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Model: MET-C1k

Date: 10-Nov-14

No.: RD237002

Subject: Firmware Release Note: Network Support			Prepared by: E. Hinata
From: 1st Tech Service Sect., MFP/Printer Tech Service Dept.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part information</li> <li>Electrical</li> <li>Transmit/receive</li> <li>Other (Firmware)</li> </ul>	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

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

Version	Program No.	Effective Date	Availability of RFU
1.00	D2375568	1st Mass production	Available

Version	Modified Points or Symptom Corrected
1.00	1st Mass production



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Model: MET-C1k

Date: 10-Nov-14

No.: RD237004

Subject: Firmware Release Note: PowerSaving Sys			Prepared by: E. Hinata
From: 1st Tech Service Sect., MFP/Printer Tech Service Dept.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part information</li> <li>Electrical</li> <li>Transmit/receive</li> <li>Other (Firmware)</li> </ul>	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

This RTB has been issued to announce the firmware release information for the **PowerSaving Sys.** 

Version	Program No.	Effective Date	Availability of RFU
F.17	D2375554	1st Mass production	Available

Version	Modified Points or Symptom Corrected	
F.17	1st Mass production	



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Model: MET-C1k

Date: 10-Nov-14

No.: RD237005

Subject: Firmware Release Note: Printer			Prepared by: E. Hinata
From: 1st Tech Service Sect., MFP/Printer Tech Service Dept.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part information</li> <li>Electrical</li> <li>Transmit/receive</li> <li>Other (Firmware)</li> </ul>	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

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

Version	Program No.	Effective Date	Availability of RFU
1.00	D2375572	1st Mass production	Available

Version	Modified Points or Symptom Corrected	
1.00	1st Mass production	



PAGE: 1/1

Model: MET-C1k

Date: 10-Nov-14

No.: RD237009

Subject: Firmware Release Note: Web Uapl			Prepared by: E. Hinata
From: 1st Tech Service Sect., MFP/Printer Tech Service Dept.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part information</li> <li>Electrical</li> <li>Transmit/receive</li> <li>Other (Firmware)</li> </ul>	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

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

Version	Program No.	Effective Date	Availability of RFU
1.00	D2375562	1st Mass production	Available

Version	Modified Points or Symptom Corrected	
1.00	1st Mass production	

I echnical Bulleti
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Reissued: 10-Nov-14

Model: MET-C1ab/MET-C1ab\_SOP/MET-C1yz/MET-C1yz\_SOP/ Date: 18-Jun-13 MET-C1k

No.: RD147021c

RTR	Reissue

RICOH

#### The items in *bold italics* have been corrected or added.

Subject: Firmware	Prepared by: N. Yoshida		
From: 1st Tech Se			
Classification:	Troubleshooting		Action required
	Mechanical	Electrical	Service manual revision
	Paper path	Transmit/receive	Retrofit information
	Product Safety	Other (Firmware)	🖂 Tier 2

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

This RTB has been issued to announce the firmware release information for the PS3.

Version	Program No.	Effective Date	Availability of RFU
1.00	D1655731A	1st Mass production	Available

Version	Modified Points or Symptom Corrected			
1.00	1st Mass production			
	Supported: Model MET-C1yz/ MET-C1yz_SOP			
	Supported: Model MET-C1k			

Technical Bulle
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Reissued: 23-Mar-17

Model:	MET-C1ab/MET-C1ab_SOP/MET-C1yz/
	MET-C1yz_SOP/MET-C1k

Date: 18-Jun-13

No.: RD147023f

#### **RTB Reissue**

RICOH

#### The items in **bold italics** have been corrected or added.

Subject: Firmware	Prepared by: E. Hinata		
From: 1st Tech Se			
Classification:	Troubleshooting Part information		Action required
	Mechanical	Electrical	Service manual revision
	Paper path	Transmit/receive	Retrofit information
	Product Safety	Other (Firmware)	🖂 Tier 2

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

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

Version	Program No.	Effective Date	Availability of RFU
3.13.29	D1655703J	April 2017 production	Available
3.13.28	D1655703H	November 2015 production	Available
3.13.27	D1655703G	October 2014 production	Available
3.13.26	D1655703F	August 2014 production	Available
3.13.25	D1655703E	December 2013 production	Available
3.13.24	D1655703D	1st Mass production	Available

Note: Definition of Availability of RFU via @Remote "Available": The firmware can be updated via RFU or SD card. "Not available": The firmware can only be updated via SD card.

VersionModified Points or Symptom Corrected3.13.29Symptom corrected:<br/>When "Unauthorized Copy Prevention Printing: Printer" is enabled, an error might<br/>occur, causing the job to be cancelled. (GFPR#RA14120002)3.13.28Symptom corrected:<br/>SP1-103-002 fails, if paper type is set to plain paper 2 (default).<br/>Note that this firmware must be used in combination with Printer version of below:<br/>D146, D147 : v1.12 or later<br/>D146, D147 (SOP) : v2.15 or later<br/>D176, D177 : v1.07 or later<br/>D176, D177 (SOP) : v2.07 or later



### Reissued: 23-Mar-17

Model: MET-	C1ab/MET-C1ab_SOP/MET-C1yz/ C1yz_SOP/MET-C1k	Date: 18-Jun-13	No.: RD147023f	
Version	Modified Points or Sy	mptom Corrected		
3.13.27	Symptom corrected: When printing a RPCS vector job that contains an image with transparent parts that the RPCS driver generates, the transparent parts are printed in black.			
3.13.26	<ul> <li>Symptom corrected:</li> <li>1. When printing a job from Microsoft Excel 2013 by using a RPCS driver, yellow-colored cells are blacked out.</li> <li>2. Printing some data might result in poor performance compared to the predecessor model. This problem occurs often in Adobe Reader and Microsoft Office.</li> </ul>			
3.13.25	<ol> <li>Symptom corrected:</li> <li>When printing certain documents in Microso</li> <li>When printing from Adobe Reader 9, chara experience other rendering problems.</li> </ol>	oft Word, an SC899 ei cters might be missing	ror might occur. g, cut off, or	
3.13.24	1st Mass production			

## Technical Bulletin

#### **PAGE: 1/3**

Model: Metis-C1 abcdeyzk			Da	te: 26-Nov-18	No.: RD147177
Subject: Black Line, Color Line and Dirty Background				Prepared by:	T.Kiyohara
From: MFP section, OPOS Product Quality managemt Dept.					
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	Part info     Electrica     Transmi     Other (	orma al it/rec	tion	tion required ervice manual revision etrofit information er 2

#### SYMPTOM

Horizontal black or full-color lines Dirty background



#### CAUSE:

Dirty charge roller

Increased electrical resistance on the charge roller surface from toner/powdered lubricant and paper dust builds up on the surface. Also, electrical resistance builds up on the roller surface precipitated by low-temperature conditions (around 15C).

#### Solution

1. Replace the Charge Roller Unit.

New P/N	Description		Int
D2422061	CHARGE UNIT:P2:ASS'Y	1-1	O/O

#### See **PROCEDURE** below,



Model: Metis-C1 abcdeyzk Date: 26-Nov-18

No.: RD147177

### **PROCEDURE** for cleaning the charge roller.

#### **IMPORTANT:**

- As mentioned above, if you need to replace the PCU but do not have one available, 1) clean the charge roller now and replace PCU at a later date.
- 2) Do the following cleaning procedure very carefully. This is because this type of charge roller was not designed to be cleaned individually.
- 1. Remove the PCDU from the machine.
- 2. Front end block [A] ( $\mathscr{P} \times 2$ ).



3. Rear end block [A] ( $\mathscr{P} \times 1$ ).



4. Gears [A] [B] (🕅×2). [A]



d1462164



Model: Metis-C1 abcdeyzk

Date: 26-Nov-18

No.: RD147177

5. Joint (rear side) [A] (?×3).



6. Separate the PCU [A] and Development Unit [B].



- d1462166
- 7. Rotate the PCU unit and remove the charge roller unit ( $\mathscr{P} \times 2$ ).



8. Replace the charge roller



### **Technical Bulletin**

Reissued: 27-Dec-16

Model: MET-C1yz/MET-C1yz\_SOP/MET-C1k

Date: 20-Nov-13

No.: RD177014i

#### **RTB Reissue**

The items in <b>Doid italics</b> have been corrected of added.								
Subject: Firmware	e Release Note: PCL	Prepared by: E. Hinata						
From: 1st Tech Se								
Classification:	Troubleshooting Part information		Action required					
	Mechanical	Electrical	Service manual revision					
	Paper path     Transmit/receive		Retrofit information					
	Product Safety	🛛 Tier 2						

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are **the same** on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

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

Version	Program No.	Effective Date	Availability of RFU
1.10	D1775573J	January 2017 production	Available
1.09	D1775573H	October 2016 production	Available
1.08	D1775573G	May 2015 production	Available
1.07	D1775573F	January 2015 production	Available
1.06	D1775573E	December 2014 production	Available
1.05	D1775573D	October 2014 production	Available
1.04	D1775573C	August 2014 production	Available
1.03	D1775573B	March 2014 production	Available
1.02	D1775573A	1st Mass production	Available

Version	Modified Points or Symptom Corrected
1.10	<ul> <li>Symptom corrected:</li> <li>When characters that contain the incorrect TrueType font data are printed, not only are incorrect characters missing but also are correct characters that follow incorrect characters. (GFPR#RE16030046)</li> <li>The image quality output from PCL5 data might be poor if the image was created by using certain applications, such as RICOH Process Director. (GFPR#RE15030034)</li> <li>An SC899 error occurs when using the PCL6 driver to print a PDF from the Reader application in Windows 8.1. (GFPR#RA15050002)</li> <li>When printing a PCL5 job, black text might be drawn by using process black and result in a blurred or thicker-than-expected output. (GFPR#RA16010003)</li> </ul>
1.09	Symptom corrected:

#### Reissued: 27-Dec-16

Model: MET-C	1yz/MET-C1yz_SOP/MET-C1k	Date: 20-Nov-13	No.: RD177014i				
Version	Modified Poin	ts or Symptom Corrected	1				
	<ol> <li>Some lines and/or borders might be missing from PCL jobs. (GFPR#RC16040013)</li> <li>An SC899 error might occur when printing a PCL job which contains reduce or enlarge image. (GFPR#RE16020028)</li> <li>A blank page or missing image is printed out if the PCL data created by certain applications (such as Microsoft Excel 2010) contains a significant amount of graphics and/or transparent objects.</li> <li>When "Unauthorized Copy Prevention Printing: Printer" is enabled, an error might occur, causing the job to be cancelled.(GFPR#RA14120002)</li> <li>When printing a excel sheet that contains images that drawn by collar custom brush, the job may be canceled.</li> <li>An SC899 error might occur when graphics are drawn by the BGB Brush</li> </ol>						
1.08	Symptom corrected: If a raster image is specified in the PCL6 up printing, unexpected white lines migh GFPR#RA14110005)	6 driver to be reduced, be e It appear in the printout. (G	enlarged, or undergo N- FPR#RA14080005,				
1.07	<ol> <li>Symptom corrected:</li> <li>If a PCL5 job is printed under certain when using host printing, PCL defau</li> <li>When printing a PCL5 host-printing specified, the device will stall.</li> <li>Using a bitmap font might result in junction</li> </ol>	n conditions related to the f ult fonts are used. (GFPR# job in which 32,000 or mor obs being cancelled. (GFPI	font header information RE14100009) e of the fill patterns are R#RE13100030)				
1.06	<ol> <li>Symptom corrected:</li> <li>An image that has had its size down (GFPR#RE14080016)</li> <li>If an image size is big and has been the PCL6 driver, unexpected white li</li> <li>If a transparent drawing command is printed in blue. (GFPR#RE13080007 GFPR#RE14100046, GFPR#RE141</li> </ol>	scaled, such as a logo, mig enlarged by using the "Rea nes might appear in the pri included in a color PCL jo 7, GFPR#RE14080009, GF 10035)	ght not be printed. duce/Enlarge" option in ntout. b, some parts might be PR#RE14090014,				
1.05	Symptom corrected: When the print settings are changed for the changed settings are not applied wh Supported: Model MET-C1k	a stored document that inc en the document is printed	ludes a banner page,				
1.04	<ol> <li>Symptom corrected:</li> <li>When printing PCL job, an SC899 e</li> <li>When printing a job from Microsoft E cells are blacked out. (GFPR#RA14</li> <li>Printing some data might result in po model. This problem occurs often in</li> <li>When printing PCL5 jobs that includ device automatically reboots when f available for download. (GFPR#RE<sup>5</sup></li> <li>PCL jobs with a specified clip range the printout.</li> <li>If the glyph data of TrueType fonts i the frame, an SC899 error might oc</li> </ol>	error might occur. Excel 2013 by using a PCL 010003) oor performance compared Adobe Reader and Micros le a scalable font, an SC89 fonts have exceeded the 25 14020003) might print unnecessary 1 ncludes hinting information cur. (GFPR#RC14030010)	driver, yellow-colored to the predecessor oft Office. 9 error occurs or the 56-character limit -pixel width lines on that is on the edge of				
1.03	Symptom corrected: 1. The even page of the duplex job can 2. When printing a PCL job, characters	nnot be previewed from the s might be missing, cut off,	e SDK application. or experience other				



Reissued: 27-Dec-16

Model: MET-C1yz/MET-C1yz_SOP/MET-C1k		Date: 20-Nov-13	No.: RD177014i		
Version	Modified Points or Symptom Corrected				
	rendering problems.				
1.02	1st Mass production				

Reissued: 21-Jan-15

Model: MET-C1yz/ME	T-C1yz_SOP/MET-C1k/
MET-C1ab/MET-C1ab_	SOP/AI-C2/K-C4/OR-C2

Date: 20-Nov-13

No.: RD177019b

#### **RTB Reissue**

RICOH

#### The items in **bold italics** have been corrected or added.

Subject: Firmware	Prepared by: E. Hinata		
From: 1st Tech Se			
Classification:	Troubleshooting	Action required	
	Mechanical     Electrical		Service manual revision
	Paper path	Transmit/receive	Retrofit information
	Product Safety	🛛 Other (Firmware)	🖾 Tier 2

### Important Information about Normal/Smart Panel Firmware Updates

- When updating machine firmware, make sure **NOT** to install Smart Panel supported firmware on a machine with a normal operation panel (and vice-versa). If you do, the machine may not function as designed and product warranty may not apply.
- To avoid this, when updating the firmware, make sure that the numbers next to "NEW" and "ROM" are the same on the operation panel.
- If you install the wrong firmware, repeat the update procedure and check the numbers mentioned above.

This RTB has been issued to announce the firmware release information for the Data Erase Onb.

