Technical Bulletin

PAGE: 1/3

Reissued: 01-Dec-15

Model: M-G1L	Date: 12-Feb-10	No.: RJ021001f

RTB Reissue

The items in bold italics have been corrected.

Subject: Firmwar	e Release Note: Engine/Contr	Prepared by: Y. Gaman	
From: 1st Tech S	ervice Sect., MFP/Printer Tech		
Classification:	Troubleshooting	☐ Part information	Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Product Safety	Other (Firmware)	⊠ Tier 2

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

Version	Program No.	Effective Date	Availability of RFU
1.10	J0215618E	July 2015 production	Not available
1.09	J0215618D	March 2012 production	Not available
1.08	J0215618C	August 2011 production	Not available
1.06	J0215618B	March 2011 production	Not available
1.04	J0215618A	January 2011 production	Not available
1.03	J0215618	September 2010 production	Not available
1.01	J0215612B	1st Mass production	Not available

Note: Definition of Availability of RFU via @Remote

[&]quot;Not available": The firmware can only be updated via SD card.

Version	Modified Points or Symptom Corrected
1.10	Symptom corrected: - Supports update of the mainframe firmware from Windows 8 and Windows Server 2012 SC974 may occur while printing.
1.09	Other changes: The amount of ink consumed during the automatic maintenance following ink cartridge replacement has been further reduced.
1.08	 Symptoms corrected: The power requirements displayed in the Properties window for the Windows USB route hub were corrected (incorrect: 100ma, correct: 2ma). If a print job is initiated while the machine is still recovering from Energy Saver mode, the machine displays "Processing" and immediately stops. If the power plug is removed from the outlet/machine during a firmware update, the machine cannot boot up next time. The machine performs the same auto maintenance several times (it should only be performed once) after the cartridge is replaced. The printer suddenly stops in the middle of a job, and the job cannot be resumed.
1.06	Symptom corrected: 1. The image is not printed onto the paper correctly, due to ink stains on the transport belt (which cause a paper width misdetection).

[&]quot;Available": The firmware can be updated via RFU or SD card.

Technical **B**ulletin

PAGE: 2/3

Reissued: 01-Dec-15

Model: M-	G1L			Date:	12-Feb	-10		No.: RJ021001f	
		 	 		_		-		1

Version	Modified Points or Symptom Corrected					
	2. An unnecessary message ("of form feed") is displayed when the paper runs					
	out.					
	Other changes:					
	1. To further ensure that proper image quality is maintained, a new auto-					
	maintenance procedure will be performed if the temperature drops 10C or					
	more while the machine is in idle.					
1.04	Symptom corrected:					
	Sometimes after the online key has been pressed, Processing message will					
	not disappear even though the machine stopped.					
	2. The default for paper feed from the multi bypass tray in cases where there is					
	no paper in the standard and option paper trays was changed to OFF.					
	3. In some cases, the modified SP default values are not written to the NV-RAM					
	when the firmware is updated.					
	4. If certain SP modes are programmed to a certain value or higher, the					
	machine displays this value incorrectly or does not apply the value.					
	5. In some cases, the machine can not be fed from paper tray after the paper is					
	running out from manual bypass tray.					
	6. The machine will stop or be jammed frequently after power-on if it is					
	connected to a PC by USB cable which is turned on and proceed more than					
	2 jobs.)					
	7. SC-973 sometimes occurs during the normal operation.					
	8. Minor bug fixed.					
	Other changes:					
	Other changes:					
	 The accuracy of the machine clock was further increased. The error message has been changed when the paper is running out from 					
	manual bypass tray.					
	"Paper misfeed Bypass Tray"> "No paper or misfeed: Bypass"					
	3. The format of the date used in SP7400, -7401, -7402, -7422, -7423, and					
	-7424, that appears on the Service Summary Report was changed as					
	follows:					
	YY:MM:DD> YY/MM/DD.					
1.03	Changed:					
	The timing of the ink sending sequence was changed from 30 days of idling					
	to 45 days of idling since the last print job.					
	to the sulf of terming entree into their participant, feet					
	Symptom corrected:					
	1. SC974/RTC (Real Time Clock) error occurs if something metallic (or the					
	technician's hand) touches the components on the controller board that					
	control the RTC.					
	2. The waiting time between jobs increases (sometimes as long as 21 seconds)					
	if the machine receives a new print job just after it finishes the current job.					
	3. The machine unnecessarily performs maintenance if the operator shuts off					
	the machine without using the main power button, which in turn shortens the					
	yields of the ink cartridge and ink collector unit.					
	4. A carriage jam occurs if the power is turned off after SC999 (Maintenance					
	Stepping Motor Out of Home Position) occurs.					
	5. SC991 (Ink Pump Time-out Error) occurs when the ink tube sticks to a					
	surrounding part and the machine's automatic maintenance cannot clear this					

