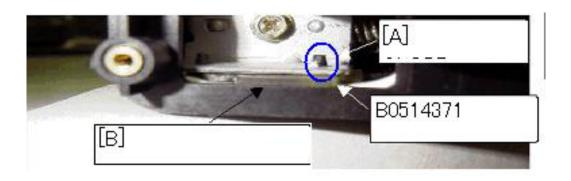
#### Bird's eye view of Fig.1 above:



#### Important: Confirm the following after attachment

Make sure that:

- Positioning projection [A] is visible
- The edge of the lower pressure spacer (B0514371) is aligned with the lower cover edge [B], i.e. not positioned inside or projecting out from the cover edge.



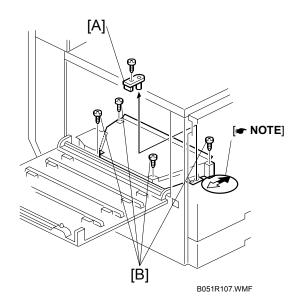
#### Action 3 (parallelogram image of trimming pattern)

Adjust the position of the laser optics-housing unit as described in the Service Manual, pg. 3-11 to 3-14.

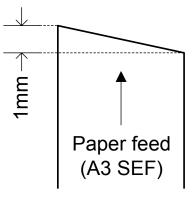
#### Adjusting for Image Skew

- 1. Positioning pin [A] ( F x 1)
- 2. Loosen 🖗 (x 4) [B].
- 3. Adjust the position of the laser optics housing unit ( Adjustment).
- 4. Fasten § (x 4) [B].

NOTE: After changing the position of the laser optics housing unit, do not reinstall the positioning pin. Keep the pin in a safe place.



NOTE: When the image skews as shown on the right, move the unit 1 mm in the direction of the black arrow as shown in the diagram above and to the right.



B051R901.WMF

**PAGE: 1/5** 

Model: Model U-P1			Dat	e: 27-Nov-03	No.: RG071011
Subject: No Indication on the LCD Display				Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	<ul><li>☐ Troubleshooting</li><li>☐ Mechanical</li></ul>	☐ Part info	al	_ □ Se	tion required rvice manual revision
	☐ Paper path ☐ Other ( )	☐ Transm	iit/rec	eive	trofit information

#### **SYMPTOM**

No display on the operation panel LCD, some characters on the LCD are displayed garbled, or the power LED does not light when the main switch is turned on.

#### **CAUSE**

Some controller boxes were attached on the production line slightly higher than their optimal position, resulting in poor connection between the controller board and BCU board connectors.

#### **SOLUTION**

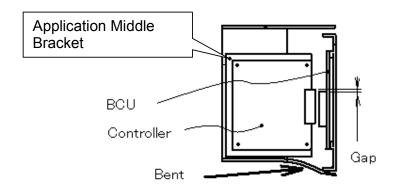
Temporary (from mid-October 2003 production):

The screws for the controller box are secured while the controller box is held in the proper position.

#### Permanent (from November 2003 production):

The height of the application middle bracket has been reduced by 0.6 mm to ensure the controller is always attached in the optimal position.

P/N change for this part:  $G0705523 \rightarrow G0705520$ 





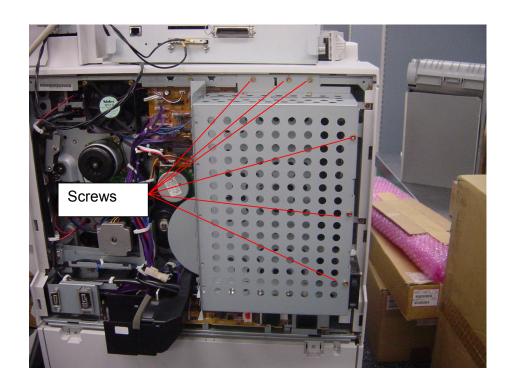
**PAGE: 2/5** 

Model: Model U-P1 Date: 27-Nov-03 No.: RG071011

#### In the field:

If the above symptom occurs, reattach the controller box as shown below to ensure a proper connection between the controller box and BCU board.

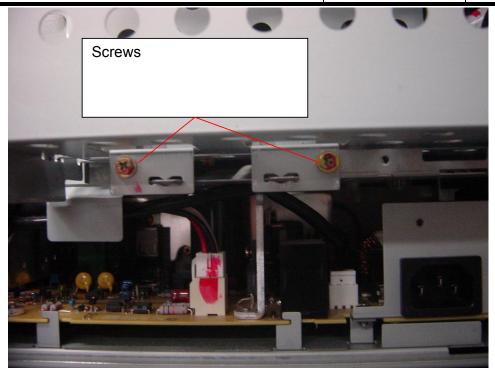
- 1. Turn off the main switch and remove the duct cover, ozone filter, printer controller, and rear cover.
- 2. Loosen the 13 screws that secure the controller box and cooling fan.

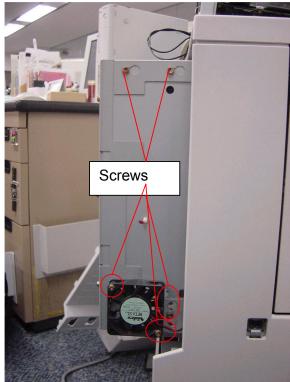




Model: Model U-P1 Date: 27-Nov-03 No.: RG071011

**PAGE: 3/5** 





3. While holding the controller box in its lower position, secure the 13 screws.

**Point**: The controller box is attached in this lower position to prevent poor connection between the BCU and controller. If the controller box is assembled in the upper position, a poor connection may occur.



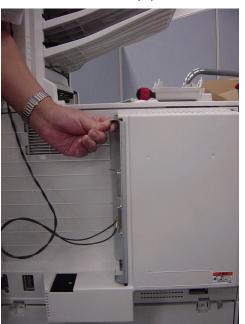
**PAGE: 4/5** 

Model: Model U-P1 Date: 27-Nov-03 No.: RG071011

4. Slide the printer controller in slowly until the connecters connect with those on the BCU board.



5. Push in the top portion of the controller as shown.





**PAGE: 5/5** 

 Model: Model U-P1
 Date: 27-Nov-03
 No.: RG071011

6. While holding the top portion in place, push in the bottom portion of the controller flat against the surface shown.



- 7. Reattach the rear cover (2 screws).
- 8. Secure the 2 screws for the printer controller.
- 9. Reattach the duct cover and ozone filter.
- 10. Turn on the main switch and confirm that the LCD display is correct.

# Reissued: 3-Dec-03

### Technical Bulletin

PAGE: 1/12

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

#### **RTB Reissue**

The items in bold italics have been added or changed.

Subject: Firmware History - Main Unit Controller				Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	☐ Troubleshooting	shooting		Action required	
	☐ Mechanical	☐ Electrical		☐ Service manual revision	
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information	
	☑ Other (Firmware History)				

This is to inform you of the Main Unit Controller firmware history.

Part No.	Program name			
G0705940		Version	C.SUM	Production
R	G0705941R.bin G0705940R.bin	V2.29	253A DF67	October Production '03
Q	G0705941Q.bin G0705940Q.bin	V2.28.2	798D 3423	August Production '03
Р	G0705941P.bin G0705940P.bin	V2.28	7B7C 80AF	June Production '03
N	G0705941N.bin G0705940N.bin	V2.27	E37C 2774	April Production '03
М	G0705941M.bin G0705940M.bin	V2.26	211D FD70	April Production '03
L	G0705941L.bin G0705940L.bin	V2.25	FCB9 A00C	March Production '03
К	G0705941K.bin G0705940K.bin	V2.24	6E31 EF54	February Production '03
J		V2.22.1	-	January Production '03
Н	-	V2.22	-	November Production '02
G	-	V2.21	-	Not applied to the production machines
F	-	V2.20	-	Not applied to the production machines
E	-	V2.19	-	Not applied to the production machines
D	-	V2.18	-	August production '02

#### Note for updating test marketing machines (PMO) firmware:

Default values of the fusing temperature (SP1-105), paper transfer currents (SP2-310-001 to SP2-314-032), and paper transfer adjustment (SP2-903-01) have been reviewed. When firmware is updated to V2.20 or later for the first time, please confirm these settings. If the settings are still old ones, please set the type to 0 and press # key in SP2-905-01 and SP1-905-01. For details, please refer to the corrected symptom explanations in V2.20 and V2.18 (pp. 2, 3 below).

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx



**PAGE: 2/12** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating main unit controller firmware:

Whenever updating main unit controller firmware from v2.22.1 or earlier to v2.24 or later, please be sure to update the BICU firmware at the same time to v1.38 or later. The BICU firmware history is described in RTB No. RG071004.

Whenever updating the main unit controller firmware from v2.25 or earlier to v2.26 or later, please be sure to update the BICU firmware at the same time to v1.40 or later. The BICU firmware history is described in RTB No. RG071004a.

# Reissued: 3-Dec-03

# Technical Bulletin

**PAGE: 3/12** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

### Main Unit Controller

Symptom Corrected	Version
1. SC687 occurs with multi-prints onto B4 (B/W).	V2.29
2. Modified in accordance with BCU v1.47a modification. For	
details, please see RTB #RG071004d.	
NOTE: Along with this main unit controller version he came to undete	
NOTE: Along with this main unit controller version, be sure to update the BICU firmware to v1.47a or later.	
Merged PCL job cannot print (TechMail#TS030100).	V2.28.2
The following SP modes have been added.	V2.28
For details, please refer to BICU firmware release note RB051004c: BICU	
v1.44A.	
CD2 400 000; Cleaning Rica I I 4: ODC lubrication times	
SP2-400-008: Cleaning Bias LL1: OPC lubrication time	
SP2-401-008: Cleaning Bias LL2: OPC lubrication time	
SP2-402-008: Cleaning Bias NN1: OPC lubrication time	
SP2-403-008: Cleaning Bias NN2: OPC lubrication time	
SP2-404-008: Cleaning Bias HH: OPC lubrication time	
[0 to 2000/ 1400 / 10 Volt/step]	
2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time).	
Minimum increased from 0 to 6:	
SP2-941-01: Job End: [ <u>6</u> ~ 30 / 14 / 1 s/step]	
SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]	
NOTE: Along with this main unit controller version, be sure to update the BICU firmware to v1.44A or later.	



PAGE: 4/12

Model: Model U-P1 No.: RG071003d Date: 3-Feb-03 Symptom Corrected Version V2.27 To ensure proper printing quality, the default values for the following SP modes have been reviewed and some SP modes newly added. -SP3-920-001 (Lubrication Cleaning Time) (): old default  $[0 \sim 100 / 50 (100) / 1\% / step]$ -SP2-941-001(OPC Lubricant Time - job end) [0 ~ 30 / 14 (20) / 1s /step] -SP3-921-001 (Lubricant Clutch OFF: 1C): Newly added -SP3-921-002 (Lubricant Clutch OFF: 2C/3C/4C): Newly added  $[0 \sim 11 / 6 / 1s / step]$ Allows the image transfer belt cleaning clutch off timing to be adjusted. The setting determines the number of seconds after image transfer belt cleaning roller charging that the clutch is turned off. With previous versions, the clutch is always running while the development roller motor rotates. -SP2-938-001 (OPC Reverse Interval): Newly added [0 ~ 100 / 10 / 10 counts /step] The Main motor rotates the OPC belt backwards for 500 ms at the end of every job, in order to remove foreign particles between the OPC belt and OPC cleaning blade. However, this does not need to be performed so often. In addition, reducing the frequency of OPC belt reverse rotation improves the cleaning blade performance. This SP adjusts the counter for the OPC belt reverse rotation, and is incremented as follows: LT/A4 LEF or smaller: 1, larger than LT/A4 LEF: 2. When this SP reaches its set maximum, reverse rotation is performed for 500ms at job end. NOTE: Along with this main unit controller version, be sure to update the BICU firmware to v1.42 or later. For fetails, please refer to RTB #RG071007 (black faint images). Changes made in preparation for the addition of SP3-921-01/02 (from the next V2.26 version). Note: These SP modes are not yet operational. New SP mode added: SP2-803-01 (Charge Cleaning Off time). [0 ~ 200 / 60 / 10 seconds/step] Although a 60-second interval already exists for performing an idle discharge after corona wire cleaning, this new SP mode allows the interval to be adjusted. The idle discharge is to maintain an even charge wire surface, ensuring proper charging. The new Wireless LAN card (produced from Dec '02) is sometimes unable to V2.25 communicate with the PC after a certain interval when using 802.11adhoc mode. Note: This does not occur with 1) adhoc or infrastructurer modes, or 2) previous Wireless LAN cards (produced up until Nov '02). SP1-105-01 (Fusing Temperature): Default for idling start changed from 145 to 140 V2.24 (see SP mode table below).



PAGE: 5/12

No.: RG071003d Model: Model U-P1 Date: 3-Feb-03 Symptom Corrected Version SP2-801-02 (Additional Value of the charge corona cleaning interval) has been newly added. The cleaning interval for the additional charge corona unit has been adjusted [0 ~ 5000 / **100** / 100 counts/step] With this new SP, it is possible to adjust the interval for charge corona cleaning in the middle of a job: Old: The charge corona cleaning is carried out after 600 (SP2-801-1) development counts, at job end or after 700 (no adjustment) development counts (stops in the middle of the job). The charge corona cleaning is carried out after 600 (SP2-801-1) development counts, at job end or after 700 (= the sum of the settings in SP2-801-1 and -2) development counts (stops in the middle of the job). Hardware Ethernet Problem: For details, please refer to General RTB #RGene012. V2.22.1 Selecting HDD font or DIMM font may sometimes reduce available memory. Printing speed is sometimes low when printing an AutoCAD file. V2.22 Machine may freeze during printing when using a certain application w/HDD font or DIMM font selection. Text characters may appear darker with a certain raster image. Graphics objects may appear darker when available memory is low. Wireless LAN card sometimes cannot communicate with the printer when the WEP key is ON. Translation corrections for some words in Polish and German. V2.21 SP1-905-01 (pressure roller type) has been newly added. V2.20 **0 : new pressure roller type (2.1mm)**, 1 : old pressure roller type (1.5mm) This has been added due to the pressure roller modification applied to prevent fusing jams (wrapping around the pressure roller), whereby the layer thickness of the pressure roller was changed from 1.5 mm to 2.1mm from first production. NOTE: When updating from v2.19 or former to v2.20 or later, it is necessary to manually enter a value of 0 into this SP mode and then press #, which instructs the machine to use the new data for fusing control. Some default values of SP1-105 (Fusing Temperature) have been changed. See new default table below. (new settings input from August '02 production).



