

Reissued: 7-Apr-05

Model: Model C-P2c	Date: 17-Feb-05	No.: RG112001a
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RTB Reissue

The items in bold italics have been added.

Subject: Controller Firmware Release History (System)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware history for the System of the Model C-P2c (G113 model).

Version	Program No.	C. SUM	Effective Date
1.02	G1135430A	0DCA	April '05 production
1.01	G1135430	839C	1st mass production (Jan 2005)

Descriptions of changes

Version	Symptom Corrected
1.02	<i>(Minor change applied for the Japan model only).</i>
1.01	1st Mass Production

Reissued: 30-Jun-05

Model: Model C-P2c	Date: 17-Feb-05	No.: RG112002b
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RTB Reissue

The items in bold italics have been added.

Subject: Controller Firmware Release History (Printer)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware history for the Printer of the Model C-P2c (G113 model).

Version	Program No.	C. SUM	Effective Date
1.03.2	G1135431C	1476	July '05 production
1.02	G1135431B	6703	April '05 production
1.01	G1135431A	F97B	1st mass production (Jan 2005)

Version	Symptom Corrected
1.03.2	<p>1. Sometimes, the keys on the operation panel do not work when the machine is in the Toner End condition.</p> <p>2. Sometimes, the machine stalls when a duplex job is sent from an RPCS driver and then the job is cancelled.</p> <p>Other changes:</p> <p>3. Some features of a customization were added as standard:</p> <ul style="list-style-type: none"> - The IP address is displayed on the LCD. - Thai and non-English Latin characters can be printed with the PS driver <p><u>Important:</u> To use these new features, you need to install all of the following firmware together as a set.</p> <p>System v1.03 or later (P/N #G1135430B)</p> <p>Printer v1.03.2 or later (P/N #G1135431C)</p> <p>Websys v1.13 or later (P/N #G1135433A)</p>
1.02	No changes (version standardization with System firmware only).
1.01	1st Mass Production

Reissued: 30-Jun-05

Model: Model C-P2c	Date: 17-Feb-05	No.: RG112003a
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RTB Reissue

The items in bold italics have been added.

Subject: Controller Firmware Release History (NCS)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware release information for the NCS.

Version	Program No.	C. SUM	Effective Date
4.14.1	G1135432A	E3DC	July '05 production
4.08	G1135432	71AA	1st mass production (Jan 2005)

Version	Symptom Corrected
4.14.1	<ol style="list-style-type: none"> 1. If the paper type setting is changed with WIM while "Permit Settings by SNMPv1 and v2" is disabled, the browser will timeout. The paper type setting change will not be saved. 2. SNMPv1/v2 will still send SNMP traps even if the SNMPv1/v2 function is disabled. 3. Sometimes after a power cycle, the device will be unable to accept jobs from standard TCP/IP or SDM ports. 4. The SNMP buffer may become full when a lot of SNMP traffic is sent to the device. As a result, the device cannot reply to SNMP requests. 5. SDM for Admin cannot retrieve 1394 hostnames and devices when it is installed on a client PC with 1394 and Ethernet interfaces. 6. The SNMP service may not start when the device is turned on. Utilities using SNMP do not receive status updates from the device. <p>Other changes: Some features of a customization were added as standard:</p> <ul style="list-style-type: none"> - The device can accept more than one diprint (port9100) session. - Communication via diprint (port 9100) is asynchronous.
4.08	1st Mass Production

Reissued: 30-Jun-05

Model: Model C-P2c	Date: 17-Feb-05	No.: RG112004a
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RTB Reissue

The items in bold italics have been added.

Subject: Controller Firmware Release History (Websys)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware release information for the Websys.