Technical **B**ulletin

PAGE: 3/3

Reissued: 01-Dec-15

Model: M-G1L	Date: 12-Feb-10	No.: RJ021001f
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Version	Modified Points or Symptom Corrected
Version	 condition. 6. If the lnk End and Paper End conditions occur at the same time, the machine will not resume printing after the ink cartridge and paper are replaced. 7. If the ink runs out in the middle of a job, the machine may not resume printing after the ink cartridge is replaced. 8. "Energy Saver" is displayed during initial tank filling if the ink cover was open when the power was turned on and then closed after five minutes or more. 9. If the machine is connected to the PC via USB connection when initial ink filling is performed, the machine does not print out the test print page sent from the PC after initial ink filling is completed. 10. If a jam and other error (cover open or unit unset) occur simultaneously, the jam error may not be cleared even after the jammed paper is removed. 11. In some cases, the main power cannot be turned off after the machine enters Energy Saver mode. 12. In some cases, the machine stalls when the user tries to print A4 sized data
1.01	onto Monarch or smaller sized paper fed from the multi-bypass tray. 1st Mass production

Technical Bulletin

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Reissued: 17-Jun-10

	Model: M-G1L	Date: 15-Apr-10	No.: RJ021002a
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RTB Reissue

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

Subject: Countermeasure for the left cover whitening			Prepared	d by: K. Nakano
From: 2nd Overseas Tech Support Sec., 2nd PQM Dept.				
Classification:	☐ Troubleshooting	□ Part informate □ Part informate	tion	
	☐ Mechanical	Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☐ Product Safety	Other (Firmw	vare)	☐ Tier 2

Change:

Description	Old Part #	New Part #	I/C	Q'ty
BRACKET:PCB:CONTROL (for J017 / J021)	-	J0171027	-	1
COVER:LEFT:EU	J0171550	J0171570	X/X	1

- 1) The shape of the left cover was changed.
- 2) The bracket for the PCB was added as a service part.

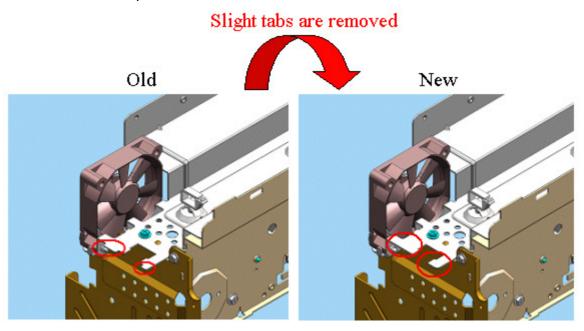
Note: The shape of the bracket was changed as shown in the illustration.

Reason: To provide further protection against shock and vibration during product shipping.

Important: If you need to replace the cover on a machine produced before the cut-in serial numbers (see below), install the new cover and PCB **together as a set.**

BRACKET: PCB: CONTROL

The small tabs on the tip of the bracket were removed.



