Reissued on April 30, 1991

RICOH

Technical Bulletin No. RTB-003

SUBJECT: Corona Casing Cleaning	DATE:April 30,1991 PAGE: 1 of 1
PREPARED BY: M. Kitajima CHECKED BY:	FROM: Copier Technical Support Section

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

This bulletin gives information on cleaning the corona casing.

CLEANING

Section	Action at EM/PM
Casing	Clean with water first and with alcohol if toner still remains.
End Block	Clean with a blower brush and then with alcohol.

EXPLANATION

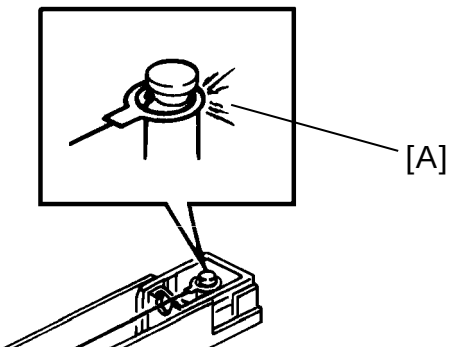
The corona discharge causes ammonium nitrate (NH_4NO_3) to accumulate on the corona casing.

NH_4NO_3 functions as an insulator that reduces the corona discharge to the casing. The power pack responds by increasing the voltage to the corona wire in order to maintain a constant current output. (The power pack is a constant current type.)

If toner or some other material accumulates inside the corona end block especially inside the hook groove [A], it may cause an electrical leak under humid conditions.

NH_4NO_3 can be easily removed with water but not with alcohol. Toner can be easily removed with alcohol but not with water.

Therefore, be careful to use the proper cleaning method for each corona unit section.



REVISED ON APRIL 15, 1991

RICOH	Technical Bulletin	No. RTB-005
SUBJECT: Cleaning Solutions		DATE: Dec. 30, '90 PAGE: 1 of 1
PREPARED BY: T. OKAJIMA CHECKED BY:	FROM: International Q.A. Center	
CLASSIFICATION: ☐ Action Required ☐ Troubleshooting ☐ Retrofit Information	☐ Revision of service manual ■ Information only ☐ Other	MODEL: General

Based upon the request from the market, three type of cleaning solution have been registered as service parts. Please order them from the parts center as usual. The details are as follows:

1. EXTERIOR COVER CLEANER (NET. 220 cc)
P/N: A0129530

Purpose: 1) To clean the exterior covers
2) To remove spilt silicone oil from the floor

Procedure: 1) Shake well and spray onto the soiled cover or on the floor.
2) After 10 seconds, wipe cleaner using a soft cloth.

2. DF BELT CLEANER (NET. 180 cc)
P/N: A0129531

Purpose: To clean document feeder belts.

Procedure: 1) Dampen a soft cloth with the cleaner, and wipe the belt.
2) Repeat until the belt is clean.

3. Optics Cleaner (NET. 190 cc)
P/N: A0129532

Purpose: To clean mirrors, lenses, exposure glasses, and paper feed rollers

Procedure: Dampen a soft cloth with the cleaner, and wipe the soiled parts.

CAUTION

Since these three type of cleaning solution are **FLAMMABLE**, pay attention to the following caution:

1. Do not spray onto bare skin.
2. Keep away from heat and open flame.
3. Store in a cool place.
4. Keep away from children.
5. Do not dispose of the cleaner by burning it, by applying heat to it, or by any means that might cause it to ignite.

6 Comply with all local regulations for disposal.

RICOH

Technical Bulletin No. RTB-006

SUBJECT: New Tri-flow Lubricant	DATE: Jan 15, 91 PAGE: 1 of 1
PREPARED BY: N. Takai CHECKED BY:	FROM: Copier Technical Support Section

CLASSIFICATION:

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

MODEL: General

To protect the environment, the tri-flow lubricant (P/No. 52159533) that uses CFC aerosol propellants has been discontinued. A new tri-flow that uses LPG as the propellant is now being supplied.

NOTE: CFC (chlorofluorocarbon) gasses are believed to contribute to the depletion of the earth's ozone layer.

New Tri-flow: P/No.: 52159539 (Volume: 27 ml)

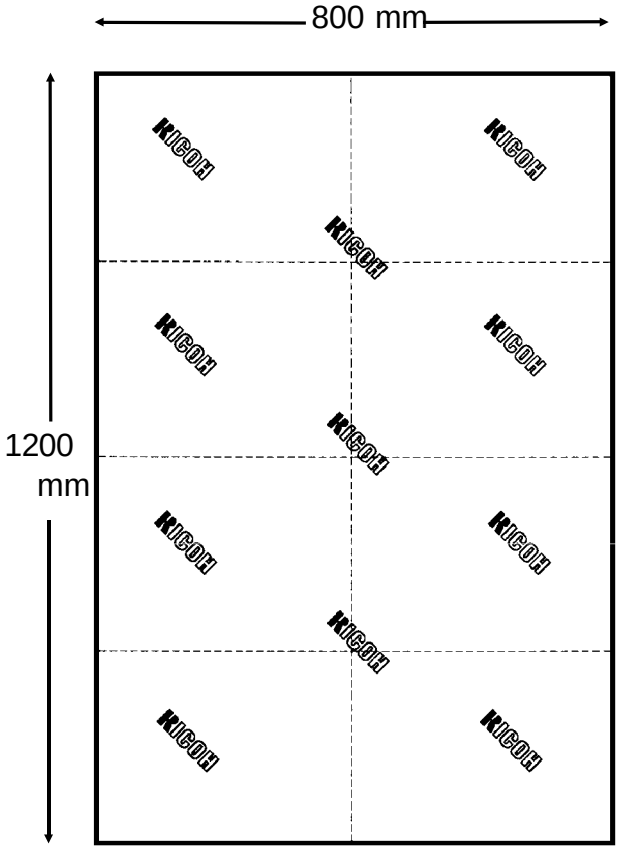
Technical Bulletin No. RTB-008

SUBJECT: Ground Sheet	DATE: Mar 31,'91 PAGE: 1 of 1
PREPARED BY: M. Ninomiya CHECKED BY:	FROM: Copier Technical Support Sec.

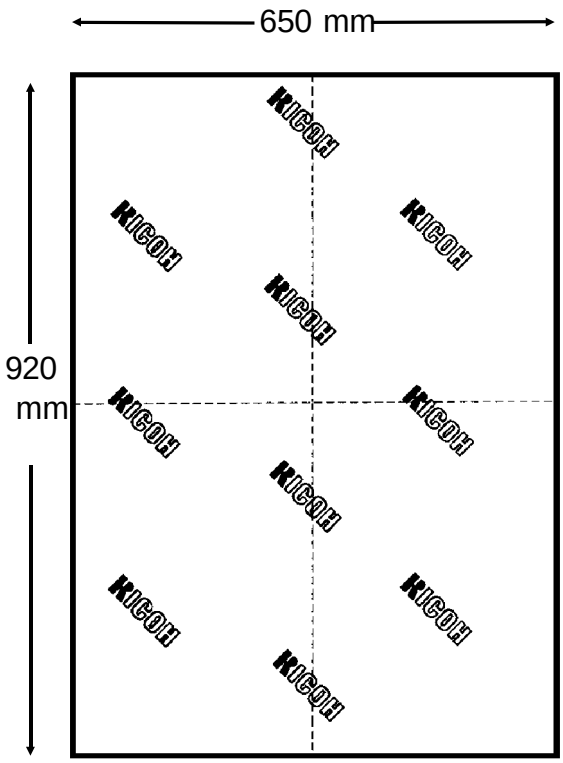
CLASSIFICATION: ☐ Action Required ☐ Troubleshooting ☐ Retrofit Information	☐ Revision of service manual ■ Information only ☐ Other	MODEL: General

Two different sizes of ground sheets have been registered as service parts.

These sheets help keep the customer's floor clean by catching any toner, oil, etc, that may fall to the floor while customer engineer is servicing a copier.



Large (Gray) (P/N A0099017)



Small(Green) (P/N A0099019)

RICOH

Technical Bulletin No. RTB-009

SUBJECT: Service Parts Package Improvement	DATE: Mar. 31, '92 PAGE: 1/1
PREPARED BY: N. Takai CHECKED BY:	FROM: Copier Technical Support Sec.

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

The earth is a closed environment with limited resources. People need a good environment, where they can live safely and comfortably. We, Ricoh as a manufacturer, believe that protecting the environment and passing on a better environment to posterity is one of the most important duties of every living being.

In live with the above concept, we are improving not only the machines, but even the packages for the service parts to help preserve the environment as follows:

Schedule for improvement of service parts packaging

	Item	From (target)
Step 1:	Elimination of plastic made from Polyvinyl chloride (PVC)	Feb. '92
Step 2:	Elimination of glueing different materials together (i.g. styrofoam and cardboard) * This is to facilitate segregating the waste by material.	Aug. '92
Step 3:	Reduction of usage of cardboard (10% less) * This is to reduce wasting resources.	Sep. '92

This bulletin covers all package changes for service parts related to the preservation of the environment. We will not inform you of the changes for individual parts packages.

Model: General	Date: 30-Sep-98	No.: 1

Subject: Service Tools	Prepared by: M.Mimura
From: QAC Field Information Dept.	

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

Some service tools were set up as service parts decades ago for cases where appropriate field service tools could not be obtained locally. These tools will no longer be available at the SPC.

This is because all types of service tools are now available across the world. Also, some tools are no longer needed for servicing recent Ricoh products.

The target service tools are listed on the following pages.

TOOL LIST – 115V (54199901)

Item	Part No.	Description	Q'ty	Item	Part No.	Description	Q'ty
1.	54199600	Tool Case (Aluminum)	1	31.	54199630	Screw Driver Long Shawk "+" 75mm	1
2.	54199601	Tension Gauge 0-2Kg	1	32.	54199631	Voltage Checler-100V 250V	1
3.	54199602	Wrench	1	33.	54199632	Cleaner-Solder Iron	1
4.	54199603	Thickness Gauge	1	34.	54199633	Solder	1
5.	54199604	File	1 set	35.	54199634	NT Cutter	1
6.	54199605	Parts Case	1	36.	54199635	Tester	1
7.	54199606	Oiler	2 pcs.	37.	54199636	Solder Sucker	1
8.	54199607	Bond	1	38.	54199637	Electric Torch-Pen type	1
9.	54199608	Crimping Plier	1	39.	54199638	Retaining Ring Holder-1.5mm	1
10.	54199609	Wire Stripper	1	40.	54199639	Retaining Ring Holder-2.0mm	1
11.	54199610	Magnetic Screw Driver	1	41.	54199640	Retaining Ring Holder-2.5mm	1
12.	54199611	Nipper	1	42.	54199641	Retaining Ring Holder-3.0mm	1
13.	54199612	Cutting Plier-Radio Type	1	43.	54199642	Retaining Ring Holer-4.0mm	1
14.	54199613	Cutting Plier	1	44.	54199643	Retaining Ring Holder-5.0mm	1
15.	54199614	Plier	1	45.	54199644	Retaining Ring Holder-6.0mm	1
16.	54199615	Tweezers	1	46.	54199645	Retaining Ring Holder-7.1mm	1
17.	54199616	Allen Erench-1.5mm	1	47.	54199646	Retaining Ring Holder-8.1mm	1
18.	54199617	Allen Wrench-2.0mm	1	48.	54199647	Scale-150mm	1
19.	54199618	Allen Wrench-2.5mm	1	49.	54199648	Crescent Wrench	1 set
20.	54199619	Allen Wrench-3.1mm	1	50.	54199649	Insulating Tape-Black	1
21.	54199620	Allen Wrench-4.0mm	1	51.	54199650	Insulating Tape-Red	1
22.	54199621	Allen Wrench-5.0mm	1	52.	54199651	Double Coated Tape	1
23.	54199622	Allen Wrench-6.0mm	1	53.	54199652	Silicon Cloth	1
24.	54199623	Allen Wrench-8.0mm	1	54.	54199653	Spring Hook	1
25.	54199624	Screw Driver "-" 120mm	1	55.	54199654	Test Chart-B4 size	1
26.	54199625	Screw Driver "+" 120mm	1	56.	54199655	Test Chart-A3 size	1
27.	54199626	Screw Driver "+" 125mm	1	57.	54199656	Solder Tip	1
28.	54199627	Stubby Screw Driver "-" 125mm	1	58.	54199657	Solder Iron –115V	1
29.	54199628	Stubby Driver "+"	1	59.	54199706	Clip Ass'y-Large	1
30.	54199629	Screw Driver Long Shawk "-" 125mm	1	60.	54199707	Clip Ass'y-Small	1
				61.	54086001	Service Mat	1

TOOL LIST – 220V (54199902)

Item	Part No.	Description	Q'ty	Item	Part No.	Description	Q'ty
1.	54199600	Tool Case (Aluminum)	1	31.	54199630	Screw Driver Long Shawk "+" 75mm	1
2.	54199601	Tension Gauge 0-2Kg	1	32.	54199631	Voltage Checler-100V 250V	1
3.	54199602	Wrench	1	33.	54199632	Cleaner-Solder Iron	1
4.	54199603	Thickness Gauge	1	34.	54199633	Solder	1
5.	54199604	File	1 set	35.	54199634	NT Cutter	1
6.	54199605	Parts Case	1	36.	54199635	Tester	1
7.	54199606	Oiler	2 pcs.	37.	54199636	Solder Sucker	1
8.	54199607	Bond	1	38.	54199637	Electric Torch-Pen type	1
9.	54199608	Crimping Plier	1	39.	54199638	Retaining Ring Holder-1.5mm	1
10.	54199609	Wire Stripper	1	40.	54199639	Retaining Ring Holder-2.0mm	1
11.	54199610	Magnetic Screw Driver	1	41.	54199640	Retaining Ring Holder-2.5mm	1
12.	54199611	Nipper	1	42.	54199641	Retaining Ring Holder-3.0mm	1
13.	54199612	Cutting Plier-Radio Type	1	43.	54199642	Retaining Ring Holer-4.0mm	1
14.	54199613	Cutting Plier	1	44.	54199643	Retaining Ring Holder-5.0mm	1
15.	54199614	Plier	1	45.	54199644	Retaining Ring Holder-6.0mm	1
16.	54199615	Tweezers	1	46.	54199645	Retaining Ring Holder-7.1mm	1
17.	54199616	Allen Erench-1.5mm	1	47.	54199646	Retaining Ring Holder-8.1mm	1
18.	54199617	Allen Wrench-2.0mm	1	48.	54199647	Scale-150mm	1
19.	54199618	Allen Wrench-2.5mm	1	49.	54199648	Crescent Wrench	1 set
20.	54199619	Allen Wrench-3.1mm	1	50.	54199649	Insulating Tape-Black	1
21.	54199620	Allen Wrench-4.0mm	1	51.	54199650	Insulating Tape-Red	1
22.	54199621	Allen Wrench-5.0mm	1	52.	54199651	Double Coated Tape	1
23.	54199622	Allen Wrench-6.0mm	1	53.	54199652	Silicon Cloth	1
24.	54199623	Allen Wrench-8.0mm	1	54.	54199653	Spring Hook	1
25.	54199624	Screw Driver "-" 120mm	1	55.	54199654	Test Chart-B4 size	1
26.	54199625	Screw Driver "+" 120mm	1	56.	54199655	Test Chart-A3 size	1
27.	54199626	Screw Driver "+" 125mm	1	57.	54199656	Solder Tip	1
28.	54199627	Stubby Screw Driver "-" 125mm	1	58.	54199658	Solder Iron –220V	1
29.	54199628	Stubby Driver "+"	1	59.	54199706	Clip Ass'y-Large	1
30.	54199629	Screw Driver Long Shawk "-" 125mm	1	60.	54199707	Clip Ass'y-Small	1
				61.	54086001	Service Mat	1

TOOL LIST – 240V (54199903)

Item	Part No.	Description	Q'ty	Item	Part No.	Description	Q'ty
1.	54199600	Tool Case (Aluminum)	1	31.	54199630	Screw Driver Long Shawk "+" 75mm	1
2.	54199601	Tension Gauge 0-2Kg	1	32.	54199631	Voltage Checler-100V 250V	1
3.	54199602	Wrench	1	33.	54199632	Cleaner-Solder Iron	1
4.	54199603	Thickness Gauge	1	34.	54199633	Solder	1
5.	54199604	File	1 set	35.	54199634	NT Cutter	1
6.	54199605	Parts Case	1	36.	54199635	Tester	1
7.	54199606	Oiler	2 pcs.	37.	54199636	Solder Sucker	1
8.	54199607	Bond	1	38.	54199637	Electric Torch-Pen type	1
9.	54199608	Crimping Plier	1	39.	54199638	Retaining Ring Holder-1.5mm	1
10.	54199609	Wire Stripper	1	40.	54199639	Retaining Ring Holder-2.0mm	1
11.	54199610	Magnetic Screw Driver	1	41.	54199640	Retaining Ring Holder-2.5mm	1
12.	54199611	Nipper	1	42.	54199641	Retaining Ring Holder-3.0mm	1
13.	54199612	Cutting Plier-Radio Type	1	43.	54199642	Retaining Ring Holer-4.0mm	1
14.	54199613	Cutting Plier	1	44.	54199643	Retaining Ring Holder-5.0mm	1
15.	54199614	Plier	1	45.	54199644	Retaining Ring Holder-6.0mm	1
16.	54199615	Tweezers	1	46.	54199645	Retaining Ring Holder-7.1mm	1
17.	54199616	Allen Erench-1.5mm	1	47.	54199646	Retaining Ring Holder-8.1mm	1
18.	54199617	Allen Wrench-2.0mm	1	48.	54199647	Scale-150mm	1
19.	54199618	Allen Wrench-2.5mm	1	49.	54199648	Crescent Wrench	1 set
20.	54199619	Allen Wrench-3.1mm	1	50.	54199649	Insulating Tape-Black	1
21.	54199620	Allen Wrench-4.0mm	1	51.	54199650	Insulating Tape-Red	1
22.	54199621	Allen Wrench-5.0mm	1	52.	54199651	Double Coated Tape	1
23.	54199622	Allen Wrench-6.0mm	1	53.	54199652	Silicon Cloth	1
24.	54199623	Allen Wrench-8.0mm	1	54.	54199653	Spring Hook	1
25.	54199624	Screw Driver "-" 120mm	1	55.	54199654	Test Chart-B4 size	1
26.	54199625	Screw Driver "+" 120mm	1	56.	54199655	Test Chart-A3 size	1
27.	54199626	Screw Driver "+" 125mm	1	57.	54199656	Solder Tip	1
28.	54199627	Stubby Screw Driver "-" 125mm	1	58.	54199659	Solder Iron –240V	1
29.	54199628	Stubby Driver "+"	1	59.	54199706	Clip Ass'y-Large	1
30.	54199629	Screw Driver Long Shawk "-" 125mm	1	60.	54199707	Clip Ass'y-Small	1
				61.	54086001	Service Mat	1

Model: General	Date: 31-Dec-98	No.: 2

Subject: General Service Remarks for Safety	Prepared by: M. Mimura
From: GTSS Field Information Dept.	

