










Model: Model K-P3		Date: 14-Nov-03	No.: RG091001
Subject: Service Manual Correction		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 (      )		

Please apply the following corrections to your Service Manual. The complete version containing all of the following revisions has been posted to the RISSN Server (File name: Model\_K-P3\_Manual\_Final4.pdf).

**<Revised Pages>**

Section	Page	PDF
TABLE OF CONTENTS	iii, viii	 TOC.pdf
2. PREVENTIVE MAINTENANCE SCHEDULE	2-1	 2.pdf
3. REPLACEMENT AND ADJUSTMENT	3-4, 3-5, 3-6, 3-8, 3-9, 3-10, 3-12, 3-15, 3-19, 3-21, 3-23, 3-24, 3-25, 3-26, 3-27	 3.pdf
4. TROUBLESHOOTING	4-6	 4.pdf
5. SERVICE TABLES	5-1, 5-13, 5-16, 5-19, 5-20	 5.pdf
6. DETAILED SECTION DESCRIPTIONS	6-2, 6-3, 6-4, 6-5, 6-6, 6-7, 6-9, 6-17, 6-19, 6-20, 6-21, 6-22	 6.pdf
DUPLEX UNIT (G552)	G552-4	 G552.pdf

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<b>Section</b>	<b>Page</b>	<b>PDF</b>
SPECIFICATIONS (G091)	SPEC-1, SPEC-4, SPEC-11	 Spec_G091.pdf
SPECIFICATIONS (G094/G095)	SPEC-1, SPEC-5, SPEC-10	 Spec_G094.pdf

Model: Model K-P3		Date: 17-Nov-03	No.: RG091002
Subject: New Model K-P3 China Model		Prepared by: T. Shintani	
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 ( )		

With the release of the China model for the K-P3 (AP600N series), this bulletin has been released to announce the differences between the China model and Europe/Asia model.

### Service Manual Information

The Service Manual for the China model has been posted to the RISSN server.

### Parts Catalog Information

#### Mainframe:

The following lists the parts that are different between the two models:

Index	Europe/Asia Model	China Model	Description
3-10	G0881930		Operation Panel NA Ass'y
		▶G0881970	Operation Panel CHN Ass'y
3-30	G0884553		Fusing Unit EU Ass'y
		▶G0884557	Fusing Unit CHN Ass'y
11-18	GZ000003	GZ000005	Power Cord – 230V
23-5	G0885211		Power Supply Unit 135W EU
		▶G0885214	Power Supply Unit :135W :CHN
25-15	G0524693		Decal – High Temperature
		▶G0884693	Decal – High Temperature : CHN
37-11		G0918754	Operating Instructions – AP600N : CHN

#### Envelope Feeder:

The envelope feeder is not available on the China model.

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**P-to-P, Electrical Component Layout**

These documents are common to all models (already posted to RISSN server).

**I2E**

The I2e unique to the China model has been posted to the RISSN server.

Model: Model K-P3		Date: 26-Apr-04	No.: RG091003
Subject: Engine Board		Prepared by: A. Ishiyama	
From: 1st Technical Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input checked="" 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 Regarding the G0885123 Engine Board

The G0885123 engine board was mistakenly registered with service parts, but is useable with a minor modification (detailed on pg. 2). In addition, the correct boards have been newly registered with service parts and are listed below:

- Old part number: G0885123
- New part number: G0885121 for NA (G091-11, -17)  
G0885122 for EU, Asia, China (G091-22, -27, -69)

**Note:** Refer to MB #G091003 for details about this P/N change.

### ● Action in the Field

1. If the old board above has not been ordered (none in stock), there is no need to take any action. Please simply use the new P/N listed above and in the MB whenever ordering the board.
2. If there are old boards in stock, perform the minor modification described below on the old stock.
3. If some old boards have already been installed in machines in the field, perform the minor modification below on the old boards at the next service visit.