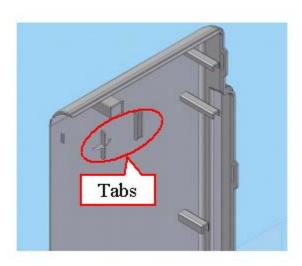
Technical Bulletin

PAGE: 2/2

Reissued: 17-Jun-10

Model: M-G1L Date: 15-Apr-10 No.: RJ021002a

COVER: LEFT: EU Tabs were added.



Cut-in Serial Numbers:

The new parts are used on the production line from the following cut-in S/N:

Prod	uct Code	Machine S/N
	J02117	-
J021	J02122	R5507600001
	J02127	R5507500760

	U	П

Technical Bulletin

PAGE: 1/3

Model: M-G1L			Dat	e: 28-Apr-10		No.: RJ021003
Subject: Service Manual correction (SP and SC)				Prepared by	: K. N	lakano
From: 2nd Overseas Tech Support Sec., 2nd PQM Dept.						
Classification: Troubleshooting Part informa		orma	tion	Action	required	
	☐ Mechanical ☐ Electrical		al Service manua		e manual revision	
☐ Paper path ☐ Transmit/rece		☐ Transmit/receive ☐ Retr		Retrof	it information	
	☐ Product Safety	☐ Other			Γier 2	

Service Manual Correction

The areas highlighted in **red/bold** were corrected or added.

SC Codes

974	Α	RTC Abnormal	
		The RTC (Real Time Clock) malfunctioned.	
		• Electrical flow to RTC interrupted.	
		•Excessive condensation in machine.	
		 Cycle the printer on/off and check the results. Replace the control board. 	

<Removed>

987	Α	Protection During Transport
		At power on the printer detected that the ink in a cartridge is non-standard ink.
		Use only ink cartridges that are designed for use with this printer. Note: Never use re-filled ink cartridges.

SP Modes

2001	TH:WASTE:RC:NEAR	Software Count: Ink Collector Unit Near Full Use this SP to set the threshold value to trigger the near-full alert for the ink collector unit sensor. [0 to 424967295]
2002	TH:WASTE:RC:FULL	Software Count: Ink Collector Unit Full Alert Use this SP to set the threshold value to trigger the full alert for the ink collector unit sensor. [0 to 424967295]
5400	INPUT CHK1	Check Input Sensors Use this SP to display the on/off status of each sensor and switch. The status of each sensor (0, 1) is displayed on the 2 nd line of the display.

Technical Bulletin

PAGE: 2/3

Model: M-G1L Date: 28-Apr-10 No.: RJ021003

J0	17	J01	9/J	021
----	----	-----	-----	-----

No.	Meaning	No.	Meaning
0	Top Cover Switch	8	Not Used
1	Duplex Unit Cover Switch	9	Paper End Sensor (Tray 1)
2	Rear Plate Duplex Unit Switch	10	Not Used
3	Multi Bypass Sensor	11	Not Used
4	Not Used	12	Env. Selector Sensor
5	1st Registration Sensor	13	Ink Level Sensor (Feeler)
6	2nd Registration Sensor	14	Maintenance HP Sensor
7	Trailing Edge Sensor (Tray 1)	15	Ink Cartridge Door Switch

J018

No.	Meaning	No.	Meaning
0	Top Cover Switch	8	Trailing Edge Sensor (Tray 2)
1	Duplex Unit Cover Switch	9	Paper End Sensor (Tray 1)
2	Rear Plate Duplex Unit Switch	10	Paper End Sensor (Tray 2)
3	Multi Bypass Sensor	11	Paper End Sensor (Tray 3)
4	Paper Feed Unit Detection (Tray 2)	12	Env. Selector Sensor
5	1st Registration Sensor	13	Ink Level Sensor (Feeler)
6	2nd Registration Sensor	14	Maintenance HP Sensor
7	Trailing Edge Sensor (Tray 1)	15	Ink Cartridge Door Switch

5401 INPUT CHK2

Check Input Sensors

Use this SP to display the on/off status of each sensor. The status of each sensor (0, 1) is displayed on the 2nd line of the display.