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

This bulletin is a general service reminder.

⚠ **CAUTION**

Do not do any of the following in the field under any circumstances.

1. Disable safety devices such as thermofuses and thermistors.
2. Use the wrong safety devices such as thermofuses and thermistors.
3. Swap different types of fusing units across different models.
   If the wrong type of fusing unit is used, the thermofuse may not work properly.

These points all affect product safety.

Please always use the correct parts as shown in the parts catalog for the product.

Model: Products with FAX function (US version)	Date: 30-Nov-99	No.: RGene003

Subject: For New FCC Regulations	Prepared by: Y. Okunishi
From: Technical Servers Dept., GTS Division	

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

The new FCC regulations will be applied to products produced after December 19, 1999.
The following features will be affected by these changes and the firmware changed accordingly.

- Redialing -
Limited to only one time if the machine cannot detect the busy and re-order tones.

- Transmission Deadline function (TRD) -
The maximum number of times for redialing is limited to 14. Therefore, this function will not be available.

- Affected machines -

Product	Before change			After change			Note
	Tone detection	Redialing	TRD	Tone detection	Redialing	TRD	
Fax							
LFO	NO	4	NO	NO	1	NO	
FR6, FR4	NO	4	YES	NO	1	NO	
Schmidt3	YES	4	YES	YES	4	NO	
Schmidt1	NO	1	NO	NO	1	NO	
Kaiser1	No production			YES	4	NO	*1, *3
Digital PPC							
NAD	NO	4	YES	NO	1	NO	
Stinger-C1	NO	1	YES	YE	4	NO	
Russian-C1	NO	1	NO	YES	4	NO	*3
GF10B	NO	2	NO	NO	1	NO	*2
Digital Color							
Lilac2	No production			NO	1	NO	*1
Option							
S G3 Option	NO	4	-	NO	1	NO	*3, *4

Note:
*1: The change will be applied from the first lot of mass-production.
*2: No memory transmission is available.
*3: When this option is installed, redialing from the main frame is also limited to one time.
*4: TRD is controlled by the main frame.
For details of these changes, please refer to the MB or RTB that will be issued for each model.

Model: General	Date: 31-Jan-00	No.: RGene004

Subject: CiG4 Switches and Software Version	Prepared by: K. Misugi
From: Technical Services Dept., GTS Division	

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

The new software will be released for the CiG4 unit to provide new functions for ISDN comunication. This RTB clarifies the new switches and their software version.

Please note that the CiG4 unit is being used in the FX4 and FR4 fax machines, and in the Adam, NAD, Stinger-C , and Russian-C copiers.

NOTE:
The software versions which enable each switch are listed in the “NOTE” column. Otherwise, functions are available from the first production of the G4 unit for the above machines.

Release date:
Version 0B: ’97. November (at the same time as the fax FR4 release)
Version 0F: ’00. March

⚠WARNING
Do not adjust a bit switch that is described as "Not used", as this may cause the machine to malfunction or to operate in a manner that is not accepted by local regulations.

Important:
In the CiG4 unit, after changing any of the bit switches, turn off the machine, wait for 5 seconds or more, and turn it back on, so that the new settings take effect.

1. G4 Internal Switches

Bit Switch 00

	FUNCTION	COMMENTS	NOTE
0 to 7	Country code Bit 4 3 2 1 0 Country 0 0 0 0 1 Germany (1TR6 mode) 0 0 0 1 0 Universal (Europe Euro ISDN) 1 0 0 0 1 USA 1 1 0 1 1 Taiwan **Note:** In Germany, use the Universal setting for the Euro ISDN lines. In Taiwan, use the Taiwan setting for firmware version 0D or later.		

Bit switches 01 and 02 are not used. Do not change the settings.

Bit Switch 03			
	FUNCTION	**COMMENTS**	**NOTE**
0	Amount of protocol dump data in one protocol dump list **0:** Last communication only **1:** Up to the limit of the memory area for protocol dumping	Change this bit to 0 if you want to have a protocol dump list of the last communication only. This bit is only effective for the dump list D + Bch1.	
1-7	Not used	Do not change the settings.	

Bit Switch 04			
	FUNCTION	**COMMENTS**	**NOTE**
0-2	Not used	Do not change the settings.	
3	Auto data rate change for transmission (64 kbps to 56 kbps) **0:** On **1:** Off	**0:** The machine automatically changes the transmission data rate from 64 kbps to 56 kbps after 3 s if the other end did not accept the call. This is to cope with 56 kbps networks in the USA. Normally, keep this bit at 0.	
4	Auto data rate change for reception (64 kbps to 56 kbps) **0:** Off **1:** On	**1:** The machine automatically changes the reception data after 6 s. Change this bit to 1 only when there is a communication error where the other terminal informs 64 kbps in the SETUP signal although it is actually 56 kbps.	
5	RCBCTR **0:** Not valid **1:** Valid	This bit is used in Germany; set it to 1 for German FTZ approval tests. **1:** RCBCTR counts consecutive R:RNR signals. If the counter reaches the value of N2, the link is disconnected.	
6-7	Not used	Do not change the settings.	

Bit Switch 05			
	FUNCTION	**COMMENTS**	**NOTE**
0	Not used	Do not change the settings.	
1	Logical channel number (LCN) **0:** Not controlled **1:** Fixed at 01	Keep this bit normally at 0. However, some networks may require a fixed LCN. In such cases, this bit should be 1, and you may have to set a different value for the LCN using G4 Parameter Switch A.	
2	Protocol ID check **0:** Yes **1:** No	The Protocol ID is in the CR packet.	
3-7	Not used	Do not change the settings.	

Bit Switch 06			
	FUNCTION	**COMMENTS**	**NOTE**
0	Inclusion of the DTE address in the S:CR packet **0:** No **1:** Yes	Normally, do not change the setting. When the CR packet format matches ISO8208 protocol, some networks may require this bit to be set at 1. This bit is only effective if bit 0 of G4 Parameter switch 6 is at 0.	
1	Calling and called DTE addresses **0:** Not used **1:** Used	Normally, do not change the setting. This is only for packet networks. The CR packet should contain the rx side's DTE address, but does not have to include the tx side's; it can include it as an option.	
2-7	Not used	Do not change the settings.	

Bit switch 07 and 08 are not used.

Bit Switch 09			
	FUNCTION	**COMMENTS**	**NOTE**
0	Not used	Do not change the settings.	
1	New session within the same call **0:** Not accepted **1:** Accepted	**0:** If a new R:CSS is received, the machine sends back S:RSSN. **1:** If a new R:CSS is received, the machine sends back S:RSSP. Set this bit to 1 for German PTT (FTZ) approval tests.	
2-7	Not used	Do not change the settings.	

Bit switches 0A to 0F are not used. Do not change the settings.

Bit Switch 10			
	FUNCTION	**COMMENTS**	**NOTE**
0	Not used	Do not change the settings.	
1 **2**	Layer 1 T3 timer **Bit 2 1 Time** 0 0 5 s 0 1 29 s 1 0 10 s 1 1 Not used	This should be kept at 5 s (both bits at 0) for normal operation.	
3	Layer 1 T4 timer **0:** Not used **1:** Used	Set this bit to 1 for French PTT approval tests.	
4-5	Not used	Do not change the settings.	
6	INFO1 signal resend 0: Resend 1: No resend	0: Some DSUs may not reply to the INFO1 signal with INFO2, if there is noise in the INFO1 signal accidentally. Try changing this bit to 0, to resend INFO1 before the machine displays “CHECK INTERFACE”.	
7	Loop back 4 mode **0:** Disabled **1:** Enabled	Normally, keep this bit at 0.	

Bit Switch 11			
	FUNCTION	**COMMENTS**	**NOTE**
0	Not used	Do not change the settings.	
1	Type of TEI used **0:** Dynamic TEI **1:** Static TEI	This is normally fixed at 0. However, some networks such as the Northern Telecom ISDN may require this bit to be set at 1 (see below). In this case, you may have to change the values of bits 2 to 7.	
2 **7**	Static TEI value	This is used in the USA with the DMS100 (Northern Telecom ISDN) exchanger. Store the lowest bit of the TEI at bit 7 and the highest bit of the TEI at bit 2. **Example:** If the static TEI is 011000, set bits 3 and 4 to 1 and bits 2, 5, 6, and 7 to 0.	

Bit switch 12 is not used. Do not change the settings.

Bit Switch 13			
	FUNCTION	**COMMENTS**	**NOTE**
0-1	Not used	Do not change the settings.	
2	Attachment of calling ID **0:** No **1:** Yes	Normally, this bit should be at 0, because most networks add the calling ID to the SETUP signal to the receiver. However, some networks may require the machine to add this ID. Only in this case should this bit be at 1.	
3	Attachment of the Lower Layer Capabilities **0:** No **1:** Yes	This bit determines whether Lower Layer Capabilities are informed in the [SETUP] signal. Keep this bit at 0 in most cases.	
4	Attachment of the Higher Layer Capabilities **0:** Yes **1:** No	This bit determines whether Higher Layer Capabilities are informed in the [SETUP] signal or not. Keep this bit at 0 in most cases.	
5	Attachment of the channel information element (CONN) **0:** No **1:** Yes	Keep this bit at 0 in most cases.	
6	Attachment of the Higher Layer Capabilities for ISDN G3 transmission **0:** Same as the bit 4 setting **1:** Not attached	This bit determines whether Higher Layer Capabilities are informed in the [SETUP] signal for ISDN G3 transmission. This switch is effective in coping with communication problems with some types of T/A and PBX which do not respond to Higher Layer Capability "G3." When this bit is set to 0, the setting depends on the setting of bit 4.	Ver. 0B
7	Condition for fallback from G4 to G3 **0:** Refer to the CPS code setting **1:** Fallback in response to any CPS code	**0:** Fallback occurs when a CPS code is the same as the CPS code settings specified by G4 internal switches 17, 18, 1A, 1B, and 1C. If you wish to enable fallback when any CPS code is detected, set this bit to "1." This switch is effective in coping with fallback problems where the CPS code does not match those specified in the ITU-T recommendation.	Ver. 0F

NOTE: CiG4 software version 0F will be released from '00. March production.

Bit Switch 14			
	FUNCTION	**COMMENTS**	**NOTE**
0	ISDN G3 information transfer capability **0:** 3.1 kHz audio **1:** Speech	In tx mode, this determines the information transfer capability informed in the [SETUP] message. In rx mode, this determines the information transfer capability that the machine can use to receive a call. Set this bit to 1 if the ISDN does not support 3.1 kHz audio.	
1-2	Not used	Do not change the settings.	
3 **4**	Channel selection in [SETUP] in tx mode Bit 4 3 Setting 0 0 Any channel 0 1 B1 channel 1 0 B2 channel 1 1 Not used	**Any channel:** When this is informed to the exchanger, the exchanger will select either B1 or B2.	
5	Called ID mapping **0:** Called party number **1:** Keypad facility	**0:** Called ID is mapped to the called party number. **1:** Called ID is mapped to the keypad facility. On the 5ESS network (USA), set it to 1.	
6	Numbering plan for the called party number **0:** Unknown **1:** E.164	**E.164:** This may be used in Sweden if an AXE10 exchanger is fitted with old software, and in Australia. **Unknown:** This is the normal setting.	
7	Subaddress coding type **0:** IA5 (NSAP) **1:** BCD (ISO8348)	This is normally kept at 0. However, some networks require this bit to be at 1.	

Bit Switch 15			
	FUNCTION	**COMMENTS**	**NOTE**
0	Action when receiving a [SETUP] signal containing no called subaddress, if the subaddress was programmed in the dialed number **0:** A reply is sent **1:** No reply is sent	This bit depends on user requirements. If it is at 1, communication will be halted if the other terminal has not input the subaddress.	
1-3	Not used	Do not change the settings	
4	Action when the received Higher Layer Capabilities is Tel or Bearer Capabilities is Speech **0:** Do not respond to the call **1:** Respond to the call	**1:** This switch is effective in coping with communication problems when the received Higher Layer Capabilities is Tel or Bearer Capabilities is Speech for ISDN G3 communication.	Ver. 0B
5	Global call reference **0:** Ignored **1:** Global call number is used	Global call reference means 'call reference value = 0'. This bit determines how to deal with such an incoming call if received from the network. Keep this bit at 1 for Germany 1TR6.	
6-7	Not used	Do not change the settings.	

Bit Switch 16			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1**	Answer delay time Bit 1 0 Setting 0 0 No delay 0 1 1.0 s delayed (1TR6) 1 0 0.5 s delayed 1 1 Not used	For Germany 1TR6, a time delay for answering calls is required. In other countries, use this switch as follows: If the machine is connected to the same bus from the DSU as a model K200 is connected, the machine receives most of the calls because the response time to a call is faster than the K200. If the customer wants the K200 to receive most of the calls, adjust the response time using these bits. If the customer does not want one machine to receive most of the calls, use subaddresses to identify each terminal.	
2	Action when receiving a [SETUP] signal containing user-specific called party subaddress **0:** Ignores the call **1:** Receives the call	Normally, the 3rd octet of called party subaddress information in the [SETUP] signal is set to NSAP. However, some networks may add a “user-specific” subaddress to the [SETUP] signal, and as a result the machine won't answer the call if a subaddress is specified. So, change this bit to 1 to let the machine receive the call if the machine is connected to such a network.	
3-4	Not used	Do not change the settings.	
5	Indicated bearer capabilities **0:** 56 kbps **1:** 64 kbps	**1:** 64 kbps calling is indicated in the Bearer Capabilities, but communication is at 56 k. Use this bit if the machine is connected to a network which does not accept a 56 kbps data transfer rate as a bearer capability.	
6	Not used	Do not change the settings.	
7	Transfer capabilities (SI) informed in 1TR6 ISDN G3 transmission **0:** G3 Fax **1:** Analog	This bit determines the transfer capabilities informed in the Service Indicator for 1TR6 ISDN G3 transmission. This switch is effective in coping with communication problems with some types of T/A and PBX.	

Bit Switch 16			
	FUNCTION	**COMMENTS**	**NOTE**
0-6	Condition for fallback from G4 to G3 Bits 0 to 6 of bit switch 17 contain a CPS code, and bits 0 to 6 of bit switch 18 contain another CPS code. If a CPS code is received which is the same as either of these, communication will fall back from ISDN G4 mode to ISDN G3 mode. The CPS codes must be the same as those specified in table 4-13 of CCITT recommendation Q.931. Examples: Bit 6 5 4 3 2 1 0 1 0 0 0 0 0 1 CPS code 65 1 0 1 1 0 0 0 CPS code 88 For the codes in bits 0 to 6 of bit switches 17 and 18 to be recognized, bit 7 of bit switch 17 must be 1. Also, bit 0 of the Communication Switch 07 must be at 0, or Fallback from G4 to G3 will be disabled.		
7	This bit determines whether fallback from G4 to G3 occurs on receipt of one of the CPS codes programmed in bit switch 17 or 18, or on receipt of a certain standard code. **0:** Fallback occurs on receipt of any of the following CPS codes: Universal (Euro ISDN) - #3, #18, #57, #58, # 63, # 65, #79, #88, and #127 Germany 1TR6 mode - #3, #53, #58, and #90 Others - #3, #65, and #88 **1:** Fallback from G4 to G3 occurs on receipt any of above CPS codes or one of the CPS codes programmed in bit switch 17, 18, 1A, 1B, or 1C		

Bit Switch 18			
	FUNCTION	**COMMENTS**	**NOTE**
0-6	Condition for fallback from G4 to G3 See the explanation for bits 0 to 6 of bit switch 17		
7	This bit helps to choose the CPS code set for G4 to G3 fallback. **0:** Fallback occurs on receipt of the CPS code set which is specified by the country code setting. **1:** Fallback occurs on receipt of the Universal CPS code set (#3, #18, #57, #58, # 63, # 65, #79, #88, and #127) even if another country code is programmed. If bit switch 17 bit 7 is “1”, fallback occurs on receipt of the Universal CPS code set or one of the CPS codes programmed in bit switches 17, 18, 1A, 1B, or 1C.		

