# RICOH

# Technical Bulletin

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |
|---|---|---|

| Subject: Service Manual Correction | 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 ( ) | | |

Please apply the following revisions to your Service Manuals. This bulletin contains the revised pages only, which has been posted to the RISSN server along with a separate full-manual version.

RISSN server files:

\<File name\>
 * Reference Pages: Model_C-C1_Manual_ReferencePage.pdf
 * Complete Version: Model_C-C1_Manual_Final2.pdf

**\<Revised Pages\>**

| Section | Page | Correction |
|---|---|---|
| TABLE OF CONTENTS | iv | Some section numbers and page numbers have been corrected. |
| 2. PREVENTIVE MAINTENANCE | 2-1 | The PM table has been corrected. |
| 3. REPLACEMENT AND ADJUSTMENT | 3-17 | 3.10 MAIN PBA (MAIN BOARD): A note has been added. |
| | 3-20 | 3.13 FAN: A procedure has been corrected. A caution has been added. |
| 5. SERVICE TABLES | 5-2 | 5.1 USER NODE: "Dial Mode" has been added in: 8. Machine Setup. |
| | 5-3 | Contents of "Clear All Memory" have been revised. |
| | 5-5 | Contents of "CLEAR ALL MEMORY" have been updated. |
| | 5-5 | Password in "CLEAR COUNT" has been corrected; 1394 -> 1934 |
| | 5-8 | 5.2.6 NEW CARTRIDGE has been newly added. |
| | 5-9 | 5.4 FIRMWARE DOWNLOAD section has been corrected. |
| | 5-10 | 5.4.2 RE-PROGRAMMING PROCEDURE AFTER DOWNLOADED has been deleted. |
| | 5-11 to 5.12 | 5.6 ENGINE TEST MODE Section number has been changed; 5.6 -> 5.5 |
| 6. DETAILED DESCRIPTIONS | 6-13 | 6.6.4 FUSING: Description has been revised. |

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |
|---|---|---|

| Section | Page | Correction |
|---|---|---|
| SPECIFICATIONS | SPEC-1 | 1. GENERAL SPECIFICATIONS: "Operating System" and environmental conditions has been added. |
| | SPEC-2 | 2. PRINT SPECIFICATION: "Print Speed" has been corrected. |
| | SPEC-6 | 7. PAPER HANDLING: "Paper Weight" has been corrected. |

**Table of Contents**

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |

30 March 2004                    PREVENTIVE MAINTENANCE

## 2. PREVENTIVE MAINTENANCE

The cycle period shown below is for maintenance.

Environmental conditions and use will change.

The cycle period shown is for reference only.

| | Component | Replacement Cycle | Done by |
|---|---|---|---|
| Scanner | ADF Rubber | 20,000 Pages | Service |
| | ADF Pick-up Ass'y | 60,000 Pages | Service |
| Printer | Friction Pad | 60,000 pages | Service |
| | Paper Feed Roller | 60,000 Pages | Service |
| | Transfer Roller | 60,000 Pages | Service |
| | Fuser | 60,000 Pages | Service |

Preventive Maintenance

2-1

30 March 2004              MAIN PBA (MAIN BOARD)

4. Remove the ten screws from the engine shield ass'y [A]. Then remove it. Then disconnect all connectors from the main PBA and SMPS.

[A]
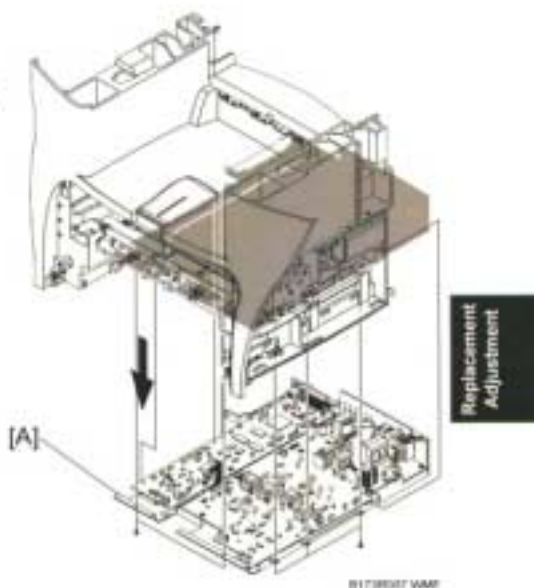
## 3.10 MAIN PBA (MAIN BOARD)

**NOTE:** 1) Print out the system data list in Tech mode to keep programmed data before you do the replacement procedure.
2) Do the "Clear All Memory" in Tech mode (☞ 5.2.3) after you finish the replacement procedure.