Version	Program No.	Effective Date	Availability of RFU
1.03m	D3775913	1st Mass production	Available

Version	Modified Points or Symptom Corrected				
1.03m	1st Mass production				
	Supported: Model MET-C1k				
	Supported: Model MET-C1ab, MET-C1ab_SOP, Al-C2, K-C4, OR-C2				

#### **PAGE: 1/1**

Model: MET-C1k			Date: 26-Nov-14		14	No.: RD237010	
Subject: <b>[Taiwar</b> batteries in Taiwar		Prepared	by: E.H	inata			
From: 1st Tech Service Sect., MFP/P Tech Service Dept.							
Classification:	Troubleshooting       Part informat         Mechanical       Electrical         Paper path       Transmit/rece         Product Safety       Other (		tion eive )	<ul> <li>☐ Action</li> <li>⊠ Servic</li> <li>☐ Retrof</li> <li>☐ Tier 2</li> </ul>	required e manual revision it information		

# Important Note about Lithium Batteries used on the MET-C1 (Taiwan model only)

Add the following CAUTION to the Service Manual for the Taiwan version of the MET-C1.

**Note:** Taiwan requires that this caution be announced in Taiwanese to all field technicians in that market.

#### CAUTION

RICOH

#### "如果更換不正確之電池型式會有爆炸的風險,請依製造商說明書處理用過之電 池。"

Excerpt from Service Manual in English:

[<u>Top Page</u> > <u>Main Chapters</u> > <u>Read This First</u> > <u>Important Safety Notices</u> > Observance of Electrical Safety Standards]

#### **Observance of Electrical Safety Standards**

The copier and its peripherals must be serviced by a customer service representative who has completed the training course on those models.

### WARNING

 Keep the machine away from flammable liquids, gases, and aerosols. A fire or an explosion might occur.

### 

- The Controller board on this machine contains a lithium battery. The danger of explosion exists
  if a battery of this type is incorrectly replaced. Replace only with the same or an equivalent type
  recommended by the manufacturer. Discard batteries in accordance with the manufacturer's
  instructions and local regulations.
- The optional fax and memory expansion units contain lithium batteries, which can explode if
  replaced incorrectly. Replace only with the same or an equivalent type recommended by the
  manufacturer. Do not recharge or burn the batteries. Used batteries must be handled in
  accordance with local regulations.

## Technical Bulletin

#### **PAGE: 1/8**

Model: MET-C1k			Dat	Date: 16-Jan-15		No.: RD237011	
Subject: Poor stacking on ARDF DF3090 original exit tray					Prepared by: E.Hinata		
From: 1st Tech Service Sect., MFP/P Tech Service Dept.							
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part info</li> <li>Electrica</li> <li>Transmi</li> <li>Other (</li> </ul>	ormat al it/rec	tion eive )	<ul> <li>Action</li> <li>Servic</li> <li>Retrofi</li> <li>Tier 2</li> </ul>	required e manual revision it information	

#### SYMPTOM

Originals fed from ARDF DF3090 are stacked poorly on the original exit tray.



### CAUSE

- Originals are designed to exit slightly faster as soon as scanning completes.
- Original exit tray is not level between the operator and non-operator sides.

### SOLUTION

- 1. Added one more paper exit lever.
- Note: The photo below shows the existing exit lever [A'] and additional exit lever [A].
- 2. Added an auxiliary tray [B].
- 3. Modified the gate pawl [C] (to enable addition of a lever).





**PAGE: 2/8** 

Mo	odel: MET-C1k			Date: 16-Jan-15	N	o.: RD23	3701
#	Old part number	New part number	Des	scription	Q'ty	Int	
A, A'	-	D6843731	LEVER:EXIT		-	1	
В	-	D6841550	TRAY:EXIT:AUX	ILIARY:ASS'Y	-	1	
С	D6843713	D6843717	GATE PAWL:RE	VERSE	X/O	1	

#### **Production line:**

#### **Cut-in Serial Numbers:**

•	<b>O</b>	nti	in	n	D	F
•		μι			υ	ι.

Product code:	Product name:	GER:	Cut-in S/N
D77921	ARDF DF3090	CHN	E934Q480001~
D77917	ARDF DF3090	Other regions	E934Q211320~

#### • Main machine ARDF Model

Product code:	Product name:	GER:	Cut-in S/N
D14627	MP C3003		E154M220001~
D14727	MP C3503	<b>F</b> 11	E164M330001~
D14827	MP C4503		E174M330001~
D14927	MP C5503	EU	E184M330001~
D17627	MP C2003		E204R561006~
D17727	MP C2503		E214R660001~
D14617	MP C3003		E154M360001~
D14717	MP C3503		E164M360001~
D14817	MP C4503		E174M360001~
D14917	MP C5503	NA	E184M360001~
D17617	MP C2003		E204R500254~
D17717	MP C2503		E214R500104~

#### In the field:

#### 1. Update the firmware

Update the ADF\_DF3090 firmware to the following version or newer.

Version	Program No.
1.090:02	D7795300E

#### 2. Add the lever [A] and tray [B], and replace with the gate pawl [C].

#### Procedure:

Estimated time: 30 min~40min.



Model: MET-C1k

Date: 16-Jan-15

No.: RD237011

- Replacing the gate pawl and adding the lever
- 1. Remove the rear cover [a]. (Screw x1, Hook x5)



2. Disconnect the harnesses [a].



3. Slide the paper feed motor unit in the direction of the blue arrow and remove it. (Screw x2 [a], Spring x1 [b])



**IMPORTANT:** When you re-attach the motor, make sure to do the following:

- Slide the motor in the direction of the blue arrow as far as it will go.
- Hold the motor in this position and tighten the fixing screws.
- \* If you do not do this, the timing belt will loosen and originals cannot be fed.





**PAGE: 4/8** 

Model: MET-C1k

Date: 16-Jan-15

No.: RD237011

4. Remove the retaining ring [a], timing belt [b], and the torque limiter [c].



5.Remove the link [a], spring [b], and the hook [c].



6. Remove the front cover. (Screw x1 [a]) Note: Keep the original tray open when you remove the front cover.



7. Remove the retaining ring [a] and bushing [b]. Machine front side:





Model: MET-C1k

Date: 16-Jan-15

No.: RD237011

8. Shift the reverse roller as shown below.



9. Slide the gate pawl [a] in the direction indicated with the red arrows as shown in the photos below and remove it.





- Attach two levers to the new gate pawl.
   Attach the new gate pawl. (D6843717)
- - \* [a] is the new lever. [b] is the lever removed in Step 8.





Model: MET-C1k

Date: 16-Jan-15

No.: RD237011

- <u>Attaching the auxiliary tray</u>
  12. <u>Clean the area outlined in blue with alcohol.</u>



- 13. Wait until the alcohol dries.
- 14. Remove the release paper from the double stick tape attached to the auxiliary tray.
- 15. Attach the auxiliary tray by aligning the corner indicated with the blue dotted lines.





Model: MET-C1k

Date: 16-Jan-15

No.: RD237011

If poor stacking still occurs with A4/LT LEF, attach the following parts.



#	Part number	Description	Function
1	D6849502	UNIFORM UNIT:PAPER EXIT SUB-UNIT:ASS'Y	Stops the leading edge of <u>A4/LT LEF</u> for higher stacking performance. The stopper will automatically collapse by its spring when feeding A3/DLT originals.
2	D6849501	SHEET:EXIT:UNIFORM :AUXILIARY	Prevents A3/DLT originals from catching with the bottom side of the feed tray, which may happen if the scanned originals are lifted up by the stopper.

#### Note:

• The above parts are not applied to mass production.

#### **Procedure:**

- 1. Peel off the adhesive covering (paper) from the stopper.
- 2. Attach the stopper to the ramp as shown in the diagram.

**Important:** Make sure the long end of the stopper is flush against (touching) the side of the paper exit sub-unit, as shown.





Model: MET-C1k

Date: 16-Jan-15

No.: RD237011

- 3. Attach the Mylar as follows:
  - Line up the left long-edge with the corner, and the short-edge with the ridge, as shown in the diagram below.



- Peel off the adhesive covering (paper) from the **short side** of the Mylar.
- Attach the short side to the original table, as shown.





2a

#### Reissued: 6-Feb-15

Model: MET-C1k	Date: 23-Jan-15	No.: RD2370 <sup>-</sup>

#### **RTB Reissue**

The items in *bold italics* were corrected or added.

Subject: The paper tray is displayed as being empty, even while there is still paper in the tray.			Preparec	by: E.Hinata
From: 1st Tech Service Sect., MFP/P Tech Service Dept.				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part informat</li> <li>Electrical</li> <li>Transmit/rec</li> <li>Other (</li> </ul>	tion eive )	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>

#### SYMPTOM

- The paper tray is displayed as being empty, even while there is still paper in the tray.
- The paper tray set sensor does not detect the paper tray when the input check SP is executed (SP5803-016: Tray 1: Set Sensor, SP5803-020: Tray 2: Set Sensor), even while the paper tray is set in position.

Note: When the sensor detects the paper tray, bit 0 will show a value of "0".

Applicable models: **D176/D177/D237** (paper trays 1, 2), **D787** (paper trays 3, 4)

NG:



### CAUSE

Heat or cold during machine transportation deforms the paper trays, causing the tray not to contact the push switch on the mainframe.

**Note:** This does not happen with following models since there is a tray pull-in mechanism which pulls in the paper tray more strongly.

D146/D147/D148/D149/D150, D693, D694

## Technical Bulletin

#### Reissued: 6-Feb-15

Model: MET-C1k Date	ate: 23-Jan-15	No.: RD237012a	
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#### SOLUTION

#### **Production line:**

The part of the paper tray that contacts the push switch was increased in size by 1mm. See the diagram below.

Paper tray rear side:



#### **Cut-in Serial Numbers:**

Product code:	Product name:	GER:	Cut-in S/N
D17615			E204MC60536
D17616	MP C2003		TBA
D17617		ΝΑ	E204RC20001
D17715		INA	E214MC60124
D17717	WF 02000		ТВА
D17619	MP C2003		ТВА
D17719	MP C2503	TWN	E214RC20001
D23719	MP C2011		ТВА
D17621			E204MC70150
D17622	WF 62003		ТВА
D17721	MD C2502		E214MC70001
D17722	WF 62000	CHN	E214MC80002
D23721			G474MC70301
D23722	MF G2011		G475M180001
D17626	MP C2003	KOB	ТВА
D17726	MP C2503	NON	ТВА
D17627	MP C2003		E204RC60066
D17727	MP C2503	EU	E214RC60001
D23727	MP C2011		G475M130001
D17629	MP C2003		E204RC70001
D17729	MP C2503	AA	E214RC80001
D23729	MP C2011		G475M140001

## Technical Bulletin

Reissued: 6-Feb-15

Model: MET-C1k	Date: 23-Jan-15	No.: RD237012a
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Product code:	Product name:	GER:	Cut-in S/N
D78717	PB3210	EU	E974Q810001
D78718	PB3220	NA/TWN/CHN/KOR/AA	E974Q760645
D78721	00000	CUN	E974Q780001
D78722	PD3220	CHN	E974QA50001

#### In the field:

If the symptom occurs, attach the following spacer to the main machine paper trays 1, 2 and optional paper trays 3, 4.

See PROCEDURE below.

P/N	Description	int	Q'ty
AF013006	PAD:TRAY BOTTOM PLATE	-	1

#### PROCEDURE

1. Cut the pad into four equal sections as shown below (width: 12mm).



2. Cut the pad for Tray 1, as shown below (height: 10mm).



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#### Reissued: 6-Feb-15

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3. Clean the area of the paper tray that contacts the push switch with alcohol. *Tray 1:* 



Trays 2, 3, 4:



- 4. Attach the spacer as shown in the diagram.
- Tray 1:

Trays 2, 3, 4:



5. Press the pad firmly with your finger to ensure there is no peeling or lifting.

## Technical Bulletin

Model: MET-C1	k	te: 12-Feb	No.: RD237014			
Subject: Manual NVRAMs on the	correction: Replacement pr	r	Prepared	d by: E.Hi	nata	
From: 1st Tech Service Sect., MFP/P Tech Service Dept.						
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part info</li> <li>Electrica</li> <li>Transmi</li> <li>Other (</li> </ul>	ormat al t/rec	tion eive )	<ul> <li>☐ Action</li> <li>⊠ Servic</li> <li>☐ Retrofi</li> <li>☐ Tier 2</li> </ul>	required e manual revision it information

#### **Service Manual Revision**

Corrected or added the replacement procedure for the NVRAMs on the controller board with the following.

D146/D147/D148/D149/D150: Replace the entire procedure.

D176/D177, D237: Areas in bold were corrected.

#### Service Manual

<u>Top Page</u> ><u>Main Chapters</u> > <u>Replacement and Adjustment</u>> <u>Electrical Components</u>> Replacing the NVRAMs on the controller board

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#### REPLACEMENT PROCEDURE

#### CAUTION:

- Referring to the following procedure, be sure that there are no mistakes in the mounting position and orientation of the NVRAMs.
- SC195 (Machine serial number error) will be displayed if you forget to attach the NVRAM.
- If you mounted the NVRAM in the wrong direction, each component needs to be replaced because a short circuit was caused in the controller board and the NVRAM.
- Passwords for the Supervisor and Administrator 1 will be discarded later in this procedure.
- 1. Make sure you have the SMC report (factory settings). This report comes with the machine.
- 2. Output all the SMC data using SP5-990-001 (SP Print Mode: All (Data List)) or download the SMC data to an SD card using SP5-992-001 (SP Text mode: ALL (Data List)).
- 3. Turn the main power switch OFF.
- 4. Insert an SD card into Slot 2 and turn the main power switch ON.
- 5. Upload the NV-RAM data on the controller board to the SD card using SP5-824-001 (NV-RAM Data Upload).
- 6. Make sure that the customer has backed up their Address Book data. If they have not, save the Address Book data to an SD card using SP5-846-051 (Backup All Addr Book).

#### **IMPORTANT:**

- The address data stored in the machine will be discarded later during this procedure.
   So be sure to obtain a backup of the customer's address book data.
- Note that the counters for the user will be reset when doing the backup/restore of the address book data.
- If they have a backup of the address book data, use their own backup data for

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Model: MET-C1k D	Date: 12-Feb-15	No.: RD237014
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restoring. This is because there is a risk that the data cannot be backed up properly depending on the NV-RAM condition.