G4 to G3 fallback

Bit 0 of Communication Switch 07 must be at 0, or fallback from G4 to G3 will be disabled.

The CPS codes for which fallback occurs are decided as follows.

- G4 bit switch 17, bit 7 - If set to “0”, fallback occurs on receipt of a code from a set that depends on the country code. If set to ”1”, fallback occurs for the 5 CPS codes programmed in bits 0 to 6 of G4 bit switches 17, 18, 1A, 1B, and 1C, in addition to the country code set.

Bit Switch 19			
	FUNCTION	**COMMENTS**	**NOTE**
0	Permanence of the link **0:** Set/released each LAPD call **1:** Permanent	Keep this at 1 in the USA. In other areas, this bit is normally 0, depending on network requirements.	
1	Channel used in ISDN L2 (64k) mode **0:** B1 **1:** B2	When making an IDSN L2 back-to-back test, you can select either the B1 or B2 channel with this bit switch.	
2-7	Not used	Do not change the factory settings.	

Bit Switch 1A: CPS Code Used for G4 to G3 Fallback - 3			
	FUNCTION	**COMMENTS**	**NOTE**
0-6	Condition for fallback from G4 to G3 See the explanation for bits 0 to 6 of bit switch 17.		
7	Not used	Do not change the factory settings.	

Bit Switch 1B: CPS Code Used for G4 to G3 Fallback - 4			
	FUNCTION	**COMMENTS**	**NOTE**
0-6	Condition for fallback from G4 to G3 See the explanation for bits 0 to 6 of bit switch 17.		
7	Not used	Do not change the factory settings.	

Bit Switch 1C: CPS Code Used for G4 to G3 Fallback - 5			
	FUNCTION	**COMMENTS**	**NOTE**
0-6	Condition for fallback from G4 to G3 See the explanation for bits 0 to 6 of bit switch 17.		
7	Not used	Do not change the factory settings.	

Bit switches 1D to 1F are not used. Do not change any of the settings.

2. G4 Parameter Switches

Parameter Switch 00			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1** **2**	Network type Bit 2 1 0 Type x 0 0 Circuit switched ISDN Other settings: Not used	Do not change the default setting.	
3-7	Not used	Do not change the default settings.	

Parameter Switch 01			
	FUNCTION	**COMMENTS**	**NOTE**
0	Voice coding **0:** μ law **1:** A law	**0:** This setting is used in USA. **1:** This setting is used in Europe and Asia.	
1	Action when a [SETUP] signal without HLC is received **0:** Respond to the call **1:** Not respond to the call	If there are several TEs on the same bus and the machine responds to calls for another TE, the call may be without HLC information. Identify the type of calling terminal and change this bit to 1 if the caller is not a fax machine.	
2-3	Not used	Do not change the default settings.	
4 **5** **6**	Signal attenuation level for G3 fax signals received from an ISDN line. If an analog signal comes over an digital line, the signal level after decoding by the TE is theorically the same as the level at the entrance to the digital line. However, this sometimes causes the received signal level to be too high at the received end. In this case, adjust the decoded signal's attenuation level using these switches. The values in the “Codec” column below show the attenuation level at the G4 interface board. The values in the “Modem” column show the actual attenuation level at the modem, because the signal is attenuated again on the MFCE by -6dB. Bit 6 5 4 Codec Modem (Actual attenuation level) 0 0 0 -4.5dB -10.5dB 0 0 1 -2.5dB -8.5dB 0 1 0 -0.5dB -6.5dB 0 1 1 +1.5dB -4.5dB (default setting) 1 0 0 +3.5dB -2.5dB 1 0 1 +5.5dB -0.5dB 1 1 0 +7.5dB +1.5dB 1 1 1 +9.5dB +3.5dB		
7	Not used	Do not change the default settings.	

Parameter Switch 02			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1**	Data rate (kbps) Bit 1 0 Setting 0 0 64 kbps 0 1 56 kbps	Other settings: Not used	
2-3	Not used	Do not change the default settings.	
4 **5**	Transmission mode Bit 5 4 Mode 0 0 CS	Normally, do not change the seting.	
6-7	Not used	Do not change the default settings.	

Parameter Switch 03			
	FUNCTION	**COMMENTS**	**NOTE**
0	Link modulus **0:** 8 **1:** 128	Keep this bit at 0 in most cases. This setting determines whether protocol frame numbering is done using 3 bits (0 to 7 then start again at 0) or 7 bits (0 to 127 then start again at 0). Set this bit switch to match the network's specifications.	
1-7	Not used	Do not change the default settings.	

Parameter Switch 04 is not used. Do not change any of the settings.

Parameter Switch 05			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1** **2** **3**	Link timer (D-channel layer 2 T1 timer) Bit 3 2 1 0 Value 0 0 0 0 0 s 0 0 0 1 1 s 0 0 1 0 2 s and so on until 1 0 1 0 10 s	Normally, do not change the setting. The link timer is the maximum allowable time between sending a protocol frame and receiving a response frame from the remote terminal.	
4	B-channel T3 timer **0:** 30s **1:** 57s	**1:** This switch is useful when used in combination with communication switch 07 bit 4. This is to cope with communication problems where G4 communication fails on the ISDN B-channel.	Ver. 0F
5-7	Not used	Do not change the default settings.	

Parameter Switch 06			
	FUNCTION	**COMMENTS**	**NOTE**
0	Layer 3 protocol **0:** ISO8208 **1:** T.70NULL	Set this bit to match the type of layer 3 signalling used by the ISDN. The dedicated parameters have the same setting for specific destinations.	
1-3	Not used	Do not change the settings.	
4	Packet modulus **0:** 8 **1:** 128	Do not change the default setting, unless the machine is experiencing compatibility problems.	
5-7	Not used	Do not change the settings.	

Parameter Switch 07			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1** **2** **3**	Packet size Bit 3 2 1 0 Value 0 1 1 1 128 1 0 0 0 256 1 0 0 1 512 1 0 1 0 1024 1 0 1 1 2048	This value is sent in the CR packet. This value must match the value stored in the other terminal, or communication will stop (CI will be returned). If the other end returns CI, check the value of the packet window size with the other party. Note that this value must be the same as the value programmed for the transport block size (G4 Parameter Switch 0B, bits 0 to 3). Normally, do not change the default setting.	
4-7	Not used	Do not change the settings.	

Parameter Switch 08			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1** **2** **3**	Packet window size Bit 3 2 1 0 Value 0 0 0 1 1 0 0 1 0 2 and so on until 1 1 1 1 15	This is the maximum number of unacknowledged packets that the machine can send out before having to pause and wait for an acknowledgement from the other end. Normally this should be kept at 7.	
4-7	Not used	Do not change the settings.	

Parameter Switch 09			
	FUNCTION	**COMMENTS**	**NOTE**
0 **1** **2** **3**	LCGN Bit 3 2 1 0 Value 0 0 0 0 0 0 0 0 1 1 0 0 1 0 2 and so on until 1 1 1 1 15	Keep the value of the LCGN at 0.	
4-7	Not used	Do not change the settings.	

Parameter Switch 0A			
	FUNCTION	**COMMENTS**	**NOTE**
0-7	LCN Bit 7 6 5 4 3 2 1 0 Value 0 0 0 0 0 0 0 1 1 0 0 0 0 0 0 1 0 2 0 0 0 0 0 0 1 1 3 and so on until 1 1 1 1 1 1 1 1 255	Keep at the value of the LCN at 1.	

Parameter Switch 0B			
	FUNCTION	**COMMENTS**	**NOTE**
0 1 2 3	Transport block size Bit 3 2 1 0 Value 0 1 1 1 128 1 0 0 0 256 1 0 0 1 512 1 0 1 0 1024 1 0 1 1 2048	This value must match the value set in the other terminal. Note that this value must be the same as the value programmed for the packet size (G4 Parameter Switch 7, bits 0 to 3). Also, the transport block size is limited by the amount of memory in the remote terminal.	
4-7	Not used	Do not change the settings.	

Parameter Switch 0C is not used. Do not change any of the settings.

Parameter Switch 0D			
	FUNCTION	**COMMENTS**	**NOTE**
0 1	Back-to-back test mode Bit 1 0 Setting 0 0 Off 1 0 ISDN L2 test mode (TE mode) Other settings - Not used	When doing a back-to-back test or doing a demonstration without a line simulator, use these bits to set up one of the machines in TE mode, and the other in NT mode Please note that this machine can only be set to TE mode. After the test, return both bits to 0. See "Back-to-back Testing" in the Troubleshooting section of the srrvice manual for full details.	
2-7	Not used	Do not change the settings.	

Parameter Switch 0E			
	FUNCTION	**COMMENTS**	**NOTE**
0	Troubleshooing mode - real time status codes display **0:** Off **1:** On	If this is switched on, the status codes will be displayed in the lower two lines of the LCD. These codes are explained in the Troubleshooting section (G4CCU Status Codes) of the service manual. Change this bit back to 0 after testing.	
1	Saving frames to the protocol dump list **0:** Off **1:** On	Keep this bit at 1 normally.	
2-7	Not used	Do not change the settings.	

Parameter Switch 0F is not used. Do not change any of the settings.

3. DEDICATED TRANSMISSION PARAMETERS

The following G4 communication parameter bytes have been added for each Quick Dial and Speed Dial.

Switch 07		
	FUNCTION	**NOTE**
0 1 2 3	Data rate Bit 3 2 1 0 Setting 0 0 0 0 64 kbps 0 0 0 1 56 kbps 1 1 1 1 As in Parameter Switch 2, bits 0 and 1 Other settings: Not used	
4-7	Not used. Do not change the settings.	

Switch 08		
	FUNCTION	**NOTE**
0 1 2 3	Link modulus Bit 3 2 1 0 Setting 0 0 0 0 Modulo 8 0 0 0 1 Modulo 128 1 1 1 1 As in Parameter Switch 3, bit 0 Other settings: Not used	
4-7	Not used. Do not change the settings.	

Switch 09		
	FUNCTION	**NOTE**
0 1 2 3	Layer 3 protocol Bit 3 2 1 0 Setting 0 0 0 0 IS.8208 0 0 0 1 T.70 NULL 1 1 1 1 As in Parameter Switch 6, bit 0 Other settings: Not used	
4-7	Not used. Do not change the settings.	

4. OTHER RELATED SWITCHES

The following switches have been added to the mainframe switches (or fax board switches for MFPs), in relation to ISDN G4 communication.

Communication Switch 07			
	FUNCTION	**COMMENTS**	**NOTE**
3	Fallback from G4 to G3 reflected in programmed Quick/Speed dials **0:** Fallback enabled (Default) **1:** Always start with G4	**0:** If a communication falls back from G4 to G3, the machine will always start transmission with G3 from the next communication. **1:** The machine will always start to transmit with G4.	See the following table
4	Fallback from G4 to G3 when G4 communication fails on the ISDN B-channel **0:** Fallback disabled (Default) **1:** Fallback enabled	**1:** Enable this switch only when G4 communication errors occur because the exchanger connects G4 calls to the PSTN. This problem only occurs with some types of exchanger.	

Software versions for each machine

Communication Switch 07							
	FUNCTION	**FX4**	**FR4**	**Adam**	**NAD**	**Stinger**	**Russian**
3	Fallback from G4 to G3 reflected in programmed Quick/Speed dials **0:** Fallback enabled (Default) **1:** Always start with G4	N/A	Availa-ble	N/A	N/A	Available	Available
4	Fallback from G4 to G3 when G4 communication fails on the ISDN B-channel **0:** Fallback disabled (Default) **1:** Fallback enabled	N/A	Availa-ble	Ver. 1.75 or later	Ver. 5.01 or later	Available	Available

N/A: Function is not available

RICOH

Modification Bulletin

Model: General	Date: 23-May-00	No.: MGenM001

Modified Article: Barrierta JEF552			Prepared by: T. Itoh
From: Technical Service Dept., GTS Division			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☐ Vendor change ☐ To improve reliability ☒ Other	☐ To meet standards ( )

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
A0289300		Grease Barrierta JFE55/2	1 - 0	O/O	Refer to the Special Tools section		
	A2579300	Grease Barrierta S552R	0 - 1				

The vendor of Grease Barrierta has produced a new type that has no scent. A new part number has been assigned to this new type.

Model: General	Date: 05-Jun-00	No.: MGenM002

Modified Article: Silicone Oil			Prepared by: H. Matsui
From: Technical Services Dept., GTS Division			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☐ Vendor change ☐ To improve reliability ☒ Other	☐ To meet standards ( )

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
54209550	-	Silicone Oil	1-0	O/O	-	-	
-	A2579100	Silicone Oil Type SS (Ricoh Brand)	0-1	O/O	-	-	See Note
-	A2579550	Silicone Oil Type SS (Generic Brand)	0-1	O/O	-	-	See Note

The part number for the silicone oil has been changed. The difference between the two new parts (A2579100 and A2579550) is the design of the bottle label. The label for A2579100 contains the "RICOH" brand name and the label for A2579550 contains no brand name (generic use).

NOTE
The interchangeability is O/O for all models except for the Cattleya A257/A269. The old type of silicone oil (54209550) should **NOT** be used for the Cattleya A257/A269. Please refer to RTB #RA257001 and MB #MA257001.

Reissued: 24-Jul-00

Model: GENERAL	Date: 14-Jul-00	No.: RGene005a

RTB Correction

The items in bold italics have been corrected or added.

Subject: Test Chart			Prepared by: M. Tsuyuki
From: Technical Services Dept.k, GTS Division			
Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☒ Other ( )		

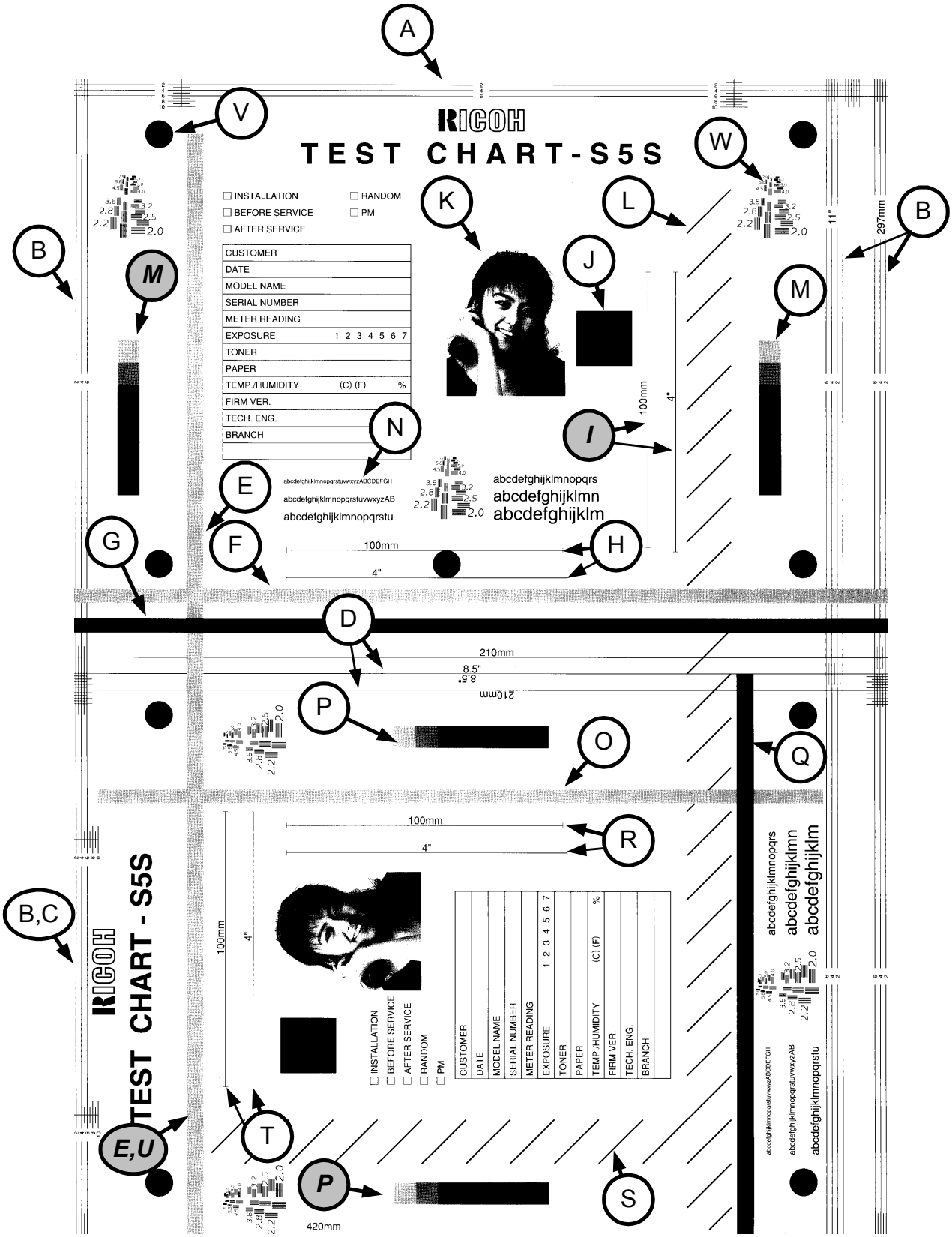
The following new test chart has been released for black-and-white copiers. This chart can be used in place of chart 54209516 (Test Chart - OS - A3 (10pcs/set)) and 52149500 (Test Char - OS – A4 (10pcs/set)). Its part number and description are shown below.