Version	Program No.	C. SUM	Effective Date
1.13	G1135433A	9CD5	July '05 production
1.12	G1135433	ACDC	1st mass production (Jan 2005)

Version	Symptom Corrected
1.13	<p><i>The following features from a customization were added to WIM as standard:</i></p> <ul style="list-style-type: none"> - <i>Display IP Address on the Display Panel: The device's IP address is displayed on the LCD.</i> <i>(SP5-055-001; [Configuration – Device Settings – System])</i> - <i>Permit ROM Update: Allows the ROM firmware to be updated remotely via the local network.</i> <i>(SP5-886-001; [Configuration – ROM Update])</i> <p><i>Important: To use these new features, you need to install all of the following firmware together as a set.</i> <i>System v1.03 or later (P/N #G1135430B)</i> <i>Printer v1.03.2 or later (P/N #G1135431C)</i> <i>Websys v1.13 or later (P/N #G1135433A)</i></p>
1.12	1st Mass Production

Model: Model C-P2c		Date: 17-Feb-05	No.: RG112005
Subject: Firmware Release History (Netfile)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware release information for the Netfile.

Version	Program No.	C. SUM	Effective Date
0.15e	G1135435	D8AB	1st mass production (Jan 2005)

Version	Symptom Corrected
0.15e	1st Mass Production

Model: Model C-P2c		Date: 17-Feb-05	No.: RG112006
Subject: Firmware Release History (Font)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware release information for the Font.

Version	Program No.	C. SUM	Effective Date
1.01	G1135434A	A9EA	1st mass production (Jan 2005)

Version	Symptom Corrected
1.01	1st Mass Production

Model: Model C-P2b/P2c		Date: 17-Feb-05	No.: RG112007
Subject: Firmware Release History (Engine)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware release information for the Engine.

Version	Program No.	C. SUM		Effective Date
		P2b	P2c	
1.01:30	G1295111B	2023	783E	1st mass production (Jan 2005)

Version	Symptom Corrected
1.01:30	1st Mass Production

Model: Model C-P2b		Date: 17-Feb-05	No.: RG112008
Subject: Firmware Release History (Controller)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware release information for the Controller.

Version	Program No.	C. SUM for Main (Upper)			Effective Date
		C. SUM for IC card (Lower)			
		Card 1	Card 2	Card 3	
1.01	G1125430A		7F92		1st mass production (Jan 2005)
		8E66	6560	E1CE	

Version	Symptom Corrected
1.01	1st Mass Production

Model: Model C-P2		Date: 25-Mar-05	No.: RG112009
Subject: Bypass Tray Paper Pick-up Mechanism		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input checked="" type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input type="checkbox"/> Other ()		

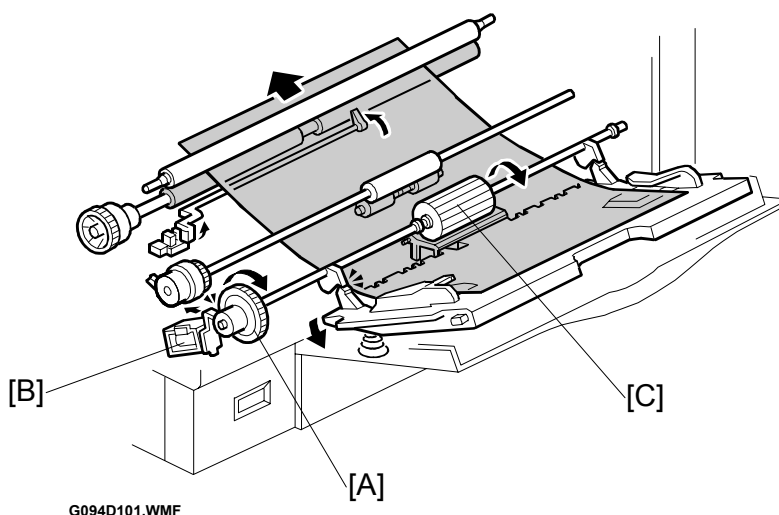
Important Note on the Bypass Feed Mechanism

The paper feed mechanism for the bypass tray will be **temporarily** changed from a clutch system to a **solenoid** system. The system will be changed back to the clutch system from around August 2005 production (cut-in S/N TBA).

Note:

- This is the same solenoid system that is used on the C-P1/K-P3.
- This change is for the C-P2b/P2c and K-P4.
- See MB MG112003 for the P/N details.