#### STEPS 7-10: Additional steps ONLY for machines that have the FAX installed.

- 7. Print the Box List by pressing these buttons in the following order: [Facsimile Features] [General Setting] [Box Setting: Print List]
- 8. Print the Special Sender List by pressing these buttons in the following order: [Facsimile Features] [Reception] [Program Special Sender: Print List]
- 9. Write down the following fax settings.
  - [Receiver] in [Facsimile Features] [Reception] [Reception File Settings] [Forwarding].
  - [Notify Destination] in [Facsimile Features] [Reception] [Reception File Settings] -[Store].
  - [Specify User] in [Facsimile Features] [Reception] [Stored Reception File User Setting].
  - [Notify Destination] in [Facsimile Features] [Reception] [Folder Transfer Result Report].
  - Specified folder in [Facsimile Features] [Send] [Backup File TX Setting].
  - [Receiver] in [Facsimile Features] [Reception] [Reception File Settings] [Output Mode Switch Timer].
  - [Store: Notify Destination] in [Facsimile Features] [Reception] [Output Mode Switch Timer].
  - All the destination information shown on the display. **Note:** 
    - In the fax settings, address book data is stored with entry IDs, which the system internally assigns to each data. The entry IDs may be changed due to re-assigning in backup/restore operations.
- 10. Make sure that there is no transmission standby file. If any standby file exists, ask the customer to delete it or complete the transmission.
- 11. Turn the power OFF and unplug the power supply cord.
- 12. Push the power switch ON again to discharge the residual charge.
- 13. Replace the NV-RAM with a brand-new one.
- 14. Turn the power ON with the SD card to which the NV-RAM data has been uploaded in Slot 2.

#### **IMPORTANT:**

- After turning the power ON, SC995 will be displayed in Japanese except for machines that have a smart operation panel.
- For machines that have a smart operation panel, SC673 will occur and SC995 might be internally issued **in Japanese** after turning the power ON.
- After turning the power ON, SC870 in Japanese will occur and the address book data will be cleared.

**STEP15~17:** Additional procedure only for machines that have the Smart Operation Panel installed.

Note:

• SC673 will be displayed **in Japanese** at start-up, but this is normal behavior. This is because the controller and the smart operation panel cannot communicate with each other due to changing the SP settings for the operation panel.

15. Change the SP settings for the operation panel.

- SP5-748-101: (OpePanel Setting: Op Type Action Setting): Change bit 0 from 0 to 1.
- SP5-748-201: (OpePanel Setting: Cheetah Panel Connect Setting): Change the value from 0 to 1.
- 16. Change the Flair API SP values.
  - SP5-752-001 (Copy FlairAPIFunction Setting): Change bit 0 from 0 to 1.



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- SP1-041-001 (Scan:FlairAPI Setting): Change **bit 0** from 0 to 1.
- SP3-301-001 (FAX:FlairAPI Setting) Change bit 0 from 0 to 1.

17. Cycle the power OFF/ON.

#### Note:

#### • Program/Change Administrator will be displayed in Japanese, but this is normal.

18. Download the NV-RAM data stored in the SD card to the brand-new NV-RAM using SP5-825-001 (NV-RAM Data Download).

#### Note:

• The download will take a couple of minutes.

- 19. Turn the power OFF and remove the SD card from slot 2.
- 20. Turn the power ON.

Note:

 Program/Change Administrator will be displayed in the language backed up in the SD card.

21. Execute SP5-755-002 (Hide Administrator Password Change Scrn).

Note:

• After you execute this SP and exit SP mode, the Home screen is displayed and user functions can be used.

22. Restore the original settings of the following SPs, referring to the SMC data obtained in step 2. **Note:** 

• SP5-825-001 does not download the following SP data to the new NV-RAM. So you must set them manually.

- a. SP5-985-001 (Device Setting: On Board NIC)
- b. SP5-985-002 (Device Setting: On Board USB)
- c. SP5-193-001 (External Controller Info. Settings)
- d. SP5-895-001 (Application invalidation: Printer)
- e. SP5-895-002 (Application invalidation: Scanner)
- f. SP5-730-001 (Extended Function Setting: JavaTM Platform setting)
- 23. If the security functions (HDD Encryption and HDD Data Overwrite Security) were applied, set the functions again.
- 24. Ask the customer to restore their address book. Or restore the address book data using SP5-846-052 (UCS Setting: Restore All Addr Book), and ask the customer to ensure the address book data has been restored properly.

#### **IMPORTANT:**

If you obtained the backup of the customer's address book data in step 6, delete the backup immediately after the NV-RAM replacement to avoid accidentally taking out the customer's data.

25. Output all the SMC data with SP5-990-001 and make sure all the SP/UP settings except for counter information are properly restored, by checking the SMC data obtained in step 2.

#### Note:

• The counters will be reset.

- 26. Make sure that the list output in steps **4 to 6** matches the destination information. If not, set it to the setting before replacement.
- 27. Execute the process control (SP3-011-001).
- 28. Do the "Automatic Color Calibration (ACC)" for the copier mode & printer mode as follows:
  - Print the ACC test pattern (User Tools Maintenance ACC Start).
  - Put the printout on the exposure glass.
  - Put 10 sheets of white paper on the test chart. This ensures the precise ACC adjustment.
  - Close the ARDF or the platen cover.
  - Press "Start Scanning" on the LCD. Then, the machine starts the ACC.



Model: MET-C1k	Date: 12-Feb-15	No.: RD237014

#### **IMPORTANT:**

- If you cannot execute SP5-824-001 or SP5-825-001 for some reason, try all the following things.
- Check the changed SP value on the SMC which was output in step 2 and set it manually. Especially, ensure that the values of the following SPs are same as the setting before the replacement. a. SP5-045-001 (Accounting counter: Counter Method)b. SP5-302-002 (Set Time: Time Difference)
- Because the PM counters have been reset during NV-RAM replacement, it is necessary to replace all the PM parts for proper PM management.

#### Note:

- If a message tells you need a SD card to restore displays after the NV-RAM replacement, create a "SD card for restoration" and restore with the SD card.
- 29. Turn the power OFF/ON.
- 30. Change the supervisor log-in password.
  - <u>Top Page > Main Chapters > Installation > Main Machine Installation > Important</u> notice on security issues > Password setting procedure

Correspondence table						
	Position	Label on the board	Label on the NVRAM			
[A]	Upper	FRAM2	2M-2			
[B]	Lower	FRAM1	2M-1			

#### Mounting position and orientation of the NVRAMs



• When replacing the controller board, first, check which SDK applications have been installed. After replacing the controller board, re-install the SDK applications by following the installation instructions for each application.



Model: MET-C1k				Date:	12-Feb-15	No.: RD237014

 After reinstalling the SDK applications, print the SMC (SP-5-990-024/025 (SMC: SDK/Application Info)). Then open the Main power switch cover. Store the SMC sheet and the SD card(s) that was used to install the SDK application(s).

## Technical Bulletin

Model: MET-C1	k	ate: 16-Feb-15 No.: RD23701				
Subject: Manual	correction: SC tables		Prepared	by: E.Hi	nata	
From: 1st Tech S	ervice Sect., MFP/P Tech Service					
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part info</li> <li>Electrica</li> <li>Transmi</li> <li>Other (</li> </ul>	ormat al it/rec	tion [ [ eive [ ) [	☐ Action ⊠ Servic ☐ Retrofi ☐ Tier 2	required e manual revision it information

#### **Service Manual Revision**

The areas in **bold** were changed or added.

Applicable models: D146/D147/D148/D149/D150, D176/D177, D237

Service Manual: <u>Top Page</u> ><u>Main Chapters</u> ><u>Troubleshooting</u>> <u>Service Call</u>

• Added or changed the solution pertaining to the IOB.

**Note:** In some cases, "replace the IOB" was missing from the solution. In other cases, the IOB was not specified clearly enough (which IOB needs to be replaced).

SC code	Description	Solution: Which IOB should be replaced (Imagine IOB or Transport IOB)
SC324-01	Development motor: Bk: Lock	Imaging IOB
SC324-05	Development motor: CMY: Lock	Imaging IOB
SC396-05	Drum motor (CMY) Lock	Imaging IOB
SC441-00	Drum transfer motor: Lock	Imaging IOB
SC491-00	High voltage power source: charge/development: output error	Imaging IOB
SC492-00	High voltage power source: image transfer/paper transfer: output error	Imaging IOB
SC520-01	Registration Motor: Lock	Paper Transport IOB
SC520-02	Paper feed Motor: Lock	Paper Transport IOB
SC520-03	Transport Motor: Lock	Paper Transport IOB
SC521-01	Duplex Entrance Motor: Lock	Paper Transport IOB
SC521-02	Duplex By-pass Motor: Lock	Paper Transport IOB
SC522-00	Paper Exit Motor: Lock	Paper Transport IOB
SC530-00	Fusing Exhaust Heat Fan Lock	Paper Transport IOB
SC531-01	Development Intake Fan/Right Lock	Imaging IOB
SC531-02	Development Intake Fan/Left Lock	Imaging IOB
SC531-03	Drive Cooling Fan Lock	Imaging IOB
SC533-01	PSU Exhaust Heat Fan Lock	Paper Transport IOB

## Technical Bulletin

**PAGE: 2/3** 

Model: MET-	Date: 16-Feb-15		No.: RD237015	
SC533-03	PSU Cooling Fan Lock		Pape	er Transport IOB
SC533-04	Controller Box Cooling Fan Lock		Imaging IOB	
SC534-01	Main Exhaust Fan Lock	Imag	ing IOB	
SC534-02	Toner Supply Cooling Fan Lock		Imag	ing IOB
SC534-03	Ozone Exhaust Fan Lock		Pape	er Transport IOB
SC535-00	Paper Exit Cooling Fan Lock		Imag	ing IOB
SC540-00	Fusing Motor: Lock		Pape	er Transport IOB
SC543-00	Fusing central thermopile high temperation (software)	ture detection	Pape	er Transport IOB
SC553-00	Fusing End Thermopile High Temperati (software)	ure Detection	Pape	er Transport IOB
SC563-00	Pressurized Central Thermistor High Te Detection (software)	Pape	er Transport IOB	
SC564-00	Pressurized Central Thermistor High Te Detection (hardware)	Pape	er Transport IOB	
SC573-00	Pressurized Edge Thermistor High Tem Detection (software)	perature	Pape	er Transport IOB
SC574-00	Pressurized Edge Thermistor High Tem Detection (hardware)	perature	Pape	er Transport IOB
SC583-00	Pressurized Expanded Edge Thermisto Temperature Detection (software)	r High	Pape	er Transport IOB
SC584-00	Pressurized Expanded Edge Thermisto Temperature Detection (hardware)	r High	Pape	er Transport IOB
SC621-00	Finisher communication error	Imag	ing IOB	
SC622-00	Paper bank communication error	Pape	er Transport IOB	
SC664-00	ASIC on the IOB SRAM program expan	Pape	er Transport IOB	
SC664-01	Access permission error to ASIC on the (write permission fails)	Pape	er Transport IOB	
SC664-02	Write error to ASIC on the IOB SRAM (vertex)	write result	Pape	er Transport IOB
SC664-03	ASIC on the IOB program startup error	Pape	er Transport IOB	

#### • Added solutions to the description for SC285-00.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC285-00	С	MUSIC error
		The results of MUSIC pattern reading failed 4 times. (even if mode e (real time MUSIC) fails, the error count is not incremented (+1))
		<ul> <li>MUSIC pattern density is lighter than as designed</li> </ul>
		TM sensor defective
		ITB defective
		PCU defective
		LD unit defective
		-BCU defective



Model: MET-C1k		Date: 16-Feb-15	No.: RD237015
	<ul> <li>Imaging IOB defective</li> <li>Harness defective</li> </ul>		
	<ul> <li>Power OFF/ON</li> <li>ITB reset</li> <li>PCU reset</li> <li>Toner replenishment</li> <li>Replace the TM (ID) sensor</li> <li>Replace the ITB</li> <li>Replace the PCU</li> </ul>		
	Replace the LD unit     Replace BCU		
	Replace the imaging IOB     Replace the Harness (between     Replace the Harness (between	n BCU and TM sensor n imaging IOB and LD	) • unit)

• **Added** the entire description for SC724-71.

SC724-	В	Shift Motor Error			
		The level of shift sensor output does not change when the shift motor is driven for 186 msec. after the motor in turned ON.			
		<ul> <li>Connector disconnected</li> <li>Shift motor defective</li> <li>Shift sensor on the PCB defective</li> <li>harness defective</li> </ul>			
		<ul> <li>Remove and then reattach the connector</li> <li>Replace the shift motor (P/N: AX040185)</li> <li>Replace the PCB (P/N: D5835100)</li> <li>Replace the harness (P/N: D6915402)</li> </ul>			

## Technical Bulletin

#### **PAGE: 1/5**

Model: MET-C1k			Date: 10-	Mar-15	No.: RD237016	
Subject: Manual correction: Installation procedure of Anti condensation heater for scanner and PCDU			i Prepa	Prepared by: E.Hinata		
From: 1st Tech Service Sect., MFP/P Tech Service Dept.						
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part inform</li> <li>Electrical</li> <li>Transmit/</li> <li>Other (</li> </ul>	mation receive )	☐ Action ⊠ Servic ☐ Retrofi ☐ Tier 2	required e manual revision it information	

#### **Service Manual Revision**

Areas **in bold** (highlighted in blue) were corrected or added to the installation procedure for the anti-condensation heater (Scanner) and PCDU.

Applicable Models: D146/D147/D148/D149/D150, D176/D177/D237

#### **Service Manual**

Main Chapters > Installation > Anti-Condensation Heater

# Anti-Condensation Heater

- Unplug the machine power cord before starting the following procedure.
- Do the following procedure not to damage any harnesses.
- Check that harnesses are not damaged or pinched after installation.

#### **Anti-Condensation Heater (Scanner)**

Vote Note

- This option is provided as a service part.
- If you want to install Anti-Condensation Heater (Scanner), heater for scanner (1) and electrical part (2) should be ordered.