1. Before you remove the main PBA, you must remove these:
   - Rear cover (☞ 3.2)
   - Side covers (☞ 3.3)
   - Scanner Ass'y (☞ 3.5)
   - Engine shield ass'y (☞ 3.9)

2. Disconnect one connector. Then remove the five screws from the main PBA. Then remove the main PBA [A].

[A]

3-17

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |
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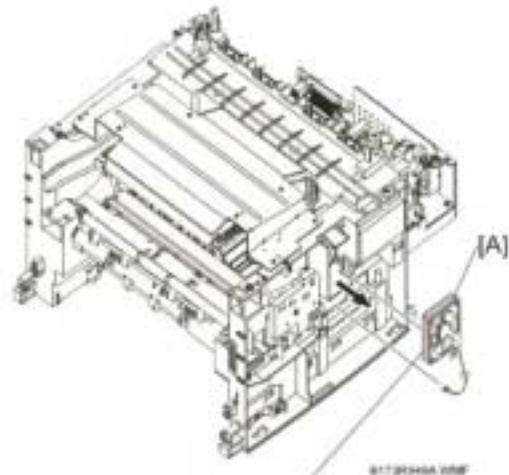FAN                                                        30 March 2004

## 3.13 FAN

1. Before you remove the fan, you must remove these:
   - Rear cover (☞ 3.2)
   - Side covers (☞ 3.3)

2. Disconnect the connector from the SMPS. Then remove the fan [A].

[A]

c173r349a.wmf

CAUTION: Make sure to set the fan in the correct position. The label on the fan must face outward.

3-20

TECH MODE                                          30 March 2004

| Function | Item | Contents |
|---|---|---|
| 8. Machine Setup | Machine ID | Enter number |
| | Date & Time | Set date and time |
| | Clock Mode | 12 Hour / 24 Hour |
| | Dial Mode* | Tone / Pulse |
| | Language | English / French / Spanish / Portuguese / German / Italian / Dutch / Danish / Swedish / Finnish / Norwegian / Russian / Polish / Hungarian / Czech |
| | Power Save | 5 / 10 / 15 / 30 / 45 / Off |
| | CCD Power Save | 1 / 4 / 8 / 12 Hours |
| | USB Mode | Fast / Slow |
| 9. Maintenance | Clean Drum | |
| | Notify toner | On / Off |
| | Remote Test | On / Off |
| | Clear Memory | On / Off |

*: This item can show only in some country code settings.

The table shows functions the user can set. Examine the user manual for instructions.

The service manual shows things that the user can set.

## 5.2  TECH MODE

### 5.2.1  HOW TO GO INTO TECH MODE

The technician can examine the machine and do different tests in service (tech) mode. This will help show the cause of a malfunction.

The machine operates correctly in Tech mode.

Do this procedure to go into the Tech mode:

> Press Menu → # → 1 →9 → 3 → 4 in sequence. The LCD shows 'TECH'. Then the machine goes into service (tech) mode.