J017/J019/J021

No.	Meaning	No.	Meaning
0	Not Used	8	Not Used
1	NIC Detection	9	Not Used
2	Jam Wheel Cover Switch	10	Not Used
3	Not Used	11	Not Used
4	Not Used	12	Not Used
5	Not Used	13	Not Used
6	Not Used	14	Not Used
7	Not Used	15	Not Used

J018

No.	Meaning	No.	Meaning
0	Not Used	8	HRB Power Circuit Connection Detection
1	NIC Detection	9	Not Used
2	Jam Wheel Cover Switch	10	Not Used
3	Not Used	-11	Not Used
4	Not Used	12	Not Used
5	Paper Feed Unit Detection (Tray 3)	13	Not Used
6	Trailing Edge Sensor (Tray 3)	14	Not Used
7	Rear Unit Switch	15	Not Used

Technical Bulletin

PAGE: 3/3

Model: M-G1L Date: 28-Apr-10 No.: RJ021003

5421	INPUT CHK WST	Right Ink Sump Set Status J017/J018/J019/J021 Only
		This SP code checks the current status of the right ink sump. Displays "1" if set correctly.
5422	INPUT CHK RES:W	Right Ink Sump Capacity J017/J018/J019/J021 Only
		This SP code checks and displays the amount of space remaining in the right ink sump.
5423	INPUT CHK WSTCNT	Right Ink Sump Count J017/J018/J019/J021 Only
		This SP code checks and displays the software count for the right ink sump.
7201	7201 WASTE CNT:RC:FUL Ink Collector Unit	
		Use this SP to display the current count for the number of times the status of the Ink Collector unit has changed from near-full to full.
7210	FEED CNT:H1	Print Head 1 (Y / M)
7211	FEED CNT:H2	Print Head 2 (K / C)
7212	FEED CNT:H3	Print Head 3 For j011only
7213	FEED CNT:H4	Print Head 4 For j011only
	Use this SP to display the cleaning.	ne current reading of the paper dust counter that determines when to execute automatic

Technical Bulletin

PAGE: 1/3

Model: M-G1L	Date: 31-May-10	No.: RJ021004
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Subject: Troubleshootings for SC988 and white lines			Prepared	d by: K.Nakano
From: 2nd Overseas Tech Support Sec., 2nd PQM Dept.				
Classification:		□ Part information □ Part inform	tion	
	☐ Mechanical	☐ Electrical		☐ Service manual revision
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information
	☐ Product Safety	Other (Firmv	vare)	☐ Tier 2

SYMPTOM

- SC988 (*), Ink Supply Error (Air Sensor Abnormal), occurs during ink initialization or print head flushing.
- White lines appear on printouts even after print head cleaning is performed.

Note:

- These symptoms may occur after the machine is left unused for a while in a high-temperature environment.
- ➤ The solution for SC988 in the Service Manual was revised to reflect this RTB. For details, see RTB No. RJ018002.

*SC988:

SC988 occurs if electrical current is flowing between the print head pins (i.e. the pins are still immersed in ink) even though the maintenance motor is turning (which would normally drain the ink out of the tank).

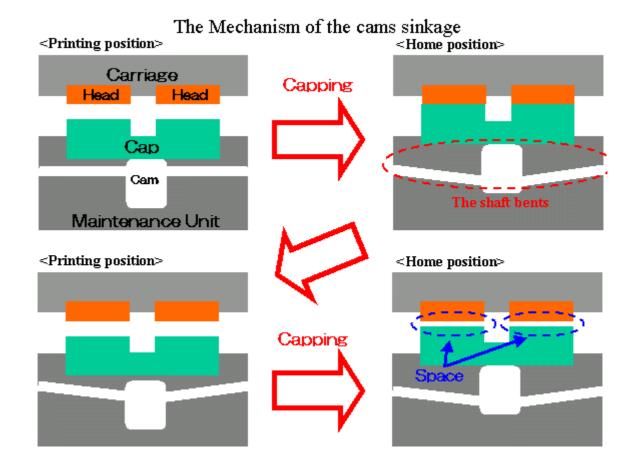
• CAUSE

The carriage position lever is mistakenly set to the envelope position (rear position), which raises the carriage unit. A gap develops between the print heads and caps on the maintenance unit. As a result, the machine cannot properly perform ink suction (which causes the SC) or head cleaning (which causes the white lines).