#### 1) Heater (lamp) for Scanner

Old P/N	New P/N	Description	int	Q'ty
-	D7390071	HEATER:SCANNER:NA:ASS'Y		1
-	D7390072	HEATER:SCANNER:EU:ASS'Y	-	

#### 2) Electrical components

Old P/N	New P/N	Description	int	Q'ty
-	D7390501	ELECTRICAL COMPONENTS SECTION:NA:ASS'Y		1
-	D7390502	ELECTRICAL COMPONENTS SECTION:EU:ASS'Y	-	
Model: MET-C1k

Date: 10-Mar-15

No.: RD237016

### Accessory Check

### 1) Heater (lamp) for Scanner

Description	P/N	Q'ty	Note
SCREW:M3X3	03530030N	2	-
SCREW:M3X5	03530050N	1	-
HEATER:120V:9W for NA/ HEATER:230V:9W for EU	B2291687/ B2291688	1	-
BRACKET:DEHUMIDIFIER:HEATER	D1491835	1	-
COVER:HEATER:SCANNER	D2021836	1	Added from Apr. 2014 mass production

### (2) Electrical part

Description	P/N	Q'ty
TAPPING SCREW:3X6	04543006Q	3
CLAMP:LWSM-0605A	11050759	4
PCB:DHB	D1475190	1
HARNESS:SCANNER:PCU:HEATER:EXP	D1495393	1
HARNESS:DC:HEATER:DHB	D1495395	1
HARNESS: AC: HEATER: DHB for NA/ HARNESS: AC: HEATER: DHB for EU	D1495394/ D1495396	1



Model: MET-C1k

Date: 10-Mar-15

No.: RD237016

### **Installation Procedure**

### 18. Remove the screw of the cable guide [A].



d197z1088

19. Attach the heater cover [A] (screw x1). Important: Secure the screw in the same position as in Step 18.



d197z1089

2	C	0	ŀ	

Model: MET-C1k

Date: 10-Mar-15

No.: RD237016

**20.** Connect the harness with the other harness shown in step 9.



d1463043

**21.** Reattach all the removed covers.

### Anti-Condensation Heater (PCDU)

🔸 Note

- This option is provided as a service part.
- If you want to install Anti-Condensation Heater (PCDU), electrical part (2) and heater for PCDU (3) should be ordered.

#### (2) Electrical components

Old P/N	New P/N	Description	int	Q'ty
-	D7390501	ELECTRICAL COMPONENTS SECTION:NA:ASS'Y		4
-	D7390502	ELECTRICAL COMPONENTS SECTION:EU:ASS'Y	-	

#### 3) Heater (lamp) for PCDU

Old P/N	New P/N	Description	int	Q'ty
-	D7390116	HEATER:PHOTOCONDUCTOR:NA:ASS'Y		4
-	D7390117	HEATER:PHOTOCONDUCTOR:EU:ASS'Y	-	1

Model: MET-C1k

Date: 10-Mar-15

No.: RD237016

### Accessory Check

### 2) Electrical components

Description	P/N	Q'ty
TAPPING SCREW:3X6	04543006Q	3
CLAMP:LWSM-0605A	11050759	4
PCB:DHB	D1475190	1
HARNESS:SCANNER:PCU:HEATER:EXP	D1495393	1
HARNESS:DC:HEATER:DHB	D1495395	1
HARNESS: AC: HEATER: DHB for NA/ HARNESS: AC: HEATER: DHB for EU	D1495394/ D1495396	1

### 3) Heater (lamp) for PCDU

Description	P/N	Q'ty
TAPPING SCREW:WASHER:3X8	08025299	1
HEATER: PHOTOCONDUCTOR: NA: ADHESION/ HEATER: PHOTOCONDUCTOR: EU: ADHESION	-	1
DECAL:H-TEMP WARNING:HEATER:OPTION	D7396801	1

# Note: There have been no changes made to the Installation Procedure for the heater (lamp) for the PCDU.

## Technical Bulletin

Model: MET-C1k	Model: MET-C1k					No.: RD237017
Subject: Parts cha cover)		Prepared I	oy: E.Hina	ita		
From: 1 <sup>st</sup> Tech Ser	vice Sect, MFP/P Tech Service	e Dept				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	Part info	ormat al it/rec	ion eive )	<ul> <li>Action</li> <li>Servic</li> <li>Retrof</li> <li>Tier 2</li> </ul>	required e manual revision it information

### Parts change information

### Change:

- 1. The shape of the duplex cover was changed.
- 2. The shape of the housing in the manual feed unit was changed.
- 3. A clamp was added to the manual feed unit.

Reason: To ensure that the manual feed harness is not pinched/damaged.

### **IMPORTANT:**

Manual feed unit and duplex cover need to be replaced together.

#### **Before change**

(Harness is pinched between manual feed unit and duplex cover and then damaged).





Model: MET-C1k

Date: 7-May-15

Α

### After change

(Edge of the duplex cover [A] was cut, wall of manual feed unit [B] was raised).



### Duplex cover:



## Technical Bulletin

Model: MET-C1k	Date: 7-May-15	No.: RD237017

### Manual feed unit:





#### MP C3003/3503/4503/5503

#	Old P/N	New P/N	Description	Q'ty	Int	Set
1	D1494826	D1494828	MANUAL FEED UNIT:ASS'Y	1	X/X	Α
2	D1494627	D1494840	COVER:DUPLEX	1	X/X	Α

\*Set A Int = X/O

### MP C6003

#	Old P/N	New P/N	Description	Q'ty	Int	Set
1	D1494827	D1494829	MANUAL FEED UNIT:ASS'Y	1	X/X	Α
2	D1494627	D1494840	COVER:DUPLEX	1	X/X	Α

\*Set A Int = X/O

### MP C2003/2503

#	Old P/N	New P/N	Description	Q'ty	Int	Set
1	-	D1752601	MANUAL FEED UNIT:METIS- C1XYZ:ASS'Y	1	X/X	A
2	D1494627	D1494840	COVER:DUPLEX	1	X/X	Α

\*Set A Int = X/O

Model: MET-C1k

Date: 7-May-15

#### **CUT-IN SERIAL NUMBERS:**

Product	Model name:	GER:	Cut-in S/N
		1	
D14629	MP C3003		E154M/50001
D14/29	MP C3503		E164M650130
D14829	MP 04503		E174M650193
D14929	MP C5503	AA AA	E184M/50001
D15029	MP C6003		E194M/50001
D17629	MP C2003		E204R770001
D17729	MP C2503		E214R780001
D14627	MP C3003		E154M730001
D14727	MP C3503		E164M730001
D14827	MP C4503		E174M730001
D14927	MP C5503	EU	E184M730001
D15027	MP C6003		E194M620054
D17627	MP C2003		E204R763735
D17727	MP C2503		E214R760001
D14617	MP C3003		E154M760001
D14717	MP C3503		E164M710001
D14817	MP C4503		E174M710001
D14917	MP C5503	NA	E184M710001
D15017	MP C6003		E194M710001
D17615	MP C2003		E204M760001
D17715	MP C2503		E214M760001
D14618	MP C3003		E154G700101. E154G700103~
D14718	MP C3503		E164G700001
D14818	MP C4503		E174G900001
D14918	MP C5503		E184G800001
			E194GB00002, E194GB00009, E194GB00014,
	3 MP C6003		E194GB00019, E194GB00020, E194GB00021,
D15018			E194GB00022, E194GB00024, E194GB00025,
			E194GB00026, E194GB00028, E194GB00031,
	_		E194GB00032,E194GB00034~
D17618	MP C2003	GSA	E204GC00001
			E214GC00007, E214GC00009, E214GC00010,
			E214GC00013, E214GC00014, E214GC00015,
			E214GC00016, E214GC00017, E214GC00019,
			E214GC00020, E214GC00022, E214GC00023,
D17718	MP C2503		E214GC00024, E214GC00025, E214GC00026,
			E214GC00027, E214GC00028, E214GC00029,
			E214GC00030, E214GC00031, E214GC00033,
			E214GC00038 E214GC00040~
D1/619	MP C3003		E154M700001
D14019	MP C3503		E164M700001
D14719	MP C4502		E174M700001
D1/010	MP C5502	T\A/NI	E174W700001 F184M700001
D15010		I WIN	E104W700001
D13019			
D1/619		ļ	E204K/20001
D17719	EMP C2503		E214R720001



Model: MET-C1k

Date: 7-May-15

No.: RD237017

Product code:	Model name:	GER:	Cut-in S/N
D14621	MP C3003		E154M770001
D14622	MP C3003		E154M780001
D14721	MP C3503		E164M770001
D14821	MP C4503		E174M770001
D14921	MP C5503	СПИ	E184M770001
D15022	MP C6003		E194M720001
D17621	MP C2003		E204M770001
D17721	MP C2503		E214M770001

### Technical Bulletin

Reissued: 05-Oct-15 Model: MET-C1k

\_\_\_\_\_

Date: 22-May-15

No.: RD237018c

#### **RTB Reissue**

The items in *bold and italics* were added or changed.

Subject: Troublesh	nooting: SC672	Prepared by: E.Hinata		
From: 1st Tech Se	ervice Sect., MFP/P Tech Serv			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part informa</li> <li>Electrical</li> <li>Transmit/rec</li> <li>Other (</li> </ul>	Action required Action required Service manual revise eceive Retrofit information Tier 2	sion

Information required for further investigation when the symptom cannot be resolved by the solution described in this bulletin was added on the last page.

#### SYMPTOM

SC672-11 or -12 (Controller start up error) occurs.

SC672-11: Communication error between operation panel and CTL after machine is powered on. SC672-12: Communication error between operation panel and CTL after normal start-up.

#### Note:

- SC672 does not appear on the SMC report, since it is not logged.
- The operation panel (Normal Operation Panel / Smart Operation Panel) communicates with the controller via a USB cable and IPU. SC672 is triggered when the panel cannot communicate with the controller.
- Applicable models: MP C3003/3503/4503/5503/6003, MP C2003/2503, MP C2011

#### CAUSE

Possible causes include:

- 1. Failure of USB communication path (USB cable, IPU)
- 2. Data corruption of CTL onboard Flash memory
- 3. Poor supply voltage for CTL onboard ASIC
- 4. Firmware bug related to energy saving system
- 5. Defective CTL onboard converter
- 6. Defective CTL onboard resistors
- 7. FCU start-up error



FCU

Figure 1: Operation panel, IPU and Controller / FCU

### Technical Bulletin

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Reissued: 05-Oct-15

Model: MET-C1k

Date: 22-May-15

No.: RD237018c

#### SOLUTION

#### In the field:

Do the following.

- 1. Turn the machine power OFF/ON.
- 2. Check the power saving System firmware version.
  - > If this firmware is older than ver. F.17, update it to ver. F.17 or newer.
- 3. Re-connect the USB cable between IPU board and operation panel.



Figure 2: USB connector (IPU)



Figure 3: USB connector (Operation panel)

- 4. Do the action in the **flowchart on the next page** to determine the cause and best course of action. *If the USB cable and/or the CTL board needs to be replaced, make sure to refer to page 15 of this bulletin for the latest parts number.* 
  - USB cable
  - Memory (DIMM) on the CTL
  - CTL board
  - IPU board
  - FCU board
  - PCBs in the operation panel



Model: MET-C1k	Date: 22-May-15	No.: RD237018c

Important: If the SC recurs after you do the action in this flowchart, do the following.

- If SC819 (cache error) in SC history, please replace controller board.
- If SC991 (SCS: scs time count level c') appears in the SC history, replace the controller board and USB cable.

#### Flowchart to determine the replacement parts

#### MP C3003/3503, MP C2003/2503, MP C2011





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Model: ME	T-C1k	Date: 22-May-15	No.: RD237018c
	Parts	How to determine the cause	
	USB cable	Fuse 5 on the IPU	
	Operation Panel	Fuse 5 on the IPU	
	IPU	Fuse 5 on the IPU	
	CTL	LED1 on the CTL	
	FCU	Jumper switch on FCU	



Reissued: 05-Oct-15 Model: MET-C1k

Date: 22-May-15 No.: RD237018c

MP C4503/5503/6003

Important: If SC 672 occurs when we turn the power on and do not touch the machine for 30 minutes or more, replace the controller board (refer to page 17 of the bulletin for the latest part numbers).





Model: MET-C1k

Date: 22-May-15

No.: RD237018c

Parts	How to determine the cause
USB cable	Fuse 6 on the IPU
Operation panel	Fuse 6 on the IPU
IPU	Fuse 6 on the IPU
CTL	LED 8 or 9 on the CTL
DIMM	LED 2 thru 7
FCU	Jumper switch on FCU

#### [A]: LED on the controller board

Check the condition (lit, off, blinking) of the LED on the CTL.

#### MP C3003/3503, MP C2003/2503, MP C2011



Figure 4: LED 1 on the CTL

No.	Note
LED	For CPU
1	- LED <b>blinks</b> when the CPU is operating normally.
	- LED is <b>lit or off</b> when there is a problem with the CPU.



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Model: MET-C1k

Date: 22-May-15 No.: RD237018c

MP C4503/5503/6003



Figure 5: LEDs 1 to 9 on the CTL

(Repeats every 5 seconds)



Figure 6: LEDs 2 to 7 blinking every 5 seconds

No.	Note
LEDs 1-8	1. For self-diagnosis code (BIOS).
	2. After the BIOS starts up, LEDs 1 to 7 turn off and LED 8 blinks. LED
	8 is <b>lit or off</b> when there is a problem with the CPU.
LED 9	- LED is <b>lit</b> when the BIOS is running.
	- LED <b>blinks</b> when the OS is running.

#### [B]: Fuse on the IPU



Figure 7: Fuse on the IPU



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Model: MET-C1k

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[C]: Jumper switch on the FCU

If the jumper switch on the FCU is OFF, turn the switch **ON**.



Jumper switch OFF

Jumper switch ON

#### Figure 8: Jumper switch on the FCU

#### [D]: Replacing the USB cable

1. Remove the paper exit tray [A].



2. Remove the left upper cover [A] (screws x 1)



3. Remove the left rear cover [A] (screws x 2)





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Model: MET-C1k Date: 22-May-15 No.: RD237018c

4. Remove the controller cover [A] (screws x 4)



5. Remove the rear cover [A] (screws x4)



6. Remove the scanner rear cover [A] (screws x 3)



7. Remove the scanner rear cover (small) [A] (screws x 2)





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Model: MET-C1k

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8. Remove the I/F cable [A] (screws x 2, harnesses x 1, clamps x 1)



9. Remove the CIS cable [A].

SPDF (screws x 2, harnesses x1)



10. Remove the ADF (screws x 2)

ARDF (screws x 2, harnesses x1)



d1463133



**Important:** When you re-attach the ARDF later, make sure to attach the right hinge screw on the left side.



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11. Remove the scanner right cover [A] (screws x 1)



12. Remove the scanner front cover [A] (screws x 2)



13. Remove the scanner left cover [A] (screws x 2)



14. Remove the operation panel upper cover [A].





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Model: MET-C1k

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15. Remove the USB cable connector [A] (screws x1, clamps x2)



16. Remove the two screws.



17. Remove the two connectors.



18. Remove the scanner unit [A] (screws x 11)







Model: MET-C1k

Date: 22-May-15

No.: RD237018c

#### Important:

**Never loosen or remove** the following screw when you remove or re-attach the unit. This is because this screw fixes the scanner cam in place. If the position of the scanner cam changes, the scanner will be misaligned. This will result in image skew and other image alignment issues.



19. Remove the USB cable (clamp x5)





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Model: MET-C1k

Date: 22-May-15

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#### Important

Make sure that there is no space between the machine frame and the following three areas of the scanner unit when you re-attach the scanner unit.