Do this procedure to go back to user mode:

> Menu → # → 1 → 9 → 3 → 4

5-2

30 March 2004 TECH MODE

## 5.2.2 SETTING-UP SYSTEM IN TECH MODE

| Function | Item | Contents | |
|---|---|---|---|
| Data Setup | Send Level | 9-15 | |
| | Dial Mode | Tone / Pulse | |
| | Modem Speed | 33.6 / 28.8 / 14.4 / 12.0 / 9.6 / 4.8 (K bps) | |
| | Error Rate | 5% / 10% | |
| | Notify Toner | Customer No. | |
| | | Customer Name | |
| | | Service No. | |
| | | Serial No. | |
| | Clear All Memory | Select country code | |
| | Clear Count | Enter Password (1934 enter) | Total Page CNT |
| | | | CRU Print CNT |
| | | | FLT Scan CNT |
| | | | ADF Scan CNT |
| | | | Used Toner CNT |
| | | | Edit Toner Dot |
| | Flash Upgrade | Local / Remote | |
| | Silence Time | 12 Sec / Unlimit / Off | |
| Machine Test | Switch Test | | |
| | Modem Test | | |
| | Dram Test | OK / NG | |
| | Rom Test | Flash / Engine versions | |
| | Pattern Test | ☞ 5.2.4 | |
| | Shading Test | | |
| Report | Protocol | Protocol List | |
| | System Data | System Data List | |
| New Cartridge | | Yes / No | |

Service Tables

5-3

30 March 2004    TECH MODE

## CLEAR ALL MEMORY

Use this function to reset the system to the default set at the factory.

This function resets the system to the initial value when the machine does not work correctly. Values are set to the default values. The machine will not keep data set by the user. This procedure does not clear the counter data values.

<Procedure>

1. Set the [MEMORY CLEAR] in tech mode.
2. Push the ENTER button.
3. The country name will show. You can see all available countries when you scroll by pressing "◄" or "►"
   - EU default (UK)
   - North America default (USA/Canada)
   - Asia default (Singapore)
   - China default (China)

   **Note:** You cannot change the default country values.
4. Push the ENTER button. This clears the memory. Then it changes it to the country code that you set.

**Note:** Do this procedure after you replace the main board. If you do not do this procedure, the system will not operate correctly.

## CLEAR COUNT

This function erases the counters stored in system memory. Type password "1934" to enter the menu.

## FLASH UPGRADE

The firmware upgrade has these functions:
   - Local and remote.
Examine the firmware upgrade section (☞ 5.4.4).

## SILENCE TIME

In ANS/FAX mode, after a call is picked up by the answering machine, the machine monitors the line. If a period of silence is detected on the line at any time, the call will be treated as a fax message and the machine begins receiving. Silence detection time is selectable between limited (about 12 seconds) and unlimited time.

When "12 sec" is selected, the machine switches to receiving mode as soon as it detects a period of silence. When "unlimited" is selected, the machine waits until the answering operation is concluded even though a period of silence is detected. After the answering operation is concluded, the machine switches to receiving mode.

Service Tables

DATE OF SALE 30 March 2004

## 5.2.5 REPORT

*PROTOCOL LIST*

Use this list to examine for send and receive errors. The protocol list automatically prints if a communication error occurs when the machine is in tech mode.

*SYSTEM DATA*

This gives a list of the system data set by the user and those in tech mode.

## 5.2.6 NEW CARTRIDGE

The machine usually detects when a new AIO (CRU) cartridge has been put in. However there may be the case when the machine does not detect the new AIO automatically. In cases like this you can manually let the machine detect a new AIO. The manual procedure and the automatic detect procedure have the same effect on the machine when the AIO is replaced. (New AIO Detection: ☞ 6.3.1).

If this is set to "Yes", the machine will clear "TOTAL TONER COUNT" and "Cru Prints". Then the machine increments the counter "Replaced Toner Counts".

## 5.3 DATE OF SALE

This function shows the date that the customer used the machine for the first time.

When the customer first operates the machine, the machine starts a scan and page count.

The machine will keep the time of first operation.

The machine will keep this data even if you erase the memory (Clear All Memory).

Procedure

Press MENU, #, 1, 9, 3, # in sequence. Firmware version is shown on LCD.

Press 1 (in the number keypad): The LCD display shows "Firmware Updated date"

Press 2 (in the number keypad): The LCD display shows "product first use date"

30 March 2004                                         FIRMWARE DOWNLOAD

## 5.4   FIRMWARE DOWNLOAD

You can use the remote control panel to upgrade the machine firmware. Connect the machine to a PC through parallel or USB cable before you do the firmware upgrade procedure.