PAGE: 6/12

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

Symptom Corrected	Version
Default settings for SP2-944-4 and -5 have been changed to reduce the OPC	
lubrication mode cycle :	
SP2-944-4 : Sheets-1 : [10 to 80/ <b>30</b> (old : 20) / 1sheet/step]	
SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> (old : 40) / 1sheet/step]	
Euro symbol not printed with PS driver (for details, see General RTB No.	
RGene011).	
Minor bug corrections.	V2.19
First release.	V2.18
Display for SP5-945 (MidThickPaper) deleted, as this setting can be performed in User Tools.	
SP1-920-1 to 3 (PFMtrDelayTime) has been newly added (see table below).	
SP2-310 to 2-314: Some defaults have been changed (see table below).	
Default value of SP2-903 (PaperTrans_Low) has been changed from 8.0 to 1.0 to improve image quality in low-temperature and low-humidity conditions:	
Adjusts the paper transfer current applied when the machine is at low temperature. [0.0 $\sim 70.0$ / 1.0 $$ / 0.1 $\mu A/step]$	
<ul> <li>SP2-905-01 (paper transfer roller type) has been newly added due to a shape modification to the paper transfer roller to increase transferability (from 1<sup>st</sup> production).</li> </ul>	
O: New paper transfer roller type (Drum type), 1: Old paper transfer roller type (straight type)	
<b>NOTE:</b> When updating from v2.18 to v2.19 or later, please check to see that the new defaults for the following SPs have been applied (new default table below). <u>If they have not, set SP2-905-01 to a value of 0 and press #.</u> August production machines have the drum type installed, therefore it is not necessary to set this to 0 on these machines.	
<ul> <li>Due to the paper transfer roller modification above, defaults have been changed for SP2-310-001 to SP2-314-032 (paper transfer current SPs), and SP2-903-01 (paper transfer adjustment).</li> <li>Default for SP2-943 (Discharge Threshold) has been changed from 17.0 to 15.0, and</li> </ul>	
the minimum setting changed from 13.0 to 9.0.  Note: As with all DFU SP modes, please do not adjust the setting.	
Adjusts the threshold of discharge. <b>DFU</b> [9.0 ~ 22.0 / <b>15.0</b> / 1.0 g/m³/step]	

# RIGOH

### Technical Bulletin

**PAGE: 7/12** 

Reissued: 3-Dec-03

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

### SP1

### New defaults (Old default)

920	PFM	1trDelayTime	
	1	Tray:Plain	Adjust the timing of the paper feed motor when the registration roller feeds the paper by the fusing motor.
	2	By-pass:Plain	This adjusts the paper backle at the registration by the start timing of the paper feed motor. Normally, the paper backle is adjusted by SP1-003. It is not necessary to adjust in the the field. (The copier version has clutch to controll the timing. This adjustment is only for printer model.)  [0 ~ 50 / 15 / 5/step] DFU
	3	Tray:SmallSize	[0 ~ 50 / <b>0</b> / 5/step] <b>DFU</b> (Small size: A4/LT or narrower)
105*	Fueir	l ng Temp.	(Sitiali size. A4/LT of flatfower)
100	1	H: Pre	Sets the temperature at which the heating roller starts idling.  [100 ~ 180 / <b>140</b> (145) / 1°C/step]
	2	H: _Ready	Sets the temperature at which the heating roller enters the print ready condition.  [100 ~ 180 / <b>155</b> (165) / 1°C/step]
105*	3	H: _Standby	Sets the heating roller temperature for the ready (standby) condition. After the main switch has been turned on, the machine enters this condition when the heating roller temperature reaches the temperature specified in this SP mode. When the machine is recovering from energy saver or auto off mode, the machine becomes ready when both heat and pressure roller temperatures reach the specified temperature. Pressure roller: SP1-105-16  [100 ~ 180 / 160 (175) / 1°C/step]
	4	H: Plain/1C	Sets the heating roller temperature for plain paper in single-color mode.  [120 ~ 190 / <b>155</b> (160) / 1°C/step]
	5	H: Plain/FC	Sets the heating roller temperature for plain paper in full-color mode.  [120 ~ 190 / <b>160</b> (170) / 1°C/step]
	6	H: M-Thick/1C	Sets the heating roller temperature for medium thickness paper in single-color mode.  [120 ~ 190 / <b>165</b> (170) / 1°C/step]
	7	H: M-Thick/FC	Sets the heating roller temperature for medium thickness paper in full-color mode.  [120 ~ 190 / <b>170</b> (180) / 1°C/step]
	8	H: Thick/1C	Sets the heating roller temperature for thick paper in single-color mode .  [120 ~ 190 / <b>165</b> (170) / 1°C/step]
	9	H: Thick/FC	Sets the heating roller temperature for thick paper in full-color mode.  [120 ~ 190 / <b>170</b> (175) / 1°C/step]

**PAGE: 8/12** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

		· -	
1	10	H:OHP/1C	Sets the heating roller temperature for OHP sheets in single-color mode.
			[120 ~ 190 / <b>165</b> (170) / 1°C/step]
1	11	H: OHP/FC	Sets the heating roller temperature for the OHP sheets
			in full-color mode.
			[120 ~ 190 / <b>175</b> (180) / 1°C/step]
1	12	H: Duplex/1C	Sets the heating roller temperature for duplex printing
			(both sides) in single-color mode.
		_	[120 ~ 190 / <b>150</b> (155) / 1°C/step]
1	13	H: Duplex/FC	Sets the heating roller temperature for duplex printing
			(both sides) in full-color mode.
<u> </u>	1.1	D. Dro	[120 ~ 190 / <b>155</b> (165) / 1°C/step]
	14	P: Pre	Sets the temperature at which the pressure roller starts idling.
			[ <b>10</b> (30) ~ 100 / <b>10</b> (30) / 1°C/step]
	15	P: _Ready	Sets the temperature at which the pressure roller
		today	becomes ready for printing.
			[60 ~ 150 / <b>65</b> (80) / 1°C/step]
			. , , , ,
105* 1	16	P: _Standby	Sets the pressure roller temperature for the ready (standby) condition. After the main switch has been
			turned on, the machine enters this condition when the
			pressure roller temperature reaches the temperature
			specified in this SP mode. When the machine is
			recovering from energy saver or auto off mode, the
			machine becomes ready when both heat and pressure
			roller temperatures reach the specified temperature. Heating roller: SP1-105-3
			[60 ~ 150 / <b>110</b> (120) / 1°C/step]
	27	H: OFFSET+	Sets the heating roller temperature correction for when
	_ 1	II. OI I OLI I	room temperature is 15°C or lower.
			[0 ~ 20 / <b>5</b> / 1°C/step]
	28	P: OFFSET+	Sets the pressure roller temperature correction for when
			room temperature is 15°C or lower.
			[0 ~ 20 / <b>0</b> / 1°C/step]
2	29	H: OFFSET-	Sets the heating roller temperature correction for when
			room temperature is 30°C or higher.
			[0 ~ 20 / <b>5</b> / 1°C/step]
3	30	P: OFFSET-	Sets the pressure roller temperature correction for when
II I			room temperature is 30°C or higher.
	1		[0 ~ 20 / <b>0</b> / 1°C/step]



Bulletin PAGE: 9/12

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

### SP2

### New defaults (Old default)

310*	PaperTrans LL1 (Paper Transfer LL1)					
		The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm)				
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity AH (g/m³) is in the following range:			
			0 < AH ≤ 3.5 (this is the 'LL1' humidity range)			
			Adjust only if there are problems with insufficient transfer			
			in the image area of the copy for a particular paper type			
			or mode, or in response to field problems as directed by			
			technical support staff.			
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>25.0</b> (32.0) / 0.2 µA/step]			
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>25.0</b> (34.0) / 0.2 µA/step]			
	4		[0 ~ 70.0 / <b>25.0</b> (36.0) / 0.2 µA/step]			
	5	Nrml/1st/129-209 Nrml/1st/-128	[0 ~ 70.0 / <b>25.0</b> (39.0) / 0.2 µA/step]			
	6	Mid/1st/-297	[0 ~ 70.0 / <b>25.0</b> (42.0 / 0.2 μA/step]			
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>26.0</b> (33.0) / 0.2 µA/step]			
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>26.0</b> (35.0) / 0.2 µA/step]			
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>26.0</b> (37.0) / 0.2 µA/step]			
	10	Mid/1st/-128	[0 ~ 70.0 / <b>26.0</b> (40.0) / 0.2 µA/step]			
	11	Thk/1st/-297	[0 ~ 70.0 / <b>26.0</b> (43.0) / 0.2 µA/step]			
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>14.0</b> (16.0) / 0.2 µA/step]			
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (19.0) / 0.2 µA/step]			
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>16.0</b> (21.0) / 0.2 µA/step]			
	15	Thk/1st/-128	[0 ~ 70.0 / <b>18.0</b> (24.0) / 0.2 µA/step]			
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>20.0</b> (27.0) / 0.2 µA/step]			
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 µA/step]			
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (40.0) / 0.2 µA/step]			
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>28.0</b> (42.0) / 0.2 µA/step]			
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (43.0) / 0.2 µA/step]			
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (44.0) / 0.2 µA/step]			
	22		[0 ~ 70.0 / <b>29.0</b> (39.0) / 0.2 µA/step]			
	23	Mid/2nd/257-296	[0 ~ 70.0 / <b>31.0</b> (41.0) / 0.2 µA/step]			
	24	Mid/2nd/210-256 Mid/2nd/129-209	[0 ~ 70.0 / <b>29.0</b> (43.0) / 0.2 µA/step]			
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (44.0) / 0.2 µA/step]			
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (45.0) / 0.2 µA/step]			
	27	Thk/2nd/-297 Thk/2nd/257-296	[0 ~ 70.0 / <b>12.0</b> (16.0) / 0.2 µA/step]			
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>16.0</b> (19.0) / 0.2 µA/step]			
	29	Thk/2nd/210-256 Thk/2nd/129-209	[0 ~ 70.0 / <b>20.0</b> (21.0) / 0.2 µA/step]			
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>24.0</b> / 0.2 μA/step]			
	31	OHP/297	[0 ~ 70.0 / <b>28.0</b> (26.0) / 0.2 µA/step]			
	32	OHP/297 OHP/210	[0 ~ 70.0 / <b>16.0</b> / 0.2 μA/step] [0 ~ 70.0 / <b>20.0</b> (22.0) / 0.2 μA/step]			
311*		rTrans LL2 (Paper Trans	, , ,			
311			/eight/Side 1 or 2/Paper Width (mm)			
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity AH (g/m³) is in the following range:			
			$3.5 < AH \le 8.0$ (this is the 'LL2' humidity range)			
			See SP2-310 for comments.			
			[0 ~ 70.0 / <b>27.0</b> (36.0) / 0.2 μA/step]			
311*	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 μA/step]			

PAGE: 10/12

 Reissued: 3-Dec-03
 Date: 3-Feb-03
 No.: RG071003d

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG0710
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>29.0</b> (40	.0) / 0.2 μA/step]	
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>28.0</b> (43	5.0) / 0.2 μA/step]	
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>27.0</b> (46	i.0) / 0.2 μA/step]	
	6	Mid/1st/-297	[0 ~ 70.0 / <b>28.0</b> (37	'.0) / 0.2 μA/step]	
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>29.0</b> (39	.0) / 0.2 μA/step]	
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (41	.0) / 0.2 μA/step]	
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (44	.0) / 0.2 μA/step]	
	10	Mid/1st/-128	[0 ~ 70.0 / <b>28.0</b> (47	'.0) / 0.2 μA/step]	
	11	Thk/1st/-297	[0 ~ 70.0 / <b>15.0</b> (20	.0) / 0.2 μA/step]	
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (21	.0) / 0.2 μA/step]	
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (23	i.0) / 0.2 μA/step]	
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>16.0</b> (24	.0) / 0.2 μA/step]	
	15	Thk/1st/-128	[0 ~ 70.0 / <b>17.0</b> (26	i.0) / 0.2 μA/step]	
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (40	.0) / 0.2 μA/step]	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>29.0</b> (43	i.0) / 0.2 μA/step]	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>29.0</b> (45	i.0) / 0.2 μA/step]	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>29.0</b> (47	<u>, , , , , , , , , , , , , , , , , , , </u>	
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (50	.0) / 0.2 μA/step]	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (41	.0) / 0.2 μA/step]	
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>30.0</b> (44	.0) / 0.2 μA/step]	
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (46	i.0) / 0.2 μA/step]	
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>30.0</b> (48	i.0) / 0.2 μA/step]	
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (51	.0) / 0.2 μA/step]	
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>13.0</b> (20	.0) / 0.2 μA/step]	
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (24	.0) / 0.2 μA/step]	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>19.0</b> (27		
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (31		
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (34	<u> </u>	
	31	OHP/297	[0 ~ 70.0 / <b>17.0</b> (19		
	32	OHP/210	[0 ~ 70.0 / <b>21.0</b> (26	i.0) / 0.2 μA/step]	
312*		erTrans_NN1 (Paper Trans			
		display indicates: Paper W			to humidity
	1	Nrml/1st/-297	AH (g/m <sup>3</sup> ) is in the	sfer current when absolution	ite numicity
				is is the 'NN1' humidity ra	ange)
			See SP2-310 for co		ingo)
			[0 ~ 70.0 / <b>28.0</b> (40		
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (42	· · · · · · · · · · · · · · · · · · ·	
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>32.0</b> (44		
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>31.0</b> (47		
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>30.0</b> (50	/ 1 1 1	
	6	Mid/1st/-297	[0 ~ 70.0 / <b>29.0</b> (41		
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (43	· · · · · · · · · · · · · · · · · · ·	
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>33.0</b> (45		
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>32.0</b> (47	<u>, , , , , , , , , , , , , , , , , , , </u>	
	10	Mid/1st/-128	[0 ~ 70.0 / <b>31.0</b> (51		
312*	11	Thk/1st/-297	[0 ~ 70.0 / <b>15.0</b> (23	,	
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (23		
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>14.0</b> (24	· · · · · · · · · · · · · · · · · · ·	
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24		
	<u> </u>	1	- \	, , , , ,	

PAGE: 11/12

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003d

wodei	. IVIOQ	el U-P1	Date: 3-Feb-03 No.: RG	i0/1
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24.0) / 0.2 μA/step]	
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>27.0</b> (42.0) / 0.2 µA/step]	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>28.0</b> (45.0) / 0.2 μA/step]	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (48.0) / 0.2 μA/step]	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>30.0</b> (51.0) / 0.2 μA/step]	
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (55.0) / 0.2 μA/step]	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (43.0) / 0.2 μA/step]	
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>29.0</b> (46.0) / 0.2 μA/step]	
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>31.0</b> (49.0) / 0.2 μA/step]	
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>31.0</b> (52.0) / 0.2 μA/step]	
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>31.0</b> (56.0) / 0.2 μA/step]	
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (23.0) / 0.2 μA/step]	
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (28.0) / 0.2 μA/step]	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (32.0) / 0.2 μA/step]	
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (37.0) / 0.2 μA/step]	
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (42.0) / 0.2 μA/step]	
	31	OHP/297	[0 ~ 70.0 / <b>17.0</b> (22.0) / 0.2 μA/step]	
	32	OHP/210	[0 ~ 70.0 / <b>21.0</b> (30.0) / 0.2 μA/step]	
313*		rTrans_NN2 (Paper Trans		
	The		/eight/Side 1 or 2/Paper Width (mm)	
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity	′
			AH (g/m³) is in the following range:	
			14 < AH ≤ 19 (this is the 'NN2' humidity range) See SP2-310 for comments.	
			[0 ~ 70.0 / <b>29.0</b> (36.0) / 0.2 µA/step]	
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>29.0</b> (30.0) / 0.2 µA/step]	
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (39.0) / 0.2 µA/step]	
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>30.0</b> (40.0) / 0.2 µA/step]	
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>28.0</b> (42.0) / 0.2 µA/step]	
	6	Mid/1st/-297	[0 ~ 70.0 / <b>30.0</b> (37.0) / 0.2 µA/step]	
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (39.0) / 0.2 μA/step]	
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>32.0</b> (40.0) / 0.2 µA/step]	
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>31.0</b> (41.0) / 0.2 μA/step]	
	10	Mid/1st/-128	[0 ~ 70.0 / <b>29.0</b> (43.0) / 0.2 μA/step]	
	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (25.0) / 0.2 μA/step]	
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25.0) / 0.2 μA/step]	
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (24.0) / 0.2 μA/step]	
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24.0) / 0.2 μA/step]	
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24.0) / 0.2 µA/step]	=
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (43.0) / 0.2 µA/step]	$-\parallel$
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>31.0</b> (45.0) / 0.2 μA/step]	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>33.0</b> (46.0) / 0.2 μA/step]	$-\parallel$
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>32.0</b> (48.0) / 0.2 μA/step]	$\dashv$
313*	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>31.0</b> (50.0) / 0.2 μA/step]	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>30.0</b> (44.0) / 0.2 μA/step]	$\dashv$
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>32.0</b> (46.0) / 0.2 μA/step]	
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>34.0</b> (47.0) / 0.2 μA/step]	
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>33.0</b> (49.0) / 0.2 μA/step]	
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>32.0</b> (51.0) / 0.2 μA/step]	$\dashv$
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (28.0) / 0.2 μA/step]	$\dashv$
		1	[ - : 1.5 / 1.15 (20.0) / 0.2 ps #0.00p]	