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Model: MET-C1k

Date: 22-May-15 No.: RD237018c

#### [E]: Operation panel

Do the following procedure step-by-step if the USB cable replacement does not solve the symptom. Stop the procedure at any step if the symptom is solved.

1. Reconnect [a] (Cable:LCDC:USB) and [b] (Cable:USB).

- 2. Replace [a] (Cable:LCDC:USB) and [b] (Cable:USB).
- 3. Replace [c] (PCB:OP-L:USB:ass'y).
- 4. Replace [d] (PCB:LCDC:AR2FT:ME-C1:ass'y).

[a] Cable:LCDC:USB





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Model: MET-C1k

Date: 22-May-15

No.: RD237018c

#### Parts number change information

#	Part	Old P/N	New P/N	Description	Model	Q'ty
1	USB	D1495220	D1495225	HARNESS:METIS-	MP C3003/3503/	1
	cable			C1:OPERATION SUB-UNIT:ASS'Y	4503/5503/6003,	
					MP C2003/2503	

#	Part	Old P/N	New P/N	Description	Model	Panel	Q'ty
1		D1465675	D1885210	PCB:MET-C1:A:JL1_CTL(AR):EXP	MP C3003		
2		D1475675	D1885211	PCB:MET-C1:B:JL1_CTL(AR):EXP	MP C3503		
3		D1485665	D1885212	PCB:MET-C1:C:EX3_CTL(AR):EXP	MP C4503	Normal	
4		D1495665	D1885213	PCB:MET-C1:D:EX3_CTL(AR):EXP	MP C5503	Operation	
5		D1505665	D1885214	PCB:MET-C1:E:EX3_CTL(AR):EXP	MP C6003	Panel	
6		D1765675	D1885215	PCB:MET-C1:Y:JL1_CTL(AR):EXP	MP C2003		
7		D1775675	D1885217	PCB:MET-C1:Z:JL1_CTL(AR):EXP	MP C2503		-
8	CIL	D1469074	D1885230	PCB:MET-C1:A:JL1_CTL(CH):EXP	MP C3003		
9		D1479074	D1885231	PCB:MET-C1:B:JL1_CTL(CH):EXP	MP C3503		
10		D1489064	D1885232	PCB:MET-C1:C:EX3_CTL(CH):EXP	MP C4503		
11		D1499064	D1885233	PCB:MET-C1:D:EX3_CTL(CH):EXP	MP C5503	SOP	
12		D1509064	D188****	PCB:MET-C1:E:EX3_CTL(CH):EXP	MP C6003		
13		D1765695	D1885236	PCB:MET-C1:Y:JL1_CTL(CH):EXP	MP C2003		
14		D1775695	D1885237	PCB:MET-C1:Z:JL1_CTL(CH):EXP	MP C2503		

#### Mass-production:

The following modifications were applied for each possible cause.

**Note:** A modification has not yet been applied for possible cause #7 (CTL start-up error from FCU start-up error).

#	Possible cause	SC code	Model	Modification
1	Failure of the USB communication path (USB cable, IPU)	SC672 -11 -12	ALL	Screening process added to USB cable assembly line from Sept. 2014.



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Model: MET-C1k Date: 22-May-15 No.: RD237							
2	Data corruption of Flash memory (DIMM) on CTL	-11 -12	MPC4503/ 5503/6003	Manuf from J	acturing company ch Iul 2014.	anged	
3	Poor supply voltage for ASIC (CTL)	-11 -12	MPC4503/ 5503/6003	Capac Nov 20	ity of capacitor chang 013.	ged from	
4	Firmware bug with energy saving system	-11	ALL	Firmw (Powe newer	are modified in Feb 2 r Saving Sys version )	014 F.17 or	
5	Defective converter on CTL	-11	MPC3003/ 3503/4503/ 5503/6003	Test p from <i>I</i>	rocess added to asse Apr 2014.	embly line	
6	Defective resistors on CTL	-11	MPC3003/ 3503/4503/ 5503/6003	Assen prevei 2013.	nbly line process cha nt resistor damage fro	nged to om May	
7	Corruption of the CTL BIOS ROM data	-11 -12	MPC4503/ 5503/6003	Manui from J	acturing company ch Iuly 2015.	anged	

### **Cut-in Serial Numbers**

1. Screening process added to USB cable assembly line from Sept. 2014

Product code:	Model name:	GER:	Cut-in S/N			
D146	MP C3003		E154*A****			
D147	MP C3503		E164*A****			
D148	MP C4503		E174*A****			
D149	MP C5503	ALL	E184*A****			
D150	MP C6003		E194*A****			
D176	MP C2003		E204*A****			
D177	MP C2503		E214*A****			



Model: MET-C1k

Date: 22-May-15

No.: RD237018c

#### 2. Manufacturing company changed from Jul 2014

Product code:	Model name:	GER:	Cut-in S/N		
D148	MP C4503		E174*B*****		
D149	MP C5503	ALL	E184*B*****		
D150	MP C6003		E194*B*****		

#### 3. Capacity of capacitor changed from Nov 2013

Product code:	Model name:	GER:	Cut-in S/N		
D148	MP C4503		E174*1****		
D149	MP C5503	ALL	E184*1****		
D150	MP C6003		E194*1****		



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Date: 22-May-15

Model: MET-C1k

No.: RD237018c

### 4. Firmware modified in Feb 2014 (Power Saving Sys version F.17 or newer)

Product code:	Model name:	GER:	Cut-in S/N
D146	MP C3003		E155*4****
D147	MP C3503		E165*4****
D148	MP C4503		E175*4****
D149	MP C5503		E185*4****
D150	MP C6003	ALL	E195*4****
D176	MP C2003		E205*4****
D177	MP C2503		E215*4****
D237	MP C2011		G475*4****

#### 5. Test process added to assembly line from Apr 2014

Product code:	Model name:	GER:	Cut-in S/N	
D146	MP C3003		E154*5****	
D147	MP C3503		E164*5****	
D148	MP C4503	ALL	E174*5****	
D149	MP C5503		E184*5****	
D150	MP C6003		E194*5****	

#### 6. Assembly line process changed to prevent resistor damage from May 2013

Product code:	Model name:	GER:	Cut-in S/N
D146	MP C3003		E153*6****
D147	MP C3503		E163*6*****
D148	MP C4503	ALL	E173*6****
D149	MP C5503		E183*6****
D150	MP C6003		E193*6****



Model: MET-C1k

Date: 22-May-15 No.: RD237018c

#### Note:

If the problem does not resolve, please report in the standard escalation process with the following information attached for further investigation.

- SC sub code (SC672-11 or 12)
- Date/time of problem occurrence
- Debug logs (Controller, Engine, Operation panel)
- Factor(s) that trigger the problem (example: SC672-11 occurred 3 minutes after tuning ON the main power switch.)
- Occurrence frequency (example: One out of ten times when turning ON the main power switch)
- Replaced parts
- Date/time of when the parts were replaced



### Reissued: 15-Mar-17

Model: MET-C1k

Date: 23-Aug-13 N

No.: RD237019e

#### **RTB Reissue**

The items in *bold italics* were corrected or added.

Subject: Troubleshooting: SC670,665,664			Prepared by: T.Kiyohara		
From: 1st Tech S	ervice Sect., MFP/P Tech Service	vice Dept.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> </ul>	Part informat Electrical Transmit/rec	tion eive	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> </ul>	
	Product Safety	Other (	)	Tier 2	

Affected Models: D146/D147/D148/D149/D150/D176/D177/D237

### SYMPTOM

SC670-01: Engine start up error when the machine boots up

SC670-02: Engine start up error when the machine is in operation.

SC670-03: IPU start up error when the machine boots up.

SC670-04: Communication error between the engine and controller.

SC665-02: FFC connection error between BCU and imaging IOB.

SC665-03: FFC Connection Error between Paper Transport IOB and Imaging IOB)

SC664-04: ASIC on the imaging IOB and Transport IOB SRAM program expansion error

### CAUSE

The BCU, Imaging IOB, Transport IOB, Controller board, IPU and PSU are defective or there is a connection error between the boards.

### SOLUTION

<u>D146/D147</u>: Do SOLUTION 1 if the System/Copy firmware is Ver. 1.24 or newer. Do SOLUTION 2 if the Engine firmware is Ver. 1.<u>35</u>.08 or newer. Do SOLUTION 3 if the Engine firmware is older than this (ver. 1.34.08 or older).

### <u>D148/D149/D150:</u>

*Do SOLUTION 1 if the System/Copy firmware is Ver. 1.28 or newer. Do SOLUTION 2 if the Engine firmware is Ver. 1.35.08 or newer. Do SOLUTION 3 if the Engine firmware is older than this (ver. 1.34.08 or older).* 

D176/D177/D237:

Do SOLUTION 1 if the System/Copy firmware is Ver. 1.17 or newer. Do SOLUTION 2 if the Engine firmware is Ver. 1.<u>28</u>.08 or newer, and Do SOLUTION 3 if the Engine firmware is older than this (ver. 1.27.08 or older).

## Technical Bulletin

### Reissued: 15-Mar-17

Model: MET-C1k	Date: 23-Aug-13	No.: RD237019e
----------------	-----------------	----------------

### SOLUTION 1

*If the symptom occurs, use the following table to determine the best action.* 

### <u>SC670-02</u>

- 1. Replace the BCU.
- 2. Replace the IPU.
- 3. Replace the PCU.
- 4. Replace the contoroller board.

### <u>SC670-03</u>

- 1. Replace the IPU.
- 2. Replace the PSU.
- 3. Replace the contoroller board.
- 4. Replace the harness between PSU and IPU.

### <u>SC670-04</u>

- 1. Replace the IPU.
- 2. Replace the controller board.

### **SOLUTION 2**

If the symptom occurs, use the following flow chart to determine the cause and decide the best course of action.

Note: The action for when the LED on the BCU lights 3 times was deleted from the flow chart and transferred to SC664 and SC665.

### Technical Bulletin



#### Replace the IPU. connects the BCU and IPU. 2. Replace the IPU. 2. 3. Replace the Replace the controller 2. З. Replace the FFC that harness between connects the BCU and IPU. board. BCU and IPU. 4. Replace the EEPROM З. Replace the IPU. on the BCU 4. Replace the PSU 4. Replace the BCU. 5. Replace the harness between PSU and IPU

#### (\*1) Example of an SP value that is clearly abnormal/corrupted:

Correct:

No	Name		Default	Value
SPXXXX-YYY	Motor Speed	Vertical Feed Plain Std	0.9	0.9

#### Incorrect:

No	Name		Default	Value
SPXXXX-YYY	Motor Speed	Vertical Feed Plain Std	0.9	-2407.1

#### Reissued: 15-Mar-17

Model: MET-C1k	Date: 23-Aug-13	No.: RD237019e

### SC665-02

- 1. Replace the toner bottle if SC665-02 disappears when the toner bottle is removed.
- 2. Replace the development unit if SC665-02 disppears when the development unit is removed.
- 3. Replace the FFC that connects the BCU and the imaging IOB.
- 4. Replace the FFC that connects the imaging IOB and the transport IOB.
- 5. Replace the BCU.
- 6. Replace the imaging IOB.
- 7. Replace the transport IOB.
- 8. Replace the 4 ID chips board.

### <u>SC665-03</u>

- 1. Replace the FFC that connects the imaging IOB and the transport IOB.
- 2. Replace the imaging IOB.
- 3. Replace the transport IOB.

### SC665-04/SC664-01

- 1. Replace the FFC that connects the BCU and the imaging IOB.
- 2. Replace the FFC that connects the imaging IOB and the transport IOB.
- 3. Replace the EEPROM on the BCU.
- 4. Replace the imaging IOB.
- 5. Replace the transport IOB.
- 6. Replace the BCU.



Reissued: 15-Mar-17

Model: MET-C1k

Date: 23-Aug-13 No.: RD237019e

**SOLUTION 3** 

If the symptom occurs, use the following chart to determine the cause and decide the best course of action.



### Technical Bulletin

#### **PAGE: 1/4**

Model: MET-C1k D			Date: 7-Oc	et-15	No.: RD237020
Subject: Manual co replacem	orrection - Caution note on ent	Prepare	d by: Y Ino		
From: 1st MFP Tech Service Sec., MFP Tech Service Dept.					
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	Part inform Electrical Transmit/ro Other (	nation eceive )	Action re	equired manual revision nformation

Please add the following caution in the field service manual in this section: Replacement and Adjustment > Electrical Components > Printed Circuit/Parts Inside the Power Box

Parts number	Parts description	Product code
AZ240218	DC POWER SUPPLY:D146/D147:325.7W:NA	D146, D147
AZ240220	DC POWER SUPPLY:325.7W:D146/D147: EU/AP/CHN	D146, D147
AZ240222	DC POWER SUPPLY:D148/D149/D150:450.3W: NA	D148, D149, D150
AZ240224	DC POWER SUPPLY:EU/AP/CHN:450.3W: D148/D149/D150	D148, D149, D150
AZ230272	DC POWER SUPPLY:DOM/NA:247W	D176, D177, D237
AZ230274	DC POWER SUPPLY:EU/AA/CHN:247W	D176, D177, D237



**PAGE: 2/4** 

Model: MET-C1k

Date: 7-Oct-15

No.: RD237020

#### **CAUTION**:

**NEVER touch** the areas outlined in red in the photos below, to prevent electric shock caused by residual charge.

Residual charge of about 100V-400V remains in the AC circuits on the PSU board for several months even when the board has been removed from the machine after turning off the machine power and unplugging the power cord.

The procedure to discharge residual charge from the machine by unplugging the power cord from the AC wall outlet and pressing the main power switch works only for the DC circuits on this board. Residual charge remains in the AC circuits.



D146, D147 EU/AA/CHN




#### **PAGE: 3/4**

Model: MET-C1k

#### Date: 7-Oct-15

### No.: RD237020





D176, D177, D237 DOM/NA

D148, D149, D150 EU/AA/CHN





D176, D177, D237 EU/AA/CHN



Model: MET-C1k	Date: 7-Oct-15	No.: RD237020



Reissued: 26-Nov-15

Model: MET-C1k

Date: 15-Oct-15 No.: 1

No.: RD237022a

#### **RTB Reissue**

The items in *bold/italics* were added or changed.