Part Number	Description
A2929500	Test Chart – S5S (10 pcs/set)

54209516 and 52149500 have been discounted and are available until stock runs out.

For your reference, the following pages explain the items in the test chart.

Model: GENERAL	Date: 14-Jul-00	No.: RGene005a



Model: GENERAL	Date: 14-Jul-00	No.: RGene005a

A: Leading edge registration (Max. A3/***DLT*** size copier)

B: Side-to-side registration/Skew (Max. A3/***DLT*** size copier)

C: Leading edge registration (Max. A4/***LT*** size copier)

D: Side-to-side registration/Skew (Max. A4/***LT*** size copier)

E: Jitter (Max. A3/***DLT*** size copier)

F: White line(s) in halftone areas (Max. A3/***DLT*** size copier)

G: White line(s) (Max. A3/***DLT*** size copier)

H: Main scan/horizontal magnification (Max. A3/***DLT*** size copier)

I: Sub scan/vertical magnification (Max. A3/***DLT*** size copier)

J: Solid black areas

K: Photo image

L: Scanning bit error (Max. A3/***DLT*** size copier)

N: Letter

M: Uneven image density (Max. A3/***DLT*** size copier)

O: Jitter (Max. A4/***LT*** size copier)

P: Uneven image density (Max. A4/***LT*** size copier)

Q: White line(s)

R: Sub scan/vertical magnification (Max. A4/***LT*** size copier)

S: Scanning bit error (Max. A4/***LT*** size copier)

T: Main scan/horizontal magnification (Max. A4/***LT*** size copier)

U: White line(s) in halftone areas (Max. A4/***LT*** size copier)

V: ID balance of solid black areas

W: Resolution

Model: General	Date: 13-Mar-01	No.: RGene006

Subject: ROM History (Eland 99: Network Interface Board)	Prepared by: H. Someya
From: Technical Services Dept., GTS Division	

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

Firmware history for Eland 99 (Network Interface Board).
The software versions listed below can be used for the NIBs of the following models:

Product Name	Product Code for Mainframe	Product Code for Controller/NIB
Stinger-C1/C1L	A250	B307
Russian-C1	A265/A267	B307
Russian-P	G038	
FresaWIN	G024-57/-67	G678-14
PomeloWIN	G033	G678-13
Color Controller RC-200	A258/A259/A260 (Iris/Lilac)	G528

G6785839	File No. (G678Rxxx)	Version	Check Sum	Production
B	001	3.7.5		1st release
C	002	3.7.7	600F	February Prod. '99
D	003	3.8.6	7DF6	March Prod. '99
E	004	3.8.7	00BB	April Prod. '99
F	005	3.8.8	6339	June Prod. '99
G	006	3.9.2	9605	July Prod. '99
H	007	3.9.8	5A35	October Prod. '99
J	008	4.0.0	6E2A	November Prod. '99
K	009	4.0.2	FF9C	April Prod. 2000
L	010	4.0.6	4B87	October Prod. 2000
M	011	4.0.7	C027	February Prod. 2001

Symptom Corrected (latest ones only)	
Classless InterDomain Routing(CIDR) is supported.	M
DHCP of Solaris 2.6 is supported.	M

Model: General	Date: 13-Mar-01	No.: RGene007

Subject: ROM History (Ferret 99/00: Network Interface Board)	Prepared by: H. Someya
From: Technical Services Dept., GTS Division	

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

Firmware history for Ferret 99/00 (Network Interface Board).
The software versions listed below can be used for the NIBs of the following models:

Product Name	Product Code for Mainframe	Product Code for Controller/NIB
FresaWIN+	G047/G048	G678-20
Russian-P2	G062	
Color Controller RC-210	B017/B018 (Iris2/Lilac2)	G549

Suffix G6785847	Version	Check Sum	Production
D	4.8.2	4088	1st release
E	5.0.2	77A9	September Prod. 2000
F	5.0.4	C96E	October Prod. 2000
G	5.0.7	0AF9	February Prod. 2001

Symptom Corrected	
DHCP of Solaris 2.6 is supported.	G
The spelling of the command "retern" in the UNIX install shell has been corrected to "return".	F
Classless InterDomain Routing(CIDR) is supported.	E
First release for Russian-P2 and Color Controller RC-210	E

RICOH Modification Bulletin

Model: General	Date: 25-Jun-01	No.: MGenM003

Modified Article: Flash Memory Card			Prepared by: M. Matsuda
From: Technical Services Dept., GTS Division			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☒ Vendor change ☐ To improve reliability ☐ Other	☐ To meet standards ( )

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
A2309351	N8031000	Case – Flash Memory Card	O/O	1	Refer to SPECIAL TOOLS section.		
A2309352	N8036701	Flash Memory Card	O/O	1			

Due to a vendor change, the part numbers of **Case – Flash Memory Card** and **Flash Memory Card** have been changed.

RICOH **M**odification **B**ulletin

Model: General	Date: 19-Dec-01	No.: MGenM004

Modified Article: ISDN Cable			Prepared by: K.Moriizumi
From: Technical Service Dept., GTS Division			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☒ Part standardization	☐ Vendor change ☐ To improve reliability ☐ Other	☐ To meet standards ( )

The ISDN modular cord for several ISDN options has been changed to standardize parts.

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
H1435700	H3095200	ISDN Modular Cord	1	O/O	-	-	
H1435701	H3095200	ISDN Modular Cord	1	O/O	-	-	
H3065216	H3095200	ISDN Modular Cord	1	O/O	-	-	
H3065217	H3095200	ISDN Modular Cord	1	O/O	-	-	

Model: General (GW Models)	Date: 20-Dec-01	No.: RGene010

Subject: Series Print Mode	Prepared by: K. Misugi
From: Technical Services Dept., GTS Division	

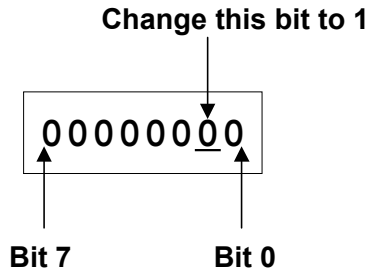
Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

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 after 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 before the last sheet of the previous job is fed out.

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

Reissued: 11-Jul-02

Model: General	Date: 11-Jul-02	No.: Gene008a

RTB Reissue

Subject: ROM History (Eland 99: Network Interface Board)			Prepared by: H. Someya
From: Technical Services sec. Service Planning Dept.			
Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☒ Retrofit information
	☐ Other ( )		

This RTB details the firmware history for the Eland 99 (Network Interface Board).
The software versions listed below can be used for NIBs of the following models:

Product Name	Product Code for Mainframe	Product Code for Controller/NIB
Stinger-C1/C1L	A250	B307
Russian-C1	A265/A267	B307
Russian-P	G038	
FresaWIN	G024-57/-67	G678-14
PomeloWIN	G033	G678-13
Color Controller RC-200	A258/A259/A260 (Iris/Lilac)	G528

G6785839	Version	Check Sum	Production
B	3.7.5		1st release
C	3.7.7	600F	February Prod. '99
D	3.8.6	7DF6	March Prod. '99
E	3.8.7	00BB	April Prod. '99
F	3.8.8	6339	June Prod. '99
G	3.9.2	9605	July Prod. '99
H	3.9.8	5A35	October Prod. '99
J	4.0.0	6E2A	November Prod. '99
K	4.0.2	FF9C	April Prod. 2000
L	4.0.6	4B87	October Prod. 2000
M	4.0.7	C027	February Prod. 2001
N	4.0.8	B635	August Prod. 2001
P	4.1.0	F0A3	July Prod. 2002

Symptom Corrected	
SNMP security vulnerabilities reported by CERT on Feb.12, 2002 have been tested using the PROTOS c06-snmpv1 test suite and we have verified the fixes. -CERT :http://www.cert.org/advisories/CA-2002-03.html -PROTOS c06-snmpv1 test Suite :http://www.ee.oulu.fi/research/ouspg/protos/testing/c06/snmpv1/	P
Cannot connect to NetWare Servers when the servers use NCP Packet Signature Level 2.	N

Reissued: 11-Jul-02

Model: General	Date: 11-Jul-02	No.: Gene009a

RTB Reissue

Subject: ROM History (Ferret 99/00: Network Interface Board)	Prepared by: H. Someya
From: Technical Services sec. Service Planning Dept.	

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

This RTB details the firmware history for the Ferret 99/00 (Network Interface Board).
The software versions listed below can be used for NIBs of the following models:

Product Name	Product Code for Mainframe	Product Code for Controller/NIB
FresaWIN+	G047/G048	G678-20
Pomelo-P3	G063	
Russian-P2	G062	
Color Controller RC-210	B017/B018 (Iris2/Lilac2)	G549

Suffix G6785847	Version	Check Sum	Production
D	4.8.2	4088	1st release
E	5.0.2	77A9	September Prod. 2000
F	5.0.4	C96E	October Prod. 2000
G	5.0.7	0AF9	February Prod. 2001
H	5.1.0	8DD4	August Prod. 2001
J	5.1.2	83E4	July Prod. 2002

Symptom Corrected	
SNMP security vulnerabilities reported by CERT on Feb.12, 2002 have been tested using the PROTOS c06-snmpv1 test suite and we have verified the fixes. -CERT :http://www.cert.org/advisories/CA-2002-03.html -PROTOS c06-snmpv1 test Suite :http://www.ee.oulu.fi/research/ouspg/protos/testing/c06/snmpv1/	J
- SNMP Trap IP address is set to 11.22.33.44 incorrectly before the NIB is assigned the IP address from the DHCP server - Disconnects from NetWare Servers that use relatively old CPUs (i486) - Cannot connect to NetWare Servers when the servers use NCP Packet Signature Level 2.	H

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

Subject: Euro symbol not printed with PS driver	Prepared by: T. Itoh
From: Technical Services sec. Service Planning Dept.	

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

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:

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. Enable this feature by changing the setting of Bit SW#3-0 to “1 (ON)” in SP mode (default: OFF).

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			B4635117
Model-A P3	Controller	G0656022	Martini-C1	ROM DIMM	G3395117
		G0656023			G3385117
Russian-C2	ROM DIMM	B4615117	Model-K3	Controller	B5165750
		B4535117			
Model-J P1b	ROM DIMM	G0776120			

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

Font Table

	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.

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-DemiItalic	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	

Geneva	Palatino-Italic
GillSans	Palatino-Roman
GillSans-Bold	StempelGaramond-Bold
GillSans-BoldCondensed	StempelGaramond-BoldItalic
GillSans-BoldItalic	StempelGaramond-Italic
GillSans-Condensed	StempelGaramond-Roman
GillSans-ExtraBold	Symbol
GillSans-Italic	Tekton
GillSans-Light	Times-Bold
GillSans-LightItalic	Times-BoldItalic
Goudy	Times-Italic
Goudy-Bold	Times-Roman
Goudy-BoldItalic	TimesNewRomanPS-BoldItalicMT
Goudy-ExtraBold	TimesNewRomanPS-BoldMT
Goudy-Italic	TimesNewRomanPS-ItalicMT
	TimesNewRomanPSMT

Workaround Announced on the FAQ Page

Question:

Euro Fonts printing problem

Answer:

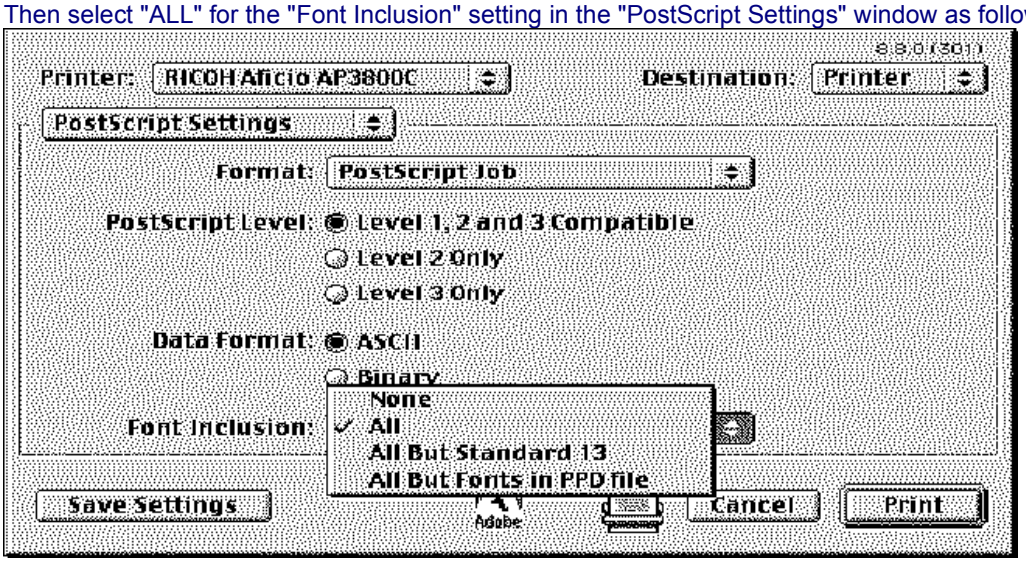
If Euro Fonts can't be printed by the PS driver, the following solutions may be effective.

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.



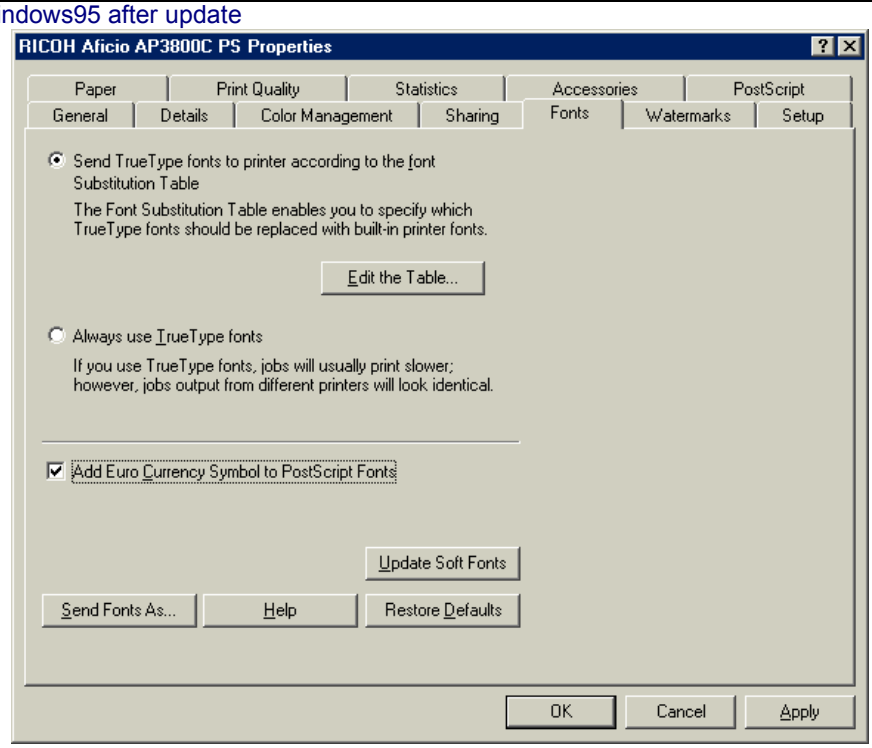
Windows 95

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.)