It is very rare to lose data and settings after the program has downloaded. However you should print out the system data list in tech mode before you start the download procedure. This will let you re-program settings that may get lost.

### 5.4.1   DOWNLOAD PROCEDURE

*RCP (Remote Control Panel) mode*

This procedure is used when the machine is connected with a parallel port or USB port to a PC. The machine uses the RCP (Remote Control Panel) software to upgrade the firmware.

1.  Connect PC and printer with parallel cable or USB cable.

2.  Do RCP and set the Firmware update tab. Current firmware version and emulation version are shown.

3.  Keep the firmware file on the PC, in a path near to the root of C:, ie C:\TEMP. Use the "Browse" button to get the firmware file to update the machine.

4.  Push the update button. The firmware file automatically goes to the printer. The printer is initialized when the update is finished. Make sure that these show on the LCD display when you download the new firmware:
    1) DATA RECEIVING (USB) / COPY/B FILE LPT1 (PARALELL)
    2) PC TO DRAM IS OK
    3) FLASH IS ERASING
    4) FLASH PROGRAMMING
    5) CHECKSUMMING
    6) DOWNLOAD OK
    7) Warming up Please wait....

5.  Push the refresh icon. Then make sure that the version number shown agrees with the new firmware.

**Note:** Country code
The country code will not change after you download the new firmware.

*To get the system data list*

Use this procedure to make sure that the firmware was correctly upgraded.

1.  Go into TECH mode. Then get the system data list.

2.  Make sure that the correct firmware version is shown on the system data list.
    • Example: Firmware/Engine/Emulation Version: 6.04 V1.0.8

FIRMWARE DOWNLOAD                                          30 March 2004

### 5.4.2 RECOVERY PROCEDURE

The machine will not operate if the update procedure did not work correctly. At this time, do these steps:

1. Set the power off and then on.
2. Do the steps in the download procedure from step 4 again.

The machine will start the upgrade procedure again.

### 5.4.3 REMOTE MACHINE UPDATE

This function uses one fax machine installed with the most recent firmware. It upgrades one or more other remote machines of the same type with the telephone network.

*How to update firmware by remote fax*

1. Operate a fax with the most recent firmware to prepare it to send the upgrade.
2. Select "Remote" in the Flash Upgrade of Data Setup menu in Tech mode.
   Tech Mode → Data Setup → Flash Upgrade (☞ 5.2.3)
3. Put in the telephone number of the fax machine to upgrade. (You can upgrade several faxes at the same time). At this time, put in the telephone number for each machine.)
4. Then push the enter button. This will send the firmware file to each of the set fax machines. (It will be 10 or 15 minutes to send the file to each machine.)

CAUTION: 1) The sending and receiving fax machines must be the same model.
                 2) A sending fax must be set up as ECM mode. The receiving machine memory must be set to 100%. If not the upgrade will fail.

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|---|---|---|

## 5.5 ENGINE TEST MODE

The engine test mode gives functions to examine the engine condition. It examines the condition of each device and shows the result of the test on the LCD. It is in 6. items (0~5). The functions of items are shown below.

## 5.5.1 TO ENTER THE ENGINE TEST MODE

Press MENU, #, 1, 9, 3, 1 in sequence, and the LCD briefly displays 'Engine Test Mode', the machine has entered service (tech) mode.
NOTE: It may cause any damage on the machine if a test is done for long time.