Subject: Notifica	tion for Output check (SP58	Prepared by: T.Kiyohara		
From: 1st Tech S	ervice Sect., MFP/P Tech Service	vice Dept.		
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	Part informat Electrical Transmit/rece Other (	ion Action required Service manual revision eive Retrofit information ) Tier 2	

#### Important Information about the Toner Bottle Rotation Check

- When you want to check the rotation of the toner bottle, DO NOT use SP5804-142, -146, -151, -155, or -159 to -162. These SP modes are now [DFU].
- Instead, to check the bottle's rotation, use SP3050-003 to -006 (Forced Toner Supply) or SP3011-002 (Toner Density Adjustment). This is because toner may scatter inside and/or outside the machine and the toner hopper may be broken if SP5804-XXX is executed. (The development unit and toner hopper are not rotated).

5904	Output check [DFU]				
<i>3004</i>	Moves the toner supply motor.				
142	Toner Supply Motor Y: Standard Speed				
146	Toner Supply Motor M:CCW: Standard Speed	[0 or 1 / 0 / 1/stop]			
151	Toner Supply Motor C: Standard Speed				
155	Toner Supply Motor K: Standard Speed				

	Output check [DFU]           5804         Moves the toner bottle drive motor.				
5804					
159	Toner Bottle Drive Motor Y				
160	Toner Bottle Drive Motor M	[0, ar, 1, 0, 1, 1/atan]			
161	Toner Bottle Drive Motor C				
162	Toner Bottle Drive Motor K				



Model: MET-C1yzk Da				ite: 08-OC	t-15	No.: RD237021
Subject: Manual correction: SC tables				Prepared by: T.Kiyohara		
From: 1st Tech S	From: 1st Tech Service Sect., MFP/P Tech Service Dept.					
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	Part infor Electrica Transmit	rmat I /rec	ion eive )	<ul> <li>Action</li> <li>Service</li> <li>Retrofit</li> <li>Tier 2</li> </ul>	required manual revision information

#### **Service Manual Revision**

Applicable models: D146/D147/D148/D149/D150, D176/D177, D237

Service Manual: <u>Top Page</u> ><u>Main Chapters</u> ><u>Troubleshooting</u>> <u>Service Call</u>

• Added solutions to the description for SC665-XX and SC664-XX.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution				
SC665-02	D	<ul> <li>FFC connection error <ul> <li>Connects the BCU and imaging IOB Connection</li> <li>Connects the imaging IOB and transport IOB</li> <li>Connects the imaging IOB and TSB</li> <li>Connects the imaging IOB and the development unit</li> </ul> </li> <li>Defect with the FFC that connects the BCU and imaging IOB <ul> <li>Defective BCU</li> <li>Defective Imaging IOB</li> <li>Defective Transport IOB</li> <li>Defective TCB board</li> <li>Defective development unit</li> </ul> </li> <li>Replace the FFC that connects BCU and imaging IOB.</li> <li>Replace the FFC that connects BCU and imaging IOB.</li> <li>Replace the imaging IOB</li> <li>Replace the FFC that connects BCU and imaging IOB.</li> <li>Replace the FFC that imaging IOB and the transport IOB.</li> <li>Replace the imaging IOB</li> <li>Replace the imaging IOB</li> <li>Replace the imaging IOB</li> <li>Replace the transport IOB</li> <li>Remove the connector from CN203 on the imaging IOB board. If the LED on the board lights (turns ON), replace the TCB board.</li> <li>Remove the connector from CN204 on the imaging IOB board. If the</li> </ul>				
		FFC connection error				
SC665-03	D	Connects imaging IOB and transport IOB     Defect with the FFC that connects imaging IOB and transport IOB.     Defective Imaging IOB     Defective Transport IOB     Replace the FEC that connects the imaging IOB and transport IOP				
		<ul> <li>Replace the imaging IOB.</li> <li>Replace the transport IOB.</li> <li>Replace the transport IOB.</li> </ul>				



Model: MET-C1yzk Date: 08-OCt-15				No.: RD237021	
		FFC connection error - Connects BCU and imaging	aging IOB IOB and transport IOB		•
SC665-04	D	Defect with FFC that con Defect with FFC that con Defective BCU Defective Imaging IOB Defective Transport IOB	nects the BCU and imag nects imaging IOB and t	ing IOB. ransport IOB	
		<ul> <li>Replace the FFC that c</li> <li>Replace the FFC that c</li> <li>Replace the BCU.</li> <li>Replace the Imaging IC</li> <li>Beplace the Transport</li> </ul>	onnects BCU and imagin onnects the imaging IOB DB. IOB.	g IOB. and the transport	IOB.

SC No.	Level	Error Name/Error Condition/Major Cause/Solution
SC664-04	D	ASIC on the imaging IOB and Transport IOB SRAM program expansion
		error.
		Defective Transport IOB
		Defective Imaging IOB
		- Replace the Transport IOB.
		- Replace the defective IOB.
		<ul> <li>Replace the FFC that connects BCU and imaging IOB.</li> </ul>
		- Replace the FFC that connects the imaging IOB and the transport IOB.
		- Replace BCU

Reissued: 14-Dec-15

Model: MET-C1abcdeyzk

Date: 30-Nov-15

No.: RD237023a

**RTB Reissue** 

The items in *bold italics* was corrected.

					_					
Subject: Parts information (PCB for Paper tray heater)					Prepared by: T.Kiyohara					
From: 1st Tech Service Sect., MFP/P Tech Service Dept.										
Classification:			tion eive )		] Actic ] Serv ] Retro ] Tier	on requir ice man ofit infor 2	ed ual revis mation	ion		
Old part	Ne	w part	Description			Q'ty	Int	Page	Index	Note
D1860402	D18	mber 860404	MDER   BEATER:DEHUMIDIFIER:NA			1	XO		3	-
D1860403	D18	360405	HEATER:DEHUN	MIDIFIER:EU		1	ХО		4	-
D7390501	7390501 D7390506 ELECTRICAL COMPONENTS SECTION:NA:ASS'Y			1	ХО	P237	5	-		
D7390502	D73	390507	ELECTRICAL COMPONENTS SECTION:EU:ASS'Y			1	ХО	]	6	-
-	D14	475170	PCB: DHB			1	-		-	-

**Changed:** The design of the PCB: DHB (relay board) was changed.

**Reason:** To further protect against shorts triggered by high voltage, which can happen if the lines on the PCB are too close to one another.



New PCB

Old PCB



<b>RICOH</b> Technical Bulletin PAGE: 1/1						
Model: Cor-C1/Cor-C1_SOP/Gim-MF1d/Gim-MF1dM/Date: 29-JaGR-C2/GR-C2_SOP/Lef-C1/MET-C1ab/MET -C1ab_SOP/MET -C1k/ MET -C1yz/ MET -C1yz_SOP/OR-C2/OR-C2_SOP					No.: RD184065	
Subject: Firmware Release Note: Font EXP				repared	by: J. Kitagawa	
From: 1st Tech Se	ervice Sect., MFP/Printer	Tech Service Dept.				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Broduct Safety</li> </ul>	Part informat Electrical Transmit/rece	on	Action re Service r Retrofit ir	quired nanual revision nformation	

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

Version	Program No.	Effective Date	Availability of RFU
1.00	D1475581	1st Mass production	Available

Note: Definition of Availability of RFU via @Remote "Available": The firmware can be updated via RFU or SD card. "Not available": The firmware can only be updated via SD card.

Version		Modified Points or Symptom Corrected
1.00	1st Mass production	

# Technical Bulletin

#### **PAGE: 1/4**

Model: Metis-C1	te: 4-Mar-16		No.: RD237026			
Subject: Parts in	Prepared b	<b>y:</b> T.Ki	yohara			
From: 1st Tech Se	ervice Sect., MFP/P Tech Servic	ce Dept.				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part info</li> <li>Electrica</li> <li>Transmi</li> <li>Other (</li> </ul>	orma al it/rec	tion eive )	] Action ] Servic ] Retrof ] Tier 2	required e manual revision it information
				)	j ner z	

Old part	New part	Description	Q'ty	Int	Page	Index	Note
number	number						
-	D1472052	FRAME:CHARGE:30	1	O/O	-	-	-
-	D1472064	ELECTRODE PLATE:CHARGE:30	1	0/0	-	-	-

Change/Reason: The parts in the table were added as Service parts.

#### **IMPORTANT:**

Replace the frame and electrical plate with the drum and charge roller **together as a set.** This is because the charge voltage on the drum of Metis-C1yz is determined by the combination of the drum and the charge roller. If only the charge roller is replaced, abnormal images (e.g. dirty background or other) may occur due to abnormal charge.

#### SEE PROCEDURE below.



Model: Metis-C1 yzk

Date: 4-Mar-16

No.: RD237026

### PROCEDURE

#### Before assembly:

Attach the electrical plate to the frame.





### **INSTALLATION PROCEDURE**

- 1. Remove the PCDU from the machine
- 2. Front end block [A] (**P**×2)

[A]



d1462162

RICOH	<b>F</b> echnical <b>E</b>	ulletin	PAGE: 3/4
Model: Metis-C1 yzk		Date: 4-Mar-16	No.: RD237026
3. Rear end block [A] (*×1)	[A]		
4. Gears [A] [B] (()×2) [A]	d1462163		
	[B] d1462164		



Model: Metis-C1 yzk

Date: 4-Mar-16

No.: RD237026

5. Joint (rear side) [A] ( **\***3).



6. Separate the PCU [A] and Development Unit [B].



7. Rotate the PCU unit and remove the charge roller unit ( $\mathscr{P} \times 2$ ).



8. Remove the charge roller and charge roller cleaning unit (hook x2).



9. Re-attach the charge roller and charge roller cleaning unit together with the new frame and new plate.

## Technical Bulletin

Model: MET-C1abcdeyzk Date: 29-Ma					No.: RD237027
Subject: Suppleme NA/TW)	Prepared	by: T Kiyohara			
From: 1st Tech. Su	pport Sec. Service Support	Dept.			
Classification:	Iassification:       Troubleshooting       Part information         Mechanical       Electrical         Paper path       Transmit         Product Safety       Other (		nation eceive )	Action re Service r Retrofit in Tier 2	equired manual revision nformation Tier 0.5

### This bulletin is targeted to NA/TW models.

4 types of anti-condensation heaters are available as service parts for the following components:

- Mainframe tray
- Optional tray (PB3150, PB3220/PB3160, PB3230/PB3170)
- PCU
- Scanner

See the table below for the parts required when installing the heater.

	Part description	P/N for NA/TWN (110V to 130V)	Tray heater( (Main unit)	Tray heater (Op tray)	PCU Heater	Scanner Heater	Tray heaters (Main + Op)	Tray heater (main unit) + PCII heater	Tray heaters (Main + Op) + PCU heater	Scanner + PCU heater
Tray Heater (main unit)	KIT:HEATER:DEHUMIDIFIER	D1860404	1				1	1	1	
Tray Heater for PB3230/PB3210/PB3160/PB3150	HEATER:ASS'Y	D6931117		*1			*1		*1	
Tray Heater for LCT PB3230/PB3170	HEATER:ASS'Y	D6951117		*1			*1		*1	
PCU Heater	HEATER:PHOTOCONDUCTO R:ADHESION	D7390116			1			1	1	1
Scanner Heater	HEATER:SCANNER:ASS'Y	D7390071				1				1
ELECTRICAL COMPONENTS	ELECTRICAL COMPONENTS	D7390506		1	1	1				1
							* Ch	loose	one.	

**IMPORTANT:** 

Make sure to install the tray heater with the rated voltage that matches your country/region.

• If you do not, the heater will overheat and damage the tray and/or cause carbonization (Example: If a 100V heater is installed on a 200V rated machine), or the heater will not be able to reduce moisture enough (Example: If a 200V heater is installed on a 100V rated machine).

## Technical Bulletin

Model: MET-C1abcdeyzk Date: 29-Ma				lar-16	No.: RD237028
Subject: Suppleme EU/AP/Cł	Prepared	by: T Kiyohara			
From: 1st Tech. Su	pport Sec. Service Support	Dept.			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	ssification:		Action re Service r Retrofit in Tier 2	equired manual revision nformation Tier 0.5

#### This bulletin is targeted to EU/AP/CH models.

4 types of anti-condensation heaters are available as service parts for the following components:

- Mainframe tray
- Optional tray (PB3150, PB3220/PB3160, PB3230/PB3170)
- PĊU
- Scanner

See the table below for the parts required when installing the heater.

	Part description	P/N for EU/AP/CH N (220V to 240V)	Tray heater( (Main unit)	Tray heater (Op tray)	PCU Heater	Scanner Heater	Tray heaters (Main + Op)	Tray heater (main unit) + PCII heater	Tray heaters (Main + Op) + PCU heater	Scanner + PCU heater
Tray Heater (main unit)	KIT:HEATER:DEHUMIDIFIER	D1860405	1				1	1	1	
Tray Heater for PB3230/PB3210/PB3160/PB3150	HEATER:ASS'Y	D6931127		*1			*1		*1	
Tray Heater for LCT PB3230/PB3170	HEATER:ASS'Y	D6951127		*1			*1		*1	
PCU Heater	HEATER:PHOTOCONDUCTO R:ADHESION	D7390117			1			1	1	1
Scanner Heater	HEATER:SCANNER:ASS'Y	D7390072				1				1
ELECTRICAL COMPONENTS	ELECTRICAL COMPONENTS	D7390507		1	1	1				1
							* Cł	loose	one.	

#### **IMPORTANT:**

Make sure to install the tray heater with the rated voltage that matches your country/region.

• If you do not, the heater will overheat and damage the tray and/or cause carbonization (Example: If a 100V heater is installed on a 200V rated machine), or the heater will not be able to reduce moisture enough (Example: If a 200V heater is installed on a 100V rated machine).

# Technical Bulletin

#### **PAGE: 1/8**

Model: MET-C1k Date					16	No.: RD237025
Subject: Jam100 on punch with SR3130					d by: T.Ki	yohara
From: 1st Tech S	Service Sect., MFP/P Tech Serv	vice Dept.				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part info</li> <li>Electrica</li> <li>Transmi</li> <li>Other (</li> </ul>	ormat al t/rec	tion eive )	<ul> <li>Action</li> <li>Service</li> <li>Retrofi</li> <li>Tier 2</li> </ul>	required e manual revision it information

### SYMPTOM

Jam code 100 is triggered (detected) earlier to make it easier for the operator to clear the jam.



### CAUSE

Paper feed amount (unit distance) and paper specifications

Model: MET-C1k

Date: 2-Feb-16

#### SOLUTION

#### **Production line:**

 The internal finisher firmware was modified to reduce the feed amount when a jam occurs.

Firmware	Version	Program No.	Effective Date
Internal finisher 3130	01.090:02	D6905300L	July 2015 production

• The guide plate will be fixed to the punch unit using a tapping screw.