PAGE: 12/12

Reissued: 3-Dec-03

Model		el U-P1		Date: 3-Feb-03	No.: RG071003d
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32	2.0) / 0.2 uA/step1	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (36		
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (41		
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (45	<u> </u>	
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (23		
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (33		
314*	Pape	rTrans HH (Paper Transf	, <del>-</del>	, , , , , ,	
	The o	display indicates: Paper W			
	1	Nrml/1st/-297		nsfer current when absolut	te humidity
			AH (g/m <sup>3</sup> ) is in the		
				the 'HH' humidity range)	
			See SP2-310 for c		
	•	N	[0 ~ 70.0 / <b>30.0</b> (32	<u> </u>	
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (33	, , ,	
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (33		
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>28.0</b> (34	<u> </u>	
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>26.0</b> (34		
	6	Mid/1st/-297	[0 ~ 70.0 / <b>31.0</b> (33		
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (34		
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (34	l.0) / 0.2 μA/step]	
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (35	5.0) / 0.2 μA/step]	
	10	Mid/1st/-128	[0 ~ 70.0 / <b>27.0</b> (35	5.0) / 0.2 μA/step]	
	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (26	6.0) / 0.2 μA/step]	
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25	5.0) / 0.2 μA/step]	
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (25	5.0) / 0.2 μA/step]	
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24	I.0) / 0.2 μA/step]	
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24	I.0) / 0.2 μA/step]	
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>30.0</b> (44	I.0) / 0.2 μA/step]	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>33.0</b> (44	I.0) / 0.2 μA/step]	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>36.0</b> (44	I.0) / 0.2 μA/step]	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>34.0</b> (44	I.0) / 0.2 μA/step]	
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>32.0</b> (44		
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>31.0</b> (45	<u> </u>	
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>34.0</b> (45		
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>37.0</b> (45		
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>35.0</b> (45		
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>33.0</b> (45		
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (28		
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32	<u> </u>	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>16.0</b> (36		
314*	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>22.0</b> (40		
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (44	<u> </u>	
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (24		
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (36		
<u> </u>	52	OT11 /210	[0 - 10.0 / 22.0 (30	σ.σ, τ σ.Ζ μΑνδίθη	

# RIGOH

### Technical Bulletin

**PAGE: 1/6** 

Reissued: 3-Dec-03

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004d

#### **RTB Reissue**

The items in bold italics have been added.

Subject: Firmware History - BCU (Engine)			Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.				
Classification:	☐ Troubleshooting	☐ Part informa	tion	Action required
	☐ Mechanical	☐ Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☑ Other (Firmware History)			

This is to inform you of the BCU firmware history.

Part No.	Program name	Version	C.SUM	Production
G0705151				
	G0705151E.bin	V1.47A	0B11	October Production '03
	G0705151D.bin	V1.45	A657	August Production '03
	G0705151C.bin	V1.44A	0C47	July Production '03
	G0705151B.bin	V1.42	D6E3	April Production '03
	G0705151.bin	V1.40	5FBA	April Production '03
G0705150				
V	G0705150V.bin	V1.38	F699	February Production '03
T	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

• G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.



**PAGE: 2/6** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004d

BICU

Symptom Corrected	Version
1. SP modes newly added:	V1.47A
SP2-922-001 (Development Clutch ON after Job End)	
Determines whether or not a small amount of toner is applied to	
the OPC belt surface in order to ensure proper belt cleaning.  0: OFF	
1: ON (Default)	
7. ON (Derduit)	
Note: Although the above is not a new SP mode, it has been made selectable.	
SP2-923-001 (Lubricant after Toner End)	
Sets whether or not lubrication is applied at Toner End recovery.	
0: OFF	
1: ON (Default)	
The following two SP modes control the interval for performing	
reverse rotation on the M and K doctor rollers at job end, in order	
to ensure toner clumps do not form.	
Note: Although the following are not new, the intervals for these	
existing operations have been made selectable.	
SP3-913-001 (Doctor roller rotation interval M)	
[1 ~ 50 / 1 / 1 /step]	
SP3-913-002 (Doctor roller rotation interval K)	
[1 ~ 50 / 1 / 1 /step]	



**PAGE: 3/6** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004d

Model: Model U-P1	Date: 3-Feb-03	No.: RG07	100
Symptom Corrected		Version	
2. Existing SP mode subdivided:		V1.47A	
SP3-920 has been subdivided as follows to enalubrication time control for 1C vs. 2C/3C/4C.	ble separate		
SP3-920-001 (Lubrication Cleaning Time: - 1C) [0 ~ 100 / 50 / 1% /step]			
SP3-920-002 (Lubrication Cleaning Time: - 2C/3 [0 ~ 100 / 100/ 1% /step]	<u>8C/4C)</u>		
3. Carryover SP modes from Copier firmware – UNUSABLE	Currently		
The following are the SP modes carried over from firmware which will therefore appear on the distirmware is created using the Copier firmware that currently these SP modes should not be use therefore please DO NOT CHANGE their values	play, as the printer base. Please note sed on the printer,		
<u>SP2-951-001 (Image Position Adjustment): DFU</u> 0: New PCU: ITB cleaning blade: 1: Old PCU: No ITB cleaning blade (Default):	!		
SP2-950 (Start Registration Adjustment):			
SP2-921-001 (ITB Cleaning Clutch OFF Mode): 0: New PCU: ITB cleaning blade 1: Old PCU: No ITB cleaning blade (Default)	<u>DFU</u>		
SP2-920-001 (ITB Cleaning Clutch OFF Time) [-500 ~ 500 / 0 / 10 /step]			
<u>SP2-924-001 (ITB Cleaning Clutch Off/On – Tim</u> [100 ~ 500/ 300 / 10ms /step]	<u>e)</u>		
<u>SP2-924-002 (ITB Cleaning Clutch Off/On – Num</u> [0 ~ 5/ 0 / 1 /step]	<u>mber)</u>		
NOTE: Along with this BICU version, be sure to unit controller firmware to v2.29 or later.	update the main		



**PAGE: 4/6** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004d

Eliminated unnecessary occurrences of SC420 (Fusing bias discharge error): SC420 will not be triggered when a leak occurs as a result of a small hole on the fusing belt surface, since from field experience it has been confirmed that belt lifetime is actually longer when the SC is not triggered in these conditions. If the leak should occur, instead of the SC the machine turns SP2-510 OFF (fusing bias SW), and the fusing bias is not applied until the fusing counter is cleared when the user replaces the unit or the SP is set back to ON.	V1.45
Eliminated unnecessary occurrences of SC410 (2 <sup>nd</sup> transfer electric	V1.44A
leakage): SC410 tends to frequently occur when using paper with a high moisture content under high-temperature, high-humidity conditions when the resistance on the paper transfer roller is low. The roller current was previously lowered for mono-color mode (45% that of full color), which lowered the resistance and caused frequent occurrences. This version uses the color mode current for mono-color until job end to eliminate unecessary occurrences under the conditions described above.	
2. SP modes newly added (listed below).	
These SPs have been added to ensure proper (higher) transfer belt cleaning by applying the following bias voltages at job end (OPC lubrication time):	
SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-401-008: Cleaning Bias LL2: OPC lubrication time SP2-402-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias HH: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]	
2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6: SP2-941-01: Job End: [6 ~ 30 / 20 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]	
NOTE : Along with this BICU version, be sure to update the main unit controller firmware to v2.28 or later.	
Modified in accordance with main unit controller v2.27 modificaiton. For details, please see RTB #RG071003b.	V1.42
NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).	
Minor bugs corrected.	V1.40
Changes made in preparation for the addition of SP3-921-01/02 (from the next version).  Note: These SP modes are not yet operational.	
Software changed so that oil end detection is not performed while the fusing unit is in operation, in order to prevent oil end misdetections caused by winter humidity (humidification).	V1.38



**PAGE: 5/6** 

Model: Model U-P1	Date: 3-Feb-03	No.: RG07	1004d
SP mode newly added: SP2-801-02 (Additional Value cleaning interval). Refer to RTB No. RG071003 for the firmware history.			
SC687 misdetections sometimes occur when paper is tray after the bypass tray reaches paper end.			
The detection conditions for SC412 (2 <sup>nd</sup> transfer discondinged from 60ms to 240ms to prevent misdetection occur in low-temperature conditions.			
Minor bugs corrected.		V1.37	
Misdetection of toner end and/or toner near end cartridge still contains enough toner to continue printing		V1.36	
The paper end condition may not be detected even optional tray has run out.	when the paper in the		
SP1-905-01 (pressure roller type) newly added. For details, please refer to the main unit controller firmware history (RTB No. RG071003).			
Detection conditions for SC560 (Zero cross error) have been changed as follows (upper limits eliminated, as they are unnecessary): Old:			
50Hz: Machine detects less than 45Hz or greater th 60Hz: Machine detects less than 55Hz or greater the			
New: 50Hz: Machine detects less than 45Hz. 60Hz: Machine detects less than 55Hz.			
Default settings for SP2-944-4 and –5 have been OPC lubrication mode cycle :	changed to reduce the		
SP2-944-4 : Sheets-1 : [10 to 80/ <b>30</b> / 1sheet/step] SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> / 1sheet/step]			
Paper end is sometimes not detected even when th	n nanor in the standard		
tray runs out.	e paper in the standard		
Minor bug corrections.		V1.33	
First release.		V1.32	

2950	S_Re	egAdj.	
	1	M(2:P1b)	Colour registration adjustment: adjusts the start timing of imaging for each color. <b>DFU</b> [-3 ~ 3 / -1 / 2 line/step]
			2 lines = 0.047566 ms (about 85 μm) +: Delays the start timing: Advances the start timing. The start timing is adjusted only in plain paper mode, and when one of the following conditions is satisfied: 1) Between the two images on the transfer belt (when two images are developed on the OPC at the same time (☞ 6.2)) 2) B4 SEF or larger (multi-print job)
	2	C(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]
	3	Y(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]
	4	K(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]
	5	M(1:P1b)	[-3 ~ 3 / <b>-1</b> / 2 line/step]

# RIGOH

# Technical Bulletin

**PAGE: 6/6** 

Reissued: 3-Dec-03

Model: Model U-P1

Model: M	/lode	el U-P1		Date: 3-Feb-03	No.: RG0710040	d
	6	C(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	tep]		
	7	Y(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	tep]		
	8	K(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	tep]		
	9	M(2:P1a)	For use in Japan or	nly.		
1	10	C(2:P1a)				
1	11	Y(2:P1a)				
1	12	K(2:P1a)				
1	13	M(1:P1a)				
1	14	C(1:P1a)				
1	15	Y(1:P1a)				
1	16	K(1:P1a)				

### RIGOH

Mechanical ☐ Paper path Other (

### Technical Bulletin

Model: Model U-P1		Date: 9-Dec-03		No.: RG071012	
Subject: Cap for the O/B Waste Toner			Р	Prepared by: H.K.	
From: 1st Tech. 9	Support Sec. Service Sup	pport Dept.			
Classification: Troubleshooting Part informa		matio	n 🗌 Action	required	
	☐ Mechanical	☐ Electrical	l	☐ Servic	e manual revision
	☐ Paper path	☐ Transmit	/receiv	ve 🗆 Retrof	it information

**PAGE: 1/2** 

#### **SYMPTOM**

Waste toner may sometimes leak from the maintenance kit PCU (G780-17) due to vibration during parts transport.

#### **CAUSE**

Cleaning was not performed on the maintenance kit PCU following final tests on the production line (only PCUs fitted in the mainframe were cleaned at this stage).

#### **SOLUTION**

- PCU cleaning was added to the production process for the maintenance kit PCU. Applied from: May 2003 production.
- A cap has been added to the maintenance kit PCU to seal the opening between the PCU and waste toner bottle during shipping. Applied from: B3173910025 (G780-17).

#### Note:

- 1. This cap is not necessary on mainframe PCUs since the O/B waste toner bottle already covers this opening (see Important Note below).
- 2. The Installation Procedure in the PCU Maintenance Kit has been modified to include the **Important Note** below. If any inquiries are received regarding the above symptom, please advise customers using this note.

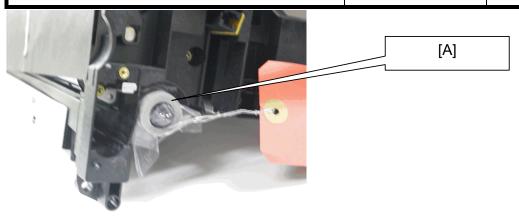
#### Important note for when installing the PCU:

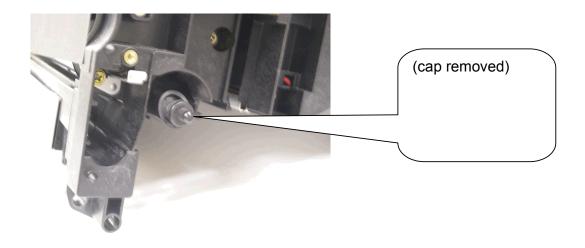
Please be sure to remove the cap [A] before installing the unit.



**PAGE: 2/2** 

Model: Model U-P1 Date: 9-Dec-03 No.: RG071012





# Reissued: 29-Jan-04

### Technical Bulletin

**PAGE: 1/12** 

Model: Model U-P1	Date: 3-Feb-03	No.: RG071003e

#### **RTB Reissue**

The items in hold italics have been added or changed

The Reme III bela Railee have been added of changes.					
Subject: Firmware History - Main Unit Controller			Prepared by: H.K.		
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	Troubleshooting	Part informa	tion	Action required	
	☐ Mechanical	Electrical		☐ Service manual revision	
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information	
	○ Other (Firmware History)				

This is to inform you of the Main Unit Controller firmware history.

Part No.	Program name			
G0705940	_	Version	C.SUM	Production
S	G0705941S.bin G0705940S.bin	V2.30	7138 C464	January Production '04
R	G0705941R.bin G0705940R.bin	V2.29	253A DF67	October Production '03
Q	G0705941Q.bin G0705940Q.bin	V2.28.2	798D 3423	August Production '03
Р	G0705941P.bin G0705940P.bin	V2.28	7B7C 80AF	June Production '03
N	G0705941N.bin G0705940N.bin	V2.27	E37C 2774	April Production '03
М	G0705941M.bin G0705940M.bin	V2.26	211D FD70	April Production '03
L	G0705941L.bin G0705940L.bin	V2.25	FCB9 A00C	March Production '03
К	G0705941K.bin G0705940K.bin	V2.24	6E31 EF54	February Production '03
J		V2.22.1	-	January Production '03
Н	-	V2.22	-	November Production '02
G	-	V2.21	-	Not applied to the production machines
F	-	V2.20	-	Not applied to the production machines
E	-	V2.19	-	Not applied to the production machines
D	-	V2.18	-	August production '02

#### Note for updating test marketing machines (PMO) firmware:

Default values of the fusing temperature (SP1-105), paper transfer currents (SP2-310-001 to SP2-314-032), and paper transfer adjustment (SP2-903-01) have been reviewed. When firmware is updated to V2.20 or later for the first time, please confirm these settings. If the settings are still old ones, please set the type to 0 and press # key in SP2-905-01 and SP1-905-01. For details, please refer to the corrected symptom explanations in V2.20 and V2.18 (pp. 2, 3 below).