## 5.5.2 DIAGNOSTIC

| No. | Test Name | Engine Test | Remarks |
|---|---|---|---|
| 0 | MTR FAN SOL ETC | Motor Test | 1 : On, 2 : Off |
| | | PickUp Test | 1 : On, 2 : Off |
| | | Fan Test | 1 : On, 2 : Off |
| | | Manual Clt Test | 1 : On, 2 : Off |
| | | PTL Test | 1 : On, 2 : Off |
| 1 | LSU TEST | LSU Motor Test | 1 : On, 2 : Off |
| | | LSU Hsync Test | 1 : On, 2 : Off |
| | | LD Test | 1 : On, 2 : Off |
| 2 | SENSOR TEST | Feed Sensor Test | Check : Check Sensor status / Next : Next Sensor Check |
| | | Exit Sensor Test | Check : Check Sensor status / Next : Next Sensor Check |
| | | Cover Sensor Test | Check : Check Sensor status / Next : Next Sensor Check |
| | | Empty Sen Test (Paper End Sensor) | Check : Check Sensor status / Next : Next Sensor Check |
| | | MP Empty Sen Test (Bypass paper sensor) | Check : Check Sensor status / Next : Next Sensor Check |
| 3 | HEAT TEST | THERM ADC 220~85 | 1 : On, 2 : Off (maintain the fusing temp.) |
| 4 | HVPS TEST | MHV Test | 1 : On, 2 : Off (-1550V ± 50V) |
| | | Dev Bias Test | 1 : On, 2 : Off (-430V ± 20V) |
| | | THV EN/NEG Test | 1 : On, 2 : Off (-1000V +300V/-150V) |
| | | THV On (1300V) | 1 : On, 2 : Off (+1300V ± 20V) |
| | | THV ADC 1300V | 1 : On, 2 : Off (ADC Value : 101 ± 5) |
| | | THV ADC 600V~3550V | 1 : On, 2 : Off (Compare each ADC Value) |
| 5 | Heat Error Num | | |
| | Low Heat Num | | |
| | Heat Buffer 1~10 | | |

Service Tables

ENGINE TEST MODE                                    30 March 2004

### 5.5.3 STATUS PRINT

When the function is enabled a group of parameters are printed at the bottom of each page. This shows the print engine condition. This is not necessary for service use.

This setting stays on when you get out of Engine Mode. Make sure to set it off.

30 March 2004  ENGINE F/W

## 6.6.4 FUSING

The resistance of the thermistor varies inversely with the temperature of the hot roller. The control circuit monitors the temperature through the thermistor and turns the fusing lamp on and off. This keeps the hot roller at the operating temperature.

### Error Type

| Error | Description |
|---|---|
| Open heat error | Goes lower than 68°C for 28 seconds at the time of warm up |
| Lower heat error | • Standby:<br> Goes lower than 80°C over 10 seconds<br>• Print mode:<br>1. Goes lower than 145°C for 4 seconds for consecutive pages.<br>2. Sets at 25°C or lower than the fixed fusing temperature over 4 seconds for consecutive pages. |
| Over heat error | Goes higher than 220°C for 3 seconds |

## 6.6.5 LSU

The LSU consists of the LD (Laser Diode) and the polygon motor. The LD turns and drives the polygon motor when it gets a print signal. Hsync occurs when the light part gets the beam. LReady occurs when the polygon motor speed gets to a correct condition. The LSU controller gets to 1 when the LSU is ready. If not, an error is shown.

### Error Type

| Error | Description |
|---|---|
| Polygon motor error | When the polygon motor's speed is not correct |
| Hsync error | The polygon motor's speed is correct, but the Hsync signal is not shown. |

Detailed Descriptions

6-13

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |
|---|---|---|

30 March 2004  SPECIFICATIONS

# SPECIFICATIONS

## 1. GENERAL SPECIFICATIONS

| Configuration | Desktop | |
|---|---|---|
| Major Features: | Copier, Print, Scan, Fax (with ADF) | |
| Operation System: | Win95/98/Win-Me/NT4.0/2000/XP | |
| LCD: | 16 characters x 2 lines | |
| I/O Interface: | USB1.1 & IEEE1284 | |
| Power Consumption: | Print Mode | 350 W |
| | Sleep Mode | 20 W |
| Power Switch: | Yes | |
| Noise: | Operating | 55 dBA |
| | Standby | 39 dBA |
| Warm Up: | Less than 42 seconds | |
| Approval: | Class B | |
| Device Memory: | 16 MB | |
| Size (W*D*H) w/o Hand Set: | 474 x 436 x 417 mm (18.7" x 17.2" x 16.4") | |
| Weight: | 13 Kg (28.8 lbs.); With toner Cartridge | |
| Absolute Storage Condition: | Temperature: | -20°C ~ 40°C |
| | Humidity: | 10% RH ~ 95% RH |
| Operating Condition: | Temperature: | 10°C ~ 32°C |
| | Humidity: | 20% RH ~ 80% RH |
| Recommended Operating Condition: | Temperature: | 16°C ~ 30°C |
| | Humidity | 30% RH ~ 70% RH |