### ● Possible Symptoms with the Unmodified Old Boards

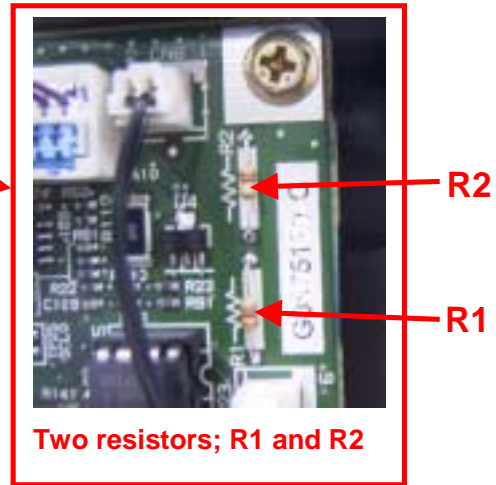
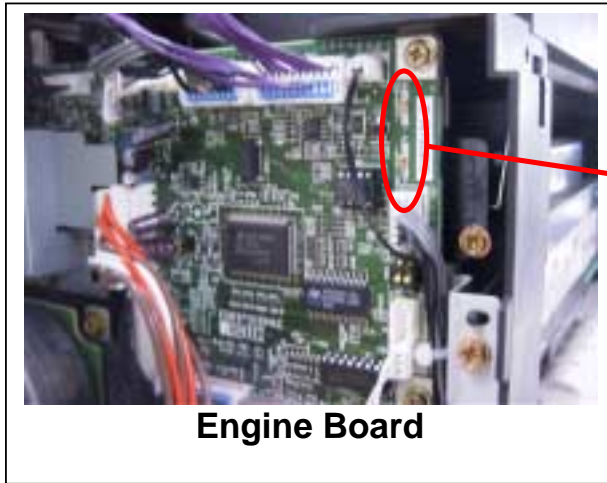
The following may occur when using the unmodified old boards, but please note that even in such cases the machine is well within product safety parameters.

- Fusing-related symptoms (e.g. poor fusing, paper curling), the machine may not satisfy certain EU regulations.
- Discrepancy between the paper size dial setting and the LCD display, which may result in a paper size error or paper jam.
- Garbled characters may be displayed when using display languages other than English.

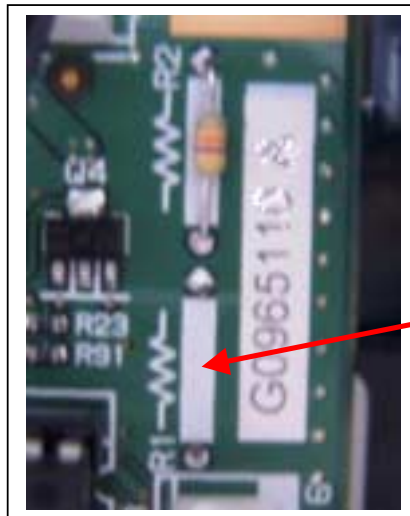
### ● Difference Between the Old and New Boards

The old engine board (G0885123) contains two resistors, R1 and R2, but the new board for NA (G0885121) contains only R2 and the new board for EU/Asia (G0885122) contains only R1.

**Minor Modification of old G0885123 Engine Board to its New Version**



1. If the old engine board is already installed in the machine:
  - i) Open the front door.
  - ii) Remove the operation panel (2 hooks, 1 harness).
  - iii) Remove the rear cover and option top cover.
  - iv) Remove the top cover (4 screws).
  - v) Remove the left cover (2 screws).
  
2. **For NA version**  
 Remove R1 as shown below using a pair of wire cutters (nippers).



**Remove R1 using a pair of wire cutters**

**For EU/Asia version**

In the same manner, **remove R2 using a pair of wire cutters.**

Model: Model K-P3		Date: 7-May-04	No.: RG091004
Subject: Printer Controller Firmware History		Prepared by: A. Ishiyama	
From: 1st Technical Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input checked="" 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 ( )		

The following is the printer controller firmware history for the Model K-P3 (G091 model).

Part Number	Version	Production
G0915920D	1.02	November '03 production
G0915920C	1.01	First mass production

**Note:** The above firmware is being commonly used for all models.

### Descriptions of changes

Symptom Corrected	Version
<p>Firmware modified to correct the following:</p> <p><b>&lt;PJL&gt;</b></p> <ol style="list-style-type: none"> <li>PJL detection specification improvement: Tab&lt;WS&gt; character is also accepted in addition to Space character.</li> </ol> <p><b>&lt;PCL&gt;</b></p> <ol style="list-style-type: none"> <li>Operation panel displays "Required &lt;paper type&gt;" after receiving a print request that specifies an unsupported paper type.</li> </ol> <p><b>&lt;System&gt;</b></p> <ol style="list-style-type: none"> <li>Wording correction: "Paper Input" → "Paper Type".</li> <li>New Bluetooth Card v3 supported.</li> <li>SC822 (HDD error) occurs during a self-diagnostic on models with an HDD.</li> <li>SC819 occurs when the printer tries to read from a defective HDD sector.</li> </ol> <p><b>&lt;NCS&gt;</b></p> <ol style="list-style-type: none"> <li>The Printer function stalls if any Network parameter changes are made via the network while DHCP (IP) is enabled over the 1394 interface.</li> <li>When changing from DHCP to a static DNS server address, the IP address setting automatically changes from DHCP to static.</li> <li>Job reset occurs when 'Spool Printing' is enabled and the device receives more than 10MB of data from the LanManager Port of Windows 2000 SP2 or newer.</li> <li>Slow USB2.0 printing.</li> </ol>	1.02

Reissued: 17-May-04

Model: Model K-P3	Date: 7-May-04	No.: RG091004a
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## RTB Reissue

The items in ***bold italics*** have been added.