Old Part Number	New Parts Number	Description	Int	Qty
-	D7167570	GUIDE PLATE ENTRANCE EXIT	O/O	1
-	04543006	TAPPING SCREW	0/0	1
-	D7167506	GUIDE MYLER ENTRANCE UPPER	0/0	1
-	D7167818	CUSHION: SPACER	0/0	1

#### In the field:

- Install Internal Finisher firmware ver. 01.090:02 or newer.
- In addition, install the modified parts mentioned above (See **PROCEDURES 1-5** below).

**Note:** These parts are designed to prevent paper from entering the gap between the punch unit and exit unit.

No	Parts Number	Description	Qty
1	D7167570	GUIDE PLATE ENTRANCE EXIT	1
2	D7169001	DOUBLE SIDED TAPE	1
3	D7167506	GUIDE MYLER ENTRANCE UPPER	1
4	D7167818	CUSHION: SPACER	1



[A]

Model: MET-C1k

Date: 2-Feb-16

No.: RD237025

### PROCEDURE 1: Removing the punch unit

1. Open the front cover [A].



d1462960

2. Remove the left upper cover [A] (x1).



[A] <sup>\_</sup>

d1462961

3. Remove the left rear cover [A] (x2, hook×1).



d197f0043



d197f0111



d146z0029

[A]

- 7. Remove the A3 sheet and make sure that there are no cut fragments or dust remaining.
- 8. Remove the punch unit front cover [A] (x1).



9. Remove the punch unit [A] (x1).





Model: MET-C1k

Date: 2-Feb-16

No.: RD237025

### PROCEDURE 2: Attaching the double sided tape to the guide plate

1. Clean the following area with alcohol.



2. Attach the double-sided tape.





### **PROCEDURE 3: Attaching the guide plate to the punch unit**

1. Clean the following area with alcohol.



Note: The ilustration shows the bent position of the plate hooks for the exit unit.

2. Attach the guide plate to the punch unit using double-sided tape.



**Important:** Make sure the cushion does not protrude from the edge (shown by the red line).





Model: MET-C1k

Date: 2-Feb-16

No.: RD237025

### PROCEDURE 4: Attaching the Mylar to the PUNCH UNIT

1. Clean the following area with alcohol.



2. Attach the Mylar.



**Important:** Make sure the cushion does not protrude from the edge (shown by the red line).





### **PROCEDURE 5: Attaching the Cushion to the PUNCH UNIT**



**Important:** Make sure the cushion does not protrude from the edge (shown by the red line).



#### **Cut-in Serial Numbers**

Product code:	Product name:	Cut-in S/N
D71617	PUNCH UNIT DU3040 EU	E675QB10001~
D71627	PUNCH UNIT DU3040 NA	E675QB30001~
D71628	PUNCH UNIT DU3040 SC	E67XXXXXXXX~

# Technical Bulletin

#### **PAGE: 1/1**

Model: MET-C1k Dat					16	No.: RD237029
Subject: Manual		Prepared	by: Chil	hiro Shimaji		
From: 2nd Tech	Service Sect., MFP/P Tech Serv					
Classification:	TroubleshootingPart informationMechanicalElectricalPaper pathTransmit/realProduct SafetyOther (		ormat al it/rec	tion eive )	<ul> <li>☐ Actior</li> <li>⊠ Servic</li> <li>☐ Retrof</li> <li>☐ Tier 2</li> </ul>	n required ce manual revision fit information

### **Service Manual Correction**

The text in red and the left side image surrounded by a red square were added to make this procedure clearly understandable.

#### Service Manual

<u>Top Page</u> > <u>Main Chapters</u> > <u>Troubleshooting</u> > When SC549 Is Displayed > Fusing Shield Check > <Procedure 1: Operation check for the lower side of the shield detection feeler>

2. Move the shield drive gear with your hands to put the upper surface [B] of the feeler [A] in a horizontal position.





# Technical Bulletin

Model: MET-C1k, Dat					7	No.: RD237030
Subject: Troubleshooting SC324-01/SC324-05, Tips for installing a new PCDU or a new development unit					d by: Y.lı	no
From: 1st Tech S	ervice Sect., MFP/P Tech Service	vice Dept.				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part informatio</li> <li>Electrical</li> <li>Transmit/receiv</li> <li>Other ()</li> </ul>		tion eive )	<ul> <li>Action</li> <li>Servic</li> <li>Retrof</li> <li>Tier 2</li> </ul>	n required ce manual revision fit information

#### SYMPTOM

SC324-01 (Development motor: Bk: Lock) SC324-05 (Development motor: CMY: Lock)

### CAUSE

As one of the reasons that cause this symptom, the development unit was stored/transported in a position prior to its installation. This causes developer to accumulate on the gears at either end of the unit, disabling proper rotation of the development roller.

### SOLUTION

At the front side of the unit, rotate the white gears (circled in red), to agitate the developer.

#### For Metis-C1abcdeyzk and Metis-C2abcdeyz





Model: MET-C1k,

Date: 3-Feb-17

No.: RD237030

#### For Metis-P2ce



Note: For Metis-P2ce, the PCDU front cover needs to be released before rotating the gears.



Model: MET-C1k,

Date: 3-Feb-17

No.: RD237030

#### **Preventive measure**

#### When installing a PCDU or a development unit

When installing a new PCDU or a new development unit, take out the unit from the package and shake it 5 or 6 times horizontally. This will reduce the chances of SC324-01 and SC324-05.



# Technical Bulletin

**PAGE: 1/2** 

Model: Metis-C1	k	: 3-Feb-17	No.: RD237031		
Subject: New bot	ttom right cover	Prepared by:	Y.Ino		
From: 1st Tech S	ervice Sect., MFP/P Tech Serv				
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part inform</li> <li>Electrical</li> <li>Transmit/</li> <li>Other (</li> </ul>	mation receive )	Action	n required ce manual revision fit information

### PROBLEM

Small insects may get inside the machine from the open space at the bottom right.



Model: Metis-C1k

Date: 3-Feb-17

No.: RD237031

### SOLUTION

Procure and install the cover [A] below.

	No	Part Number	Description	Qty
	1	D1491268	COVER:RIGHT:LOWER	1
1	[/	4]		
		Content Property of		
			D D	
-				



# Technical Bulletin

#### **PAGE: 1/2**

Model: Met-C1k Dat					-17	No.: RD237032
Subject: Importa		Prepared	d by: T.Ki	yohara		
From: Field Quali						
Classification:	<ul> <li>☑ Troubleshooting</li> <li>☑ Mechanical</li> <li>☑ Paper path</li> <li>☑ Product Safety</li> <li>☑ Other (</li> </ul>		ormat al it/rec	tion eive )	Action Service Retrofi	required e manual revision it information

### IMPORTANT NOTE ABOUT MACHINE INSTALLATION

 Make sure to do the following when installing the machine: Hold the grip of the right rear cover as shown in Fig. 2 (CORRECT). Insert your fingers all the way up and inside the grip.

• If you do not, the right cover will break, as shown in Fig. 4.



Figure1 right rear cover



Date: 21-Feb-17

**PAGE: 2/2** 

No.: RD237032

Figure.2 Correct



Figure.3 Incorrect



Figure.4 Broken right rear cover

RICOH

#### **PAGE: 1/1**

Model: Met-C1y	te: 17-Mar-	17	No.: RD237033			
Subject: Importa		Prepared	by: T.Ki	yohara		
From: Field Quality Management Group1, FQM Dept.						
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part info</li> <li>Electrica</li> <li>Transmi</li> <li>Other (</li> </ul>	ormat al it/rec	tion [ [ eive [ ) [	☐ Action ⊠ Servic ☐ Retrofi ☐ Tier 2	required e manual revision it information

### Important note about firmware update by SD card

Make sure to do the following when updating the firmware by SD card. <u>Affected models:</u> Met-C1abcdeyzk/OR-C2/Cor-C1/Ze-C2

1. Put only **one version** of firmware **per module** in an SD card.

Example: The card should not contain more than one version of System/Copy firmware for a given model.

2. For models that have firmware for both the normal operation panel (Armada) and Smart Operation Panel (Cheetah), put only **one firmware per module** in a card.

Example: The card should **not** contain System/Copy firmware for the Armada version of the Met-C1 and the Cheetah version of this model (only **one** of these).



Reissued: 30-May-17

Model: Met-C1k

Date: 11-Apr-17 No.: RD237034a

RTB reissued

The items in *bold italics* were corrected

Subject: Parts Int	formation – FUSING UNIT 3 G	Prepared by: T.Kiyohara		
From: 1st Tech S	ervice Sect., MFP/P Tech Serv			
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part informat</li> <li>Electrical</li> <li>Transmit/rec</li> <li>Other (</li> </ul>	tion eive )	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>

Old part	New part	Description	Q'ty	Int	Set
number	number				
AB012096	AB012116	GEAR:DRIVE:FUSING UNIT	1	<b>X</b> / <b>X</b>	
AB012097	AB012117	GEAR:IDLER:PRESURE ROLLER	1	<b>X</b> / <b>X</b>	X/O as a Set
AB012098	AB012118	GEAR:PRESURE ROLLER	1	<b>X</b> / <b>X</b>	a 001

Note: After installing as a set (new part numbers) no need to replace again as a set (individual replacement is sufficient).

Change: The materials of these parts have been changed from April 2016 on Met-C1.

**Reason:** To further strengthen the parts' resistance to abrasion.

Affected models: Met-C1abcdeyzk and Met-C2abcdeyzP2



#### Reissued: 30-May-17

Model: Met-C1k Date:	e: 11-Apr-17	No.: RD237034a
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#### How to identify whether the new gears are installed

part number	Description	Old part color	New part color
AB012116	GEAR:DRIVE:FUSING UNIT	White	White
AB012117	GEAR:IDLER:PRESURE ROLLER	White	White
AB012118	GEAR:PRESURE ROLLER	Black	Light brown

#### Cut-in serial number:

Product code:	Model name:	GER:	Cut-in S/N
D14629	MP C3003		E156M450001
D14729	MP C3503		No production
D14829	MP C4503		No production
D14929	MP C5503	AA	E186M450001
D15029	MP C6003		No production
D17629	MP C2003		E206R470001
D17729	MP C2503		E216R480001
D14627	MP C3003		E156M420001
D14727	MP C3503		No Production
D14827	MP C4503		E176M420001
D14927	MP C5503	EU	No Production
D15027	MP C6003		No Production
D17627	MP C2003		E206R460001
D17727	MP C2503		E216R460001
D14617	MP C3003		E156M410001
D14717	MP C3503		E166M410001
D14817	MP C4503		E176M410001
D14917	MP C5503	NA	E186M410001
D15017	MP C6003		E196M410001
D17617	MP C2003		No production
D17717	MP C2503		No production
D14619	MP C3003		E156M400001
D14719	MP C3503		E166M400001
D14819	MP C4503		E176M500001
D14919	MP C5503	TWN	E186M500001
D15019	MP C6003		E196M400001
D17619	MP C2003		E206R420001
D17719	MP C2503		E216R420001
D14621	MP C3003		E156M470001
D14721	MP C3503		E166M570001
D14821	MP C4503	СНМ	E176M470001
D14921	MP C5503		E186M570001
D15021	MP C6003		No Production
D17621	MP C2003		No Production
D17721	MP C2503		No production



### Reissued: 30-May-17

Model: Met-C1k				Date: 11-Apr-17 No.: RD237034				
	D17626	MP C2003SPJ	KOR	E206R951001				
	D17726	MP C2503SPJ	KON		E216RB51001			

# Technical Bulletin

**PAGE: 1/2** 

Model: MET-C1K	Date: 25-Apr-17		No.: RD237035		
Subject: Request f Feeder D	for mylar replacement when i F3090	Prepared by: Y. Taniguchi			
From: 1st Tech Service Sect., MFP/P Tech Service Dept.					
Classification:	Troubleshooting  Mechanical  Paper path  Product Safety	<ul> <li>Part inform</li> <li>Electrical</li> <li>Transmit/re</li> <li>Other (Rec</li> </ul>	nation eceive quest at	Action red Service n Retrofit in Tier 2	quired nanual revision nformation Tier 0.5
	,	installatior	n)	—	

### Request

When installing the Document Feeder (DF3090), replace the mylar originally attached to its exposure glass with the new mylar included as an accessory to the Document Feeder. Scan quality, especially at the trailing edge of the original, is better with the new mylar.

Replace the mylar for the following combination of the mainframe and DF3090:

- DF3090 manufactured <u>from</u> October 2015 and main unit manufactured <u>before</u> October 2015 production.

#### S/N information

	Main unit	Document Feeder (DF3090)			
Before October 20	015 production	From October 2015 production			
e.g.					
MP C2003	~E20 <u>5</u> R <u>9</u> xxxxx				
MP C2503	~E21 <u>5</u> R <u>9</u> xxxxx				
MP C3003	~E15 <u>5</u> M <u>9</u> xxxxx				
MP C3503	~E16 <u>5</u> M <u>9</u> xxxxx				
MP C4503	~E17 <u>5</u> M <u>9</u> xxxxx	E93 <u>3</u> Q <u>A</u> XXXXX <sup>3</sup>			
MP C5503	~E18 <u>5</u> M <u>9</u> xxxxx				
MP C6003	~E19 <u>5</u> M <u>9</u> xxxxx				
MP C2011	~G47 <u>5</u> R <u>9</u> xxxxx				

e.g. E15<u>y</u>M<u>m</u>xxxxx

y: Right most digit of the year of production

m: Production month

1(Jan) to 9 (Sep), A (Oct), B(Nov), C (Dec)

Model: MET-C1K

Date: 25-Apr-17

No.: RD237035

#### Mylar Replacement Procedure:

Note:

- If the mylar could not be attached properly, remove it and attach a new one at your next visit.
- Without the new mylar, feeding thick paper for more than 90K pages may cause jitter.
- 1. Remove the mylar originally attached to the document feeder exposure glass.
- 2. Wipe the document feeder exposure glass with cloth.
- 3. Attach the new mylar.
  - The cutout in the mylar faces the left.
  - Set the top left corner (circled in red) flush against the top edge of the exposure glass.





#### Part Information:

Part number	Description	Q'ty
D2411727	SHEET:GAP:ASS'Y	1

# Technical Bulletin

Model: MET-C1k				Date: 30-Jun-17		No.: RD237036
Subject: Please Wait/Missing Icons after turning power ON Prepared by:						
From: 1 <sup>st</sup> FQM Sect, 1 <sup>st</sup> FQM Dept.				Yuusuke Taniguchi		
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part inform</li> <li>Electrical</li> <li>Transmit/re</li> <li>Other (</li> </ul>		tion Action required Service manual re eive Retrofit informatio ) I Tier 2		n required se manual revision fit information

#### SYMPTOM

"Please wait" remains displayed (standard operation panel), or no icon appears (Smart Operation Panel) at main power ON when both of the **Conditions** below are met.