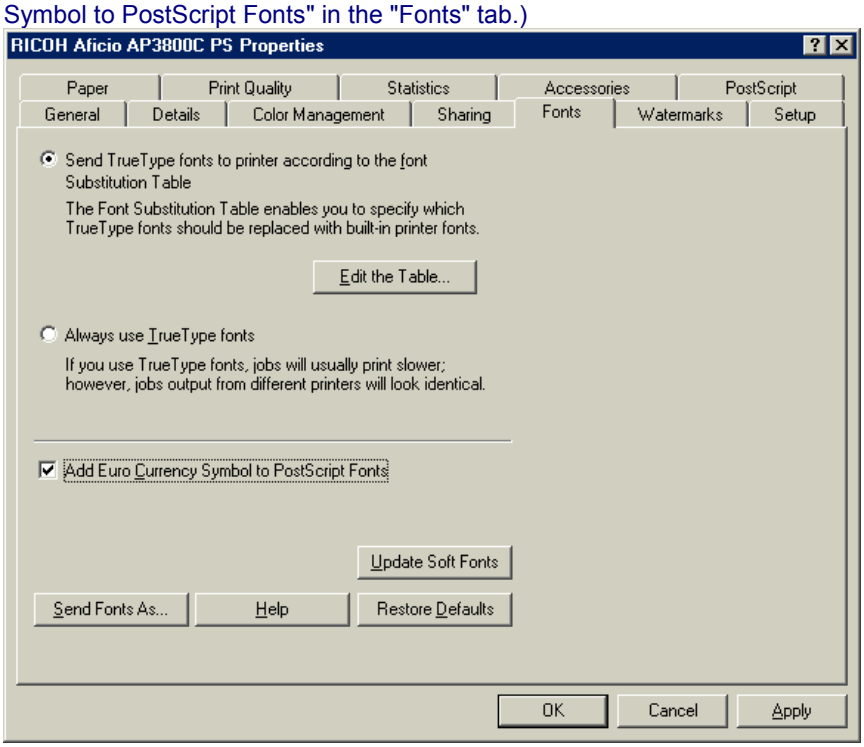
Windows95 after update



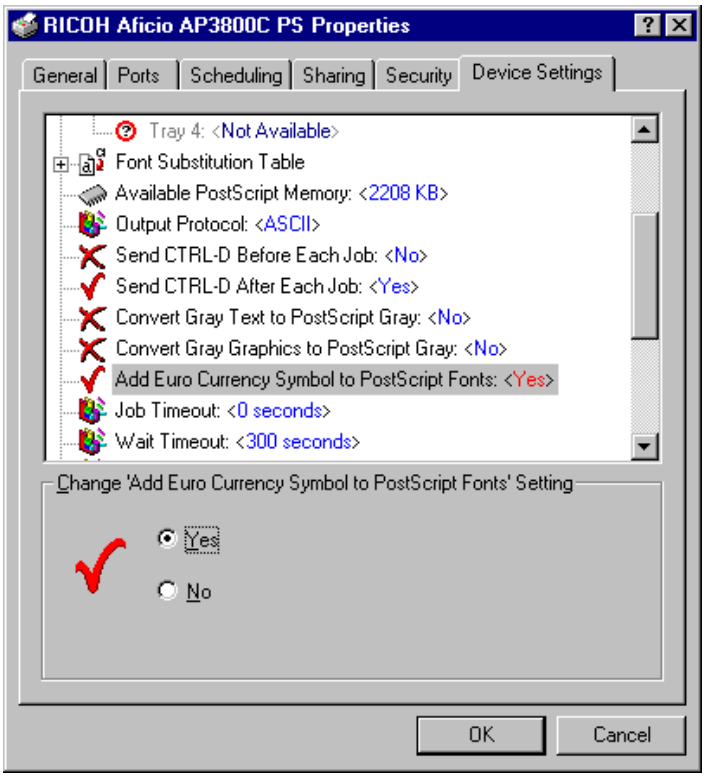
Windows 98 / ME / NT4.0 / XP

Check "Add Euro Currency Symbol to PostScript Fonts" .

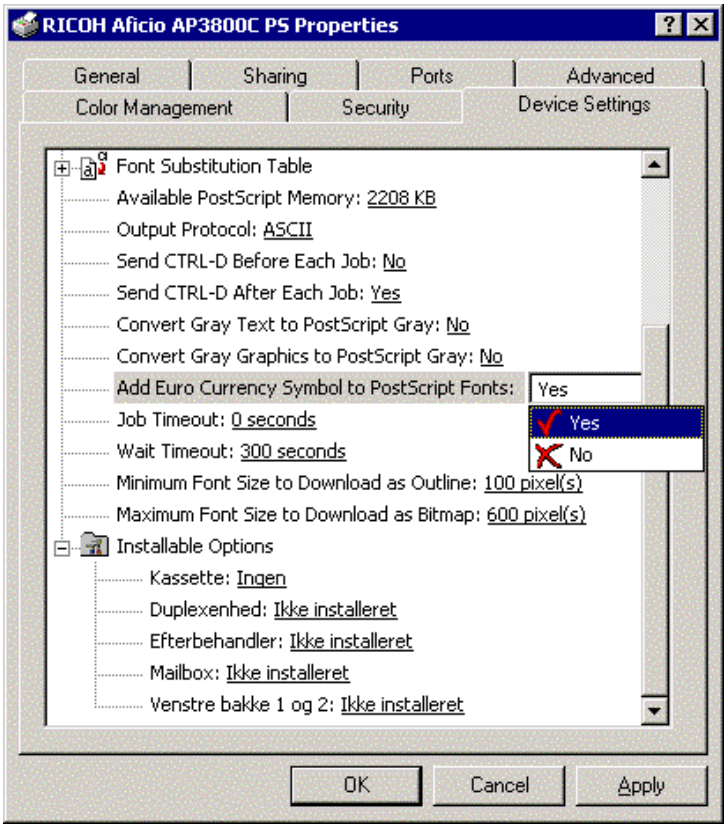
Windows 98 / ME (Note: The AdobePS driver version 4.3.1 or later has "Add Euro Currency Symbol to PostScript Fonts" in the "Fonts" tab.)



Windows NT4.0



Windows XP



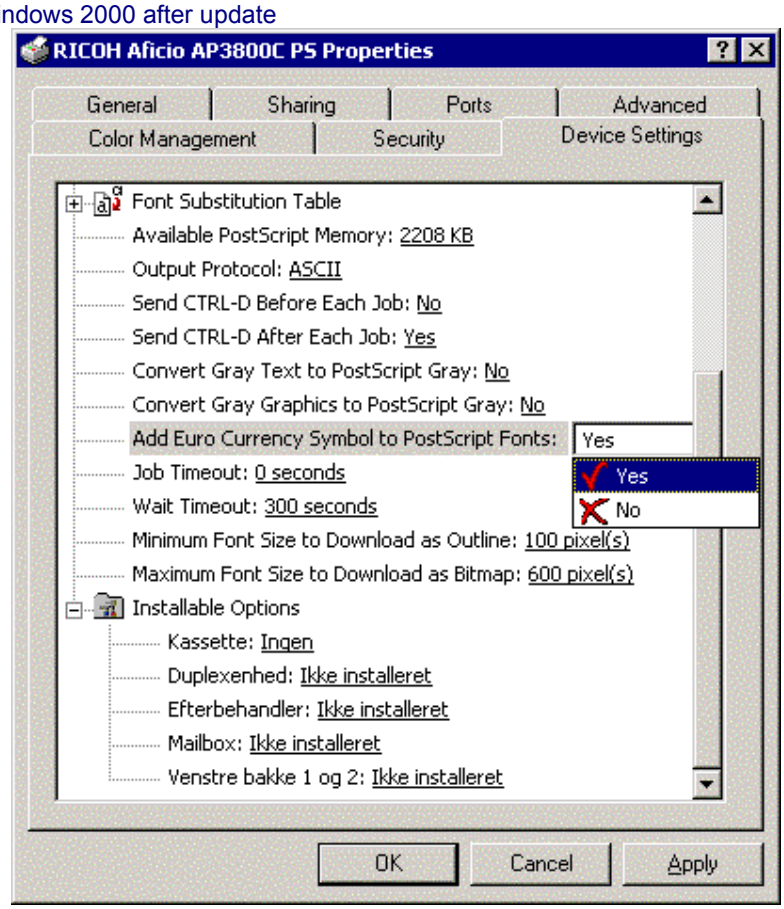
Windows 2000

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.

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



Model: General RTB	Date: 27-Dec-02	No.: RGene012

Subject: GW Products - Hardware Ethernet Problem	Prepared by: T. Itoh
From: Technical Services Sec. Service Planning Dept.	

Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit 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
Fax	Kaiser 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.

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

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 **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 **negative** when products are shipped from the factory. **Note:** 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. **Note:** After making test samples at installation, the (positive) counter value cannot be set back to "0" with SP mode.

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 **from a negative value to 0**, the machine recognizes this as the counter clear day and stores this date in the NVRAM.
New	Installation Date	• When the electrical counter **reaches a value of 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***

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

(2) Current products

Product Name	Product Code	Target cut-in production month	Cut-in production month
Digital B&W Copiers			
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 Copiers			
Dolphin	B010	2003.03	***March '03 production***
Analog Copiers			
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.***

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 set the counter value to 0 **first**, then make the installation test samples.

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 pre-installation 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".

Model: Bellini-C2	Date: 21-Apr-03	No.: RB070002

Subject: SD Card Information	Prepared by: S.Orita
From: 2nd Tech Support Sec. Service Support Dept.	

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

We are releasing the SD Card as a new service tool from Bellini-C2.
The detailed information is as follows:

1. Introduction

1-1 Objective

Although flash memory cards have been used on Ricoh products for service activities in the field, some products require several flash memory cards to update all types of firmware. To save time and servicing costs for firmware and data uploading and downloading, Ricoh GW products will now use SD cards as the new memory media.

1-2 Introduction of the SD Card

The Bellini-C2 is the first product released that uses an SD card instead of a ROM DIMM. The SD card will be used on all future GW products (except for some such as the Model-A C3 and Model-J P2). The Service Launching Guide for each product will mention whether or not the SD card is used.

2. Service Concepts

The following benefits for service activities can be expected with the SD card:

- Maximizing service efficiency, minimizing servicing time, data back-up
  SD cards have enough memory to store all types of firmware and/or data, saving servicing costs and time.
- Unlike flash memory cards, the swap box and/or PC application software tools are not required. Firmware can be easily stored, copied, or deleted using Windows Explorer.

3. Service Information

When issuing an FPR (Field Problem Report), the print data and/or debug log data captured by the SD card should be included with the report depending on the type of problem, as it is very useful for analyzing the problem and developing a solution. Please see Section 4-3 below for a detailed description of the functions for the SD card.

The debug log data and/or print file data attached to the FPR sent to Ricoh Japan are used for the following types of problem analyses. Please refer to the Service Manual for the detailed procedures on how to retrieve this information from the machine.

Data	Problem Type
Debug log	• Problems with unknown causes (SC code, paper jam, other abnormal machine operation). • Problems that occur intermittently.
Print data (captured file)	• Font problems • Image data missing • Image problems which cannot be duplicated when printing test patterns from the printer

4. System Overview

4-1 SD Card Type

There are two types of SD cards: The service SD card, and the application SD card.

	SD Card Type	Description
1	Application	• The cards are provided as an option for expanding features, depending on the model. • The card contains ID encryption to protect against illegal duplication. • The cards are provided with application firmware already included, and have varying memory capacities depending on the content.
2	Service	• The cards are registered as service parts and can contain firmware for multiple products. • The cards contain no encryption; therefore, firmware or data in the card can be duplicated. • The memory capacity is 64MB.

4-2 SD Card Adapters

All models that support the SD card contain SD card slot(s) for direct uploading and downloading of firmware and other data (see below) between the card and machine. When transferring firmware and data between the card and a PC, an adapter is required (PCMCIA adapter or USB reader/writer).

For the specifications of the PCMCIA adapter and USB reader/writer, please refer to section 7 below “System Requirements”.

4-3 Features of the Service SD Card

The following are the features for the Service SD card at the time this document was issued. Please refer to the Service Manual for the detailed procedures on how to update the firmware or retrieve the data from the machine.

	Feature	Description	Remarks
1	Firmware update	• Firmware upgrade or downgrade. • Firmware for any supported product can be stored in the card. • The machine automatically scans the content of the card and can recognize what model the firmware is for. The machine will only download firmware for the same model as itself.	Please refer to section 4-4 below for guidelines on how to store the firmware and data in the SD card. Firmware cannot be uploaded from the machine to the SD card.
2	Data upload and download	The following data can be transferred between the NVRAM and the SD card: • SP data (such as factory settings) • Logging Data • User settings (e.g. network, fax and mail addresses).	Transferable data can vary from product to product. Please refer to the Service Manual for each model for details.
3.	Debug log	The machine operation log can be captured when a problem (e.g. SC codes, paper jams) occurs. This data is very useful in determining the cause of a problem. New SP modes have been added to capture the debug log data to the HDD or SD card.	
4.	Card Save	Print data (files) can be stored directly to the SD card without printing out.	

4-4 Storing Firmware and Data in the SD Card

(1) Firmware (folder name: romdata):
When the SD card is inserted into the machine slot for firmware update, the machine automatically scans the firmware in the **"romdata**" folder and checks the firmware headers, which indicate the model. If the model is the same as the machine, the transfer is authorized.

NOTE: The firmware should always be in the "romdata" folder. If not, the machine cannot find the firmware.

Therefore, folder arrangement is not critical for firmware downloads, since this process is automatic. However, creating separate folders under "romdata" for each model will make it easier to delete files later on. An easy to remember method would be to name these folders after the 4-digit product code for each model, e.g. B070, then store the firmware here.

NOTE: Even if different versions of a firmware are stored in the SD card, the machine displays all versions of the firmware on the operation panel and you can upgrade or downgrade by selecting the desired one.

(2) Other data (folder names: nvramdata, prt, log):
Different types of data for different products can be stored in the service SD card (such as SP data, debug log), and so unique folder names are required for each type of data.

- When inserting a blank SD card to upload NVRAM data from the machine to the card, the folder for that model is automatically created.
- When downloading NVRAM data from the SD card to the machine, as with firmware, the machine automatically detects the model to which the data belongs.

Folder Name: Data Type	Folder Name: Product Code or File Name	File Name	Remarks
SD card			Folder arrangement:
romdata			Firmware
	B070		Product code
		B0701111.fwu	Type of firmware
		B0701111a.fwu	Type of firmware
		B0702222.fwu	Type of firmware
	BXXX		Product code
		BXXX1111.fwu	Type of firmware
		BXXX2222.fwu	Type of firmware
nvramdata			NVRAM data (factory setting)
	B070		Product code
		serial number.nv	
prt			
	cardsave		
		PRT00000.prn	Name of captured file
		PRT00001.prn	Name of captured file
log			
	debuglog		File name

4-5 FIRMWARE DESTRIBUTION

Firmware will continue to be provided through the existing route (global server). The .exe file will consist of the firmware and related folders, as shown below.

4-6 HOW TO DUPLICATE A SERVICE SD CARD

The following is an example of the contents of an extracted .exe file. Please copy the necessary files/folders onto the SD card, depending on what information already exists in the card.

For example:

PC (when extracting the exe. File)

romdata
- B070
  - B0701111.fwu

Case1: Blank SD card
If the SD card is blank, copy the entire “romdata” folder onto the SD card.

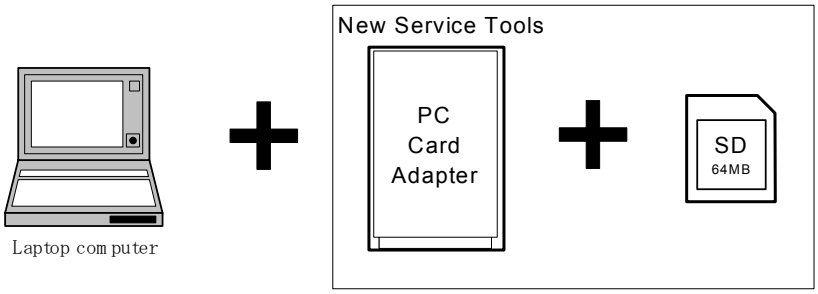
Case 2: Card only contains the “romdata” folder
If the card already contains the “romdata” folder, copy the “B070” folder onto the card.

Case 3: Card contains up to the “B070” folder
If the card already contains folders up to “B070”, simply copy the necessary firmware files (B0701111.fwu) into this folder.

When transferring firmware or data between the SD card and a PC, one of the following adaptors is necessary, both of which have been registered as service parts (see below).

PCMCIA Adaptor

Required environment: Windows 9x or later



USB Reader/Writer

Required environment: Windows 98 or later

5. Special Tools

The following special tools have been registered as service parts to support products in the field that use SD cards. However when using SD cards, adapters or reader/writers procured as supply goods locally, please be sure to use tools produced by the same manufacturers listed below. This is because products from these vendors were used for the official product evaluations.

Unique/Common

U: Unique for this model
C: Common with Iris/Lilac

Item	Part Number	Description	Q'ty	Unique or Common	Manufacturer
1	B6455010	SD Card Kit	1	U	Toshiba / Panasonic*
2	B6456700	PCMCIA Card Adapter	1	U	Panasonic
3	B6456800	USB Reader/Writer	1	U	Panasonic

"*": Service SD cards supplied from Ricoh are produced by Toshiba, and application SD cards by Panasonic (standard/option).

The SD Card Kit (#B6455010) contains the following parts:

- SD Card
- SD Card Plastic Case
- Label (see Note)

NOTE: The kit contains a blank label for the SD card for writing down the card's contents. Please make sure that the label is affixed in the correct position on the card, as this is essential to ensure that the card fits into the card slot and adaptors properly. Please also be sure to completely remove the old label whenever affixing a new one.

7. System Requirements

7-1 SD CARD

Please read over the important notes described below regarding the handling of the SD card. If these points are not followed carefully, it may cause the card to be damaged or data to be lost.

Important Notes:

- Do not directly touch the card contacts or bring them into contact with a metallic substance.
- Do not bend, drop or apply any force or shock to the card.
- Keep the card dry at all times, avoiding high-humidity environments and making sure condensation does not form on the card. The environmental requirements for operation and storage are as follows:

	During operation:	Storage:
Temperature	0 to 55°C	-20 to 65°C
Humidity	20 to 85%RH	5 to 85%RH

- Do not remove the card or turn the power off while reading or writing data.
- All SD cards come preformatted. However, if reformatting the card later on for some purpose, always be sure to confirm the contents of the card before doing so, as all data will be lost when the card is reformatted.
- Do not attempt to duplicate or reformat an application SD card.