Spec

SPEC-1

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |
|---|---|---|

SPECIFICATIONS 30 March 2004

## 2. PRINT SPECIFICATION

| Configuration | | Desktop |
|---|---|---|
| Print Speed: | | A4 - 16 ppm, Letter - 17 ppm (5%, Character Pattern) |
| Print Method: | | Laser Scanning Unit + Electro Photography |
| Print Language: | | GDI |
| Power Save: | | Yes (5/10/15/30/45 min.) |
| Resolution: | Normal | 600 *600 dpi |
| | RET | No |
| Toner Save: | | Yes |
| Memory: | | 8MB |
| FPOT: | Stand by | Approx. 12 seconds |
| | Power Save | Less than 54 seconds |
| Duplex Print: | | Manual (driver support provided) |
| Printable Area: | | 207.6 x 270.6 mm (Letter) |

## 3. SCAN SPECIFICATION

| Configuration | | Desktop |
|---|---|---|
| Halftone (Gray Scale): | | 256 level |
| Scan Method: | | Color CCD ( ITU-T#1 Chart ) |
| Scan Speed | ADF | 25 seconds: Text/Mixed Mode, B/W Letter and 300dpi. (USB) |
| | | 72 sec Photo Mode: Gray Letter & 300dpi. (USB) |
| | Platen | 23 sec |
| Resolution: | Optical | 600 x 600 dpi |
| Scan Width: | Width | Max.216mm (8.5") |
| | Length (ADF) | Max. 356mm (14.0") |
| | Length (Platen) | Max. 297mm (11.7") |
| Scan-to: | | E-mail, Image, OCR, FAX, WEB |

SPEC-2

| Model: Model C-C1 | Date: 13-Apr-04 | No.: RB173001 |
|---|---|---|

SPECIFICATIONS                                    30 March 2004

## 7. PAPER HANDLING

| Configuration | | Desktop |
|---|---|---|
| Capacity (20lbs): | Main Tray | 250 sheets |
| | Bypass | Single sheet |
| Optional Cassette: | | No |
| Output Capacity: | | 150Sheets/20 lb |
| Output Control: | | Face down |
| Paper Size: | Main tray | CST: A4, Letter, Legal Folio, Executive, B5 |
| | Bypass | Bypass: Envelope 6 3/4, 7 3/4, #9, #10, DL, C5, B5 |
| Paper Weight: | Main tray | 60 ~ 90g/m² (16 ~ 24 lb) |
| | Bypass | 60 ~ 163g/m² (16 ~ 43 lb) |
| Paper Path: | Standard output | Bottom to Middle Front |
| | Straight through | Face up, Single Sheet |
| Paper Size: | Max | 216 x 356mm (8.5" x 14") |
| | Min | 76 x 127mm (3"x 5 ") |
| Output Stacker: | Paper | Extension |
| | Document | Fixed |
| Input Guide: | Bypass tray | Adjustable |
| | Main tray | Universal |
| | Document | Adjustable |
| ADF: | Paper Weight | 47 ~ 105g/m² (12.5~28lb) |
| | Capacity | 30 sheets (75g/m² /20 lb) |
| | Document size width | 148mm – 216 mm (5.8" - 8.5") |
| | Document size length | 127 mm – 356 mm (5" - 14.0") |

SPEC-6

# RICOH

# Technical Bulletin

| Model: Model C-C1 | Date: 2-Jul-04 | No.: RB173002 |
|---|---|---|

| Subject: Machine Firmware History | | 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 ( ) | | |

The following is the machine firmware history for the Model C-C1 (B173 model).