Subject: Printer Controller Firmware History		Prepared by: A. Ishiyama	
From: 1st Tech. Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting	<input type="checkbox"/> Part information	<input checked="" 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 (      )		

The following is the printer controller firmware history for the Model K-P3 (G091 model).

Part Number	Version	Production
<b><i>G0915920D</i></b>	<b><i>1.02.2</i></b>	<b><i>February '04 production</i></b>
G0915920D	1.02	November '03 production
G0915920C	1.01	First mass production

**Note:** The above firmware is being commonly used for all models.

## Descriptions of changes

Symptom Corrected	Version
<p><b><i>Firmware modified to correct the following:</i></b></p> <p><b>&lt;PCL&gt;</b></p> <p><b><i>1. The machine displays "Load Paper 8.5 x 11" when Tray 1 reaches paper end without Tray 2 installed, even though the actual size required is 11 x 8.5 (GFPR# RC03120004).</i></b></p>	1.02.2
<p>Firmware modified to correct the following:</p> <p><b>&lt;PJL&gt;</b></p> <p>1. PJL detection specification improvement: Tab&lt;WS&gt; character is also accepted in addition to Space character.</p> <p><b>&lt;PCL&gt;</b></p> <p>1. Operation panel displays "Required &lt;paper type&gt;" after receiving a print request that specifies an unsupported paper type.</p> <p><b>&lt;System&gt;</b></p> <p>1. Wording correction: "Paper Input" → "Paper Type".</p> <p>2. New Bluetooth Card v3 supported.</p> <p>3. SC822 (HDD error) occurs during a self-diagnostic on models with an HDD.</p> <p>4. SC819 occurs when the printer tries to read from a defective HDD sector.</p> <p><b>&lt;NCS&gt;</b></p> <p>1. The Printer function stalls if any Network parameter changes are made via the network while DHCP (IP) is enabled over the 1394 interface.</p> <p>2. When changing from DHCP to a static DNS server address, the IP address setting automatically changes from DHCP to static.</p> <p>3. Job reset occurs when 'Spool Printing' is enabled and the device receives more than 10MB of data from the LanManager Port of Windows 2000 SP2 or newer.</p> <p>4. Slow USB2.0 printing.</p>	1.02



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	<b><i>Before 04A</i></b>	OK	OK	---	OK	OK
Model J-P2CF	<b><i>Before 04A</i></b>	OK	OK	---	OK	OK
Model K-P3	<b><i>Before 04A</i></b>	OK	OK	OK	OK	OK
Model C-P1	<b><i>Before 04A</i></b>			OK	OK	OK
Model J-P3	<b><i>Before 04A</i></b>	OK	OK	OK	OK	OK
Model PL-P1	<b><i>Before 04A</i></b>	OK	OK	OK	OK	NG
<b><i>Model G-P1</i></b>	<b><i>04A and later</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>
<b><i>Model C-P2</i></b>	<b><i>04A and later</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>
<b><i>Model K-P4</i></b>	<b><i>04A and later</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>	<b><i>OK</i></b>

#### MFPs

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

**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
<b>Model G-P1</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>
<b>Model C-P2</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>
<b>Model K-P4</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>

**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
<b>Model MT-C2</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>	<b>Auto</b>

**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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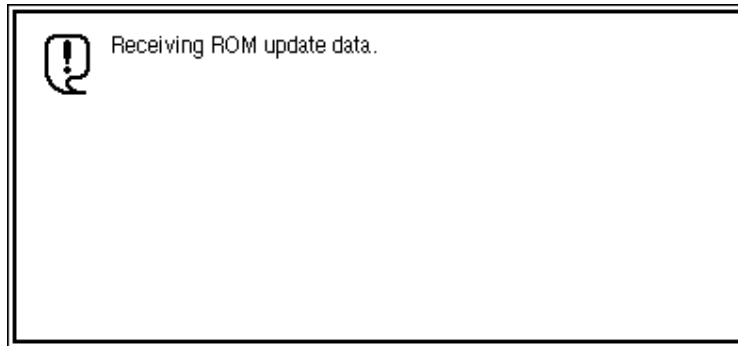
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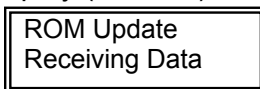
No.: RGene019a