Other:

- The power should always be OFF before the card is inserted in or removed from the machine (see Service Manual for details).
- The SD card should always be kept in the plastic case to protect it from damage.
- No labels should be affixed to the card except for the ones packaged together with the card. This label must be affixed in the correct position, and must always be removed when attaching a new label (labels must not be stacked).
- If writing on the label, always do so before affixing it to the card.
- Before inserting either the service or application SD card, always make sure that the card switch is unlocked, as using them in the locked condition will cause an error.
- Since the application SD card is formatted in a different way from the service SD card, the application card cannot be used as a service tool.

7-2 PCMCIA CARD ADAPTOR / USB READER WRITER

	PCMCIA Card Adapter	USB Reader Writer
Manufacturer	Panasonic	
Product Code	BN-SDAA BN-SDAA2	BN-SDCA BM-SDCE2
PC	IBM PC-AT compatible computer	
Host Interface	PCMCIA slot	USB port
OS	Win98 SE or later	
Dimensions	85.6x54x5mm	92x56x15mm

NOTE:

1. Swap Box for the flash memory (IC) card cannot be used for uploading firmware to the SD card.
2. If the USB Reader Writer is used with Win98, a USB Reader Writer driver is required.

Model: General RTB	Date: 19-May-03	No.: RGene014

Subject: MCERicoh CD-ROM Release	Prepared by: A. Ishiyama
From: 1st Technical Support Sec., Service support Dept.	

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

This bulletin is to announce the release of the MCERicoh CD-ROM, which contains IC card writer software and is intended to replace the current F/D media.

1. Reason for CD-ROM Release

There is heavy demand in the field for the CD release among sales companies. In addition, recent laptop PCs do not come equipped with F/D drives.

2. Purchasing Information

- Part No.: **A2309355**
- Part Name: **CD-ROM – MEMORY CARD EXPLORER**
- Availability: This part has just been placed in stock. Please contact your local parts centers for details.

Note: The current F/D (A2309354) will be discontinued as soon as its stock runs out.

3. Program Details

- Version: 1.11
  Only the installer program has been modified, in order to make installation possible from the CD. However, a minor correction has been applied from the current F/D v1.10, which prevents the same program from running more than once at the same time.
- System Requirements
  Since the program is basically the same as the F/D, the system requirements are also the same, except for the following:

  - Supported operating systems: Windows 98/Me/NT/2000.
  Note: The CD version does not support Windows 95 or Windows XP (see the next page).

  For details and information updates on MCERicoh, please refer to the following URL:

  http://support.aficio.com/mcericoh/home.html

4. Other Notes

- Future Development Plan
  RCL is currently considering whether to modify the CD version to support Windows XP and other operating systems yet to be released. This decision will depend on the following:

  - The release schedule for “Longhorn”
  - The time and costs required for development

  This plan will be updated with a more concrete plan in the near future.

Model: General	Date: 20-Jun-03	No.: MGenM005

Modified Article: MCERicoh			Prepared by: A. Ishiyama
From: 1st Tech. Support Sec., Service Support Dept.			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☐ Vendor change ☐ To improve reliability ☒ Other	☐ To meet standards ( )

As announced in RTB Rgene014, the MCERicoh CD-ROM v1.11 has been released, replacing the previous F/D medium v.1.1.0. The F/D supply will be discontinued as soon as its stock is used up.

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
A2309354		Floppy Disk Kit - Memory Card Explorer	1 → 0	-	-	-	
	A2309355	CD-ROM - Memory Card Explorer	0 → 1	-	-	-	

Model: General RTB	Date: 30-Jun-03	No.: RGene015

Subject: Printer Bit Switch 2 bit 3	Prepared by: Y. Tamaoka
From: 1st Tech. Support Sec. Tech. Support Dept	

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

Please note the following Printer Bit switch, which has been added for the PDL Sniffing function on GW architecture printers and optional printer units.

Printer Bit Switch 2 bit 3

Function

PDL Sniffing with Multiple PDLs

0: Enabled (default)

1: Disabled

Description

Enables or disables PDL sniffing for print jobs that contain commands in multiple printer driver languages. When enabled, the machine uses the code patterns embedded in the data to interpret the commands from each PDL and seamlessly print out the job.

NOTE:

1. To activate this function, the mainframe “Printer Language” setting in UP mode must be set to “Auto Select.”
2. The setting of this switch bit has no effect on single PDL jobs.
3. See the next page for sniffing criteria and limitations.

The far right column in the following table shows the character strings that must be present for the machine to switch over to that particular PDL. These items are searched for in the 2kb following the end of a particular PDL.

Printer Language	PJL Personality	PDL Sniffing Criteria ([ESC] signifies 0x1b. [FF] sigifies 0x0c. [EOT] signifies 0x04.)
RPCS	RPCS	N/A
PostScript 3	POSTSCRIPT	%!PS-Adobe-3.1 "%!" "%%" "dict begin" "bind def" "findfont" "showpage" "/statusdict" "0 startjob" [EOT] "}" + space character + "def"
PCL 5e	PCL	[ESC]E [FF]
PCL XL	PCLXL	N/A
PCL 5c	PCL	[ESC]E [FF]

Limitations

1. This function does not work when the printer language is already specified in the PJL commands.
2. This function does not work with PCL XL or RPCS.
3. The printer language module for the PS option must be installed for the machine to switch over to PS, even when the job contains the PDL sniffing criteria strings listed above. In this case, the current PDL will be maintained until the end of the job.

Model: General RTB	Date: 16-Jan-04	No.: RGene016

Subject: SmartDeviceMonitor for Client v.6.0.0.0, v.6.0.1.0 and v.6.0.2.0 problem	Prepared by: N. Moriyama
From: NS Support Sec. Service Support Dept.	

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

SYMPTOM

When using SmartDeviceMonitor for Client v.6.0.0.0, v.6.0.1.0 or v.6.0.2.0, the following symptom may occur.

Symptom #1

When the print server computer uses a SmartNetMonitor port for shared printers and the "Print Notification to Client" feature is enabled, upgrading SmartNetMonitor for Client to SmartDeviceMonitor for Client disables "Print Notification to Client". After the upgrade, whenever the customer manually enables the "Print Notification to Client" feature, the print spooler service of the server stops. Because of this, "Print Notification to Client" can never be enabled after the upgrade.

Symptom #2

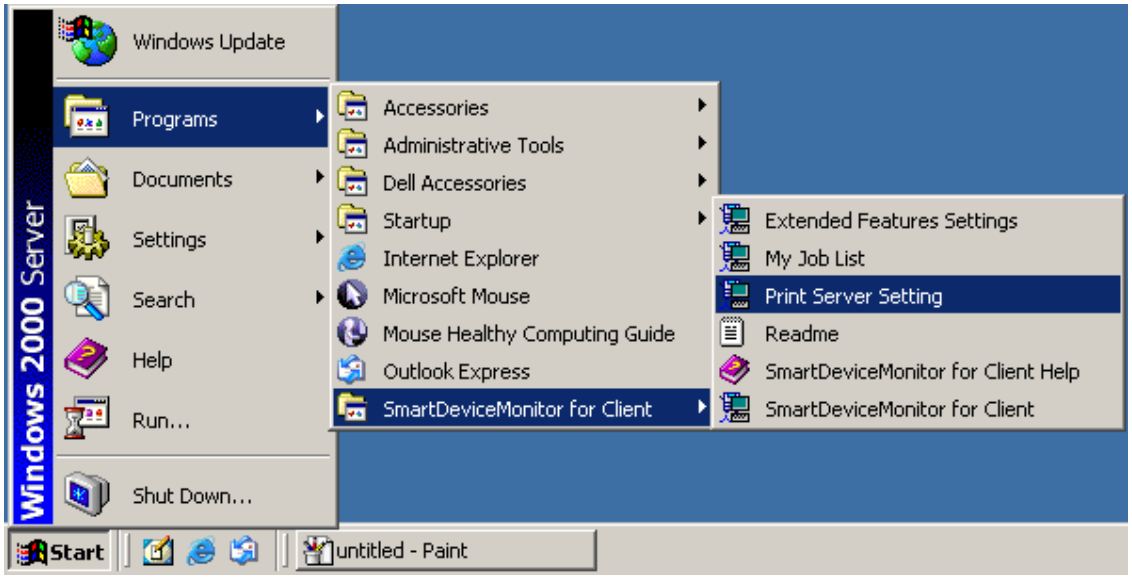
When the print server uses a SmartDeviceMonitor port for shared printers and the "Print Notification to Client" feature is enabled, uninstalling SmartDeviceMonitor for Client causes the print spooler service of the server computer to stop.

Note

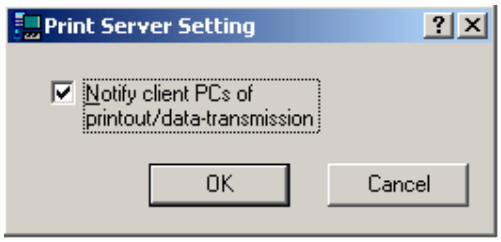
Both symptoms occur only when the "Print Notification to Client" feature is enabled in the Windows Point&Print environment. In the other word, problems never occur if SmartDeviceMonitor for Client is used as a peer-to-peer direct print port, or the "Print Notification to Client" feature is disabled even in the Windows Point&Print environment.

How to enable the "Print Notification to Client" feature.

1. Select [SmartDeviceMonitor for Client/SmartNetMonitor for Client] - [Print Server Setting] in the program menu.



2. Check "Notify client PCs of printout/data-transmission" in the "Print Server Setting" dialog. The default setting is 'unchecked'.



Period of Web distribution

SmartDeviceMonitor for Client v.6.0.0.0, 6.0.1.0 or 6.0.2.0 was posted on the web site from October 24, 2003 to December 19, 2003.

Target models

The following CD-ROM versions of the products include SmartDeviceMonitor for Client v6.0.0.0 or 6.0.1.0.

Product #	Product Name	CD-ROM Version	SDM Version
B622	Printer/Scanner Unit Type 2018	1.01	6.0.0.0
H310 H311	Model K3 (Main Unit)	1.20	6.0.1.0
H556 H557	Model S-F2 (Main Unit)	1.20	6.0.1.0

CAUSE

The above problems are caused by the SmartDeviceMonitor for Client installer.
When upgrading from SmartNetMonitor for Client to SmartDeviceMonitor for Client, the installer does not inherit the "Print Notification to Client" setting from SmartNetMonitor for Client. Also, if uninstalling SmartDeviceMonitor for Client when the "Print Notification to Client" setting is enabled, the uninstaller does not completely uninstall registry entries.

SOLUTION

SmartDeviceMonitor for Client v.6.0.3.0 was released on the web site on January 16, 2004.
If one of the above symptoms occurs, download SmartDeviceMonitor for Client v.6.0.3.0 (or later) and install it.
After installing SmartDeviceMonitor for Client v.6.0.3.0, the print spooler service of the server computer re-starts automatically and the “Print Notification to Client” feature works correctly.

RICOH **M**odification **B**ulletin

Model: General	Date: 9-Feb-04	No.: MGenM006

Modified Article: Special Tools			Prepared by: F.Noguchi
From: 2nd Tech. Support Sec. Service Support Dept.			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☐ Vendor change ☐ To improve reliability ☒ Other	☐ To meet standards ( )

The following special tools have been deleted from service parts.

Reasons for deletion:

1) These types of tools were not as readily available in the field 20 years ago, when they were first introduced as service parts, but now they are more widely available locally and in most cases cheaper than the service parts.
2) The production of these items has been discontinued.

Old part number	Description	Q'ty	Note
54209508	Test Lead Set	1	
A0299387	Digital Multimeter - FLUKE87	1	
VSSM9000	Digital Multimeter - FLUKE187	1	

Model: General	Date: 27-Feb-04	No.: MGenM007

Modified Article: MCERicoh			Prepared by: A. Ishiyama
From: 1st Tech. Support Sec., Service Support Dept.			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☐ Vendor change ☐ To improve reliability ☒ Other	☐ To meet standards ( )

As announced in RTB Rgene017, MCERicoh – XP v1.00 has been released, replacing the previous MCERicoh v1.11. The previous v1.11 supply will be discontinued as soon as its stock is used up.

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
A2309355		CD-ROM - Memory Card Explorer	1 → 0	-	-	-	
	A2309357	CD-ROM - Memory Card Explorer XP	0 → 1	-	-	-	*
	A2309356	CD-ROM - MCE XP: Upgrade Patch	0 → 1	-	-	-	*

Note:

A2309357: The full version for new installation.

A2309356: A patch program to upgrade from the current v1.10 (A2309354) and/or v1.11 (A2309355) to XP v1.00.

Model: General RTB	Date: 27-Feb-04	No.: RGene017

Subject: MCERicoh - XP Version 1.00 Release	Prepared by: A. Ishiyama
From: 1st Technical Support Sec., Service support Dept.	

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

This bulletin is to announce the release of the MCERicoh – XP v1.00, which contains IC card writing software and also supports Windows XP.
Note: The current MCERicoh v1.11 does not support Windows XP.

1. Reason for this Release

There is a heavy demand for this among sales companies, as the majority of the recent laptop PCs use Windows XP.

2. Program Details

- A new MCE-DLL file has been added to the program to support Windows XP, but there is no difference in function/features between the current v1.10/1.11 and XP v1.00.
- System Requirements:
  This new release supports the operating systems listed below. As shown here, the new release supports Windows XP but does not support Windows 98 (except SE) and NT.

  <Supported Operating Systems>
  * XP 1.00: Windows 98SE/Me/2000/XP
  * v1.10/1.11: Windows 98/98SE/Me/NT/2000

3. Purchasing Information

- There are two different programs available, each with its own part number (listed below):
  1. **XP Upgrade Patch v1.00:** A patch program to upgrade from the current v1.10 (A2309354) and/or v1.11 (A2309355) to XP v1.00.
  2. **XP v1.00:** The full version for new installation.

Program	Part No.	Part Name
XP Upgrade Patch V1.00	**A2309356**	**CD-ROM – MCE XP: UPGRADE PATCH**
XP V1.00	**A2309357**	**CD-ROM – MEMORY CARD EXPLORER XP**

Note:

- The current MCERicoh v1.11 (A2309355) will be discontinued as soon as its stock runs out.
- Both the full-version and patch-version of XP v1.00 need to be purchased as service parts (CD-ROM), since the patch version has an additional software license fee attached (making it impossible to provide the patch via free download).
- Together with the release, a demo version of XP 1.00 is also available on the MCERicoh web site (see URL below).

For details and information updates on MCERicoh, please refer to the MCERicoh web site at:

http://support.aficio.com/mcericoh/home.html

Model: General RTB	Date: 22-Apr-04	No.: RGene018

Subject: Card Save Feature (Print Data Capturing)	Prepared by: T. Itoh
From: Service Support Div. International Marketing Group	

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

INTRODUCTION OF THE "CARD SAVE" FEATURE

This document details the procedure for capturing print data to the IC or SD card, as well as some important related notes. The card save feature, which allows print data to be captured to an IC or SD card, is used to gather data for problem analysis and is supported on the following GW products:

	Models
IC Card	All GW products except: Model K-P1 and A-P3 (due to limited RAM capacity).
SD Card	Models which support the SD card instead of the IC card.

Please use this feature to provide print data for problem analysis and solution development to the relevant technical support division and/or manufacturer location. This feature should be used to provide print data in the following cases:

- Imaging problems with the output image, which seem to be software-related and consistently occur with the print job (e.g. font problems, data missing).

This feature is especially useful under the following condition:

- A spool file cannot be retrieved directly from a PC or a host computer
- It is not permitted to capture network packets

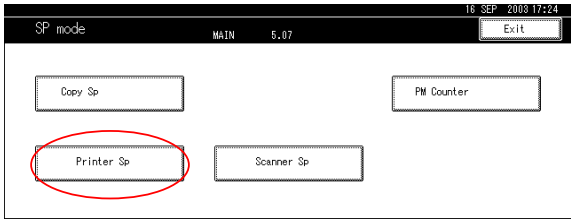
NOTE: When capturing the data with this feature, no pages are printed out.

PROCEDURE

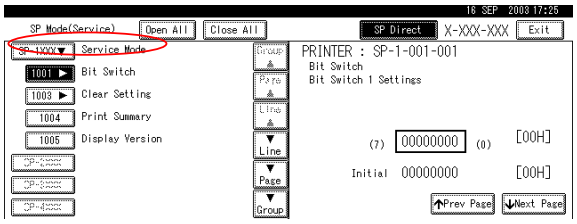
NOTE: When capturing print data with an IC card, it is necessary to use the IC card provided as a service part (not cards generally available in the field).

1. Turn the main switch OFF.
2. Insert the IC card (Service Card) or SD card into the slot (service slot for SD) on the controller board; and then turn the power ON.
3. Access SP mode.
4. Press the Printer Sp button.