Solenoid System: Same as the C-P1/K-P3 system



[A] Bypass feed gear

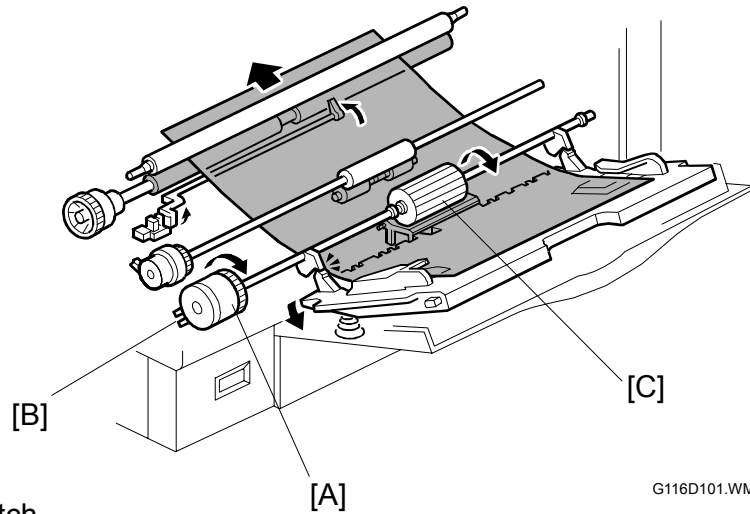
[B] Solenoid

[C] Bypass feed roller

Model: Model C-P2

Date: 25-Mar-05

No.: RG112009

Clutch System: Originally designed for the C-P2/K-P4

[A] Bypass feed clutch

[B] Stopper

[C] Bypass feed roller

G116D101.WMF

Model: Model C-P2		Date: 19-Apr-05	No.: RG112010
Subject: Controller NVRAM		Prepared by: A. Ishiyama	
From: 1st Technical Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input checked="" type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input type="checkbox"/> Other ()		

Important Note: Blank NVRAM Service Parts

When you replace the controller NVRAM in the field, use the part shown below. This part is already listed in the Parts Catalog.

Model	Part No.	Description	IC No.	Product Code	Parts Catalog Information	
					Page	Index
K-P1	14075335	RAM – STK12C68-P55	IC27	G056/G058	27, 29	119
K-P2	14075497	RAM – FM1808-120-P	IC54	G073	27, 29	124
				G074	31, 33	121
K-P3	14075856	RAM – FM18L08-70-P	IC68	G091	29, 35	126
K-P4	14076465	RAM:FM25L256-PG(REV.AG)	IC5	G116	40, 45	130
C-P1	14075856	RAM – FM18L08-70-P	IC68	G094	31, 37	122
				G095	41, 47	126
C-P2b	14075856	RAM – FM18L08-70-P	IC68	G112	53, 57	121
C-P2c	14076465	RAM:FM25L256-PG(REV.AG)	IC5	G113	60, 65	130

- This is **completely blank** NVRAM. When you get this part from the Parts Center, it does **not** have a value of “0”.
- After you install this NVRAM and turn the power OFF/ON, the machine will put a value of “0” inside the NVRAM.

IMPORTANT: When you install this NVRAM, make sure it is a completely new service part. **DO NOT** install the NVRAM if it was already used. If you do, machine problems can occur.

Reissued: 15-Apr-05

Model: General RTB	Date: 15-Nov-04	No.: RGene019a
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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:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> 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.

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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

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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.

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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.