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)



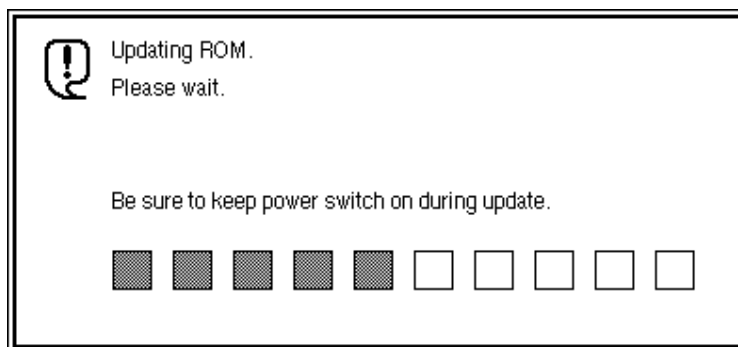
- Display (Printers)



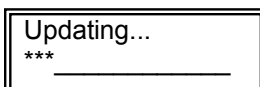
10. Once the machine has received the entire firmware module file, the firmware update starts automatically.

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

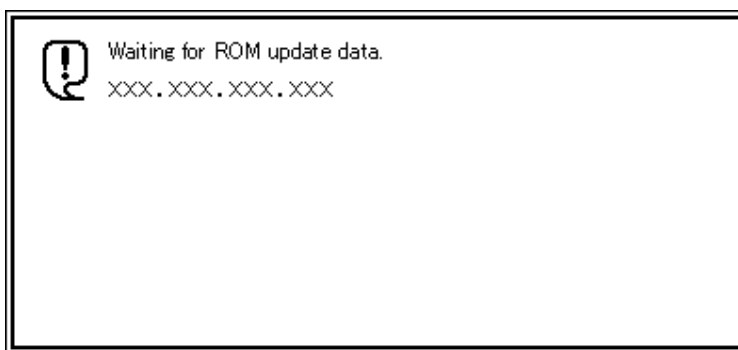
If an error occurs

- 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.

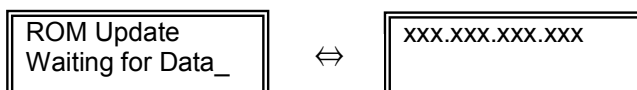
Log on to the machine again using ftp and then resend the firmware file to the machine.

The following message appears for Type 1 firmware:

- Display panel (MFPs)



- Display (Printers)



Model: General RTB	Date: 15-Nov-04	No.: RGene019a
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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
<b>Model G-P1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>SD</b>
<b>Model C-P2</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>SD</b>
<b>Model K-P4</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>SD</b>

**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
<b>Model MT-C2</b>	<b>Type2</b>	<b>Type2</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>Type1</b>	<b>SD</b>

**Fig. 3 Recovery Method**

**Reissued: 15-Apr-05**

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.

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Model: General RTB

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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"> <li>The machine is processing a print job.</li> <li>The machine is processing a scan job.</li> <li>The machine is receiving image data from the network.</li> <li>The control panel is in use.</li> <li>The machine is sending or receiving a fax.</li> <li>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).</li> </ul>	<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"> <li>The data is too large or too small.</li> <li>The CRC (cyclic redundancy check) value and the checksum do not match.</li> <li>The firmware does not match the target machine.</li> <li>The firmware was not completely uploaded or is corrupt.</li> </ul>	<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"> <li>The machine is off.</li> </ul>	<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: 3-Feb-05

Model: Model <b><i>K-P3L (Only China)</i></b>	Date: 28-Jan-05	No.: RG091005a
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### RTB Reissue

The items in ***bold italics*** have been added.

Subject: New Model <b><i>K-P3L</i></b> China Model		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 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 (      )		

With the release of the China model for the ***K-P3L*** (non-network model: AP600), this RTB was released to announce the **differences between the current K-P3** China model (network model: AP600N) **and new *K-P3L*** model.

### Summary of Key Differences

No.	Item	K-P3 China	<b><i>K-P3L</i></b>
1	Model Name	AP600N	<b><i>AP600</i></b>
2	Product Code	G091-69	<b><i>G091-21</i></b>
3	NIB	Standard	<b><i>Optional</i></b>
4	Bluetooth Option	No	<b><i>Yes</i></b>

### Service Manual Information

Pages from the Service Manual that relate to the China model were posted to the Web server.