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).



**PAGE: 2/12** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e

• G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating main unit controller firmware:

Whenever updating main unit controller firmware from v2.22.1 or earlier to v2.24 or later, please be sure to update the BICU firmware at the same time to v1.38 or later. The BICU firmware history is described in RTB No. RG071004.

Whenever updating the main unit controller firmware from v2.25 or earlier to v2.26 or later, please be sure to update the BICU firmware at the same time to v1.40 or later. The BICU firmware history is described in RTB No. RG071004a.



**PAGE: 3/12** 

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e

### Main Unit Controller

Symptom Corrected	Version			
1. "Paper End" is sometimes not displayed, or the machine sometimes freezes up with the display "Processing" while in the Paper End condition if the operator has selected Custom Size and Auto Paper Tray Selection.	1			
<ol> <li>Modified in accordance with BCU v1.48d modification. For details, please see RTB #RG071004e.</li> </ol>				
Note: Along with this main unit controller version, be sure to update the BICU firmware to v1.48d or later.	,			
SC687 occurs with multi-prints onto B4 (B/W).	V2.29			
<ol><li>Modified in accordance with BCU v1.47a modification. For details, please see RTB #RG071004d.</li></ol>				
NOTE: Along with this main unit controller version, be sure to update the BICU firmware to v1.47a or later.				
Merged PCL job cannot print (TechMail#TS030100).	V2.28.2			
<ol> <li>The following SP modes have been added.</li> <li>For details, please refer to BICU firmware release note RB051004c: BICU v1.44A.</li> </ol>	V2.28			
SP2-400-008: Cleaning Bias LL1: OPC lubrication time				
SP2-401-008: Cleaning Bias LL2: OPC lubrication time				
SP2-402-008: Cleaning Bias NN1: OPC lubrication time				
SP2-403-008: Cleaning Bias NN2: OPC lubrication time				
SP2-404-008: Cleaning Bias HH: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]				
2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6:				
SP2-941-01: Job End: [ <u>6</u> ~ 30 / 14 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [ <u>6</u> ~ 60 / 10 / 1 s/step]				
NOTE: Along with this main unit controller version, be sure to update the BICU firmware to $v1.44A$ or later.				



PAGE: 4/12

Reissued: 29-Jan-04

Model: Model U-P1	Date: 3-Feb-03	No.: RG07	1003ε
Symptom Corrected To ensure proper printing quality, the default of SP modes have been reviewed and some SP m		Version V2.27	
-SP3-920-001 (Lubrication Cleaning Time) (): o [0 ~ 100 / 50 (100) / 1% /step] -SP2-941-001(OPC Lubricant Time – job end) [0 ~ 30 / 14 (20) / 1s /step]	ld default		
-SP3-921-001 (Lubricant Clutch OFF: 1C): Newl-SP3-921-002 (Lubricant Clutch OFF: 2C/3C/4C [0 ~ 11 / 6 / 1s /step] Allows the image transfer belt cleaning clutch of The setting determines the number of second belt cleaning roller charging that the clutch is tuversions, the clutch is always running while the motor rotates.	f timing to be adjusted. Is after image transfer Irned off. With previous		
-SP2-938-001 (OPC Reverse Interval): Newly ac [0 ~ 100 / 10 / 10 counts /step] The Main motor rotates the OPC belt backwards of every job, in order to remove foreign particles and OPC cleaning blade. However, this does no so often. In addition, reducing the frequency rotation improves the cleaning blade performance. This SP adjusts the counter for the OPC belt rincremented as follows: LT/A4 LEF or smaller: 1, larger than LT/A4 LEF: When this SP reaches its set maximum, revers for 500ms at job end.	s for 500 ms at the end between the OPC belt it need to be performed of OPC belt reverse be. reverse rotation, and is		
NOTE: Along with this main unit controller version, but BICU firmware to v1.42 or later. For fetails, please replaced (black faint images).	efer to RTB #RG071007		
Changes made in preparation for the addition of SP3-921 version).  Note: These SP modes are not yet operational.  New SP mode added: SP2-803-01 (Charge Cleaning Off [0 ~ 200 / 60 / 10 seconds/step]  Although a 60-second interval already exists for performing corona wire cleaning, this new SP mode allows the interval discharge is to maintain an even charge wire surface, ensign of the second interval already exists.	time).  Ig an idle discharge after al to be adjusted. The idle	V2.26	
The new Wireless LAN card (produced from Dec '02) is so communicate with the PC after a certain interval when usi Note: This does not occur with 1) adhoc or infrastructurer Wireless LAN cards (produced up until Nov '02).	ometimes unable to ng 802.11adhoc mode. modes, or 2) previous	V2.25	
SP1-105-01 (Fusing Temperature): Default for idling start (see SP mode table below).	changed from 145 to 140	V2.24	



PAGE: 5/12

Reissued: 29-Jan-04

Model: Model U-P1	Date: 3-Feb-03	No.: RG07	10030
	Date: 3-1 eb-03		10036
Symptom Corrected	-::	Version	
SP2-801-02 (Additional Value of the charge corona clear added. The cleaning interval for the additional charge coras shown.			
[0 ~ 5000 / <b>100</b> / 100 counts/step]			
With this new SP, it is possible to adjust the interval for c middle of a job: Old:	harge corona cleaning in the		
The charge corona cleaning is carried out after 600 (Society counts, at job end or after 700 (no adjustment) development of the job).			
After	D0 004 4) I I I		
The charge corona cleaning is carried out after 600 (Si counts, at job end or after 700 (= the sum of the setting development counts (stops in the middle of the job).			
Hardware Ethernet Problem: For details, please refer to 0	General RTB #RGene012.	V2.22.1	
Selecting HDD font or DIMM font may sometimes reduce			
Printing speed is sometimes low when printing an AutoC.	AD file.		
Machine may freeze during printing when using a certa DIMM font selection.	in application w/HDD font or	V2.22	
Text characters may appear darker with a certain raster i	mage.		
Graphics objects may appear darker when available mer			
Wireless LAN card sometimes cannot communicate wit key is ON.	h the printer when the WEP		
Translation corrections for some words in Polish and Ger	rman.	V2.21	
<ul> <li>SP1-905-01 (pressure roller type) has been newly a</li> <li>new pressure roller type (2.1mm), 1 : old pressure roller</li> </ul>		V2.20	
This has been added due to the pressure roller modificat jams (wrapping around the pressure roller), whereby pressure roller was changed from 1.5 mm to 2.1mm from	the layer thickness of the		
<b>NOTE:</b> When updating from v2.19 or former to v2.20 manually enter a value of 0 into this SP mode and then machine to use the new data for fusing control.			
<ul> <li>Some default values of SP1-105 (Fusing Temper See new default table below. (new settings input from</li> </ul>			



**PAGE: 6/12** 

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e

Symptom Corrected	Version
Default settings for SP2-944-4 and -5 have been changed to reduce the OPC	
lubrication mode cycle :	
SP2-944-4 : Sheets-1 : [10 to 80/ <b>30</b> (old : 20) / 1sheet/step]	
SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> (old : 40) / 1sheet/step]	
Euro symbol not printed with PS driver (for details, see General RTB No.	
RGene011).	
Minor bug corrections.	V2.19
First release.	V2.18
Display for SP5-945 (MidThickPaper) deleted, as this setting can be performed in User Tools.	
SP1-920-1 to 3 (PFMtrDelayTime) has been newly added (see table below).	
SP2-310 to 2-314: Some defaults have been changed (see table below).	
Default value of SP2-903 (PaperTrans_Low) has been changed from 8.0 to 1.0 to improve image quality in low-temperature and low-humidity conditions:	
Adjusts the paper transfer current applied when the machine is at low temperature. [0.0 $\sim 70.0/$ 1.0 $/$ 0.1 $\mu\text{A/step}]$	
<ul> <li>SP2-905-01 (paper transfer roller type) has been newly added due to a shape modification to the paper transfer roller to increase transferability (from 1<sup>st</sup> production).</li> </ul>	
O: New paper transfer roller type (Drum type), 1: Old paper transfer roller type (straight type)	
<b>NOTE:</b> When updating from v2.18 to v2.19 or later, please check to see that the new defaults for the following SPs have been applied (new default table below). <u>If they have not, set SP2-905-01 to a value of 0 and press #.</u> August production machines have the drum type installed, therefore it is not necessary to set this to 0 on these machines.	
Due to the paper transfer roller modification above, defaults have been changed for SP2-310-001 to SP2-314-032 (paper transfer current SPs), and SP2-903-01 (paper transfer adjustment).  Pofosit for SP2-042 (Pichbarge Throshold) has been about a from 47.0 to 45.0 and the specific specif	
Default for SP2-943 (Discharge Threshold) has been changed from 17.0 to 15.0, and the minimum setting changed from 13.0 to 9.0.  Note: As with all DFU SP modes, please do not adjust the setting.	
Adjusts the threshold of discharge. <b>DFU</b> [9.0 ~ 22.0 / <b>15.0</b> / 1.0 g/m³/step]	



**PAGE: 7/12** 

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e

### SP1

### New defaults (Old default)

920	PFMtrDelayTime		
	1	Tray:Plain	Adjust the timing of the paper feed motor when the registration roller feeds the paper by the fusing motor.
	2	By-pass:Plain	This adjusts the paper backle at the registration by the start timing of the paper feed motor. Normally, the paper backle is adjusted by SP1-003. It is not necessary to adjust in the the field. (The copier version has clutch to controll the timing. This adjustment is only for printer model.)  [0 ~ 50 / 15 / 5/step] DFU
	3	Tray:SmallSize	[0 ~ 50 / <b>0</b> / 5/step] <b>DFU</b>
405*	F		(Small size: A4/LT or narrower)
105*	Fusir 1	ng_Temp. H: Pre	Sets the temperature at which the heating roller starts
	!	n. Pie	idling. [100 ~ 180 / <b>140</b> (145) / 1°C/step]
	2	H: _Ready	Sets the temperature at which the heating roller enters the print ready condition.  [100 ~ 180 / 155 (165) / 1°C/step]
105*	3	Ll. Ctandby	Cate the beating valley to manage true for the good.
103	3	H: _Standby	Sets the heating roller temperature for the ready (standby) condition. After the main switch has been turned on, the machine enters this condition when the heating roller temperature reaches the temperature specified in this SP mode. When the machine is recovering from energy saver or auto off mode, the machine becomes ready when both heat and pressure roller temperatures reach the specified temperature. Pressure roller: SP1-105-16  [100 ~ 180 / 160 (175) / 1°C/step]
	4	H: Plain/1C	Sets the heating roller temperature for plain paper in single-color mode.
	5	H: Plain/FC	[120 ~ 190 / <b>155</b> (160) / 1°C/step]  Sets the heating roller temperature for plain paper in full-color mode.  [120 ~ 190 / <b>160</b> (170) / 1°C/step]
	6	H: M-Thick/1C	Sets the heating roller temperature for medium thickness paper in single-color mode.  [120 ~ 190 / <b>165</b> (170) / 1°C/step]
	7	H: M-Thick/FC	Sets the heating roller temperature for medium thickness paper in full-color mode.  [120 ~ 190 / <b>170</b> (180) / 1°C/step]
	8	H: Thick/1C	Sets the heating roller temperature for thick paper in single-color mode .  [120 ~ 190 / <b>165</b> (170) / 1°C/step]
	9	H: Thick/FC	Sets the heating roller temperature for thick paper in full-color mode.  [120 ~ 190 / <b>170</b> (175) / 1°C/step]



**PAGE: 8/12** 

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e

Model	. IVIOU	ei U-P i	Date. 3-Feb-03 No RG07
	10	H:OHP/1C	Sets the heating roller temperature for OHP sheets in
			single-color mode.
			[120 ~ 190 / <b>165</b> (170) / 1°C/step]
	11	H: OHP/FC	Sets the heating roller temperature for the OHP sheets
			in full-color mode.
			[120 ~ 190 / <b>175</b> (180) / 1°C/step]
	12	H: Duplex/1C	Sets the heating roller temperature for duplex printing
			(both sides) in single-color mode.
			[120 ~ 190 / <b>150</b> (155) / 1°C/step]
	13	H: Duplex/FC	Sets the heating roller temperature for duplex printing
			(both sides) in full-color mode.
			[120 ~ 190 / <b>155</b> (165) / 1°C/step]
	14	P: Pre	Sets the temperature at which the pressure roller starts
			idling.
			[10 (30) ~ 100 / 10 (30) / 1°C/step]
	15	P: _Ready	Sets the temperature at which the pressure roller
			becomes ready for printing.
			[60 ~ 150 / <b>65</b> (80) / 1°C/step]
105*	4.0	D. Ctondby	Sets the pressure roller temperature for the ready
105	16	P: _Standby	(standby) condition. After the main switch has been
			turned on, the machine enters this condition when the
			pressure roller temperature reaches the temperature
			specified in this SP mode. When the machine is
			recovering from energy saver or auto off mode, the
			machine becomes ready when both heat and pressure
			roller temperatures reach the specified temperature.
			Heating roller: SP1-105-3
	27	H: OFFSET+	[60 ~ 150 / <b>110</b> (120) / 1°C/step]
	21	II. UFFOEI+	Sets the heating roller temperature correction for when room temperature is 15°C or lower.
			[0 ~ 20 / <b>5</b> / 1°C/step]
	28	P: OFFSET+	Sets the pressure roller temperature correction for when
	20	1.011361+	room temperature is 15°C or lower.
			[0 ~ 20 / <b>0</b> / 1°C/step]
	29	H: OFFSET-	Sets the heating roller temperature correction for when
	23	11. OI 1 OL 1	room temperature is 30°C or higher.
			[0 ~ 20 / <b>5</b> / 1°C/step]
	30	P: OFFSET-	Sets the pressure roller temperature correction for when
	30	1.011361-	room temperature is 30°C or higher.
			[0 ~ 20 / <b>0</b> / 1°C/step]
			[0 ~ 20 / <b>0</b> / 1 C/Step]