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5.3 RFU for Windows

1. Open a command prompt.
 - o [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>
```

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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.

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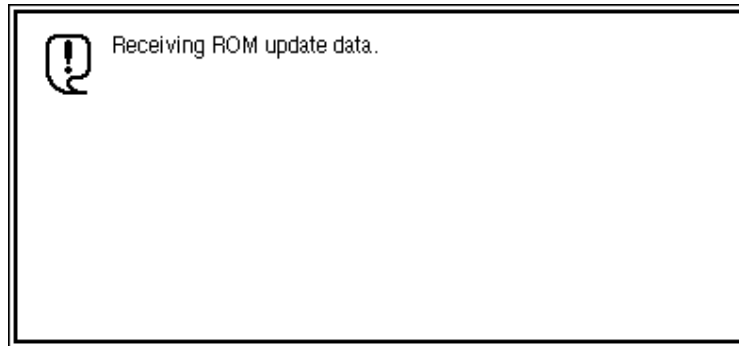
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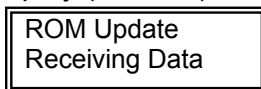
No.: RGene019a

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)



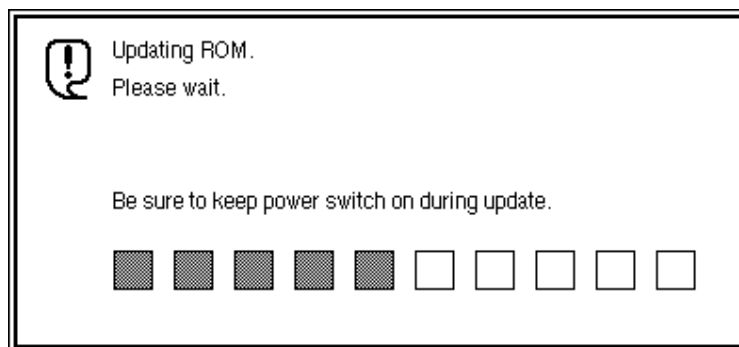
- Display (Printers)



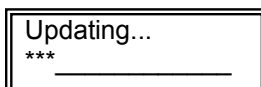
10. Once the machine has received the entire firmware module file, the firmware update starts automatically.

The following message appears:

- Display panel (MFPs)



- Display (Printers)



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

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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%
```

Reissued: 15-Apr-05

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.

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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).

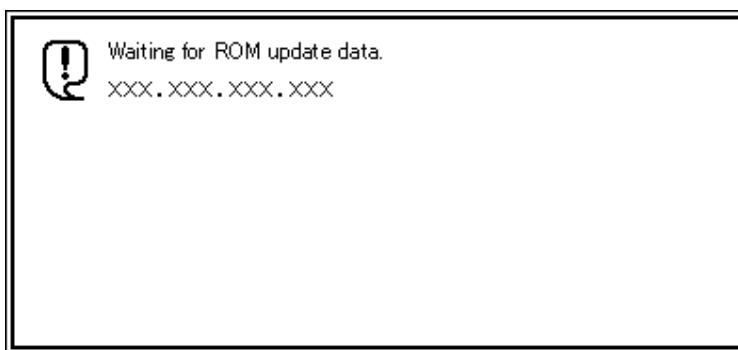
If an error occurs

- 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.

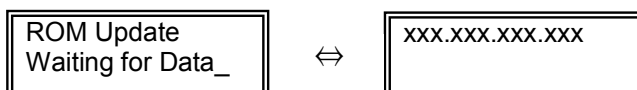
Log on to the machine again using ftp and then resend the firmware file to the machine.

The following message appears for Type 1 firmware:

- Display panel (MFPs)



- Display (Printers)



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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

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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.