| Part Number | Version | Production |
|---|---|---|
| **B173612** | **6.12** | **May '04 production** |
| B173609 | 6.09 | First mass production |

**Note:** The above firmware is being used for USA, Europe, Asia and China models.

**Descriptions of changes**

| Symptom Corrected, Other Changes | Version |
|---|---|
| *Symptoms corrected:*<br>1. *Cannot use the Menu key once the number of pages is programmed for the job.*<br>2. *The operator was able to set the "End Time" for a Forward Job to an earlier value than the "Start Time".*<br>3. *"Warming up" remains displayed after the machine is woken up by a print job set for plain paper feed from the Bypass Tray. (Printing is normal).*<br><br>*Other changes:*<br>1. *Optimized the Toner Low/Empty timing by adjusting the threshold for the toner dot counter based on the temperature/humidity data from the environmental sensor.*<br>2. *Modified software so that the display does not allow the operator to access the Copier function during fax communication.*<br>*Note: With previous versions, the machine prohibited Copier operations in accordance with specification, but the display allowed the operator to input the number of copies.*<br>3. *Modified software so that the operator can print from the Bypass Tray after clearing a Jam 0 at this tray. (Previously, it was necessary to re-feed from a paper tray).*<br>4. *Modified software so that a Speed Dial cannot be deleted if it is currently programmed in a Forward Job. (Deletion causes this feature to operate incorrectly).*<br>5. *Reduce/Enlarge default changed from Custom to Original.*<br>6. *The following setting has been applied for the China model.*<br>*Note: This is effective when the country code is set to China.*<br>*Redial count:*<br>*- Setting range: 0-2*<br>*- Default: 2* | **6.12** |
| Regular upgrade: Improved management of energy saver function. | 6.09 |

**Reissued: 16-Sep-04**

| Model: Model C-C1 | Date: 2-July-04 | No.: RB173002a |
|---|---|---|

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

| Subject: Machine Firmware History | Prepared by: A.Ishiyama |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |
| Classification: ☐ Troubleshooting<br>☐ Mechanical<br>☐ Paper path<br>☐ Other ( ) | ☐ Part information ☒ Action required<br>☐ Electrical ☐ Service manual revision<br>☐ Transmit/receive ☐ Retrofit information |

The following is the machine firmware history for the Model C-C1 (B173 model).

| Part Number | Version | Production |
|---|---|---|
| ***B173613*** | ***6.13*** | ***July '04 production*** |
| B173612 | 6.12 | May '04 production |
| B173609 | 6.09 | First mass production |

**Note:** The above firmware is being used for USA, Europe, Asia and China models.

**Descriptions of changes**

| Symptom Corrected, Other Changes | Version |
|---|---|
| ***Other changes:***<br>***1. DTMF levels for Russia changed to meet local regulations.***<br>***2. Optimized the transfer voltage and fusing temperature for "Colored" paper to ensure good drum cleaning.***<br>***3. Optimized the timing for the "Toner Low" and "Toner Empty" conditions (the threshold for the toner dot counter was changed).*** | ***6.13*** |

**Reissued: 18-Nov-04**

| Model: Model C-C1 | Date: 2-July-04 | No.: RB173002b |
|---|---|---|

**RTB Reissue**

The items in bold italics have been added.

| Subject: Machine Firmware History | Prepared by: A.Ishiyama |
|---|---|
| From: 1st Tech. Support Sec. Service Support Dept. | |
| Classification: | ☐ Troubleshooting ☐ Part information ☒ Action required<br>☐ Mechanical ☐ Electrical ☐ Service manual revision<br>☐ Paper path ☐ Transmit/receive ☐ Retrofit information<br>☐ Other ( ) |

The following is the machine firmware history for the Model C-C1 (B173 model).

| Part Number | Version | Production |
|---|---|---|
| ***B173614*** | ***6.14*** | ***October '04 production*** |
| B173613 | 6.13 | July '04 production |
| B173612 | 6.12 | May '04 production |
| B173609 | 6.09 | First mass production |