PAGE: 9/12

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e

### SP2

### New defaults (Old default)

310*	PaperTrans LL1 (Paper Transfer LL1)		
			Veight/Side 1 or 2/Paper Width (mm)
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity
			AH (g/m <sup>3</sup> ) is in the following range:
			$0 < AH \le 3.5$ (this is the 'LL1' humidity range)
			Adjust only if there are problems with insufficient transfer
			in the image area of the copy for a particular paper type or mode, or in response to field problems as directed by
			technical support staff.
			[0 ~ 70.0 / <b>25.0</b> (32.0) / 0.2 μA/step]
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>25.0</b> (34.0) / 0.2 μA/step]
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>25.0</b> (36.0) / 0.2 μA/step]
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>25.0</b> (39.0) / 0.2 μA/step]
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>25.0</b> (42.0 / 0.2 µA/step]
	6	Mid/1st/-297	[0 ~ 70.0 / <b>26.0</b> (33.0) / 0.2 μA/step]
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>26.0</b> (35.0) / 0.2 μA/step]
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>26.0</b> (37.0) / 0.2 μA/step]
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>26.0</b> (40.0) / 0.2 μA/step]
	10	Mid/1st/-128	[0 ~ 70.0 / <b>26.0</b> (43.0) / 0.2 μA/step]
	11	Thk/1st/-297	[0 ~ 70.0 / <b>14.0</b> (16.0) / 0.2 μA/step]
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (19.0) / 0.2 μA/step]
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>16.0</b> (21.0) / 0.2 μA/step]
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>18.0</b> (24.0) / 0.2 μA/step]
	15	Thk/1st/-128	[0 ~ 70.0 / <b>20.0</b> (27.0) / 0.2 μA/step]
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 μA/step]
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>30.0</b> (40.0 <b>)</b> / 0.2 μA/step]
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>28.0</b> (42.0) / 0.2 μA/step]
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>28.0</b> (43.0) / 0.2 μA/step]
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (44.0) / 0.2 μA/step]
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>29.0</b> (39.0) / 0.2 μA/step]
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>31.0</b> (41.0) / 0.2 μA/step]
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>29.0</b> (43.0) / 0.2 μA/step]
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>29.0</b> (44.0) / 0.2 μA/step]
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (45.0) / 0.2 μA/step]
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>12.0</b> (16.0) / 0.2 μA/step]
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (19.0) / 0.2 μA/step]
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>20.0</b> (21.0) / 0.2 μA/step]
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>24.0</b> / 0.2 μA/step]
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (26.0) / 0.2 μA/step]
	31	OHP/297	[0 ~ 70.0 / <b>16.0</b> / 0.2 μA/step]
044*	32	OHP/210	[0 ~ 70.0 / <b>20.0</b> (22.0) / 0.2 μA/step]
311*		rTrans_LL2 (Paper Trans display indicates: Paper W	Veight/Side 1 or 2/Paper Width (mm)
	1	Nrml/1st/-297	Sets the paper transfer current when absolute humidity AH (g/m³) is in the following range:
			3.5 < AH ≤ 8.0 (this is the 'LL2' humidity range)
			See SP2-310 for comments.
			[0 ~ 70.0 / <b>27.0</b> (36.0) / 0.2 μA/step]
311*	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>28.0</b> (38.0) / 0.2 μA/step]



echnical **B**ulletin Page: 10/12

Model: Model U-P1 Date: 3-Feb-03 No.: RG071003e Nrml/1st/210-256  $[0 \sim 70.0 / 29.0 (40.0) / 0.2 \mu A/step]$ 4 Nrml/1st/129-209  $[0 \sim 70.0 / 28.0 (43.0) / 0.2 \mu A/step]$ 5 Nrml/1st/-128  $[0 \sim 70.0 / 27.0 (46.0) / 0.2 \mu A/step]$ 6 Mid/1st/-297  $[0 \sim 70.0 / 28.0 (37.0) / 0.2 \mu A/step]$ 7 Mid/1st/257-296  $[0 \sim 70.0 / 29.0 (39.0) / 0.2 \mu A/step]$ 8 Mid/1st/210-256  $[0 \sim 70.0 / 30.0 (41.0) / 0.2 \,\mu\text{A/step}]$ 9 Mid/1st/129-209  $[0 \sim 70.0 / 29.0 (44.0) / 0.2 \mu A/step]$ 10 Mid/1st/-128  $[0 \sim 70.0 / 28.0 (47.0) / 0.2 \mu A/step]$ 11 Thk/1st/-297  $[0 \sim 70.0 / 15.0 (20.0) / 0.2 \mu A/step]$ 12 Thk/1st/257-296  $[0 \sim 70.0 / 15.0 (21.0) / 0.2 \mu A/step]$ 13 Thk/1st/210-256  $[0 \sim 70.0 / 15.0 (23.0) / 0.2 \mu A/step]$ 14 Thk/1st/129-209 [0 ~ 70.0 / **16.0** (24.0) / 0.2 μA/step] 15 Thk/1st/-128  $[0 \sim 70.0 / 17.0 (26.0) / 0.2 \mu A/step]$ 16 Nrml/2nd/-297  $[0 \sim 70.0 / 28.0 (40.0) / 0.2 \mu A/step]$ 17 Nrml/2nd/257-296  $[0 \sim 70.0 / 29.0 (43.0) / 0.2 \mu A/step]$ 18 Nrml/2nd/210-256  $[0 \sim 70.0 / 29.0 (45.0) / 0.2 \mu A/step]$ 19 Nrml/2nd/129-209  $[0 \sim 70.0 / 29.0 (47.0) / 0.2 \,\mu\text{A/step}]$ 20 Nrml/2nd/-128  $[0 \sim 70.0 / 29.0 (50.0) / 0.2 \,\mu\text{A/step}]$ Mid/2nd/-297 21  $[0 \sim 70.0 / 29.0 (41.0) / 0.2 \mu A/step]$ 22 Mid/2nd/257-296  $[0 \sim 70.0 / 30.0 (44.0) / 0.2 \,\mu\text{A/step}]$ 23 Mid/2nd/210-256  $[0 \sim 70.0 / 30.0 (46.0) / 0.2 \mu A/step]$ Mid/2nd/129-209 24  $[0 \sim 70.0 / 30.0 (48.0) / 0.2 \mu A/step]$ Mid/2nd/-128 25  $[0 \sim 70.0 / 30.0 (51.0) / 0.2 \,\mu\text{A/step}]$ 26 Thk/2nd/-297  $[0 \sim 70.0 / 13.0 (20.0) / 0.2 \mu A/step]$ 27 Thk/2nd/257-296  $[0 \sim 70.0 / 16.0 (24.0) / 0.2 \mu A/step]$ Thk/2nd/210-256 28  $[0 \sim 70.0 / 19.0 (27.0) / 0.2 \mu A/step]$ 29 Thk/2nd/129-209  $[0 \sim 70.0 / 23.0 (31.0) / 0.2 \,\mu\text{A/step}]$ 30 Thk/2nd/-128  $[0 \sim 70.0 / 29.0 (34.0) / 0.2 \mu A/step]$ 31 OHP/297  $[0 \sim 70.0 / 17.0 (19.0) / 0.2 \,\mu\text{A/step}]$ OHP/210  $[0 \sim 70.0 / 21.0 (26.0) / 0.2 \mu A/step]$ 312\* PaperTrans NN1 (Paper Transfer NN1) The display indicates: Paper Weight/Side 1 or 2/Paper Width (mm) Sets the paper transfer current when absolute humidity Nrml/1st/-297 AH (g/m<sup>3</sup>) is in the following range:  $80 < AH \le 14$  (this is the 'NN1' humidity range) See SP2-310 for comments.  $[0 \sim 70.0 / 28.0 (40.0) / 0.2 \mu A/step]$ 2 Nrml/1st/257-296  $[0 \sim 70.0 / 30.0 (42.0) / 0.2 \,\mu\text{A/step}]$ 3 Nrml/1st/210-256  $[0 \sim 70.0 / 32.0 (44.0) / 0.2 \mu A/step]$ 4 Nrml/1st/129-209  $[0 \sim 70.0 / 31.0 (47.0) / 0.2 \mu A/step]$ 5 Nrml/1st/-128  $[0 \sim 70.0 / 30.0 (50.0) / 0.2 \,\mu\text{A/step}]$ 6 Mid/1st/-297  $[0 \sim 70.0 / 29.0 (41.0) / 0.2 \mu A/step]$ 7 Mid/1st/257-296  $[0 \sim 70.0 / 31.0 (43.0) / 0.2 \mu A/step]$ 8 Mid/1st/210-256  $[0 \sim 70.0 / 33.0 (45.0) / 0.2 \mu A/step]$ 9 Mid/1st/129-209  $[0 \sim 70.0 / 32.0 (47.0) / 0.2 \mu A/step]$ 10 Mid/1st/-128  $[0 \sim 70.0 / 31.0 (51.0) / 0.2 \mu A/step]$ 312\*  $[0 \sim 70.0 / 15.0 (23.0) / 0.2 \mu A/step]$ 11 Thk/1st/-297 12 Thk/1st/257-296  $[0 \sim 70.0 / 15.0 (23.0) / 0.2 \mu A/step]$ Thk/1st/210-256 13  $[0 \sim 70.0 / 14.0 (24.0) / 0.2 \mu A/step]$ 14 Thk/1st/129-209  $[0 \sim 70.0 / 14.0 (24.0) / 0.2 \mu A/step]$ 



PAGE: 11/12

Reissued: 29-Jan-04

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071003e
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24	.0) / 0.2 μA/step]	
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>27.0</b> (42	.0) / 0.2 μA/step]	
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>28.0</b> (45	.0) / 0.2 μA/step]	
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>30.0</b> (48	.0) / 0.2 μA/step]	
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>30.0</b> (51	.0) / 0.2 μA/step]	
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (55	.0) / 0.2 μA/step]	
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>28.0</b> (43	.0) / 0.2 μA/step]	
	22	Mid/2nd/257-296	[0 ~ 70.0 / 29.0 (46	.0) / 0.2 μA/step]	
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>31.0</b> (49	.0) / 0.2 μA/step]	
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>31.0</b> (52	.0) / 0.2 μA/step]	
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>31.0</b> (56	.0) / 0.2 μA/step]	
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (23	.0) / 0.2 μA/step]	
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>16.0</b> (28	.0) / 0.2 μA/step]	
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (32	.0) / 0.2 μA/step]	
	29	Thk/2nd/129-209	[0 ~ 70.0 / 23.0 (37	.0) / 0.2 μA/step]	
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>30.0</b> (42	.0) / 0.2 μA/step]	
	31	OHP/297	[0 ~ 70.0 / <b>17.0</b> (22	.0) / 0.2 μA/step]	
	32	OHP/210	[0 ~ 70.0 / <b>21.0</b> (30	.0) / 0.2 μA/step]	
313*		rTrans_NN2 (Paper Tran			
	The	display indicates: Paper V			
	1	Nrml/1st/-297		sfer current when abso	olute humidity
			AH $(g/m^3)$ is in the	following range: is is the 'NN2' humidity	rongo)
			See SP2-310 for co		range)
			[0 ~ 70.0 / <b>29.0</b> (36		
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (38		
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (39	<u> </u>	
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>30.0</b> (40		
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>28.0</b> (42		
	6	Mid/1st/-297	[0 ~ 70.0 / <b>30.0</b> (37	<u> </u>	
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (39		
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>32.0</b> (40	<u> </u>	
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>31.0</b> (41		
	10	Mid/1st/-128	[0 ~ 70.0 / <b>29.0</b> (43	<u> </u>	
	11		•	.σ, , σ.= μ, ,σισρ	<u> </u>
	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (25	<u> </u>	
	12	Thk/1st/-297 Thk/1st/257-296	[0 ~ 70.0 / <b>16.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (25	.0) / 0.2 μA/step]	
			· -	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25	.0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step]	
	12 13	Thk/1st/257-296 Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (24	.0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step]	
	12 13 14	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209	[0 ~ 70.0 / <b>15.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24	.0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step] .0) / 0.2 μA/step]	
	12 13 14 15	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128	[0 ~ 70.0 / <b>15.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
	12 13 14 15 16	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297	[0 ~ 70.0 / <b>15.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>29.0</b> (43	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
	12 13 14 15 16 17	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>29.0</b> (43 [0 ~ 70.0 / <b>31.0</b> (45	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	12 13 14 15 16 17	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296 Nrml/2nd/210-256	[0 ~ 70.0 / <b>15.0</b> (25 [0 ~ 70.0 / <b>15.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>14.0</b> (24 [0 ~ 70.0 / <b>29.0</b> (43 [0 ~ 70.0 / <b>31.0</b> (45 [0 ~ 70.0 / <b>33.0</b> (46	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	12 13 14 15 16 17 18 19	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296 Nrml/2nd/210-256 Nrml/2nd/129-209	[0 ~ 70.0 / 15.0 (25 [0 ~ 70.0 / 15.0 (24 [0 ~ 70.0 / 14.0 (24 [0 ~ 70.0 / 14.0 (24 [0 ~ 70.0 / 29.0 (43 [0 ~ 70.0 / 31.0 (45 [0 ~ 70.0 / 33.0 (46 [0 ~ 70.0 / 32.0 (48	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	12 13 14 15 16 17 18 19 20	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296 Nrml/2nd/210-256 Nrml/2nd/129-209 Nrml/2nd/-128	[0 ~ 70.0 / 15.0 (25 [0 ~ 70.0 / 15.0 (24 [0 ~ 70.0 / 14.0 (24 [0 ~ 70.0 / 29.0 (43 [0 ~ 70.0 / 31.0 (45 [0 ~ 70.0 / 32.0 (48 [0 ~ 70.0 / 31.0 (50	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	12 13 14 15 16 17 18 19 20 21	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296 Nrml/2nd/210-256 Nrml/2nd/129-209 Nrml/2nd/-128 Mid/2nd/-297	[0 ~ 70.0 / 15.0 (25 [0 ~ 70.0 / 15.0 (24 [0 ~ 70.0 / 14.0 (24 [0 ~ 70.0 / 29.0 (43 [0 ~ 70.0 / 31.0 (45 [0 ~ 70.0 / 32.0 (48 [0 ~ 70.0 / 31.0 (50 [0 ~ 70.0 / 31.0 (50 [0 ~ 70.0 / 30.0 (44	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	12 13 14 15 16 17 18 19 20 21 22	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296 Nrml/2nd/210-256 Nrml/2nd/129-209 Nrml/2nd/-128 Mid/2nd/-297 Mid/2nd/257-296	[0 ~ 70.0 / 15.0 (25 [0 ~ 70.0 / 15.0 (24 [0 ~ 70.0 / 14.0 (24 [0 ~ 70.0 / 29.0 (43 [0 ~ 70.0 / 31.0 (45 [0 ~ 70.0 / 32.0 (48 [0 ~ 70.0 / 31.0 (50 [0 ~ 70.0 / 32.0 (44 [0 ~ 70.0 / 32.0 (46 [0 ~ 70.0 / 32.0 (46 [0 ~ 70.0 / 32.0 (46 [0 ~ 70.0 / 33.0 (47 [0 ~ 70.0 / 33.0 (49	.0) / 0.2 μA/step] .0) / 0.2 μA/step]	
313*	12 13 14 15 16 17 18 19 20 21 22 23	Thk/1st/257-296 Thk/1st/210-256 Thk/1st/129-209 Thk/1st/-128 Nrml/2nd/-297 Nrml/2nd/257-296 Nrml/2nd/129-209 Nrml/2nd/-128 Mid/2nd/-297 Mid/2nd/257-296 Mid/2nd/257-296 Mid/2nd/256	[0 ~ 70.0 / 15.0 (25 [0 ~ 70.0 / 15.0 (24 [0 ~ 70.0 / 14.0 (24 [0 ~ 70.0 / 29.0 (43 [0 ~ 70.0 / 31.0 (45 [0 ~ 70.0 / 32.0 (48 [0 ~ 70.0 / 31.0 (50 [0 ~ 70.0 / 30.0 (44 [0 ~ 70.0 / 32.0 (46 [0 ~ 70.0 / 32.0 (46 [0 ~ 70.0 / 34.0 (47	.0) / 0.2 μA/step]	