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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:\>
```

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7.2 Error Code List

Error Code	Description/Causes	Solutions
51	<p>The machine cannot be updated.</p> <ul style="list-style-type: none"> 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). 	<p>Check that the machine is idle, and then try updating again.</p> <p>If an SC number appears, contact your service representative.</p>
52	<p>The file contains erroneous data.</p> <ul style="list-style-type: none"> 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. 	<p>Download the correct file from the website, and then try updating again.</p>
53	<p>An error occurred while updating.</p> <ul style="list-style-type: none"> The machine is off. 	<p>If using a DNS server, the machine's IP address might have been changed.</p> <p>Check the IP address, and then try updating again.</p>

Reissued: 30-Jun-05

Model: Model C-P2c	Date: 17-Feb-05	No.: RG112001b
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RTB Reissue

The items in bold italics have been added.

Subject: Controller Firmware Release History (System)		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input checked="" type="checkbox"/> Other ()		

This RTB has been issued to announce the firmware history for the System of the Model C-P2c (G113 model).

Version	Program No.	C. SUM	Effective Date
1.03	G1135430B	E6F7	July '05 production
1.02	G1135430A	0DCA	April '05 production
1.01	G1135430	839C	1st mass production (Jan 2005)

Descriptions of changes

Version	Symptom Corrected
1.03	<ol style="list-style-type: none"> 1. <i>A communication error occurs between the mainframe and RC Gate.</i> 2. <i>Sometimes, the firmware cannot be updated via RC Gate.</i> 3. <i>The firmware cannot be updated if the administrator password is blank.</i> 4. <i>The image shifts when the left margin is set to 3mm.</i> <p>Other changes:</p> <ol style="list-style-type: none"> 5. <i>Some features of a customization were added as standard:</i> <ul style="list-style-type: none"> - <i>SP5-055-001 (Display IP Address):</i> <i>Displays the IP address on the second line of the operation panel when the printer is in the Ready condition.</i> <i>0: OFF (default)</i> <i>1: ON</i> - <i>SP5-886-001 (ROM Update):</i> <i>Allows the ROM firmware to be updated remotely via the local network.</i> <i>0: ON (default)</i> <i>1: OFF</i> <p>NOTE: The settings for the two SP modes above can be changed via Web Image Monitor.</p> <p><u>Important:</u> To use these new features, you need to install all of the following firmware together as a set. System v1.03 or later (P/N #G1135430B) Printer v1.03.2 or later (P/N #G1135431C) Websys v1.13 or later (P/N #G1135433A)</p>

Reissued: 30-Jun-05

Model: Model C-P2c	Date: 17-Feb-05	No.: RG112001b
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Version	Symptom Corrected
1.02	(Minor change applied for Japan model only).
1.01	1st Mass Production

Model: Model C-P2b		Date: 1-Aug-05	No.: RG112011
Subject: Service Manual Correction (IC card instruction)		Prepared by: A. Ishiyama	
From: 1st Technical Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input type="checkbox"/> Action required
	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Electrical	<input checked="" type="checkbox"/> Service manual revision
	<input type="checkbox"/> Paper path	<input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Retrofit information
	<input type="checkbox"/> Other ()		

The Service Manual was corrected as follows:

Some sections for the C-P2b (G112) were added to the Service Manual for the G112/G113/G116.

- The corrections are in blue.