### Parts Catalog Information

Mainframe:

Index	K-P3 China	<b><i>K-P3L</i></b>	Description
3-17	G0882372	▶G0916621	Model Name Plate EXP
			Model Name Plate
25-4	G0906001	▶G0896001	Panel - Control Board : Peen
			Panel : Control Board : Peen
25-7	G0915702	▶G0915710	PCB:Kir-P3:Main:EXP:NIC
			Controller Board - K-P3D KAI CHN



**Reissued: 3-Feb-05**

Model: Model <i>K-P3L (Only China)</i>	Date: 28-Jan-05	No.: RG091005a
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**P-to-P, Electrical Component Layout, Schematics**

These documents are common to all models (already posted to the Web server).

**I2E**

An I2e unique to this model will not be released.

Model: Model K-P3		Date: 19-Apr-05	No.: RG091006
Subject: Controller NVRAM		Prepared by: A. Ishiyama	
From: 1st Technical Support Sec. Service Support Dept.			
Classification:	<input type="checkbox"/> Troubleshooting <input type="checkbox"/> Mechanical <input type="checkbox"/> Paper path <input type="checkbox"/> Other (      )	<input checked="" type="checkbox"/> Part information <input type="checkbox"/> Electrical <input type="checkbox"/> Transmit/receive	<input type="checkbox"/> Action required <input type="checkbox"/> Service manual revision <input type="checkbox"/> Retrofit information

### 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: 7-Apr-05

Model: Model K-P3	Date: 7-May-04	No.: RG091004b
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### RTB Reissue

The items in ***bold italics*** have been added.

Subject: Printer Controller Firmware History		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 checked="" type="checkbox"/> Retrofit information
	<input type="checkbox"/> Other (      )		

The following is the printer controller firmware history for the Model K-P3 (G091 model).

Part Number	Version	Production
<b><i>G0915920G</i></b>	<b><i>1.04</i></b>	<b><i>April '05 production</i></b>
G0915920D	1.02.2	February '04 production
G0915920D	1.02	November '03 production
G0915920C	1.01	First mass production

**Note:** The above firmware is being commonly used for all models.

### Descriptions of changes

Symptom Corrected	Version
<p><b><i>Firmware modified to correct the following:</i></b></p> <ol style="list-style-type: none"> <li><b><i>The LEF tray is refilled with paper, but the machine does not detect this.</i></b>  <b><i>Conditions:</i></b> <ol style="list-style-type: none"> <li><b><i>The machine uses only one tray for LEF paper</i></b></li> <li><b><i>The LEF tray runs out of paper and is refilled during a job.</i></b></li> </ol> </li> <li><b><i>When multiple jobs are sent to the USB port, some are not printed out.</i></b></li> </ol> <p><b><i>Other:</i></b>  <b><i>Plug &amp; play data for the new model K-P3L (only China) has been added.</i></b></p>	<b><i>1.04</i></b>
<p>Firmware modified to correct the following:</p> <p>&lt;PCL&gt;</p> <ol style="list-style-type: none"> <li>Machine displays "Load Paper 8.5 x 11" when Tray 1 reaches paper end without Tray 2 installed, even though the actual size required is 11 x 8.5 (GFPR# RC03120004).</li> </ol>	1.02.2
<p>Firmware modified to correct the following:</p> <p>&lt;PJL&gt;</p> <ol style="list-style-type: none"> <li>PJL detection specification improvement: Tab&lt;WS&gt; character is also accepted in addition to Space character.</li> </ol> <p>&lt;PCL&gt;</p> <ol style="list-style-type: none"> <li>Operation panel displays "Required &lt;paper type&gt;" after receiving a print request that specifies an unsupported paper type.</li> </ol> <p>&lt;System&gt;</p> <ol style="list-style-type: none"> <li>Wording correction: "Paper Input" → "Paper Type".</li> <li>New Bluetooth Card v3 supported.</li> <li>SC822 (HDD error) occurs during a self-diagnostic on models with an HDD.</li> <li>SC819 occurs when the printer tries to read from a defective HDD sector.</li> </ol>	1.02

**Reissued: 7-Apr-05**

Model: Model K-P3	Date: 7-May-04	No.: RG091004b
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<b>Symptom Corrected</b>	<b>Version</b>
<b>&lt;NCS&gt;</b> <ol style="list-style-type: none"><li>1. The Printer function stalls if any Network parameter changes are made via the network while DHCP (IP) is enabled over the 1394 interface.</li><li>2. When changing from DHCP to a static DNS server address, the IP address setting automatically changes from DHCP to static.</li><li>3. Job reset occurs when 'Spool Printing' is enabled and the device receives more than 10MB of data from the LanManager Port of Windows 2000 SP2 or newer.</li><li>4. Slow USB2.0 printing.</li></ol>	