Standard operation panel



Smart Operation Panel




Date: 30-Jun-17

## Conditions:

1. The following System/Copy firmware is installed:

	Standard Op. panel	Smart Operation Panel
MP C2003/C2503	1.19 or 1.20	2.18 or 2.19
MP C3004/C3503	1.26 or 1.27	3.18 or 3.19
MP C4503/C5503/C6003	1.30 or 1.31	3.20 or 3.21
MP C2011	1.03 or 1.04	

And,

- 2. One of the following errors is detected when main power is turned ON.
  - Paper jam at the rear side of the paper tray



• A3/DLT paper mistakenly loaded in A4/LT tandem tray





Model: MET-C1k

Date: 30-Jun-17

No.: RD237036

Paper tray is over-loaded



- Misalignment of paper loading
- Paper End Detection Feeler breaks or falls off
- Paper End Detection Sensor error
- Paper Limit Sensor error
- Tray Lift Motor error

## CAUSE

Firmware bug (side-effect of modification)

Model: MET-C1k	Date: 30-Jun-17	No.: RD237036

## SOLUTION

## Permanent

Update the System/Copy firmware to the modified version or newer.

Model	Firmware Name	P/N	Version
MP C2003/C2503	System/Copy	D1775550Z	1.21
MP C2003/C2503 (SOP)	System/Copy	D1765550Z	2.20
MP C3004/C3503	System/Copy	D1475575G	1.28
MP C3004/C3503 (SOP)	System/Copy	D1465575G	3.20
MP C4503/C5503/C6003	System/Copy	D1495569H	1.32
MP C4503/C5503/C6003 (SOP)	System/Copy	D1485553J	3.22
MP C2011	System/Copy	D2375550D	1.05

### Workaround

Until the modified version is installed, fix the error in the paper tray and reboot the machine.

## Technical Bulletin

Reissued: 20-Sep-17 Model: MET-C1k

Date: 7-Sep-17

No.: RD237037a

#### **RTB Reissue**

I he item in <del>strike-out</del> were deleted.							
Subject: Met-C1	IOB can overheat	Prepared by:	: T. Kiyohara				
From: 1st Tech S	Service Sect., MFP/P Tech Ser						
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part information</li> <li>Electrical</li> <li>Transmit/rec</li> <li>Other (</li> </ul>	tion A S eive F ) T	Action required Bervice manual revision Retrofit information Tier 2			

## **SYMPTOM**

There is a very low potential risk that the driver IC (IOB PCB) can overheat.

## CAUSE

The root cause is under investigation.

## SOLUTION

1. Rear side of the IOB bracket has protection sheets (Mylars) applied in order to further protect the component. (P/N: D1499905 Insulating Sheet :IOB : drive Unit )



2. Install engine firmware below to change the On/Off timing of at-risk components to prevent overheating.

Model	Version	Program No
MP C3503/C3003	1:40:08	D1475504D
MP C6003/C5503/C4503	1:40:08	D1495504D
MP C6003/C5503/C4503 (Single Pass DF)	1:39:08	D1505504C
MP C2503/C2003/2011	1.32:08	D1775503T

# Technical Bulletin

### PAGE: 1/2

Model: Met-C1k		Date: 13-S	ep-17	No.: RD237038	
Subject: FSM correction: SP5061-002 Toner Near End alert message					: T.Kiyohara
From: 1st Tech Service Sect., MFP/P Tech Service Dept.					
Classification:	<ul> <li>Troubleshooting</li> <li>Mechanical</li> <li>Paper path</li> <li>Product Safety</li> </ul>	<ul> <li>Part information</li> <li>Electrical</li> <li>Transmit/receive</li> <li>Other ()</li> </ul>		<ul> <li>Action red</li> <li>Service n</li> <li>Retrofit in</li> <li>Tier 2</li> </ul>	quired nanual revision nformation Tier 0.5

## Service Manual Correction:

The descriptions *in bold italic* have been added:

## 4. Controller SP Mode Tables>Controller SP Tables - SP5000

## SP5-XXX (Mode)

5061	[Toner Remaining Icon Display Change]		
5-061-002	Toner Near End Display Change	*CTL	[0 or 1 / 0 / 1] 0: Display 1: No-display

### Note 1:

For this change to take effect, make sure to update to the following versions of System/Copy and the other firmware as a set.

Model	Firmware	version	P/N	Firmware	version	P/N
Met-C2.1 abyz		1.04.1	D0AD5550C		1.02	D0AD5564B
Met-C2.1 cde		1.04.1	D0AF5550C	Animation	1.02	D0AF5564B
Met-C2 abyz		1.14	D2395550W		1.04	D2395564H
Met-C2 cde		1.14	D2425550W		1.04	D2425564H
Met-C1 abyz	System/	1.28	D1475575G		1.09 for USA_ASI_KOR	D1471438H
	Сору			OpePanel	1.12 for EUR_CHN_TWN	D1471490L
Met-C1 Cde		1.32	D1495569H		1.09 for USA_ASI_KOR	D1501438H
					1.13 for EUR_CHN_TWN	D1491490P
Met-C1ab_ch		3.20	D1465575G	LegacyUID	1.07	D1501428G
Met-C1cde_ch		3.22	D1485533J			
Met-C1yz_ch		2.20	D1765550Z	animation	16.0	D1765564F

- Change in the toner near end alert message

> Before: Toner Cartridge is almost empty. Check toner cartridge replacement(s).



Model: Met-C1k D	Date: 13-Sep-17	No.: RD237038

After: Check you have a toner cartridge replacement(s). Current toner cartridge can be used until the replacement alert.

- Toner near end display ON/OFF SP (SP5061-002) was added.

### Note 2:

With the new firmware, you are able to switch the Toner near end alert message on/off in the display.

#### Note 3:

SP5061-002 only controls the toner near end display on the operation panel. WIM, @Remote, and e-mail notification of toner near end are not controlled by SP5061-002.

# **Technical Bulletin**

PAGE: 1/3

Model: Metis-C1	k	Date: 25-A	or-19	No.: RD237039	
Subject: Revise	d laser safety regulatior	Prepared	by: A. Shi	geta	
From: 2nd Tech S	Support Sect., Tech Support I	Dept.			
Classification:	Troubleshooting	Part inform	nation	Action re	equired
	Mechanical	Electrical	I 🛛 Service manual revisi		manual revision
	Paper path	Transmit/receive Retrofit		🗌 Retrofit i	information
	Product Safety	Other ()		🗌 Tier 2	

To meet revised laser safety regulation, please apply the following corrections to your field service manual.

Important Safety Notices

### Addition:

**General Safety Instructions** 

### For Norway

This product is also designed for an IT power distribution system with phase-to-phase voltage 230V.

Important Safety Notices → General Safety Instructions → Safety Labels of the Machine

### Addition:

### For the machines with the following symbol:



## 

DOUBLE POLE/NEUTRAL FUSING

Turn off the main power switch and disconnect the power cord before disassembling or assembling the parts of the machine.

ľ	RICOH
	Model: Metis-C1k

			1 A.
echn	ICAL	Bul	letin
	10u		

Date: 25-Apr-19

No.: RD237039

Replacement and Adjustment  $\rightarrow$  Exterior Covers

### **Correction:**

The Aim of Anti-tip Components and Precautions

### **Old Description:**

The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer. Do not remove them at your own judgment.

### New Description:

The anti-tip components are necessary to prevent the products, which are heavy in weight, from toppling a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the products.

Therefore, removal of such components must always be with the consent of the customer. Do not remove them at your own judgment.

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	-				

Technical	Bulletin
i comica	

Model: Metis-C1k

Date: 25-Apr-19

No.: RD237039

Important Safety Notices → Laser Safety

### WARNING FOR LASER UNIT

### WARNING:

Turn off the main switch before attempting any of the procedures in the Laser Unit section. Laser beams can seriously damage your eyes.

CAUTION MARKING:



## Addition:





**PAGE: 1/5** 

### Reissued: 28-Jun-19

Model: Met-C1abcdekyz, Met-C2abcdeyz, Met- C2.1abcdeyz, Met-MF3abcdeyz, Met-P2, Mimir-C2.1	Date: 27-Jun-19	No.: RD147178b

#### Reissue

#### The items in *bold italics* were corrected or added.

Subject: Parts Catalog Correction: Parts Integration of Manual Feed and Duplex unit				Prepared by: Takahiro Tada		
From: 1st Tech. Support Sec. Service Support Dept.						
Classification:	Troubleshooting      Part informa     Mechanical     Paper path     Deschard Office     Othere(		ion eive	<ul> <li>Action required</li> <li>Service manual revision</li> <li>Retrofit information</li> <li>Tier 2</li> </ul>		

## Parts catalog correction

The part numbers for the models below have been changed due to utilizing the same Manual Feed and Duplex Unit.

Affected models are as follows:

#### <Group A>:

Product Code	Model name	Product Code	Model name	Product Code	Model name	Product Code	Model name
D146	C3003	D147	C3503	D148	C4503	D149	C5503
D150	C6003	D176	C2003	D177	C2503	D237	C2011

#### <Group B>

Product	Model	Product	Model	Product	Model	Product	Model
Code	name	Code	name	Code	name	Code	name
D238	C3004	D239	C3504	D240	C4504	D241	C5504
D242	C6004	D243	C2004	D244	C2504	D0AC	C3004
D0AD	C3504	D0AE	C4504	D0AF	C5504	D0AG	C6004
D0AH	C2004	D0AJ	C2504	M0AJ	C840	M0AL	C842

### <Group C>

Product	Model	Product	Model	Product	Model	Product	Model
Code	name	Code	name	Code	name	Code	name
D0BL	IM C3000	D0BM	IM C3500	D0BN	IM	D0BP	IM
					C4500		C5500
D0BQ	IM C6000	D0BJ	IM C2000	D0BK	IM		
					C2500		

### <G<u>roup D></u>

Product	Model
Code	name
D0BH	C501

RICOH	R		С	0	Η	
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PAGE:	2/5
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Model: Met-C1abcdekyz, Met-C2abcdeyz, Met-	Date:	No.:
C2.1abcdeyz, Met-MF3abcdeyz, Mimir-C2.1		

# Technical Bulletin

**PAGE: 3/5** 

Model: Met-C1abcdekyz, Met-C2abcdeyz, Met-	Date:	No.:
C2.1abcdeyz, Met-MF3abcdeyz, Mimir-C2.1		

**Change 1:** Manual Feed Unit part number has been changed to make the new parts compatible with the mentioned models.

**<Group B>:** Some of the parts in Manual Feed Unit have been changed (Please refer to **Change 2-5**).

Old P/N	New P/N	Description	Int	Q'ty	Note
<group b=""></group>				-	
M0BW2601	D0BQ2600	MANUAL FEED UNIT:ASS'Y	X/O	1	Α
-	D2412661*1	HARNESS:MANUAL	-	0->1	Α
		FEED:CONNECTING			

\*1: This harness is originally used in **<Group B>**.

<Group C>: The harness has been removed from Manual Feed Unit (D0BQ2601).

Old P/N	New P/N	Description	Int	Q'ty	Note
<group c=""></group>					
D0BQ2601	D0BQ2600	MANUAL FEED UNIT:ASS'Y	O/O	1	Α
-	D0BQ2673 <sup>*1</sup>	HARNESS:MANUAL	-	0->1	Α
		FEED:CONNECTING			

\*1: This harness is originally used in <Group C>.

**Change 2:** The material and the color of the pickup arm has been changed and the seat of the pickup arm also removed.

Old P/N <b><group b="" b<="">&gt;</group></b>	New P/N	Description	Int	Q'ty	Note
D2022617	D0BQ2623	ARM:PICKUP:MANUAL FEED	X/O	1	В
D2022618	-	SHEET:PICKUP	-	1->0	В



# Technical Bulletin

**PAGE: 4/5** 

Model: Met-C1abcdekyz, Met-C2abcdeyz, Met-C2.1abcdeyz, Met-MF3abcdeyz, Mimir-C2.1 No.:

**Change 3: T**he shape of the brackets and bearings, length of the roller shaft, and the gear position has changed. Also e-rings added.

Old P/N	New P/N	Description	Int	Q'ty	Note
<group b=""></group>					
08050104	08050104	RETAINING RINGS-E:SILENCER:DIA4	-	2->3	С
D1494770	D0BQ2608	SHAFT:SEPARATOR:DRIVEN:ASS'Y	X/X	1	С
M0BW2615	D0BQ2615	GUIDE PLATE:SEPARATOR:ASS'Y	X/X	1	С
D1492619	D0BQ2619	SHAFT:SEPARATOR:DRIVE:ASS'Y	X/X	1	С
D2412653	D0BQ2653	COIL SPRING:PRESSURE:SEPARATOR	X/X	1	С



**Change 4:** There are no protruding parts to hold the gear. An e-ring added to stop the gear in position, and a groove added to the shaft for the e-ring.

Old P/N <b><group b="" b<="">&gt;</group></b>	New P/N	Description	Int	Q'ty	Note
07200040E	07200040E	RETAINING RING - M4	-	3->4	D
D2414631	D0BQ4631	SIDE PLATE:REAR:DUPLEX:PEEN	X/X	1	D
D2414644	D0BQ4644	GEAR:MECHANICAL ROLLER CLUTCH	X/X	1	D



## Technical Bulletin

**PAGE: 5/5** 

Model: Met-C1abcdekyz, Met-C2abcdeyz, Met-C2.1abcdeyz, Met-MF3abcdeyz, Mimir-C2.1

No.:

Change 5: The grip of duplex unit has been changed from press fit to screw type.

Old P/N	New P/N	Description	Int	Q'ty	Note
<group a="" b="" d=""></group>					
-	03603006N	SCREW - M3X6	-	0->2	E
D1754654	D0BQ4654	SHAFT:LEVER:LOCK	X/X	1	E
D1494655	D2894655	GRIP:DUPLEX UNIT	X/X	1	E



## Appendix

The following list is the new part numbers of the duplex unit.

The part numbers of **<Group C>** not changed.

					-
Model	Q'ty	Int	Description	New P/N	Old P/N
<group a=""></group>	1	0/0	DUPLEX UNIT: ASS'Y	D1754523	D1754521
	1	0/0	DUPLEX UNIT: ASS'Y	D1474534	D1474532
	1	0/0	DUPLEX UNIT: ASS'Y	D1484517	D1484515
<group b=""></group>	1	O/O	DUPLEX UNIT: ASS'Y	D2414519	D2414517
	1	0/0	DUPLEX UNIT: ASS'Y	D2444517	D2444515
<group d=""></group>	1	0/0	DUPLEX UNIT: ASS'Y	D0BH4519	D0BH4517