- Reason: An IC card is used to update the firmware on the G112. This information was missing from the Service Manual.

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5.4 UPDATING THE FIRMWARE

⚠ CAUTION
Do not turn off the machine while downloading the firmware.

5.4.1 TYPE OF FIRMWARE

[G113/G116]

G113/G116 models use SD card to update the firmware. The table lists the programs used by the machine. All programs can fit on one SD card.

	Type of firmware	Function	Location of firmware	Message shown
1	Engine - Main	Printer engine control	SD card	Engine
2	System	Printer system management	SD card	Onboard SYS
3	Printer Application	Feature application	SD card	Onboard Prt
4	Network support	Network application	SD card	Network support
5	Web support	Web service application	SD card	Web support

[G112]

An IC card is used to update the firmware on the G112.

The Controller/NIB firmware includes three types of firmware:

- * Card 0: Platform & Rescue
- * Card 1: Printer
- * Card 2: Web Support

Use the cards in numerical order starting from card 0, then card 1, and then card 2.

There is only one Engine Firmware card.

5.4.2 PRECAUTIONS [G113/G116]

Handling SD Cards

Observe these precautions when you handle SD cards:

- Turn off the main power switch before you insert or remove an SD card. Data in the SD card can get corrupted if you insert or remove an SD card while the main power switch is on.
- Do not turn off the main power switch during downloading.
- Keep SD cards in a safe location. Do not store SD cards in these locations:

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- Locations that get high temperature, high humidity, direct sunlight, or strong vibration.
- Locations where there are effects from magnetic forces
- Do not bend or scratch SD cards.
- Do not drop SD cards or expose them to shock or vibration.

Upload or Download

In this section “upload” and “download” have these meanings:

- Upload: To copy data from the printer to the SD card
- Download: To copy data from the SD card to the printer

Network Connection

Before you start, tell the user that they cannot use the printer during firmware update, and that they must disconnect the printer physically from the network. If a print job comes in, this can cause problems with the firmware update.

5.4.3 MACHINE FIRMWARE [G113/G116]

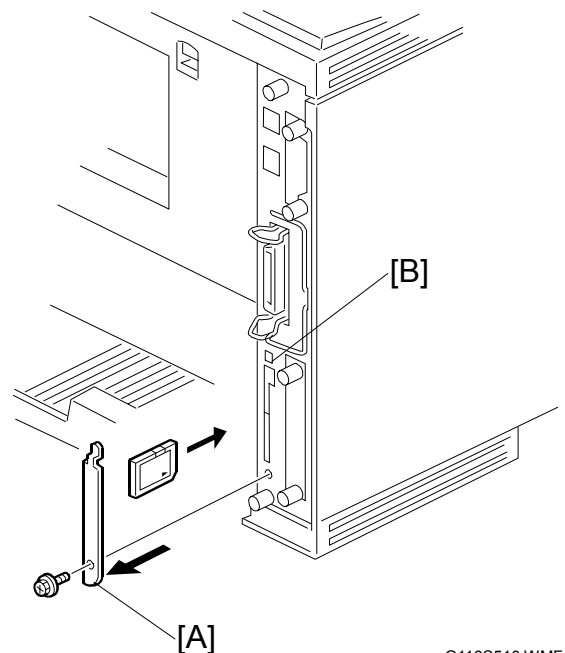
- NOTE:** 1) Turn the machine off before you start the firmware update procedure.
2) This procedure will let you upgrade all programs for this machine.

1. Prepare a card that contains the required firmware.
2. Turn off the power and remove the cover [A] (1 screw).
3. Insert the card into the upper card slot [B] (slot 1).
4. Turn on the power.

NOTE: It takes about 30 seconds before you will see anything on the operation panel. “Onboard Sys” shows after 30 seconds.

5. Use the scroller to scroll to the program you want to upgrade (Example; Engine). Then press “enter”
6. Press the “online” button to start the upgrade procedure.

NOTE: It takes about 90 seconds to complete the upgrade procedure. Power on/off shows when the upgrade procedure has completed.



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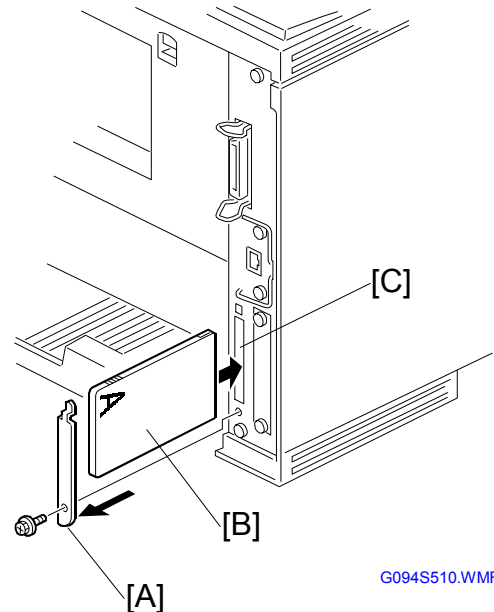
7. Turn off the power. Then remove the SD card from the slot.
8. Turn on the power.

NOTE: 1) Do the procedure again if you want to upgrade a different program.
2) The firmware is not upgraded successfully if “Turn power on/off” does not show on the operation panel after the sixth step. At this time, turn off the machine. Then do steps 1-6 again.

5.4.3 MACHINE FIRMWARE [G112]

Controller Firmware

1. Prepare a card that contains the required firmware.
2. Turn off the power and remove the cover [A] (1 screw).