PAGE: 12/12

Reissued: 29-Jan-04

Model	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071003e			
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32	.0) / 0.2 μA/step]				
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>17.0</b> (36	· · · · · · · · · · · · · · · · · · ·				
	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>23.0</b> (41	<u> </u>				
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>29.0</b> (45.0) / 0.2 μA/step]					
	31	OHP/297	-	[0 ~ 70.0 / <b>18.0</b> (23.0) / 0.2 μA/step]				
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (33					
314*	Pape	rTrans_HH (Paper Transf	-	, , , , <u>, , , , , , , , , , , , , , , </u>				
	The	display indicates: Paper W						
	1	Nrml/1st/-297		sfer current when absolut	e humidity			
			AH (g/m <sup>3</sup> ) is in the					
			See SP2-310 for co	he 'HH' humidity range)				
			[0 ~ 70.0 / <b>30.0</b> (32					
	2	Nrml/1st/257-296	[0 ~ 70.0 / <b>30.0</b> (32	· · · · · · · · · · · · · · · · · · ·				
	3	Nrml/1st/210-256	[0 ~ 70.0 / <b>30.0</b> (33					
	4	Nrml/1st/129-209	[0 ~ 70.0 / <b>28.0</b> (34	<u> </u>				
	5	Nrml/1st/-128	[0 ~ 70.0 / <b>26.0</b> (34					
	6	Mid/1st/-297	[0 ~ 70.0 / <b>31.0</b> (33	<u> </u>				
	7	Mid/1st/257-296	[0 ~ 70.0 / <b>31.0</b> (34	, , , , , ,				
	8	Mid/1st/210-256	[0 ~ 70.0 / <b>31.0</b> (34	· · · · · · · · · · · · · · · · · · ·				
	9	Mid/1st/129-209	[0 ~ 70.0 / <b>29.0</b> (35	· · · · · · · · · · · · · · · · · · ·				
	10	Mid/1st/-128	[0 ~ 70.0 / <b>27.0</b> (35					
	11	Thk/1st/-297	[0 ~ 70.0 / <b>16.0</b> (26	· · · · · · · · · · · · · · · · · · ·				
	12	Thk/1st/257-296	[0 ~ 70.0 / <b>15.0</b> (25	<u> </u>				
	13	Thk/1st/210-256	[0 ~ 70.0 / <b>15.0</b> (25					
	14	Thk/1st/129-209	[0 ~ 70.0 / <b>14.0</b> (24	,				
	15	Thk/1st/-128	[0 ~ 70.0 / <b>14.0</b> (24					
	16	Nrml/2nd/-297	[0 ~ 70.0 / <b>30.0</b> (44	· · · · · · · · · · · · · · · · · · ·				
	17	Nrml/2nd/257-296	[0 ~ 70.0 / <b>33.0</b> (44	· · · · · · · · · · · · · · · · · · ·				
	18	Nrml/2nd/210-256	[0 ~ 70.0 / <b>36.0</b> (44					
	19	Nrml/2nd/129-209	[0 ~ 70.0 / <b>34.0</b> (44	<u> </u>				
	20	Nrml/2nd/-128	[0 ~ 70.0 / <b>32.0</b> (44	<u>, , , , , , , , , , , , , , , , , , , </u>				
	21	Mid/2nd/-297	[0 ~ 70.0 / <b>31.0</b> (45	.0) / 0.2 μA/step]				
	22	Mid/2nd/257-296	[0 ~ 70.0 / <b>34.0</b> (45	<u>, , , , , , , , , , , , , , , , , , , </u>				
	23	Mid/2nd/210-256	[0 ~ 70.0 / <b>37.0</b> (45					
	24	Mid/2nd/129-209	[0 ~ 70.0 / <b>35.0</b> (45					
	25	Mid/2nd/-128	[0 ~ 70.0 / <b>33.0</b> (45					
	26	Thk/2nd/-297	[0 ~ 70.0 / <b>14.0</b> (28					
	27	Thk/2nd/257-296	[0 ~ 70.0 / <b>15.0</b> (32					
	28	Thk/2nd/210-256	[0 ~ 70.0 / <b>16.0</b> (36	.0) / 0.2 μA/step]				
314*	29	Thk/2nd/129-209	[0 ~ 70.0 / <b>22.0</b> (40					
	30	Thk/2nd/-128	[0 ~ 70.0 / <b>28.0</b> (44	.0) / 0.2 μA/step]				
	31	OHP/297	[0 ~ 70.0 / <b>18.0</b> (24	.0) / 0.2 μA/step]				
	32	OHP/210	[0 ~ 70.0 / <b>22.0</b> (36	.0) / 0.2 μA/step]				

## RIGOH

### Technical Bulletin

PAGE: 1/7

Reissued: 29-Jan-04

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004e

#### **RTB Reissue**

The items in bold italics have been added.

Subject: Firmware History - BCU (Engine)				Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	Troubleshooting	☐ Part informat	tion	Action required	
	☐ Mechanical	☐ Electrical		☐ Service manual revision	
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information	
	○ Other (Firmware History)				

This is to inform you of the BCU firmware history.

Part No.	Program name	Version	C.SUM	Production
G0705151				
	G0705151F.bin	V1.48D	3C0B	January production '04
	G0705151E.bin	V1.47A	0B11	October Production '03
	G0705151D.bin	V1.45	A657	August Production '03
	G0705151C.bin	V1.44A	0C47	July Production '03
	G0705151B.bin	V1.42	D6E3	April Production '03
	G0705151.bin	V1.40	5FBA	April Production '03
G0705150				
V	G0705150V.bin	V1.38	F699	February Production '03
Т	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.



PAGE: 2/7

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004e

BICU

Symptom Corrected	Version
1. Carryover SP modes from Copier firmware: Currently UNUSABLE.	1.48D
in dairy over or initiates from copies immutates durionally endos in Electronic	
The following are the SP modes carried over from the Copier firmware	
which will therefore appear on the display, as the printer firmware is	
created using the Copier firmware base. Please note that currently	
these SP modes should not be used on the printer, therefore please DO	
NOT CHANGE their values.	
-SP2-927-001 (Disable Time (ITB Cleaning)	
[0 ~ 14 / 3 / 1 s/step] DFU	
-SP2-925-001 (ITB Cleaning Execution Variable)	
[0 ~ 100 / 20 / 1 sheet/step] DFU	
-SP2-926-001 (Cover Ratio Reference (MC)	
[0 ~ 10 / 1.7 / 0.1 %/step] DFU	
-SP2-926-002 (Cover Ratio Reference (FC)	
[0 ~ 10 / 1.7 / 0.1 %/step] DFU	
-SP2-970-05 (ITB Cleaning Clutch Off/On Number in Oil removal mode)	
[0 ~ 5 / 0 / 1/step] DFU	
-SP2-950-8 (Start registration Adjustment: K(1:P1b))	
The default setting of SP2-950-8 has been changed from 0 to 1.	
[-3 ~ 3 / 1 (0) / 2 line/step] DFU ( ): Old default	
2. Extra toner may sometimes stick to the transfer roller and then to the	
rear side of the next sheet (main motor off-timing has been optimized).	
2 An SC 404 (Transfer half mark detection array) or SC 200 (Image	
3. An SC481 (Transfer belt mark detection error) or SC280 (Image transfer belt mark detection error) misdetection may occur when the	
main motor rotational direction is changed from backwards to forwards.	
main motor rotational direction is changed from backwards to forwards.	
4. The machine may freeze up with the display "Processing,,," when the	
timing of OPC lubricant interruption (SP2-939) conicides with oil	
removal mode (SP2-970).	
5. Finisher jam misdetection may occur while the sheet is moving	
inside the finisher.	
6. A black image area may appear blank on the next sheet if paper is	
loaded in the tray during Paper End before the printer engine comes to	
a stop.	
Note: Along with this BICU version, be sure to update the main unit	
controller firmware to v2.30 or later.	



**PAGE: 3/7** 

Reissued: 29-Jan-04

Date: 3-Feb-03	No.: RG071004e
	Version V1.47A
ob End) oner is applied to the t cleaning.	
le, it has been made	
ner End recovery.	
al for performing revers d, in order to ensure	se
oll, the intervals for ectable.	
	ob End) oner is applied to the cleaning. e, it has been made ner End recovery. If for performing reversed, in order to ensure



PAGE: 4/7

Reissued: 29-Jan-04

Model: Model U-P1	Date: 3-Feb-03	No.: RG07	'1004e
Symptom Corrected		Version	
Existing SP mode subdivided:		V1.47A	
SP3-920 has been subdivided as follows to enable time control for 1C vs. 2C/3C/4C.	e separate lubrication		
SP3-920-001 (Lubrication Cleaning Time: - 1C) [0 ~ 100 / 50 / 1% /step]			
SP3-920-002 (Lubrication Cleaning Time: - 2C/3C [0 ~ 100 / 100/ 1% /step]	<u>/4C)</u>		
3. Carryover SP modes from Copier firmware – Cu	urrently UNUSABLE		
The following are the SP modes carried over from which will therefore appear on the display, as the particle of the second using the Copier firmware base. Please not these SP modes should not be used on the printer DO NOT CHANGE their values.	orinter firmware is ote that currently		
SP2-951-001 (Image Position Adjustment): DFU 0: New PCU: ITB cleaning blade: 1: Old PCU: No ITB cleaning blade (Default):			
SP2-950 (Start Registration Adjustment):			
SP2-921-001 (ITB Cleaning Clutch OFF Mode): D 0: New PCU: ITB cleaning blade 1: Old PCU: No ITB cleaning blade (Default)	<u>FU</u>		
SP2-920-001 (ITB Cleaning Clutch OFF Time) [-500 ~ 500 / 0 / 10 /step]			
SP2-924-001 (ITB Cleaning Clutch Off/On – Time) [100 ~ 500/ 300 / 10ms /step]	1		
SP2-924-002 (ITB Cleaning Clutch Off/On – Numb [0 ~ 5/ 0 / 1 /step]	<u>oer)</u>		
NOTE: Along with this BICU version, be sure to up controller firmware to v2.29 or later.	odate the main unit		



**PAGE: 5/7** 

Reissued: 29-Jan-04

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004e

Eliminated unnecessary occurrences of SC420 (Fusing bias discharge error): SC420 will not be triggered when a leak occurs as a result of a small hole on the fusing belt surface, since from field experience it has been confirmed that belt lifetime is actually longer when the SC is not triggered in these conditions. If the leak should occur, instead of the SC the machine turns SP2-510 OFF (fusing bias SW), and the fusing bias is not applied until the fusing counter is cleared when the user replaces the unit or the SP is set back to ON.  1. Eliminated unnecessary occurrences of SC410 (2 <sup>nd</sup> transfer electric leakage): SC410 tends to frequently occur when using paper with a high moisture content under high-temperature, high-humidity conditions when the resistance on the paper transfer roller is low. The roller current was previously lowered for mono-color mode (45% that of full color), which lowered the resistance and caused frequent occurrences. This version uses the color mode current for mono-color until job end to eliminate unecessary occurrences under the conditions described above.  2. SP modes newly added (listed below). These SPs have been added to ensure proper (higher) transfer belt cleaning by applying the following bias voltages at job end (OPC lubrication time):  SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-401-008: Cleaning Bias NN1: OPC lubrication time SP2-400-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008		
1. Eliminated unnecessary occurrences of SC410 (2 <sup>nd</sup> transfer electric leakage):  SC410 tends to frequently occur when using paper with a high moisture content under high-temperature, high-humidity conditions when the resistance on the paper transfer roller is low. The roller current was previously lowered for mono-color mode (45% that of full color), which lowered the resistance and caused frequent occurrences. This version uses the color mode current for mono-color until job end to eliminate unecessary occurrences under the conditions described above.  2. SP modes newly added (listed below).  These SPs have been added to ensure proper (higher) transfer belt cleaning by applying the following bias voltages at job end (OPC lubrication time):  SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-402-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN1: OPC lubrication time SP2-404-008: Cleaning Bias NN1: OPC lubrication time SP2-404-008: Cleaning Bias HH: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]  2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6: SP2-941-01: Job End: [6 ~ 30 / 20 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.28 or later.  Modified in accordance with main unit controller v2.27 modificaiton. For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version). Note: These SP modes are not yet operational.	SC420 will not be triggered when a leak occurs as a result of a small hole on the fusing belt surface, since from field experience it has been confirmed that belt lifetime is actually longer when the SC is not triggered in these conditions. If the leak should occur, instead of the SC the machine turns SP2-510 OFF (fusing bias SW), and the fusing bias is not applied until the fusing counter is cleared when the user replaces the unit or the SP is set	V1.45
SC410 tends to frequently occur when using paper with a high moisture content under high-temperature, high-humidity conditions when the resistance on the paper transfer roller is low. The roller current was previously lowered for mono-color mode (45% that of full color), which lowered the resistance and caused frequent occurrences. This version uses the color mode current for mono-color until job end to eliminate unecessary occurrences under the conditions described above.  2. SP modes newly added (listed below).  These SPs have been added to ensure proper (higher) transfer belt cleaning by applying the following bias voltages at job end (OPC lubrication time):  SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-402-008: Cleaning Bias LL2: OPC lubrication time SP2-403-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias NN2: OPC lubrication time SP2-403-008: Cleaning Bias HH: OPC lubrication time SP2-401-008: Cleaning Bias HH: OPC lubrication time SP2-403-008: Cleaning Bias HH: OPC lubrication time SP3-403-008: Clean		V1.44A
These SPs have been added to ensure proper (higher) transfer belt cleaning by applying the following bias voltages at job end (OPC lubrication time):  SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-401-008: Cleaning Bias LL2: OPC lubrication time SP2-402-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias NN2: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]  2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6: SP2-941-01: Job End: [6 ~ 30 / 20 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.28 or later.  Modified in accordance with main unit controller v2.27 modification. For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version). Note: These SP modes are not yet operational.	SC410 tends to frequently occur when using paper with a high moisture content under high-temperature, high-humidity conditions when the resistance on the paper transfer roller is low. The roller current was previously lowered for mono-color mode (45% that of full color), which lowered the resistance and caused frequent occurrences. This version uses the color mode current for mono-color until job end to eliminate unecessary	
These SPs have been added to ensure proper (higher) transfer belt cleaning by applying the following bias voltages at job end (OPC lubrication time):  SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-401-008: Cleaning Bias LL2: OPC lubrication time SP2-402-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias NN2: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]  2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6: SP2-941-01: Job End: [6 ~ 30 / 20 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.28 or later.  Modified in accordance with main unit controller v2.27 modification. For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version). Note: These SP modes are not yet operational.	2 SP modes newly added (listed below)	
SP2-401-008: Cleaning Bias LL2: OPC lubrication time SP2-402-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias HH: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]  2. Minimum value changed for SP2-941-01, -02 (OPC lubrication time). Minimum increased from 0 to 6: SP2-941-01: Job End: [6 ~ 30 / 20 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.28 or later.  Modified in accordance with main unit controller v2.27 modification. For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version). Note: These SP modes are not yet operational.	These SPs have been added to ensure proper (higher) transfer belt cleaning	
Minimum increased from 0 to 6: SP2-941-01: Job End: [6 ~ 30 / 20 / 1 s/step] SP2-941-02: OPC Lubrication Interval: [6 ~ 60 / 10 / 1 s/step]  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.28 or later.  Modified in accordance with main unit controller v2.27 modification. For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version). Note: These SP modes are not yet operational.	SP2-401-008: Cleaning Bias LL2: OPC lubrication time SP2-402-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias HH: OPC lubrication time	
Controller firmware to v2.28 or later.  Modified in accordance with main unit controller v2.27 modification.  For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version).  Note: These SP modes are not yet operational.	Minimum increased from 0 to 6: SP2-941-01: Job End: [ <u>6</u> ~ 30 / 20 / 1 s/step]	
For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version).  Note: These SP modes are not yet operational.		
controller firmware to v2.27 or later. For details, please see RTB #RG071007 (black faint Images).  Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version).  Note: These SP modes are not yet operational.		V1.42
Minor bugs corrected.  Changes made in preparation for the addition of SP3-921-01/02 (from the next version).  Note: These SP modes are not yet operational.	controller firmware to v2.27 or later. For details, please see RTB	
next version). Note: These SP modes are not yet operational.	, , , , , , , , , , , , , , , , , , , ,	V1.40
	next version).	
	Note: These SP modes are not yet operational.  Software changed so that oil end detection is not performed while the fusing	V1.38
unit is in operation, in order to prevent oil end misdetections caused by winter humidity (humidification).	unit is in operation, in order to prevent oil end misdetections caused by winter	v 1.30