Note: As the capping process for the carriage heads is repeated over time, the camshaft on the maintenance unit bends slightly. If the carriage position lever is left in the envelope position when the machine performs the maintenance tasks mentioned above, a gap develops between the carriage heads and caps on the maintenance unit.

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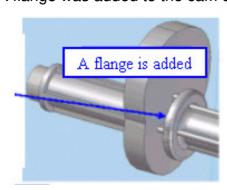
Model: M-G1L Date: 31-May-10 No.: RJ021004

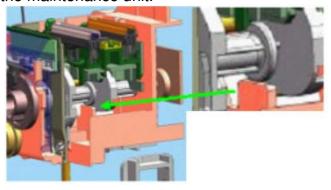


SOLUTION

Production line

A flange was added to the cam on the maintenance unit.



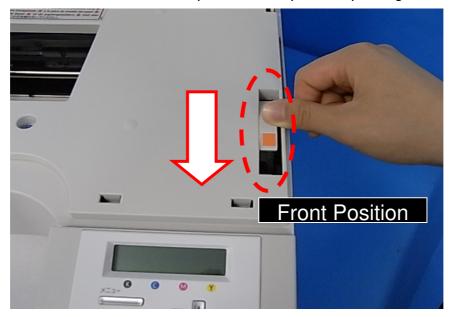


Old Part #	New Part #	Description	Int.	Q'ty
J0170412	J0170413	MAINTENANCE RECOVERY (for J017/J019)	X/O	1

PAGE: 3/3 Model: M-G1L Date: 31-May-10 No.: RJ021004

In the field

1. Please remind users not to move the carriage position lever to the envelope position when performing ink initialization. Also, remind them that the lever should be set to the front position except when printing onto envelopes.



2. For users that print onto envelopes only, replace the maintenance unit.

Cut-in serial numbers

TBA (by the end of June 2010)

Technical Bulletin

Model: M-G1L Date			e: 02-Jul-10		No.: RJ021005	
Subject: Trailing edge sensor broken			Prepared	by: K. N	Nakano	
From: 2nd Overs	eas Tech Support Sec. 2nd PC	QM Dept				
Classification:	☐ Troubleshooting	□ Part info	orma	tion	Action	required
	☐ Mechanical	☐ Electric	al		Service	e manual revision
	☐ Paper path	☐ Transm	ıit/rec	eive	Retrof	fit information
	Other ()				⊠ Tier 2	

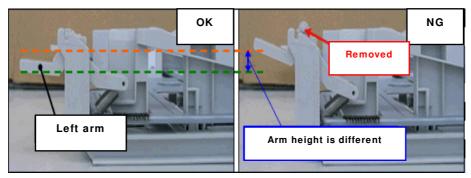
Symptom

The error "Paper misfeed. Press [Form feed] button" appears, but it cannot be cleared even if the remaining paper is removed.

Cause

The trailing edge sensor is broken, which triggers a paper feed jam.

This sensor can be damaged if the cassette tray is loaded with the left arm unseated. When the tray is dropped, the base plate hits the arm, which then the arm becomes unseated).



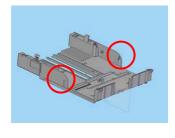
Solution

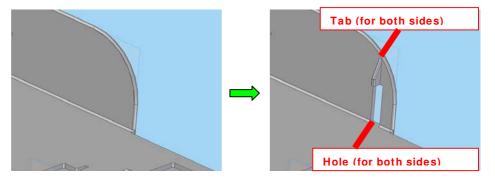
Production line:

The cassette tray and left side fence were changed as follows.