3. Insert the card [B] into the card slot [C] and turn on the power.
4. Push the “Online Key” when “Platform and Rescue” is displayed (in the case of card 0).
NOTE: Card 1 will display “Printer” and card 2 will display “Web Support”.
5. The firmware download is finished when “Updated” is displayed.
6. After the firmware download has finished, turn off the power and remove the card.
7. Repeat steps 3 to 6 for the remaining firmware cards.
8. After the firmware download has finished, turn off the power and remove the card. Then replace the cover [A].
9. Turn on the power, and print the service summary report to check that the new firmware version was installed.



Engine Firmware

NOTE: There is only one Engine Firmware card.

1. Prepare a card that contains the required firmware.
2. Turn off the power and remove the cover [A] (1 screw).
3. Insert the card [B] into the card slot [C].
4. Open the front door and then turn on the power.
NOTE: If you open the front door during the engine firmware procedure, this prevents overheating in the fusing unit.

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5. Push the “Online Key” when “Engine” is displayed.
6. The firmware download is finished when “Updated” is displayed.
7. After the firmware download has finished, turn off the power and remove the card.
8. Close the front door and then replace the cover [A].
9. Turn on the power, and print the service summary report to check that the new firmware version was installed.

5.4.4 ERROR RECOVERY [G112/G113/G116]

Refer to the G091/G094/G095 Service Manual for details

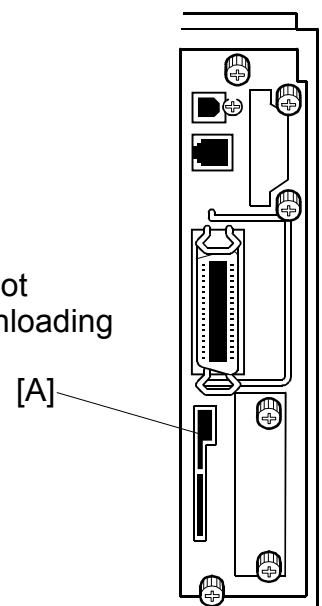
5.5 NVRAM DATA UPLOAD/DOWNLOAD [G113/G116]

⚠ CAUTION
Turn off the main power switch before you insert or remove an SD card. Make sure that the controller and the EGB are correctly connected.

Uploading NVRAM Data

Copy the data from the NVRAM to an SD card (referred to as “to upload NVRAM data” in this section) before you replace the NVRAM. If you cannot upload NVRAM data, manually input the necessary settings after you replace the NVRAM

1. Start the SP mode.
2. Select SP 5990 1 (ALL).
3. Do the SP.
4. See if the SMC Report is correctly output.
NOTE: You may need the SMC Report when the machine did not complete an NVRAM data upload or download (🖱 Downloading NVRAM Data) correctly.
5. Go out of the SP mode.
6. Turn off the main power switch.
7. Insert an SD card into the upper slot [A] (slot 1)
8. Turn on the main power switch.
9. Start the SP mode.
10. Select SP 5824 1 (NVRAM Upload).



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11. Push the enter key. The upload starts.

NOTE: When uploading ends correctly, the following file is made:

- NVRAM\serial_number.NV where “NVRAM” is the folder name in the SD card and “serial_number.NV” is the file name with the extension “.NV”. The serial number of the printer is used as the file name. For example, if the serial number is G1160017, the file name is “G1160017.NV”.

12. Go out of the SP mode.

13. Turn off the main power switch.

14. Remove the SD card.

15. Mark the SD card with, for example, the machine code. You need this SD card when you download NVRAM data (☛ Downloading NVRAM Data).

NOTE: One SD card can store the NVRAM data from two or more machines.

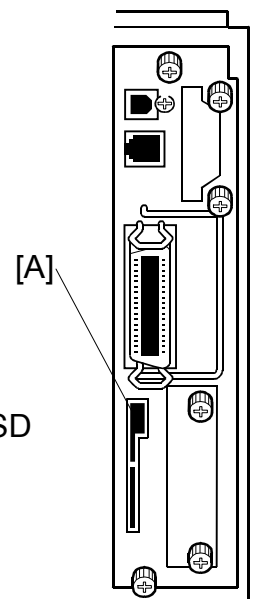
Downloading NVRAM Data

Copy the data from the SD card to the NVRAM (referred to as “to download NVRAM data” in this section) after you replace the NVRAM. If you cannot download NVRAM data, manually input the necessary settings.

1. Make sure that the main power switch is off.
2. Make sure that you have the correct SD card that contains the necessary NVRAM data.
3. Insert the SD card into the upper slot [A] (slot 1).