**PAGE: 6/7** 

Reissued: 29-Jan-04

Model: Model U-P1	No.: RG07	10046	
SP mode newly added: SP2-801-02 (Additional Vacleaning interval). Refer to RTB No. RG071003 for firmware history.			
SC687 misdetections sometimes occur when paper tray after the bypass tray reaches paper end.	er is loaded into the bypass		
The detection conditions for SC412 (2 <sup>nd</sup> transfer d changed from 60ms to 240ms to prevent misdeted occur in low-temperature conditions.	isconnection) have been ctions that can sometimes		
Minor bugs corrected.		V1.37	
Misdetection of toner end and/or toner near cartridge still contains enough toner to continue pr		V1.36	
The paper end condition may not be detected e optional tray has run out.	ven when the paper in the		
SP1-905-01 (pressure roller type) newly added. the main unit controller firmware history (RTB No.		V1.35	
Detection conditions for SC560 (Zero cross errofollows (upper limits eliminated, as they are unnected) Old: 50Hz: Machine detects less than 45Hz or greated 60Hz: Machine detects less than 55Hz or greated	essary): er than 54Hz.		
New: 50Hz: Machine detects less than 45Hz. 60Hz: Machine detects less than 55Hz.			
Default settings for SP2-944-4 and -5 have be OPC lubrication mode cycle: SP2-944-4: Sheets-1: [10 to 80/30 / 1sheet/step	· ·		
SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> / 1sheet/step			
Paper end is sometimes not detected even wher tray runs out.	n the paper in the standard		
Minor bug corrections.		V1.33	
First release.		V1.32	

2950	S_Re	egAdj.	
	1	M(2:P1b)	Colour registration adjustment: adjusts the start timing of imaging for each color. <b>DFU</b> [-3 ~ 3 / -1 / 2 line/step]
			<ul> <li>2 lines = 0.047566 ms (about 85 μm)</li> <li>+: Delays the start timing.</li> <li>-: Advances the start timing.</li> <li>The start timing is adjusted only in plain paper mode, and when one of the following conditions is satisfied:</li> <li>1) Between the two images on the transfer belt (when two images are developed on the OPC at the same time (☞ 6.2))</li> <li>2) B4 SEF or larger (multi-print job)</li> </ul>
	2	C(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]
	3	Y(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]
	4	K(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]
	5	M(1:P1b)	[-3 ~ 3 / <b>-1</b> / 2 line/step]

### RICOR Reissued: 29-Jan-04

### Technical Bulletin

nical **B**ulletin Page: 7/7

Mode	: Mod	el U-P1		Date: 3-Feb-03	No.: RG071004e
	6	C(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	step]	
	7	Y(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	tep]	
	8	K(1:P1b)	[-3 ~ 3 / <b>1 (0)</b> / 2 lir	ne/step]	
	9	M(2:P1a)	For use in Japan o	nly.	
	10	C(2:P1a)			
	11	Y(2:P1a)			
	12	K(2:P1a)			
	13	M(1:P1a)			
	14	C(1:P1a)			
	15	Y(1:P1a)			
	16	K(1:P1a)	1		

Model: Model U-P1		Date: 19-Feb-04		No.: RG071013		
Subject: Jam At Registration Sensor Section				Prepared by: H.K.		
From: 1st Tech. Support Sec. Service Support Dept.						
Classification:	□ Troubleshooting	☐ Part info	ormat	tion Action	n required	
	☐ Mechanical	☐ Electric	al	☐ Servi	ce manual revision	
	☐ Paper path	Transm	it/rec	eive 🗌 Retro	fit information	
	Other ( )					

#### **SYMPTOM**

Continuous paper jams at the registration section (counted in SP7504-63). Although the paper is caught, there are no marks visible.

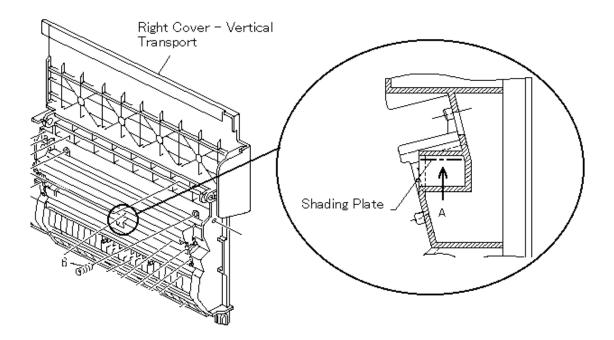
#### **CAUSE**

Paper dust in the machine reflects and diffuses light, which causes a registration sensor misdetection and the jam condition.

#### **SOLUTION**

#### **Production line**

A black seal (G0702136: Grid Shading Plate) has been added to the right cover from October 2002 production. For the cut-in serial numbers, please refer to MB #MG071022.



#### Machines in the field

Clean the area shown in the illustration, and remove any sheets of paper still left in the registration area.

### RIGOH

Mechanical Paper path Other (

### Technical Bulletin

Model: Model U-P1			Dat	e: 20-Aug-04	No.: RG071014
Subject: New PCU / Development Unit Installation Procedure			ıre	Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.					
Classification:	Troubleshooting	☐ Part info	orma	tion 🖂 Action	n required
☐ Mechanical ☐ Electrical		al	☐ Servi	ce manual revision	
	☐ Paper path	Transm	it/rec	eive 🗌 Retro	fit information

**PAGE: 1/8** 

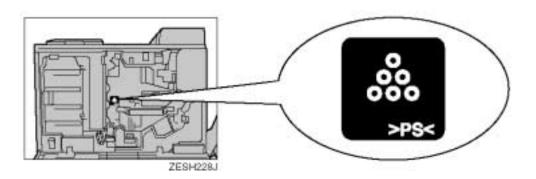
To ensure high cleaning performance from the ITB cleaning unit, a cleaning blade has been added to the Image transfer belt cleaning unit from June 2004 production of the machine and maintenance kit PCU. This is the same modification as the Model U-C machines produced from August 2003.

Due to this modification, the machine code and EDP code have been changed to distinguish the old maintenance kit PCU from the new one.

Machine codes: G780-17 to G780-18

EDP codes: 400721 to 402318

To notify the customer and service representatives of this modification, the following notification sheets (14 languages) have been added to the maintenance kit box.



#### Notes to Users

Before replacing the photo conductor unit, open the printer's front cover to check that the seal is attached as shown. If it is, follow the replacement procedure that comes with the photo conductor unit. If the seal is not attached, printer adjustment is required. Contact your service representative before replacing.



Model: Model U-P1 Date: 20-Aug-04 No.: RG071014

**PAGE: 2/8** 

The following modification has been applied to the production machines.

- A cleaning blade has been added to the ITB cleaning section.
- The material of the OPC-belt cleaning blade has been changed (This has already been applied to the production machine since 2003 October production.).
- Due to the additional cleaning blade in the ITB cleaning unit, an excessive load will be placed on the cam of the ITB cleaning contact mechanism at the rear of the machine. This can cause the cam to dislodge from the shaft. To correct this, a metal retaining ring was added to secure the cam (instead of a plastic snap ring) from the following cut-in serial numbers. (This has already been applied to the production machine since 2003 August).

Retaining ring modification from Plastic to metal (Refer to MB G071012 for details)

G071-17	P7536700688
G071-22	P7536800001
G071-24	L104389xxxx
G071-26	4K2893xxxx
G071-27	P7536800172

You must do these before you install either the new PCU or new development unit (or both) in machines with serial numbers prior to above cut-in numbers:

- Add the cam stopper to the ITB cleaning cam (The cam stopper is included in the New PCU box for new PCU settings only)
- Update the firmware to controller v2.30 or later and BCU v1.48d or later.
- Change SP mode settings (PCU settings or development unit settings)
- Perform color registration adjustment (SP2-950: for New PCU installation only)

To ensure good printing, the development unit has also been modified.

(K: Not supplied as spare part, M: G7823025 to G7823035 Refer to MB G071024 for details)

G071-17	P7536900304
G071-22	P7537000001
G071-24	L1043890001
G071-26	4K2913xxxx
G071-27	P7536900001

**PAGE: 3/8** 

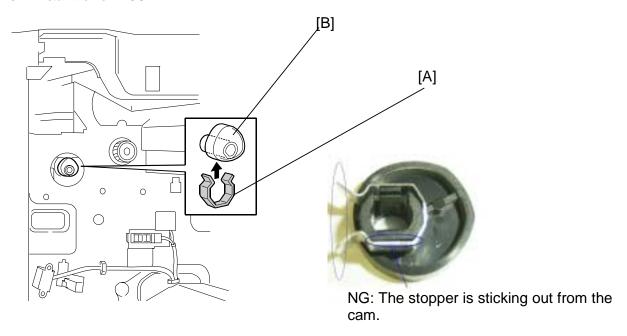
Model: Model U-P1 Date: 20-Aug-04 No.: RG071014

#### **Procedures**

#### Adding the Cam Stopper to the ITB Cleaning Cam

Note: If you have to install this new PCU in a mass-production unit from August 2003 production, you do not have to install this cam stopper.

- 1. Turn off the main switch.
- 2. Open the front cover.
- 3. Remove the old PCU.
- 4. Install the cam stopper [A] on the cam [B] so that the stopper does not stick out from the cam. Note: The straight edges of the cam stopper and cam are aligned with each other. The cam stopper will snap into position.
- 5. Install the new PCU.



### **Updating the Firmware**

• Update the firmware to <u>controller v2.30 or later</u> and <u>BCU v1.48d or later</u>. Note: These versions were applied from June '04 production.



**PAGE: 4/8** 

Model: Model U-P1 Date: 20-Aug-04 No.: RG071014

# Changing SP Mode Settings After Installing the New PCU or New Development unit or both.

Open the front cover. Then turn on the main switch. Then access the SP mode.

Note: It is necessary to input the settings to determine the SP settings even if the correct settings are indicated in the SP mode after the firmware is updated.

- 1. Input the following SP modes as indicated in the following table: Important:
  - Development units

It is NOT NECESSARY to change the SP settings when you replace the Y and/or C development units. In other words, it is only necessary to change these SP mode settings when you replace the <u>M and / or K development units</u>.

• Magenta development unit replacement

When you install the <u>old</u> unit (G7823025): SP3-913-001: 1 When you install the <u>new</u> unit (G7823035): SP3-913-001: 20

K (black) development unit replacement
 When you install the <u>old</u> unit: SP3-913-002: 1
 When you install the <u>new</u> unit: SP3-913-002: 20

Specific combinations for K (Black) development unit / PCU replacement:

Note: Settings A.B. are explained below:

Note: Settings A-D are explained below.

PCU	New PCU	Old PCU
K Development unit		
New Development unit	Setting C	Setting B
Old Development unit	Setting A	Setting D

SP mode table for specific combinations for K (Black) development unit / PCU replacement:

SP No.	Description	Setting A	Setting B	Setting C	Setting D
		Setting for New PCU (G780-18) + New Firmware (Old K Dev.	Setting for K New Dev. unit + New firmware (Old PCU: G780-17)	Setting for New PCU (G780-18)+ K New dev. unit + New Firmware	Setting for only new firmware (Old PCU: G780-17 & Old Dev.
2-921-001	ITB Cleaning CL OFF Mode	Unit) 0 : New PCU	1 : Old PCU	0 : New PCU	Unit) 1 : Old PCU
2-922-001	Dev CL ON after Job End	0 : OFF	1 : ON	0 : OFF	1 : ON
2-951-001	Image Position Adjustment	0 : New PCU	1 : Old PCU	0 : New PCU	1 : Old PCU
3-913-001	Doc. Roller Rotation Interval:M Dev.	1 (See Note1 below)	1 (See Note1 below)	1 (See Note1 below)	1 (See Note1 below)
3-913-002	Doc. Roller Rotation Interval:K Dev.	1	20	20	1
2-970-05	ITB Cleaning Clutch Off/On Number in Oil removal mode	2	0	2	0

**PAGE: 5/8** 

Model: Model U-P1 Date: 20-Aug-04 No.: RG071014

#### Note:

- 1. Change this setting from 1 to 20 at the time you install the new M development unit (G7823035) at the same time.
- 2. It is recommended to use the <u>new PCU</u> and development unit when either is replaced on machines produced in June 2004 or later. This is because if either of the older units is installed in these machines, it is necessary to perform the SP setting changes explained in this section.
  - If you perform the action for the black faint image (RTB RG071007), these SP mode settings would be input.

#### **RTB RG071007**

SP No.	Description	Value
2-938-001 (New SP)	OPC Reverse Interval	10
2-941-001	OPC Lubricant Time – Interrupt	14
3-920-001	Lubrication Cleaning Time	50
3-921-001 (New SP)	Lubricant Clutch OFF: 1C	6
3-921-002 (New SP)	Lubricant Clutch OFF: 2C/3C/4C	6

#### **Sub-scan Color Registration Adjustment (SP2-951)**

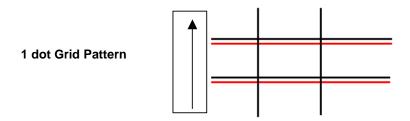
Perform the following only when you install the new PCU in machines produced up to and including May 2004. The adjustment is performed at the factory as of June 2004.

- 1. Print out the test pattern of SP5-955-5 (1 dot Grid Pattern 0-1: 2 pages of A3/DLT or 4 pages of A4/LT) in full color mode (SP2-917 test pattern on & send a color print job from the PC see page 6)
- 2. Increase the settings of the following SPs by 1: SP2-950-4 and SP2-950-8.
- 3. Print out the same test pattern as in step 1.
- 4. Subtract 1 from the *initial* settings of SP2-950-4 and SP2-950-8.
- 5. Print out the same test pattern as in step 1.
- 6. A3/DLT printing:

Compare the grid pattern in the center of the first sheet of each setting (initial, +1, -1). Then select the printout with the most closely aligned grid pattern. Then set SP2-950-8 to the value that produced that print.

#### A4/LT printing:

Compare the grid pattern near the trailing edge of the first sheet of each setting (initial, +1, -1). Then select the printout with the most closely aligned grid pattern. Then set SP2-950-8 to the value that produced that print.



7. A3/DLT printing:

Compare the grid pattern in the center of the second sheet of each setting (initial, +1, -1). Then



Model: Model U-P1 Date: 20-Aug-04 No.: RG071014

select the printout with the most closely aligned grid pattern. Then set SP2-950-4 to the value that produced that print.

**PAGE: 6/8** 

#### A4/LT printing:

Compare the grid pattern near the trailing edge of the third sheet of each setting (initial, +1, -1). Then select the printout with the most closely aligned grid pattern. Then set SP2-950-4 to the value that produced that print.