**Note:** The above firmware is being used for USA, Europe, Asia and China models.

**Descriptions of changes**

| Symptom Corrected, Other Changes | Version |
|---|---|
| *1. "LUI Select" setting was added: Tech Mode >> Data Setup >> LUI Select.*<br><br>*Reason: The NCU (LIU) was changed so that the EU model can be used in South Africa (new regulations). This setting tells the machine if the NCU is the old one or the new one.*<br><br>*When you install this firmware, make sure the setting is correct:*<br>*- New NCU (B1739677): Select "EU&SA LIU"*<br>*- Old NCU (B1739515): Select: "EU LIU"*<br><br>*Note: For details, see MB B173004 and RTB B173003.*<br><br>*2. The On/Off display for the Message Confirmation Report is wrong when the report is selected from the RCP (Remote Control Panel).* | *6.14* |
| Other changes:<br>1. DTMF levels for Russia changed to meet local regulations.<br>2. Optimized the transfer voltage and fusing temperature for "Colored" paper to ensure good drum cleaning.<br>3. Optimized the timing for the "Toner Low" and "Toner Empty" conditions (threshold for toner dot counter was changed). | 6.13 |

**RICOH**

| Model: Model C-C1 | Date: 2-July-04 | No.: RB173002b |
|---|---|---|

| Symptom Corrected, Other Changes | Version |
|---|---|
| Symptoms corrected:<br>1. Cannot use the Menu key once the number of pages is programmed for the job.<br>2. The operator was able to set the "End Time" for Forward Job to an earlier value than the "Start Time".<br>3. "Warming up" remains displayed after the machine is woken up by a print job set for plain paper feed from the Bypass Tray. (Printing is normal).<br><br>Other changes:<br>1. Optimized the Toner Low/Empty timing by adjusting the threshold for the toner dot counter based on the temperature/humidity data from the environmental sensor.<br>2. Modified software so that the display does not allow the operator to access the Copier function during fax communication.<br>Note: With previous versions, the machine prohibited Copier operations in accordance with specification, but the display allowed the operator to input the number of copies.<br>3. Modified software so that the operator can print from the Bypass Tray after clearing a Jam 0 at this tray. (Previously, it was necessary to re-feed from a paper tray).<br>4. Modified software so that a Speed Dial cannot be deleted if it is currently programmed in Forward Job. (Deletion causes this feature to operate incorrectly).<br>5. Reduce/Enlarge default changed from Custom to Original.<br>6. The following setting has been applied for the China model.<br>Note: This is effective when the country code is set to China.<br>Redial count:<br> - Setting range: 0-2<br> - Default: 2 | 6.12 |
| Regular upgrade: Improved management of energy saver function. | 6.09 |

# **R**ICOH

# **T**echnical **B**ulletin

| Model: Model C-C1 EU Model | Date: 18-Nov-04 | No.: RB173003 |
|---|---|---|

| Subject: Machine firmware updated for NCU change | | 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 (          ) | | |

## **Important Note on NCU / Firmware / Machine Interchangeability**

As announced in MB B173004 and RTB B173002b, the NCU (LUI) for the Europe model was changed from October 2004 so that it can be used in South Africa:
P/N B1739515 → P/N B1739677
**Note:** There is a round, green seal on the new NCU.

When you install the new NCU (LUI), you also need to update the firmware and check the "LUI Select" setting (details below).

### **Action in the Field**
1) If you install the **new** NCU (B1739677), make sure to install firmware **v6.14 or later.**
2) When you install v6.14, make sure that the "LIU Select" setting is correct.
   (Tech Mode >> Data Setup >> LUI Setting):

   ➢ v6.14 + **New** NCU: Select "**EU&SA LIU**"
   ➢ v6.14 + **Old** NCU:  Select: "**EU LIU**"

Example: v6.14 + New LCU:



```
Silence Time              [12 Sec/Unlimit/Off]        Off
LIU Select (EU only)      [EU&SA LIU/EU LIU]           EU&SA LIU

Firmware/Engine/Emulation Version          :  6.14   V7.1.1 QPDL 1.22 12-02-2003
```

**[System Data List]**