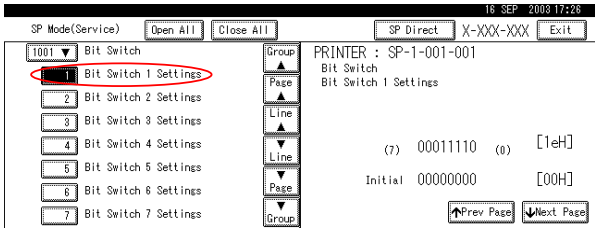
   <For printer models, select the "Service" menu and push "Enter (#)">



5. Select "Bit Switch" in Service Mode.



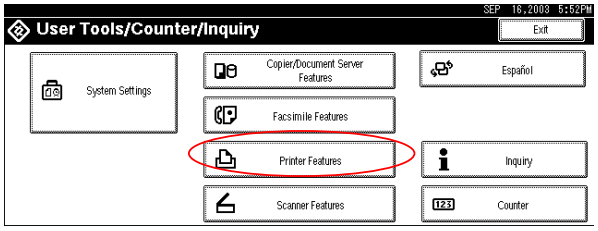
6. Select "Bit Switch 1 Settings" and set the switch to: "**00011110**" using numeric keys #1-4 (see the Service Manual for the procedure). Press Enter (#) to store the setting.
   Note: The default is 00000000.



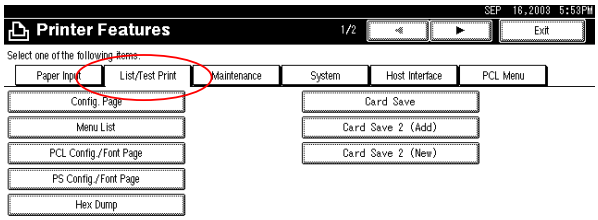
7. Exit SP Mode.
8. Press the User Tools/Counter button on the operation panel.

9. Press “Printer Features” and select “List/Test print”.

   <For printer models, select “List/Test print” (UP Mode) and then select “Card Save”>



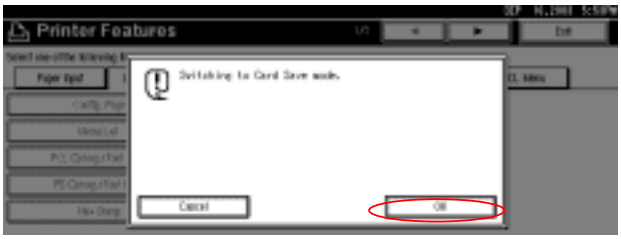
10. Select one of the three Card Save features mentioned below.



√: Available

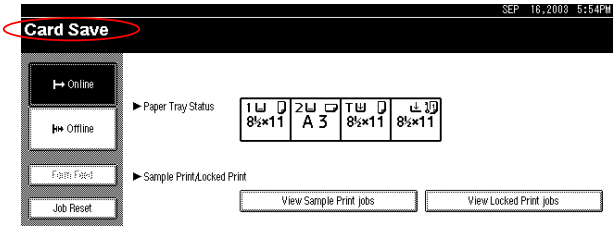
Feature	IC Card	SD Card	Description
Card Save	√	---	Copies a single job to the card, erasing any and all existing data, and then automatically closes the session (exits Card Save mode). ● If the card reaches its capacity during data transmission (4MB or 64MB), the data already transferred remains on the card and the machine displays “<Card Save>Overflow”.
Card Save 2 (Add)	√	√	Copies a job to the card in addition to the existing data, and then keeps the session open for any additional jobs to be copied (up to max 4MB IC or 64MB service parts SD). ● However the **one case** in which all existing data **is deleted** is when such data was previously copied to an IC card using “Card Save.” ● If the card reaches its capacity during data transmission (4MB or 64MB), the data already transferred during that session remains on the card and the machine displays “<Card Save>Overflow”. ● **To exit Card Save mode, press “Offline” then “Job Reset”.**
Card Save 2 (New)	√	√	Copies a single job to the card, erasing any and all existing data, and then keeps the session open. IC Card: All data is erased. SD Card: All files under ‘prt/cardsave’ are erased. ● **To exit Card Save mode, press “Offline” then “Job Reset”.**

11. Click “OK” and then exit from the User Tools/Counter menu.



12. Press the Printer Application button on the operation panel.

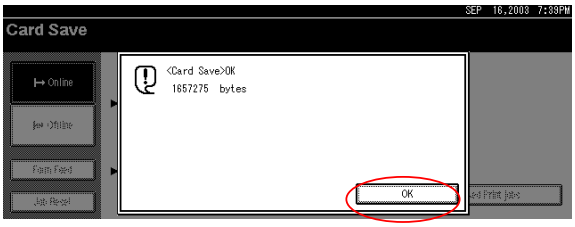
13. “Card Save” should be displayed in the top left-hand corner of the panel screen.



14. Send a sample job to the printer. The indicator will start blinking as shown below.

15. As soon as the printer receives the data, it will automatically begin writing it to the SD or IC card (without printing it out).

16. <u>(1) Card Save mode:</u>
As soon as the job has been successfully written to the IC card, “Card Save OK” will be displayed. Press OK to return to Ready status.
Note: To view this message, the Printer Application must be selected.



<u>(2) “Card Save 2 (Add)” or “Card Save 2 (New) mode:</u>
After the Data-in LED stops blinking, press “Offline” then “Job Reset” to exit.

Important: If the SD/IC card is removed before this, the data may not be properly captured on the card.

17. Access SP mode and change the Bit SW settings back to the default value of "00000000" (using numeric keys #1-4; see the Service Manual for the procedure). Finally, press the Enter (#) key.

    Important: Please be absolutely sure to reset this Bit SW as described above.

18. Turn the main power switch OFF.
19. Remove the IC or SD card.

NOTE

1. If an error occurs with the Card Save function, the machine will display one of the error messages described in "ERROR MESSAGES" (below) in order to prevent a fatal problem from occurring (e.g. firmware crash). The printer will then return to the Ready status automatically. The Card Save menu will still be available in the "List/Test Print" until the Card Save bits are switched off in SP-1-001-001.
2. If the size of the data is larger than the available space on the card, the data already transferred will remain on the card, while the data not transferred is cleared. The machine will then display the "<Card Save>Over *****bytes" message and then automatically exit from Card Save mode.
3. The Card Save features cannot be used with bi-directional communication (e.g. AppleTalk, PJL status read back commands). PJL/PS modules on the controller are not used in Card Save mode.

ERROR MESSAGES

Error Message:	Definition:
"Init error"	An initialization error occurs.
"Card not found"	An unsupported IC/SD card is used or the IC/SD card has not been properly inserted.
"No memory"	The required amount of memory for performing data transfer in Card Save mode cannot be secured.
"Write error"	Writing to the IC/SD card was not successful.
"Other error"	An internal error other than the above has occurred.

HOW TO RETRIEVE DATA FROM AN IC CARD

1. Insert the IC card into the PCMICA Card slot and run the card reading application "MCERicoh".
2. Go to "Operation" and select "Read". The data will be retrieved from the IC card.
3. Save the retrieved data to the PC.

NOTE: Since the IC card does not have a file system (unlike SD cards, which do), the print data is written in the card as binary data in a special format (little endian). Therefore it is not possible to print out the data captured to an IC card even when sent to the printer. In such a case, please send the file to the appropriate technical support division for further analysis.

HOW TO RETRIEVE DATA FROM AN SD CARD

The data is automatically stored in the following location of the SD card. The folders, “prt” and “cardsave”, are automatically created when receiving the data.

	Folder Name		File Name		Remarks
	Data Type	Product Code or File Name			
SD card					Folder arrangement:
	prt				
		cardsave			
			PRT00000.prn		Name of captured file
			PRT.00001.prn		Name of captured file

When capturing print data, the “prn” file is automatically created as shown in the table above. Filenames automatically begin at “PRT00000.prn” and run until “PRT99999”. If the total data size exceeds capacity (e.g. 64MB) or the number of files exceeds 99999, the “No Memory” error message will appear.

Model: General	Date: 22-Nov-04	No. MGenM008

Modified Article: Developer registered with service parts			Prepared by: T. Shintani
From: 1st Technical Support Sec. Service Support Dept.			
Reason for Modification:	☐ Parts catalog correction ☐ To facilitate assembly ☐ Part standardization	☐ Vendor change ☐ To improve reliability ☒ Other ()	☐ To meet standards ()
Modification Schedule:			

Change: Developer was added as a service part.

Note: From November 2004, you cannot order developer as a product with an EDP code.

Reason: To make it easier for field technicians to order the developer instead of a product with EDP code.

- **How to Read the New Part Number**

[4-digit product code] + [4-digit number from table]

Developer	Produced in JAPAN	Produced in USA (REI)
Black	9640	9645
Cyan	9660	9665
Magenta	9670	9675
Yellow	9680	9685
Cleaning	9690	9695

Example: B064 9645 is black developer produced in N.A. for the Martini-C1.

- **New Part Numbers**

USA (REI)

No	Development Code Name	The color of Developer	**Product Name**	**New Parts No**	Compare with OLD EDP CODE
1	F400/PHOENIX	Black	**Developer Type 1 Black**	**A0959645**	885176 885177 885178 885356
2	Martini-C1	Black	**Developer Type 24 Black**	**B0649645**	885435 885436 885437 885438
3	Penguin	Black	**Developer Type 9 Black**	**A2469645**	885439 885441 885442
4	N220	Black	**Developer Type 410 Black**	**A0489645**	885444 885445 885446 885447
5	J2SS	Black	**Developer Type 820 Black**	**A1639645**	885448 885449

JAPAN

No	Development Code Name	The color of Developer	**Product Name**	**New Parts No**	Compare with OLD EDP CODE
1	AD2/3	Black	**Developer Type 2 Black**	**A1339640**	887637 887691 887693 889609
2	ADONIS-C2	Black	**Developer Type 18 Black**	**B0039640**	888073 888074 888075 888077
3	ADONIS-C3	Black	**Developer Type 26 Black**	**B0799640**	888190 888191 888192 888194
4	AZALEA	Yellow	**Developer Type G Yellow**	**A1669680**	889880 889883 889889 889892
5	AZALEA	Magenta	**Developer Type G Magenta**	**A1669670**	889881 889884 889890 889893
6	AZALEA	Cyan	**Developer Type G Cyan**	**A1669660**	889882 889885 889891 889894
7	Bellini	Black	**Developer Type 14 Black**	**A2949640**	888010 888017 888018 888020
8	Bellini-C/D	Black	**Developer Type 21 Black**	**A2959640**	888164 888165 888166 888168
9	CATTLEA	Black	**Developer Type L Black**	**A2579640**	887951 887955 887956 887983
10	CATTLEA	Yellow	**Developer Type L Yellow**	**A2579680**	887952 887958 887959 887984
11	CATTLEA	Magenta	**Developer Type L Magenta**	**A2579670**	887953 887961 887962 887985
12	CATTLEA	Cyan	**Developer Type L Cyan**	**A2579660**	887954 887964 887965 887986

JAPAN

No	Development Code Name	The color of Developer	**Product Name**	**New Parts No**	Compare with OLD EDP CODE
13	DFC/Lily/AZALEA	Black	**Developer Type F Black**	**A1099640**	889759 889827 889835 889771
14	DFC/Lily/AZALEA	Yellow	**Developer Type F Yellow**	**A1099680**	889760 889828 889836 889772
15	DFC/Lily/AZALEA	Magenta	**Developer Type F Magenta**	**A1099670**	889761 889829 889837 889773
16	DFC/Lily/AZALEA	Cyan	**Developer Type F Cyan**	**A1099660**	889762 889830 889838 889774
17	E7/A7	Black	**Developer Type 310 Black**	**A0769640**	889268 887779 889270 887789 889272
18	F200	Black	**Developer Type 8800 Black**	**A0849640**	889580 889581
19	F40 ・C4	Black	**Developer Type 670 Black**	**A0539640**	887576 887578
20	F400/PHENIX	Black	**Developer Type 1 Black**	**A0959640**	889455 887783 889460 887875
21	Iris/Lilac	Black	**Developer Type K Black**	**A2589640**	887880 887939 887940 887971
22	Iris/Lilac	Yellow	**Developer Type K Yellow**	**A2589680**	887881 887942 887943 887972
23	Iris/Lilac	Mgenta	**Developer Type K Magenta**	**A2589670**	887882 887945 887946 887973
24	Iris/Lilac	Cyan	**Developer Type K Cyan**	**A2589660**	887883 887948 887949 887974
25	J-2 SS	Black	**Developer Type 820 Black**	**A1639640**	887188 889854

JAPAN

No	Development Code Name	The color of Developer	**Product Name**	**New Parts No**	Compare with OLD EDP CODE
26	K/F	Black	**Developer Type 3 Black**	**A2199640**	889855 887780 887788 889864 889866 888180
27	K ir– C	Black	**Developer Type 19 Black**	**B0399640**	888095 888096 888099 888098
28	K ir– C2	Black	**Developer Type 28 Black**	**B1219640**	888224 888225 888228 888227
29	MARTINI	Black	**Developer Type 24 Black**	**B0649640**	885281 885282 885285
30	Mojito	Black	**Developer Type 15 Back**	**A2929640**	888002 888003 888004 888006
31	N220	Black	**Developer Type 410 Black**	**A0489640**	887564 887778 887538 888198 887790
32	N220(PIGEON)	Black	**Developer Type 411 Black**	**A0549640**	887791 887876
33	NAD30/40	Black	**Developer Type 5 Black**	**A2309640**	887733 887879 887736 887734 887737
34	PENGUIN	Black	**Developer Type 9 Black**	**A2469640**	887797 887809
35	SeaHorse-C2	Black	**Developer Type 16W Black**	**B0109640**	888207 888206 888196 888114 888151
36	SP5	Black	**Developer Type 7 Black**	**A2299640**	887748 888007 887751 887749 887752
37	Neptune	Black	**Developer Type 30W Black**	**B1259640**	888214 888229 888270 888271

Reissued: 15-Apr-05

Model: General RTB	Date: 15-Nov-04	No.: RGene019a

RTB Correction

The items in bold italics have been corrected or added.

Subject: Remote Firmware Update			Prepared by: H. Someya
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	☐ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☒ Other ( )		

1. OVERVIEW

The remote firmware update function (referred to as RFU) is used to update the firmware remotely. Service representatives do this over the network. Note that this information is intended for service representatives only and not for end users.

2. SUPPORTED MODELS AND FIRMWARE

The models supporting RFU and the types of firmware that can be updated are shown in Fig. 1:

*"**04A**": Autumn 2004*

Printers

Model	***Group***	System	Network	WebSys	Printer	Engine
Model J-P2	***Before 04A***	OK	OK	---	OK	OK
Model J-P2CF	***Before 04A***	OK	OK	---	OK	OK
Model K-P3	***Before 04A***	OK	OK	OK	OK	OK
Model C-P1	***Before 04A***			OK	OK	OK
Model J-P3	***Before 04A***	OK	OK	OK	OK	OK
Model PL-P1	***Before 04A***	OK	OK	OK	OK	NG
Model G-P1	***04A and later***	***OK***	***OK***	***OK***	***OK***	***OK***
Model C-P2	***04A and later***	***OK***	***OK***	***OK***	***OK***	***OK***
Model K-P4	***04A and later***	***OK***	***OK***	***OK***	***OK***	***OK***

MFPs

Model	***Group***	System	Network	WebSys	Printer	PS	Engine
Model A-C3e/f	***Before 04A***	OK	OK	OK	OK	OK	OK
Model R-C3	***Before 04A***	OK	OK	OK	OK	OK	OK
Model K-C2	***Before 04A***	OK	OK	OK	OK	OK	OK
Model S-C2	***Before 04A***	OK	OK	OK	OK	OK	OK
Model B-C2e	***Before 04A***	OK	OK	OK	OK	OK	OK
Model J-C1	***Before 04A***	OK	OK	OK	OK	OK	OK
Model MT-C2	***04A and later***	***OK***	***OK***	***OK***	***OK***	***OK***	***OK***

Fig. 1 Models supporting RFU

OK: Remote firmware update via the network is possible.

NG: Remote firmware update via the network is not possible.

The following models do not support RFU:

- Printers:
  Model K-P1/P2, Model J-P1, Model A-P3, Model U-P1, Model AR-P1, and not GW products
- MFPs:
  Model A-C2/C3, Model R-C2, Model U-C1, Model MT-C1, and not GW products

3. SYSTEM REQUIREMENTS

Network Interface:
- 10 Base-T or faster Ethernet LAN
- IEEE1284 (Centronics) (A setting must be changed in SP mode.)

Note: IEEE1284 does not support error recovery after a power loss.

For Recovery Mode:
- 10 Base-T or faster Ethernet LAN – the note above says that only 1284 doesn't support it.

Protocols:
For RFU Mode & Recovery Mode:
- FTP (The port must be open)

Operating System:
- Windows Server 2003
- Windows XP
- Windows 2000
- Windows NT 4.0
- Windows 9x/Me
- Mac OS
- UNIX/Linux (Any version)

Note: RFU is available for any OS from which FTP is possible.

Unsupported environments:
- IPP
- SMB over TCP/IP
- Direct port
- AutoNet (169.254.x.x) with DHCP

Ftp settings and commands:

- ***User name (default):***
  - ***Before 04A: rsysupdate***
  - ***04A and later: admin***

- ***Password (default):***
  - ***Before 04A: password***
  - ***04A and later: (no password)***

Note: These default passwords are the same as the administrator passwords.

- Transfer mode: binary
- FTP commands supported:
  - binary (Transfer data in binary mode)
  - dir (List files and directories)
  - put "file name"
  - get version.txt - (Obtain the version.txt file and display its contents.)
  - get errlog.txt - (Obtain the errlog.txt file and display its contents.)

4. STATUS OF UNUPDATEABLE MACHINE

If the printer is in any of the following statuses, RFU will not work.