#### Additional information for printing out the test pattern

- 1. Select SP5-955 to 5 and set SP2-917 to 1 (Enable test pattern).
- 2. Leave SP mode.
- 3. Press the on-line key to select "Online".
- 4. Start an application that can let you print in colour, such as Microsoft Word.
- 5. Input 4 letters in each color (KCMY) as shown. The colours do dot have to be exactly cyan, yellow, and magenta; just use something that is as close as possible.
- 6. Print out 2 A3 / DLT pages (or 4 A4 / LT pages).
- 7. Return the setting of SP2-917 to 0 (or turn off the main switch) to reset the machine for normal printing after you print out the test pattern.

ABCD			

Model: Model U-P1

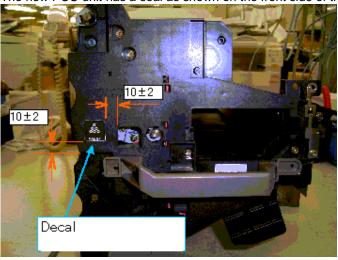
Date: 20-Aug-04 No.: RG071014

#### Distinguishing the old unit from the new one

These seals have been put on the new PCUs and new development units to distinguish the old unit from the new one.

#### **New PCU**

The new PCU unit has a seal as shown on the front side of the PCU.

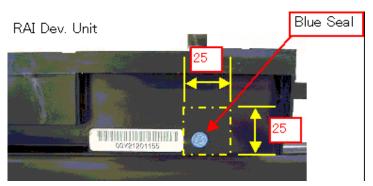


#### New Development unit

• The new development unit from 2003 September production has no mark on the left side of the development unit. They start at the following serial numbers.

G071-17	P7536900304
G071-22	P7537000001
G071-24	L1043890001
G071-26	4K2913xxxx
G071-27 G781-17 G782-17	P7536900001 B4173890001 (BK development unit Kit) B517-3890001 (Color development unit kit)

 The new development unit from 2004 February production has a blue seal on the left side of the development unit.



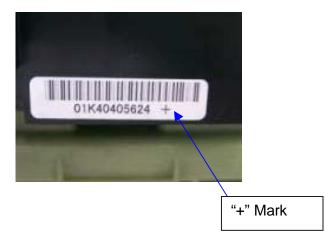
**PAGE: 7/8** 



**PAGE: 8/8** 

Model: Model U-P1 Date: 20-Aug-04 No.: RG071014

The new development unit from 2004 June production has a "+" mark on the lot number decal as shown below.



## Estimated side effects with incorrect combination of firmware/SP settings and old/new PCU

Old/Hew FCO			
Firmware version	May version or before	June or later	
		SP settings: Old	SP Settings: New
Type of PCU			
"Old PCU (no modification applied)  May production or before"			<ul> <li>OPC lines (many)</li> <li>Insufficient cleaning (many)</li> <li>Color shift</li> </ul>
"New PCU (modification applied) June production or later"	<ul><li>Toner drop (horizontal line)</li><li>Color shift</li></ul>	<ul><li>Toner drop (horizontal line)</li><li>Color shift</li></ul>	

# RIGOH

### Technical Bulletin

**PAGE: 1/8** 

Reissued: 11-Jan-05

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004f
-------------------	----------------	----------------

#### **RTB Reissue**

The items in bold italics have been added.

Subject: Firmware History - BCU (Engine)			Prepared by: H.K.	
From: 1st Tech. Support Sec. Service Support Dept.				
Classification:	☐ Troubleshooting	☐ Part informat	tion	Action required
		☐ Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☑ Other (Firmware History)			

This is to inform you of the BCU firmware history.

Part No.	Program name	Version	C.SUM	Production
G0705151				
G	G0705151G.bin	V1.49	CCD2	November production '04
F	G0705151F.bin	V1.48D	3C0B	January production '04
E	G0705151E.bin	V1.47A	0B11	October Production '03
D	G0705151D.bin	V1.45	A657	August Production '03
С	G0705151C.bin	V1.44A	0C47	July Production '03
В	G0705151B.bin	V1.42	D6E3	April Production '03
	G0705151.bin	V1.40	5FBA	April Production '03
G0705150				
V	G0705150V.bin	V1.38	F699	February Production '03
Т	-	V1.37		December Production '02
S	-	V1.36	-	November Production '02
R	-	V1.35	-	Not applied to the production machines
Q	-	V1.33	-	Not applied to the production machines
Р	-	V1.32	-	August production '02

#### August '02 production serial numbers:

G071-17: P75268xxxxx

11 units were shipped to US market as the test marketing machines (PMO).

G071-27: P75268xxxxxx

11 units were shipped to RDG fields as the test marketing machines (PMO).

#### Note for updating BCU firmware

Whenever updating BCU firmware from v1.37 or earlier to v1.38 or later, please be sure to update the main unit controller firmware at the same time to v2.24 or later. The main unit controller firmware history is described in RTB No. RG071003.



**PAGE: 2/8** 

Model: Model U-P1 Date: 3-Feb-03 No.: RG071004f

BICU

Symptom Corrected	Version
White lines.	1.49
Note: The "Doctor roller reverse mode" was changed to decrease the amount of clogged toner in between the development roller and doctor roller.	
New: Reverse once	
Reverse/Forward	
Old: Reverse twice	
Reverse/Forward/Reverse/Forward	
Note: Along with this BICU version, be sure to update the main unit controller firmware to v2.30 or later.	

**PAGE: 3/8** 

Reissueu. 11-Jaii-05		1	
Model: Model U-P1	Date: 3-Feb-03	No.: RG07	1004f
Symptom Corrected	Version		
1. Carryover SP modes from Copier firmware:	1.48D		
The following are the SP modes carried over from which will therefore appear on the display, as the created using the Copier firmware base. Please these SP modes should not be used on the print DO NOT CHANGE their values.			
-SP2-927-001 (Disable Time (ITB Cleaning) [0 $\sim$ 14 / $3$ / 1 s/step] DFU -SP2-925-001 (ITB Cleaning Execution Variable [0 $\sim$ 100 / $20$ / 1 sheet/step] DFU -SP2-926-001 (Cover Ratio Reference (MC) [0 $\sim$ 10 / $1.7$ / 0.1 %/step] DFU -SP2-926-002 (Cover Ratio Reference (FC) [0 $\sim$ 10 / $1.7$ / 0.1 %/step] DFU -SP2-970-05 (ITB Cleaning Clutch Off/On Nummode) [0 $\sim$ 5 / $0$ / 1/step] DFU -SP2-950-8 (Start registration Adjustment: K(1: The default setting of SP2-950-8 has been cha [-3 $\sim$ 3 / $1$ (0) / 2 line/step] DFU ( ): Old default	ber in Oil removal P1b))		
Extra toner may sometimes stick to the transfer roller and then to the rear side of the next sheet (main motor Off timing has been optimized).			
3. An SC481 (Transfer belt mark detection erro transfer belt mark detection error) misdetection main motor rotational direction is changed from	may occur when the		
4. Machine may freeze up with the display "Protiming of OPC lubricant interruption (SP2-939) removal mode (SP2-970).	•		
5. Finisher jam misdetection may occur while the inside the finisher.	ne sheet is moving		
<ol><li>A black image area may appear blank on the loaded in the tray during Paper End before the a stop.</li></ol>			
Note: Along with this BICU version, be sure to controller firmware to v2.30 or later.	update the main unit		



PAGE: 4/8

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004f
Symptom Corrected  1. SP modes newly added:	Version V1.47A	
SP2-922-001 (Development Clutch ON after Job Education Determines whether or not a small amount of tone OPC belt surface in order to ensure proper belt cle 0: OFF 1: ON (Default)		
Note: Although the above is not a new SP mode, it selectable.		
SP2-923-001 (Lubricant after Toner End) Sets whether or not lubrication is applied at Toner 0: OFF 1: ON (Default)		
The following two SP modes control the interval for rotation on the M and K doctor rollers at job end, in toner clumps do not form.	. •	
Note: Although the following are not new controll, t these existing operations have been made selecta		
<u>SP3-913-001 (Doctor roller rotation interval M)</u> [1 ~ 50 / 1 / 1 /step]		
SP3-913-002 (Doctor roller rotation interval K) [1 ~ 50 / 1 / 1 /step]		



**PAGE: 5/8** 

Model: Model U-P1 No.: RG071004f Date: 3-Feb-03 Symptom Corrected Version V1.47A 2. Existing SP mode subdivided: SP3-920 has been subdivided as follows to enable separate lubrication time control for 1C vs. 2C/3C/4C. SP3-920-001 (Lubrication Cleaning Time: - 1C) [0 ~ 100 / 50 / 1% /step] SP3-920-002 (Lubrication Cleaning Time: - 2C/3C/4C) [0 ~ 100 / 100/ 1% /step] 3. Carryover SP modes from Copier firmware – Currently UNUSABLE The following are the SP modes carried over from the Copier firmware which will therefore appear on the display, as the printer firmware is created using the Copier firmware base. Please note that <u>currently</u> these SP modes should not be used on the printer, therefore please DO NOT CHANGE their values. SP2-951-001 (Image Position Adjustment): DFU 0: New PCU: ITB cleaning blade: 1: Old PCU: No ITB cleaning blade (Default): SP2-950 (Start Registration Adjustment): SP2-921-001 (ITB Cleaning Clutch OFF Mode): DFU 0: New PCU: ITB cleaning blade 1: Old PCU: No ITB cleaning blade (Default) SP2-920-001 (ITB Cleaning Clutch OFF Time)  $[-500 \sim 500 / 0 / 10 / step]$ SP2-924-001 (ITB Cleaning Clutch Off/On – Time) [100 ~ 500/ 300 / 10ms /step] SP2-924-002 (ITB Cleaning Clutch Off/On – Number)  $[0 \sim 5/0/1/\text{step}]$ NOTE: Along with this BICU version, be sure to update the main unit controller firmware to v2.29 or later.



**PAGE: 6/8** 

Model: Model U-P1	Date: 3-Feb-03	No.: RG071004f
Symptom Corrected Eliminated unnecessary occurrences of SC420 (Fusing SC420 will not be triggered when a leak occurs as a rethe fusing belt surface, since from field experience it habelt lifetime is actually longer when the SC is not trigger conditions. If the leak should occur, instead of the SC transport (Fusing bias SW), and the fusing bias is fusing counter is cleared when the user replaces the unback to ON.	sult of a small hole on as been confirmed that ered in these the machine turns not applied until the	Version V1.45
<ol> <li>Eliminated unnecessary occurrences of SC410 (2<sup>nd</sup> leakage):         SC410 tends to frequently occur when using paper with content under high-temperature, high-humidity condition resistance on the paper transfer roller is low. The roller previously lowered for mono-color mode (45% that of followered the resistance and caused frequent occurrence the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode current for mono-color until job end to expect the color mode above.     </li> <li>SP modes newly added (listed below).</li> <li>These SPs have been added to ensure proper (higher) by applying the following bias voltages at job end (OPC SP2-400-008: Cleaning Bias LL1: OPC lubrication time SP2-401-008: Cleaning Bias NN1: OPC lubrication time SP2-403-008: Cleaning Bias NN2: OPC lubrication time SP2-404-008: Cleaning Bias HH: OPC lubrication time [0 to 2000/ 1400 / 10 Volt/step]</li> <li>Minimum value changed for SP2-941-01, -02 (OPC</li> </ol>	h a high moisture ons when the current was ull color), which es. This version uses eliminate unecessary  transfer belt cleaning C lubrication time):	V1.44A
Minimum increased from 0 to 6: SP2-941-01: Job End: $[\underline{6} \sim 30 / 20 / 1 \text{ s/step}]$ SP2-941-02: OPC Lubrication Interval: $[\underline{6} \sim 60 / 10 / 1 ]$ NOTE: Along with this BICU version, be sure to update controller firmware to v2.28 or later.	e the main unit	
Modified in accordance with main unit controller v2.27 For details, please see RTB #RG071003b.  NOTE: Along with this BICU version, be sure to update controller firmware to v2.27 or later. For details, please #RG071007 (black faint Images).	V1.42	
Minor bugs corrected.  Changes made in preparation for the addition of SP3-9 next version).  Note: These SP modes are not yet operational.		V1.40
Software changed so that oil end detection is not perfounit is in operation, in order to prevent oil end misdetechumidity (humidification).		V1.38



**PAGE: 7/8** 

Model: Model U-P1 Date: 3-Feb-03		No.: RG071004f	
Symptom Corrected SP mode newly added: SP2-801-02 (Additional Valucleaning interval). Refer to RTB No. RG071003 for the second s	Version		
firmware history.  SC687 misdetections sometimes occur when paper			
tray after the bypass tray reaches paper end.  The detection conditions for SC412 (2 <sup>nd</sup> transfer disc	•		
changed from 60ms to 240ms to prevent misdetection occur in low-temperature conditions.			
Minor bugs corrected.		V1.37	
Misdetection of toner end and/or toner near en cartridge still contains enough toner to continue print	ing.	V1.36	
The paper end condition may not be detected even optional tray has run out.			
SP1-905-01 (pressure roller type) newly added. For the main unit controller firmware history (RTB No. Re	V1.35		
Detection conditions for SC560 (Zero cross error) have been changed as follows (upper limits eliminated, as they are unnecessary): Old:			
50Hz: Machine detects less than 45Hz or greater than 54Hz. 60Hz: Machine detects less than 55Hz or greater than 64Hz. New:			
50Hz: Machine detects less than 45Hz. 60Hz: Machine detects less than 55Hz.			
Default settings for SP2-944-4 and -5 have been changed to reduce the OPC lubrication mode cycle :			
SP2-944-4 : Sheets-1 : [10 to 80/ <b>30</b> / 1sheet/step] SP2-944-5 : Sheets-2 : [10 to 80/ <b>60</b> / 1sheet/step]			
Paper end is sometimes not detected even when t tray runs out.			
Minor bug corrections.	V1.33		
First release.		V1.32	

2950	S_Re	RegAdj.				
	1	M(2:P1b)	Colour registration adjustment: adjusts the start timing of imaging for each color. <b>DFU</b> [-3 ~ 3 / -1 / 2 line/step] 2 lines = 0.047566 ms (about 85 μm) +: Delays the start timing: Advances the start timing. The start timing is adjusted only in plain paper mode, and when one of the following conditions is satisfied: 1) Between the two images on the transfer belt (when two images are developed on the OPC at the same time ( • 6.2)) 2) B4 SEF or larger (multi-print job)			
	2	C(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]			
	3	Y(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]			
	4	K(2:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/step]			

# RIGOH

## Technical **B**ulletin

**PAGE: 8/8** 

Reissued: 11-Jan-05

Model: Model U-P1			Date: 3-Feb-03	No.: RG07	1004f	
	5	M(1:P1b)	[-3 ~ 3 / <b>-1</b> / 2 line/	'step]		
	6	C(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	tep]		
	7	Y(1:P1b)	[-3 ~ 3 / <b>0</b> / 2 line/s	tep]		]
	8	K(1:P1b)	[-3 ~ 3 / <b>1 (0)</b> / 2 lin	ne/step]		
	9	M(2:P1a)	For use in Japan or	nly.		
	10	C(2:P1a)	]			
	11	Y(2:P1a)				
	12	K(2:P1a)				
	<u> </u>					
	13	M(1:P1a)				
	14	C(1:P1a)				
	15	Y(1:P1a)				
	16	K(1:P1a)				