4. Turn on the main power switch.
5. Start the SP mode.
6. Select SP 5825 1 (NVRAM Download).
7. Push the enter key. The download starts.

NOTE: The machine cannot do the download if the file name in the SD card is different from the serial number of the printer (☛ Uploading NVRAM Data).

8. Go out of the SP mode.
9. Turn off the main power switch.
10. Remove the SD card.
11. Turn on the main power switch.
12. Check that the NVRAM data is correctly downloaded.



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5.6 REMOTE FIRMWARE UPDATE (RFU) [G112/G113/G116]

Refer to the G091/G094/G095 Service Manual for details

5.7 LOOP-BACK TEST [G112/G113/G116]

Refer to the G091/G094/G095 Service Manual for details

5.8 POWER-ON SELF TESTS [G112/G113/G116]

Refer to the G091/G094/G095 Service Manual for details

5.9 DIP SWITCHES [G112/G113/G116]

Refer to the G091/G094/G095 Service Manual for details

5.10 SD CARD APPLI MOVE [G113/G116]**5.10.1 OVERVIEW**

The service program "SD Card Appli Move" (SP 5873) lets you copy application programs from an SD card to another SD card.

Use extreme caution when do the SD Card Appli Move procedure:

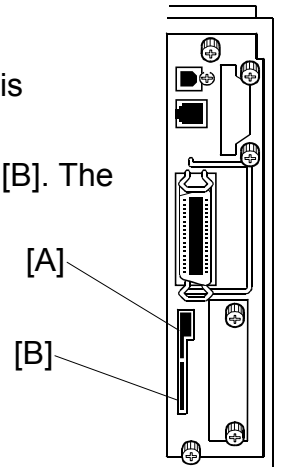
1. The authentication data is transferred with the application program from an SD card to the other SD card. Authentication fails if you try to use the SD card after you copy the application program from this card to another SD card.
2. Do not use an SD card if it has been used for some other work, for example, on a computer. Normal operation is not guaranteed when such SD card is used.
3. Keep the SD card in the place (●Note) after you copy the application program from the card to another card. This is because: ① The SD card can be the only proof that the user is licensed to use the application program. ② You may need to check the SD card and its data to solve a problem in the future.

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5.10.2 MOVE EXEC

The menu “Move Exec” (SP 5873 1) lets you copy application programs from the original SD card to another SD card. The application programs are copied from slot 1 [A] to slot 2 [B].

1. Turn off the main power switch.
2. Make sure that an SD card is in slot 1 [A]. The application program is copied to SD card in slot 1 [A].
3. Insert the SD card (having stored the application program) to slot 2 [B]. The application program is copied from this SD card.
4. Turn on the main power switch.
5. Start the SP mode.
6. Select SP 5873 1 “Move Exec.”
7. Follow the messages shown on the operation panel.
8. Go out of the SP mode.
9. Turn off the main power switch.
10. Remove the SD card from slot 2 [B].
11. Turn on the main power switch.
12. Check that the application programs run normally.



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5.10.3 UNDO EXEC

The menu "Undo Exec" (SP 5873 2) lets you copy back application programs from an SD card to the original SD card. You can use this program when, for example, you have mistakenly copied some programs by using Move Exec (SP 5873 1). The application programs are copied from slot 1 [A] to slot 2 [B].

1. Turn off the main power switch.
2. Insert the original SD card in slot 2 [B]. The application program is copied back to this card.
3. Make sure that the SD card (having stored the application program) is in slot 2 [B]. The application program is copied back from this SD card.
4. Turn on the main power switch.
5. Start the SP mode.
6. Select SP 5873 2 "Undo Exec."
7. Follow the messages shown on the operation panel.
8. Go out of the SP mode.
9. Turn off the main power switch.
10. Remove the SD card from slot 2 [B]
11. Turn on the main power switch.
12. Check that the application programs run correctly.