1. Cassette tray:

Tabs and holes were added to the left and right sides of the tray. This is to prevent the base plate from hitting the left arm.





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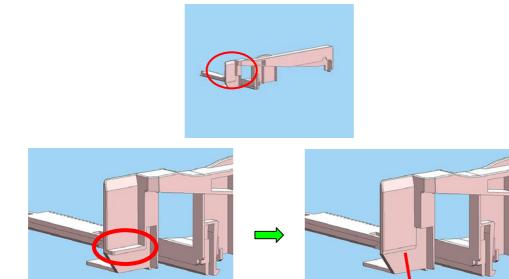
PAGE: 2/2

Model: M-G1L Date: 02-Jul-10 No.: RJ021005

Old Part #	New Part #	Description	Int.	Q'ty	Note
J0173034	J0170034	CASSETTE TRAY	X/O	1	

2. Left side fence:

The rib was removed so that the left arm will not hit the trailing edge sensor even if the tray is set with the left arm incorrectly attached.



Old Part #	New Part #	Description	Int.	Q'ty	Note
J0173004	J0173007	SIDE FENCE: LEFT: A4	X/O	1	

The rib is removed

In the field:

- Replace the trailing edge sensor.
- Make sure that the left arm on the cassette tray is correctly attached before inserting the tray.
- Replace the cassette tray and the left side fence to the modified ones mentioned above.

Cut-in Serial Numbers

	NA (-17)	NRG (-22)	EU (-27)
GXe2600N (J021)	_	R5507400001	R5507400286

Technical Bulletin

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Reissued: 17-Dec-10

Model: M-G1L	Date: 06-Aug-10	No.: RJ021006a
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RTB Reissue

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

Subject: Whisker at FFC connectors			Prepared by: K. Nakano		
From: 2nd Overs	seas Tech Support Sec., 2nd F	QM Dept.			
Classification:		☐ Part informat	tion	Action required	
	☐ Mechanical	$oxed{\boxtimes}$ Electrical		☐ Service manual revision	
	☐ Paper path	☐ Transmit/rec	eive	☐ Retrofit information	
	☐ Product Safety	Other (Firmw	vare)	⊠ Tier 2	

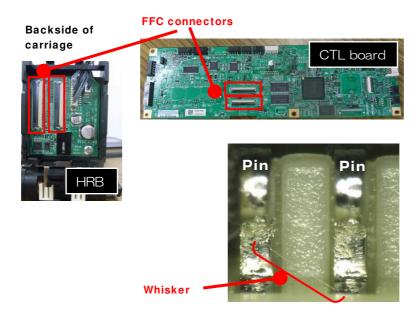
Symptom

- "Cannot use High Temp" is displayed but cannot clear the error even after switching the printer off and on.
- Paper misfeed-related errors occur but cannot clear them even after removing the remaining paper or other actions to clear the errors.

Cause

The FFC connector pins are short-circuited, causing a paper misfeed or abnormal temperature condition to be mis-detected.

The short circuit occurs when a metallic fiber (whisker) attaches itself so that it connects the pins at the FFC connectors, which are located on the controller board and the rear side of the carriage unit.





Technical Bulletin

PAGE: 2/2

Reissued: 17-Dec-10

Model: M-G1L	Date: 06-Aug-10	No.: RJ021006a
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Solution

Production line:

The shape of the connectors will be changed to minimize the possibility of the metallic fiber attaching itself to the FFC connector pins. Applied from: July 2010.