- Print job in progress (copier, printer, fax, network)
- Scan job in progress (copier, scanner, fax)
- Receiving a print image from the network
- Operation panel is in use
- Incoming/Outgoing fax message
- SC condition

You can check the status of the target machine using WebImageMonitor or SmartDeviceMonitor.

Model: General RTB	Date: 15-Nov-04	No.: RGene019a

5. UPDATING PROCEDURE

Recommendation:
It is strongly recommended that RFU be performed on-site, to minimize the chances of a power-down during RFU.

5.1 Auto Rebooting

After receiving new firmware, the machine firmware is updated and the machine is automatically rebooted using the updated firmware. Fig.2 shows the kind of reboot required after the firmware is updated.

Printers

Model	System	Network	WebSys	Printer	Engine
Model J-P2	Auto	Auto	---	Auto	Auto
Model J-P2CF	Auto	Auto	---	Auto	Auto
Model K-P3	Auto		Auto	Auto	Auto
Model C-P1	Auto		Auto	Auto	Auto
Model J-P3	Auto	Auto	Auto	Auto	Auto
Model PL-P1	Auto	Auto	Auto	Auto	N/A
Model G-P1	***Auto***	***Auto***	***Auto***	***Auto***	***Auto***
Model C-P2	***Auto***	***Auto***	***Auto***	***Auto***	***Auto***
Model K-P4	***Auto***	***Auto***	***Auto***	***Auto***	***Auto***

MFPs

Model	System	Network	WebSys	Printer	PS	Engine
Model A-C3e/f	Auto	Auto	Auto	Auto	Auto	Manual
Model R-C3	Auto	Auto	Auto	Auto	Auto	Manual
Model K-C2	Auto	Auto	Auto	Auto	Auto	Auto
Model S-C2	Auto	Auto	Auto	Auto	Auto	Auto
Model B-C2e	Auto	Auto	Auto	Auto	Auto	Auto
Model J-C1	Auto	Auto	Auto	Auto	Auto	Auto
Model MT-C2	***Auto***	***Auto***	***Auto***	***Auto***	***Auto***	***Auto***

Fig. 2 Reboot Method

Auto: Automatically rebooted after updating the firmware.
Manual: The machine must be manually rebooted after updating the firmware.

5.2 Preparation

Before you update the firmware by RFU, carry out three items as shown below.

5.2.1 Checking the IP address

For a machine with static IP address:

- Search for the IP address using SmartDeviceMonitor for Admin or Web
- SmartDeviceMonitor.
- If the hostname of the machine is registered in a DNS server, use the nslookup command with the machines hostname. This can also be used for dynamic IP addresses if you are using DDNS.
- If the computer name of the machine is registered in a WINS server use the <……..> command.

For a machine with a dynamic IP address:

- Print the config sheet or the SMC for the machine.
- Check the IP address in the DHCP server.

5.2.2 Firmware

- Please download firmware (*.rru or *.rfu files) from our support site and store it in a folder on a local PC to be used for RFU.

5.2.3 Checking the machine status

- Please check the status of the target machine using WebImageMonitor or SmartDeviceMonitor.

5.3 RFU for Windows

1. Open a command prompt.
   - [Start]-[Program]-[Accessories]-[Command Prompt]
2. Logon to the machine using ftp.

```
C:\> ftp xxx.xxx.xxx.xxx          Specify the machine's IP address
Connected to xxx.xxx.xxx.xxx.
220 (Product name) FTP server (1.00)ready.
User (IP address:(none)):
```

3. Enter the user name.

```
User (IP address:(none)):rsysupdate      User name
331 Password required for rsysupdate.
Password:
```

4. Enter the password.

```
Password:xxxxx
230 User rsysupdate logged in.          Login successful.
ftp>
```

5. Enter "dir" to check that version.txt exists.

```
ftp> dir
200 PORT command successful.
150 Opening ASCII mode data connection for '/'.
-r--r--r--root root 200 Jan 1 01:08 help
-r--r--r--root root 200 Jan 1 01:08 info
-r--r--r--root root 200 Jan 1 01:08 install
-r--r--r--root root 200 Jan 1 01:08 prnlog
-r--r--r--root root 200 Jan 1 01:08 stat
-r--r--r--root root 200 Jan 1 01:08 syslog
-r--r--r--root root 200 Jan 1 01:08 version.txt
-r--r--r--root root 200 Jan 1 01:08 errlog.txt
226 Transfer complete.
ftp:372 bytes received in n.nn Seconds n.nn Kbytes/sec.
ftp>
```

6. Enter "get version.txt -" to check the machine's firmware version.

```
200 PORT command successful.
150 Opening ASCII mode data connection for 'version.txt'.
PartNo.        Module Name      Version     Module ID
-------------------------------------------------------------------------------------
G0000000       os & copy        0.20        XXXXXX_copy
G0000000       os & pf          0.20        XXXXXX_system
G570xxxx       Onboard Scn      2.04        XXXXXX_scn
G5705387A      OptDIMM Fax      1.07        XXXXXX_fax
G5700000       printer          0.19        XXXXXX_printer
G5705383D      Network DocBox   2.00        XXXXXX_netfile
G0805920A      Network          0.71        XXXXXX_net
G0805601       ENGINE           R0.14 :06   XXXXXX_eplot
...
-------------------------------------------------------------------------------------
226 Transfer complete.
ftp>
```

7. Enter "binary" to set the file transfer mode to binary.

```
ftp> binary
200 Type set to I.
ftp>
```

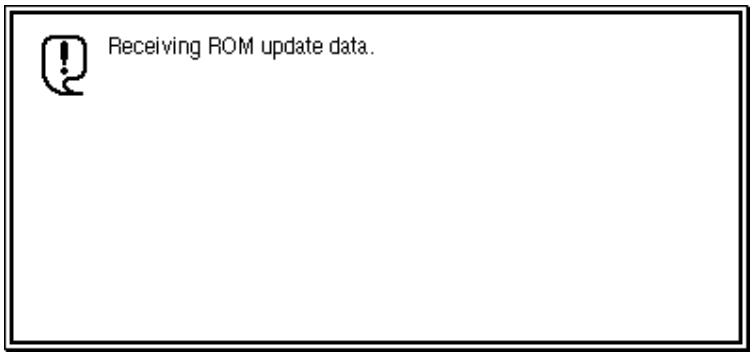
8. Navigate to the directory on your PC containing the file xxx.rru.
9. Transmit the firmware module file (*.rru or *.rfu) using the "put" command.

```
ftp> put xxx.rru
200 PORT command successful.
150 Opening BINARY mode data connection for 'xxx.rru'.
226 Transfer complete.
ftp:nnnnnn bytes sent in s.ss Seconds pp.pp Kbytes/sec.
ftp>
```

Note: Do not turn off the power of the machine while updating the firmware.

When the machine starts to receive the file, the following message appears on the machine's control panel and normal machine functions are disabled.

- Display panel (MFPs)



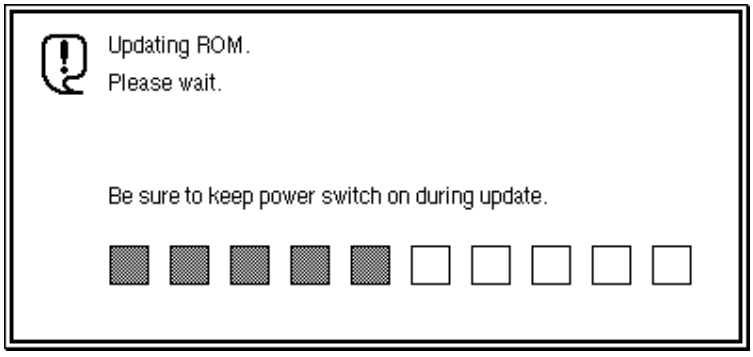
- Display (Printers)

```
ROM Update
Receiving Data
```

10. Once the machine has received the entire firmware module file, the firmware update starts automatically.

    The following message appears:

- Display panel (MFPs)



- Display (Printers)

```
Updating...
***__________
```

Note: If the controller firmware is being updated, this message is displayed in English only.

11. After the firmware has been updated, the machine must restart. This may be automatic depending on the firmware and model.
12. Enter "bye" to exit ftp.

```
ftp> bye
C:\>
```

13. Check the firmware version as shown in step 6.
14. Update all required firmware by repeating steps 1 to 13 as necessary.

5.4 RFU for UNIX(LINUX)

1. Logon to the machine using ftp.

```
host% ftp "ip address"
User ("ip address"): User Name (for Administrator)
230 User xxxx logged in.
331 Password required for rsysupdate.
Password: Password (for Administrator)
230 User xxxx logged in.
Connected to "ip address"
Remote system type is UNIX.
Using binary mode to transfer files.
```

2. Change to binary mode.

```
ftp> binary
200 Type set to I.
```

3. Send the firmware data (*.rru or *.rfu) to the machine.

```
ftp> put "File Name of Firmware"
200 PORT command successful.
150 Opening BINARY mode data connection for "File Name of Firmware".
226 Transfer complete.
ftp: nnnnnn bytes sent in s.ss Seconds pp.p Kbytes/sec.
ftp>
```

4. Close the ftp session.

```
ftp> bye
host%
```

Model: General RTB	Date: 15-Nov-04	No.: RGene019a

5.5 Firmware Update for Centronics (IEEE1284)

Note:

- Firmware update via a centronics interface does not require a password.
- The only method of recovery available via a centronics interface is an IC or SD card.

1. Check the target firmware version by printing out the SMC sheet with SP5-990-4.
2. Set SP5-856-2 to a value of **1**. This will configure the machine for firmware update via the Centronics I/F.
3. Send the firmware to the target machine with the copy command.

```
C:\>copy/b "file name"
```

4. Cycle the machine's power (off then on).
5. Confirm the firmware version as shown in step 1.
6. Update all required firmware by repeating steps 1 to 5 as necessary.

5.6 Checking the Result of the Update

Check that the firmware has been updated.

Note:

- After transmitting the firmware file from the computer, it takes approximately 3 to 5 minutes for updating to complete and the machine to restart.
- To check the result, you need to logon to the machine again using ftp. However, you cannot log on during the update process, so you are unable to check that the update has completed until the machine has restarted.

If the update was successful

- Once the firmware has been updated successfully, the system automatically restarts using the new firmware.
  After the restart, verify that the firmware has been updated to the new version.
  Check that the error code in the error data file (errlog.txt) is "0" by performing procedure 7.1 “Checking the error status” (below).

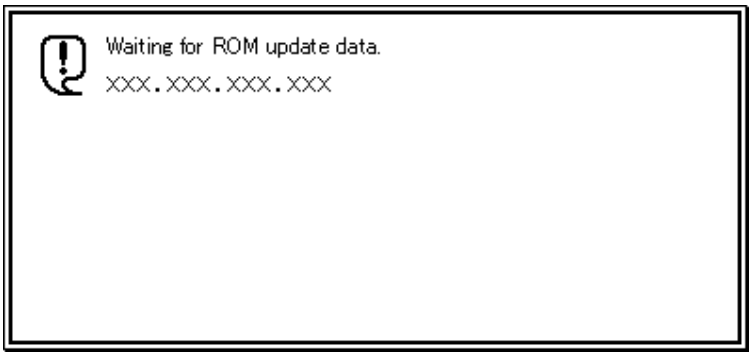
If an error occurs

- If an error occurs during the update, the system automatically restarts, the message shown below appears, and the machine waits to receive the firmware file again. If the update is interrupted by a power failure, the same thing happens once the power is restored.

  Log on to the machine again using ftp and then resend the firmware file to the machine.

The following message appears for Type 1 firmware:

- Display panel (MFPs)



- Display (Printers)

6. ERROR RECOVERY

There are three ways to recover from a loss of power during RFU.

6.1 Recovery Procedure

There are three types for recovery after a power loss during RFU. (This will depend on the firmware and model). Procedures for types 1, 2 and 3 are on the next page.

Find the firmware and model you are downloading to, and begin with the type shown in the table below.

Recommendation:
As mentioned in *5. Updating Procedure*, it is strongly recommended that RFU be performed on-site, to minimize the chances of a power-down during RFU.

Printers

Model	System	Network	WebSys	Printer	Engine	Card Type
Model J-P2	Type1	Type1	---	Type1	Type1	IC
Model J-P2CF	Type1	Type1	---	Type1	Type1	IC
Model K-P3	Type1		Type1	Type1	Type1	IC
Model C-P1	Type1		Type1	Type1	Type1	IC
Model J-P3	Type1	Type3	Type3	Type3	Type1	SD
Model PL-P1	Type1	Type1	Type1	Type1	N/A	SD
Model G-P1	***Type1***	***Type1***	***Type1***	***Type1***	***Type1***	***SD***
Model C-P2	***Type1***	***Type1***	***Type1***	***Type1***	***Type1***	***SD***
Model K-P4	***Type1***	***Type1***	***Type1***	***Type1***	***Type1***	***SD***

MFPs

Model	System	Network	WebSys	Printer	PS	Engine	Card Type
Model A-C3e/f	Type2	Type2	Type2	Type2	Type2	Type1	IC
Model R-C3	Type2	Type2	Type2	Type2	Type2	Type1	IC
Model K-C2	Type1	Type1	Type1	Type3	Type3	Type3	SD
Model S-C2	Type1	Type1	Type1	Type3	Type3	Type1	SD
Model B-C2e	Type2	Type2	Type2	Type3	Type3	Type3	SD
Model J-C1	Type1	Type1	Type1	Type3	Type3	Type1	SD
Model MT-C2	***Type2***	***Type2***	***Type1***	***Type1***	***Type1***	***Type1***	***SD***

Fig. 3 Recovery Method

Model: General RTB	Date: 15-Nov-04	No.: RGene019a

Important: Do not turn the main power off while you perform any of the procedures.

Procedure for type 1:

1. Restore power to the machine. The machine will wait for the operator to start the update.
2. Connect to the machine by FTP and upload the *.rru or *.rfu files.

Procedure for type 2:

1. Try 'Procedure for type 1'.
2. If this does not work, restore power to the machine.
3. Upload the firmware from an SD card or IC card.

Procedure for type 3:

1. Try 'Procedure for type 1'.
2. If this does not work, try 'Procedure for type 2'.
3. If this does not work, replace the internal SD card or circuit board.

Model: General RTB	Date: 15-Nov-04	No.: RGene019a

7. TROUBLESHOOTING

7.1 Checking the error status

You can check the error status using ftp.

Check whether an error occurred by viewing errlog.txt. This file is in the same directory as version.txt.

1. Logon to the machine using ftp.
2. Enter "dir" to check that errlog.txt exists.

```
ftp> dir
200 PORT command successful.
150 Opening ASCII mode data connection for '/'.
-r--r--r-- root root 200 Jan  1 01:08 help
-r--r--r-- root root 200 Jan  1 01:08 syslog
-r--r--r-- root root 200 Jan  1 01:08 version.txt
-r--r--r-- root root 200 Jan  1 01:08 errlog.txt
226 Transfer complete.
ftp: 191 bytes received in n.nn Seconds n.nn Kbytes/sec.
ftp>
```

3. Enter "get errlog.txt -" to check the error code.

```
ftp> get errlog.txt -
200 PORT command successful.
150 Opening ASCII mode data connection for 'errlog.txt'.
Module ID: xxxxxxxx
Error Code: 51
226 Transfer complete.
ftp: 31 bytes received in n.nn Seconds n.nn Kbytes/sec.
ftp>
```

The information in errlog.txt consists of the module IDs of the firmware modules that caused errors and the corresponding error codes.

For what the error codes mean and how to respond to them, see section 7.2 (below).

4. Enter "bye" to exit ftp.

```
ftp> bye
C:\>
```

7.2 Error Code List

Error Code	Description/Causes	Solutions
51	The machine cannot be updated. • The machine is processing a print job. • The machine is processing a scan job. • The machine is receiving image data from the network. • The control panel is in use. • The machine is sending or receiving a fax. • The machine has detected a problem corresponding to an SC (service call) number (SC640 to SC649, SC670 to SC679, SC691, SC818, SC819, SC820 to SC839, and SC990).	Check that the machine is idle, and then try updating again. If an SC number appears, contact your service representative.
52	The file contains erroneous data. • The data is too large or too small. • The CRC (cyclic redundancy check) value and the checksum do not match. • The firmware does not match the target machine. • The firmware was not completely uploaded or is corrupt.	Download the correct file from the website, and then try updating again.
53	An error occurred while updating. • The machine is off.	If using a DNS server, the machine's IP address might have been changed. Check the IP address, and then try updating again.

RICOH

Modification Bulletin

Model: General	Date: 22-Sep-05	No.: MGenM009

Modified Article: SD Card Writer	Prepared by: M. Matsuda
From: 2nd Tech. Support Sec. Service Support Dept.	

Reason for Modification:	☐ Parts catalog correction	☒ Vendor change	☐ Other
	☐ To facilitate assembly	☐ To improve reliability	☐ To meet standards
	☐ Part standardization	☐ Product Safety	( )

Old part number	New part number	Description	Q'ty	Int	Page	Index	Note
B6456700	B6456705	SD-CARD:ADAPTER:BN-SDAA2	1	O/O	-	-	
B6456800	B6456810	SD-CARD:USB:WRITER:BN-SDCE2	1	O/O	-	-	

Change/Reason: Vendor change.