• For the controller board:

Old Part ?	* New Part #	Description	Int.	Q'ty	Note
J0215100	J0215110	PCB:CTL:ASS'Y:(for J021)	X/O	1	

• For the HRB on the carriage unit:

Old Part #	New Part #	Description	Int.	Q'ty	Note
		PCB:HRB:(for			
J0175150	J0175154	J017/J019/J021)	X/O	1	

In the field:

Remove the FFC from the two main PCB connectors, and then reconnect them. If the symptom still occurs, do the same for the carriage PCB connectors. *Otherwise, please replace the modified parts mentioned above.*

Cut-in Serial Numbers

R5507900001~

Technical Bulletin

PAGE: 1/3

Model: M-G1L Dat			te: 20-Aug-10		No.: RJ021007	
Subject: Long waiting time between jobs			Prepared	by: к. N	Nakano	
From: 2nd Overs	eas Tech Support Sec., 2nd Pe	QM Dept.				
Classification:		☐ Part info	orma	tion	Action	required
	☐ Mechanical	☐ Electric	al		☐ Servic	e manual revision
	☐ Paper path	☐ Transm	it/rec	eive	☐ Retrof	fit information
	☐ Product Safety	Other (I	Firmv	vare)	⊠ Tier 2	

Symptom

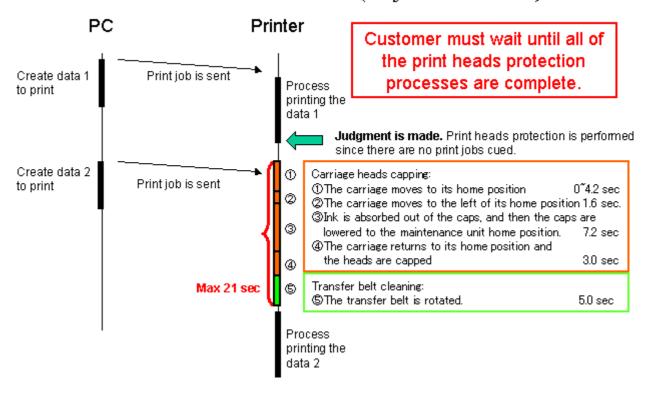
The waiting time between jobs increases (maximum 21 seconds) if the machine receives a new print job just after finishing the current job.

Cause

The machine performs "Print-heads protection maintenance" after completing a print job. This involves performing several operations (please see the diagram below for each operation). Therefore, the customer must wait until all the operations are complete.

Note: "Print-heads protection" is performed for the purpose of preventing the print heads from drying, and also to decrease the frequency that maintenance modes need to be performed.

Before firmware modification (no jobs in the cue)



PAGE: 2/3

Model: M-G1L Date: 20-Aug-10 No.: RJ021007

Solution

Production line:

The firmware was modified (V 1.03) and applied from September 2010 production.

Firmware changes:

Carriage head capping:



1. If the machine receives a new print job while performing the "print heads protection maintenance", it will be able to cancel the maintenance and print out the job. In other words, the maximum waiting time will be shortened to 7.2 sec (③ for the carriage heads capping process)

Note: The change will take effect just by updating the firmware.



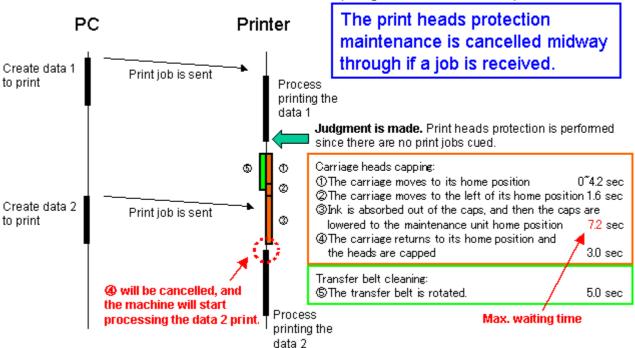
2. If the customer is still not satisfied with the modification explained above, it is possible to elongate the timing of performing the "print heads protection maintenance" to **9 seconds** after a print job. Therefore, the machine will be ready to perform the job right away during the 9 seconds. This setting can be changed by Bit Switch #1-4 ("0", default value, means waiting 0s to perform the print heads protection maintenance, and "1" means waiting 9s to perform it)

IMPORTANT:

Since the print heads are kept un-capped for 9s, ink purge or other maintenance will be more frequently performed (which prevents the print heads from drying). Therefore, the yield of the ink collector unit may be less than the figure mentioned in the sales catalog.

- Belt cleaning:
 - 1. The cleaning interval was changed from every print job to every 250 pages.
 - 2. Belt cleaning and carriage head capping are performed at the same time.

After firmware modification (no jobs in the cue)



Model: M-G1L

Technical Bulletin

Date: 20-Aug-10 No.: RJ021007

PAGE: 3/3

In the field:

If the symptom is reported, advise the user to try updating to V1.03 or later.

Cut-in Serial Number:

R5508100001 ~

Technical Bulletin

Model: M-G1L			Date	e: 28-Jan-11	No.: RJ021008	
Subject: Moving mechanism of waste tank was abolished.				Prepared by: I Soh		
From: 2nd Overseas Tech Support Sec. 2nd PQM Dept						
Classification:	Troubleshooting	□ Part inform □ P	mati	ion	n required	
	☐ Mechanical	☐ Electrical		☐ Servi	ce manual revision	

☐ Tier2

☐ Retrofit information

PAGE: 1/1

Old Description	Old Part #	New Description	New Part #	I/C	Q'ty
GEAR:MOVE:TANK	J0174328	-	-	-	1
SLIDER:TANK:MOVE	J0174329	-	-	-	1
CASE:GEAR:TANK:MOVE	J0174330	HOLDER:TANK:MOVE	J0174331	X/O	1

☐ Transmit/receive

Changes:

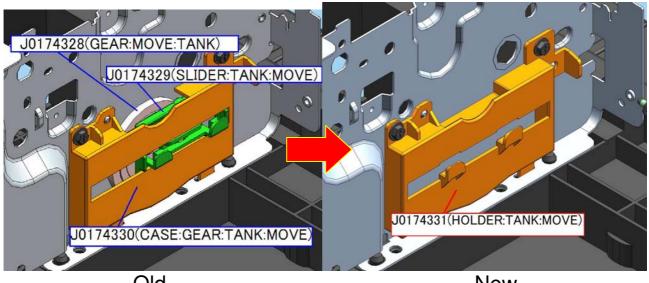
- 1) The gear and slider were deleted.
- 2) The shape of the case was changed.

☐ Paper path

Other (

Reason: Optimization of service parts (the slider is no longer needed to ensure the case/holder reaches its yield).

Important: When you install the new holder (J0174331) for the first time, make sure to remove the gear (J0174328) and the slider (J0174329).



New Old

Technical Bulletin

PAGE: 1/1

Model: M-G1L			Date: 20-Dec-11		-11	No.: RJ021009		
Subject: Change in the Cleaning Cartridge Storage Period				Prepared by: Y. Murata				
From: 3rd Tech Service Sect., MFP/P Tech Service Dept.								
Classification:	sification: Troubleshooting		☐ Part information		Action required			
	☐ Mechanical	☐ Electric	Electrical		Service	ervice manual revision		
	☐ Paper path	☐ Transmit/receive☑ Other (Specification ch		Retro	Retrofit information			
	☐ Product Safety			ification ch	ange)			

Important Information about the Cleaning Cartridge Storage Period

- The recommended **storage period for the cleaning cartridge** has been changed from eighteen months to **five years**. This is because it was found that the liquid in the cartridge is able to hold its key chemical properties for years when stored in a regular environment.
- Due to this change:
 - For cartridges produced before December 2011: You can use these cartridges up to **42 months after** the "Recommended to use before" date on the cartridge decal. On these cartridges, the date mentioned is 18 months after production.
 - For cartridges produced in **December 2011 or later:**You can use these cartridges up to **60 months (five years) after** the lot number printed on the cartridge (The decal has been removed).

Lot No.: Y M D D ######

Y: Last digit of the year of production

M: Month of production (Oct: "X", Nov: "Y", Dec: "Z")

D: Day of production